

MACRO & MARKETS

CHART PACK | DECEMBER 2023

PAST PERFORMANCE IS NOT NECESSARILY INDICATIVE OF FUTURE RESULTS.

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No investment strategy or risk management technique can guarantee returns or eliminate risk in any market environment. Past results are not indicative of future performance and are no guarantee that losses will not occur in the future. Future returns are not guaranteed and a loss of principal may occur.

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GLOBAL



MACRO

SUMMARY

GLOBAL ECONOMY

Economic growth is expected to slow as the effects of monetary policy take hold, coupled with the depletion of savings buffers.

The challenging "last mile" in reducing inflation may prolong tighter Federal Reserve (Fed) policies and limit the scope for easing.

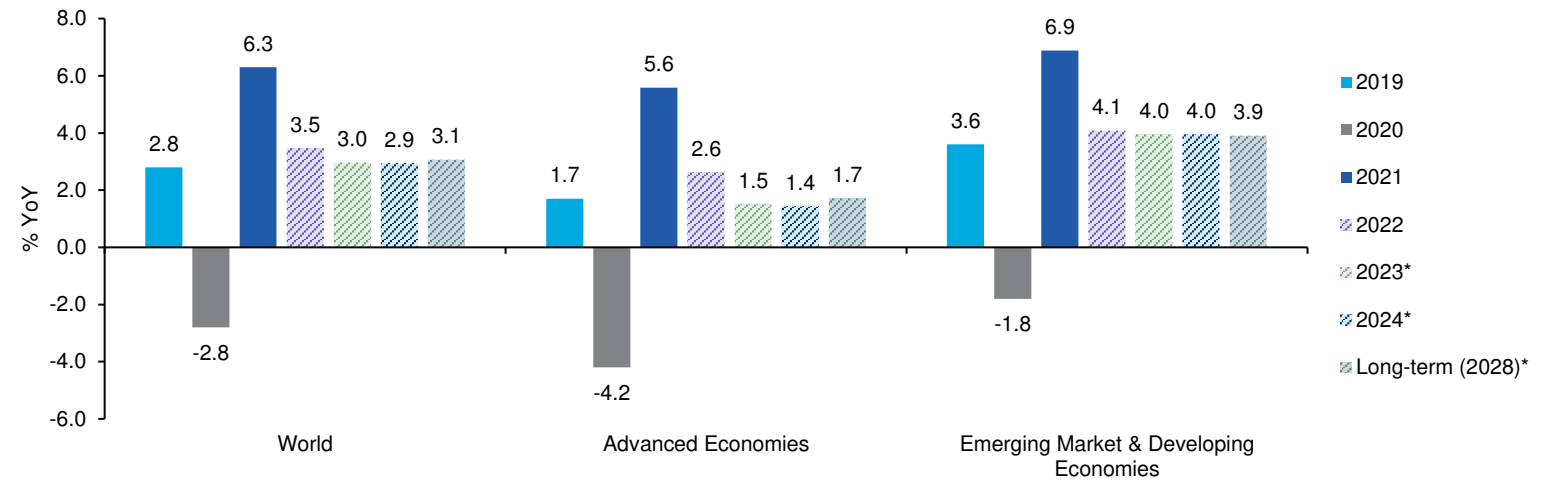
High real yields and escalating debt burdens constrain governments seeking to stimulate their economies.

Consequential elections and a tense geopolitical atmosphere add to turbulence.

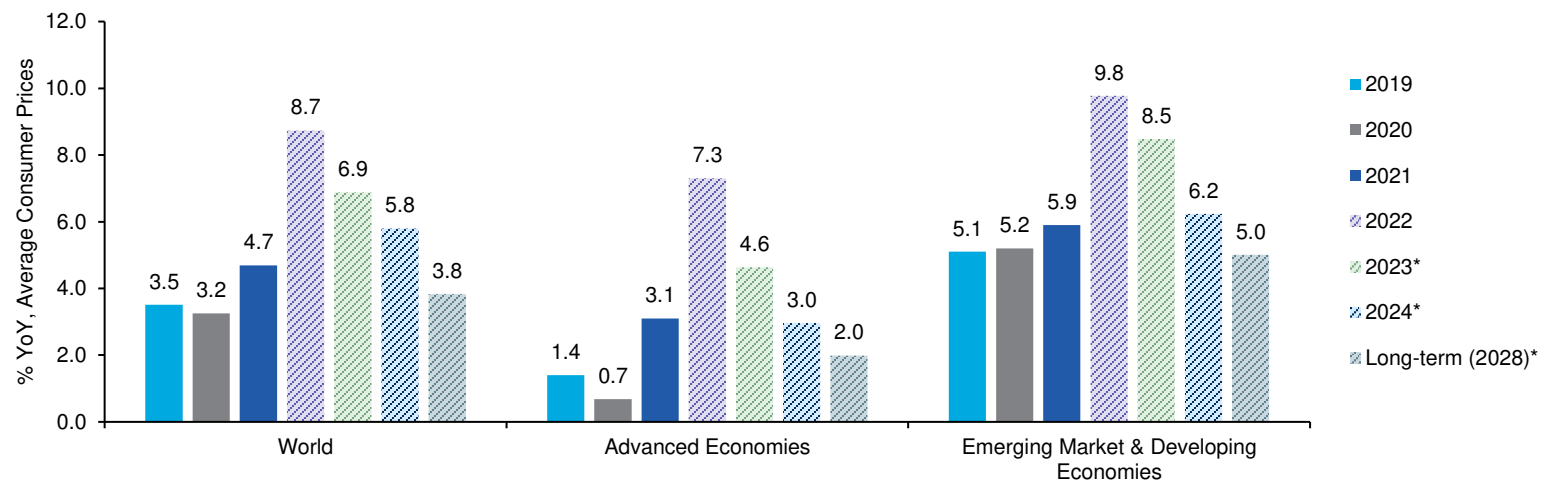
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Data as of 10/10/23, sourced from IMF.org. IMF's database is updated twice a year in April and October. *2023-2028 are projections sourced from the IMF's July 2023 World Economic Outlook Update. Interim updates in January and July. Projections or other forward-looking statements regarding future events or expectations are only current as of the date indicated. There is no assurance that such events or expectations will be achieved and actual results may be significantly different from that shown here. Investors cannot invest directly in an index. Please see the disclosures for the full benchmark description. See Additional Information in Disclosure Statements. [28857]

REAL GDP



INFLATION



GLOBAL MACRO

UNITED STATES

Labor market shows continued resilience: While the pace of hiring has slowed, the US economy added 216,000 jobs in December—more than double the run-rate that keeps labor market pressure unchanged. The unemployment rate held steady at 3.7%, still well below everyone's estimate of the natural rate. A taut labor market keeps upward pressure on costs, with average hourly earnings rising at an annual rate of 4.1%.

Inflation is off its peak with consumer prices up 3.4% year-over-year in December. While the pace of US headline inflation has eased, assisted by a fall in energy prices, core measures prove more resilient.

At the December Federal Open Market Committee (FOMC) meeting, the Fed signaled that the firming cycle is over. However, the timing of the pivot to rate cuts remains uncertain. We think the Fed will keep the nominal funds rate at a restrictive level until enough evidence accumulates that inflation will fall back to goal. In our outlook, these conditions won't be met until later in the year.

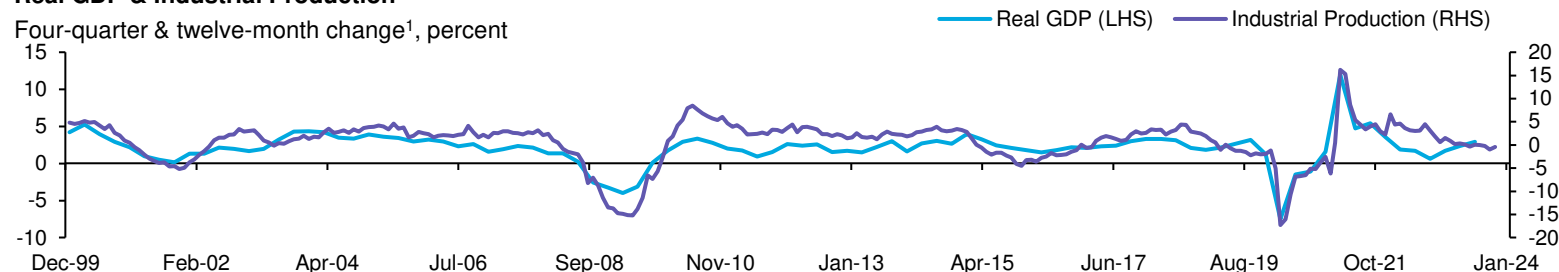
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SELECTED ECONOMIC & FINANCIAL MARKET INDICATORS FOR THE UNITED STATES

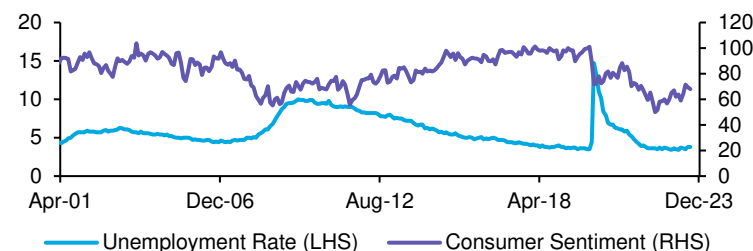
Real GDP & Industrial Production

Four-quarter & twelve-month change¹, percent



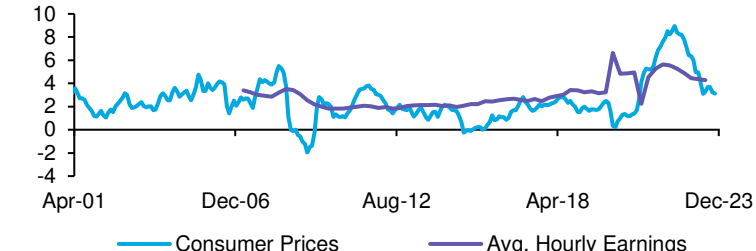
Unemployment Rate & Consumer Confidence

Percent (LHS), index (RHS)



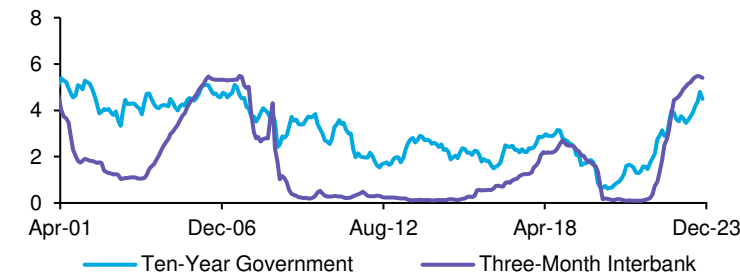
Wage & Price Inflation

Twelve-month change, percent



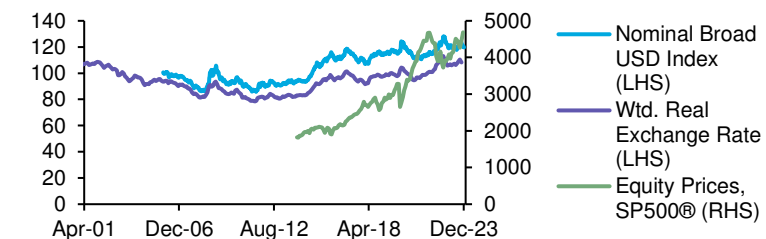
Interest Rates

Twelve-month change, percent



Selected Financial Market Prices

Nominal US Dollar Index (LHS), equity prices, & weighted real exchange value of the US dollar (indexes, RHS)



GLOBAL MACRO

EURO AREA

Euro area economies are decelerating, with gross domestic product (GDP) shrinking -0.1% in the third quarter of 2023. Monetary policy transmission is working as financial conditions remain tight, restraining credit growth and investment.

Signs show inflation continues to normalize, with core inflation dropping to 3.4% in December from 3.6 in November. This follows national consumer price indexes (CPIs) that showed an ongoing, but slow, disinflation process in Europe.

The European Central Bank (ECB) left rates unchanged at 4% in December. We think the ECB has reached its terminal rate, with the next action likely to be a rate cut in June 2024 as growth remains weak and inflation continues its trend lower.

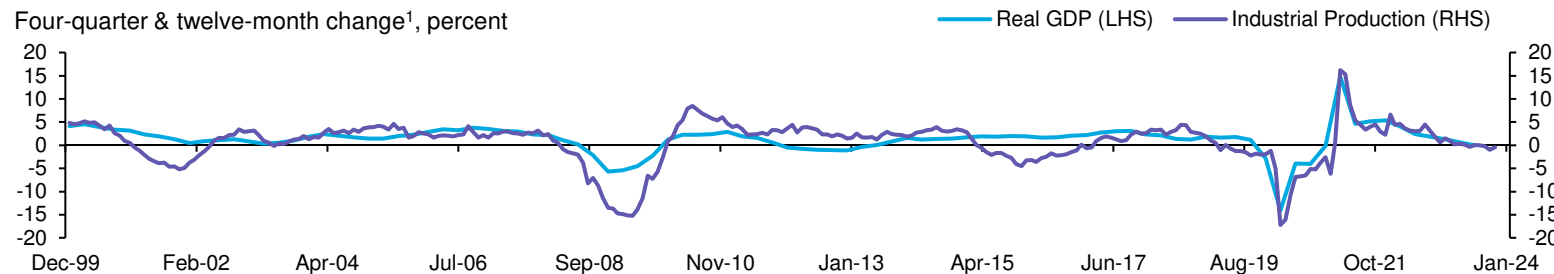
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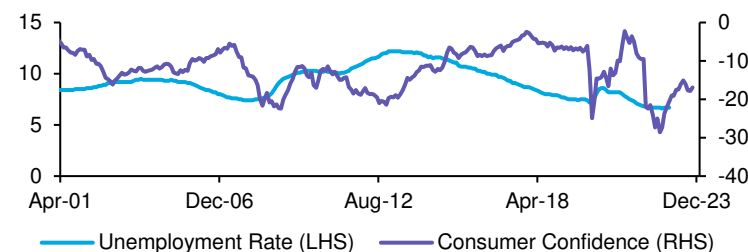
Real GDP & Industrial Production

Four-quarter & twelve-month change¹, percent



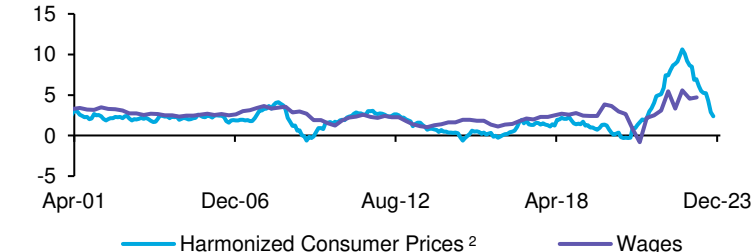
Unemployment Rate & Consumer Confidence

Percent (LHS), index (RHS)



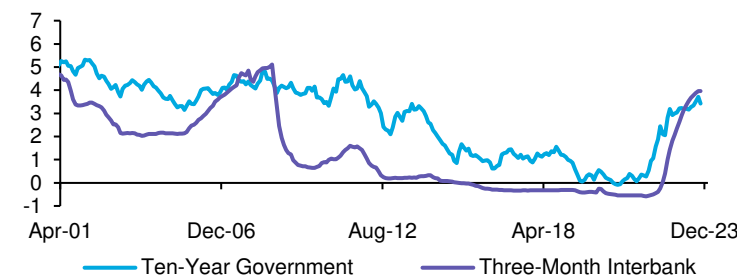
Wage & Price Inflation

Twelve-month change, percent



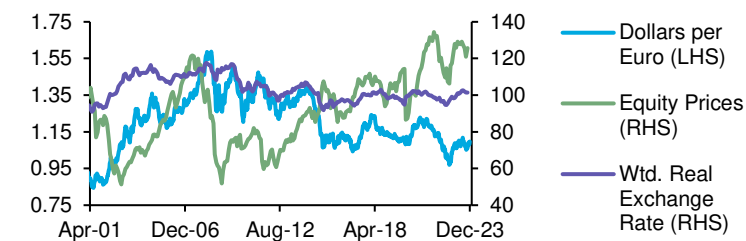
Interest Rates

Twelve-month change, percent



Selected Financial Market Prices

Dollars per euro (LHS), equity prices, and the weighted real exchange value of the euro (indexes, RHS)



GLOBAL MACRO

UNITED KINGDOM

UK inflation has cooled faster than expected: Twelve-month CPI inflation dropped to 3.9% in November. The Bank of England should keep its policy rate unchanged for the beginning of this year but may start to ease beginning in June.

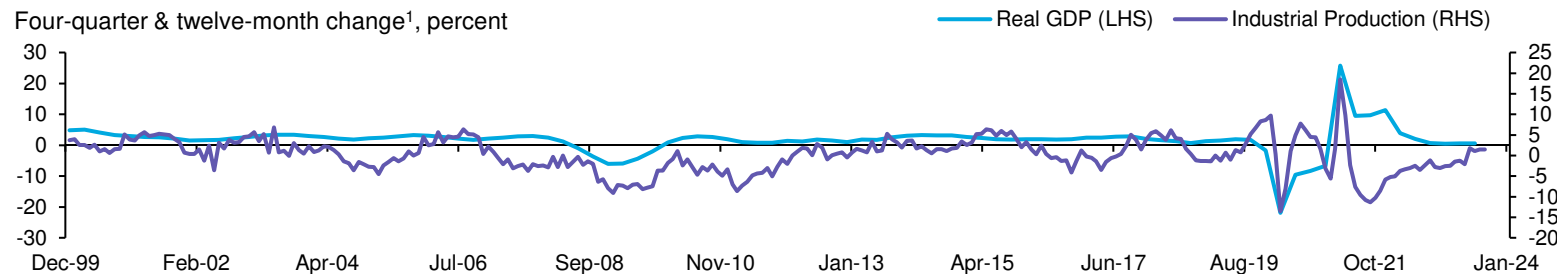
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SELECTED ECONOMIC & FINANCIAL MARKET INDICATORS FOR THE UNITED KINGDOM

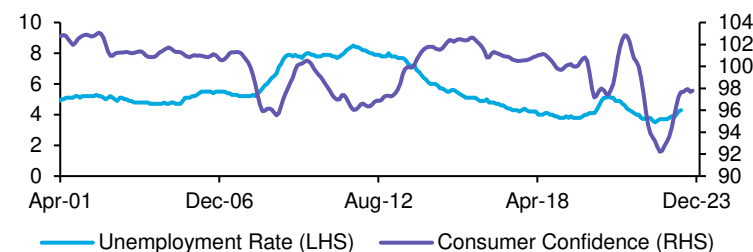
Real GDP & Industrial Production

Four-quarter & twelve-month change¹, percent



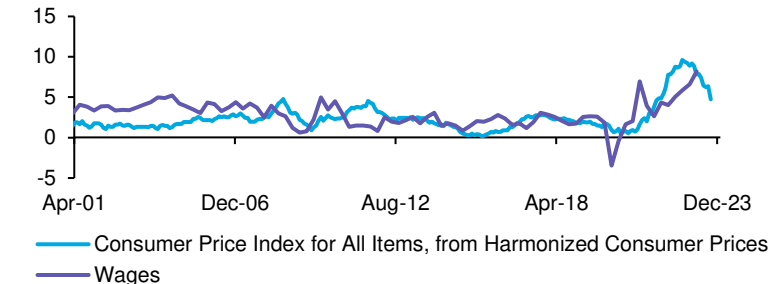
Unemployment Rate & Consumer Confidence

Percent (LHS), index (RHS)



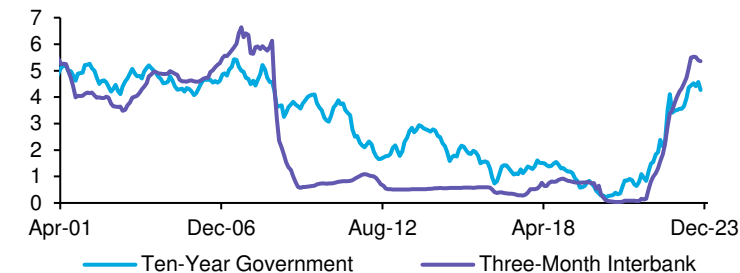
Wage & Price Inflation

Twelve-month change, percent



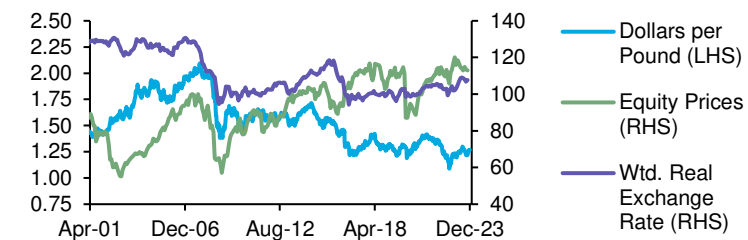
Interest Rates

Twelve-month change, percent



Selected Financial Market Prices

Dollars per pound (LHS), equity prices, and the weighted real exchange value of the pound (indexes, RHS)



GLOBAL MACRO

JAPAN

Evidence of strong underlying inflation in Japan clears the path for the Bank of Japan to exit its emergency monetary policy settings. Yield curve control is being phased out gradually, with targets being relaxed further at the October 31 meeting.

The Bank of Japan's latest outlook lifted inflation forecasts. A weak yen, the recent increase in global energy prices and additional fiscal stimulus add to inflationary pressures. Underlying inflation drivers have momentum, with early signs pointing to strong wage agreements at the upcoming spring wage-setting rounds.

Supported by evidence that underlying inflation can run sustainably at 2%, we think the Bank of Japan will begin lifting its policy rate from negative territory as early as January 2024. It's possible that tightening is delayed until April given disruptions caused by the Noto earthquake.

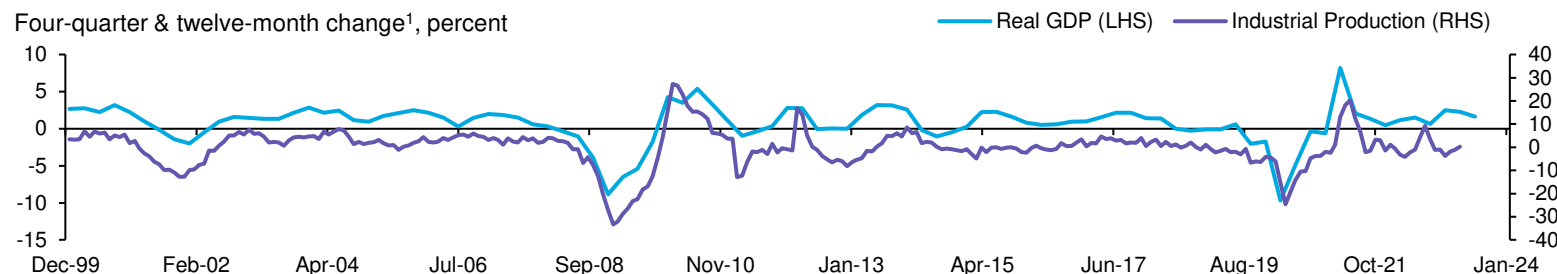
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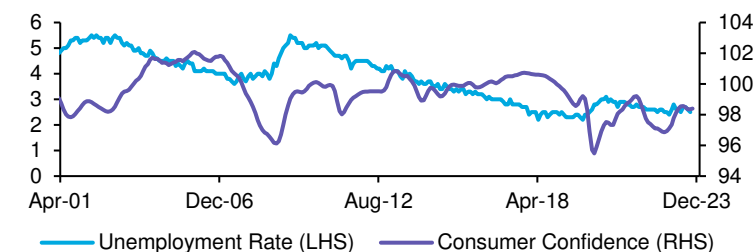
Real GDP & Industrial Production

Four-quarter & twelve-month change¹, percent



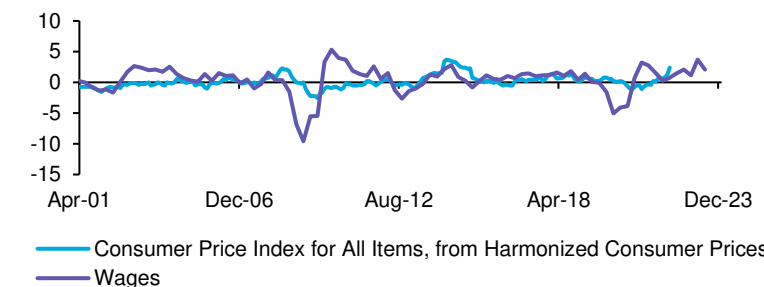
Unemployment Rate & Consumer Confidence

Percent (LHS), index (RHS)



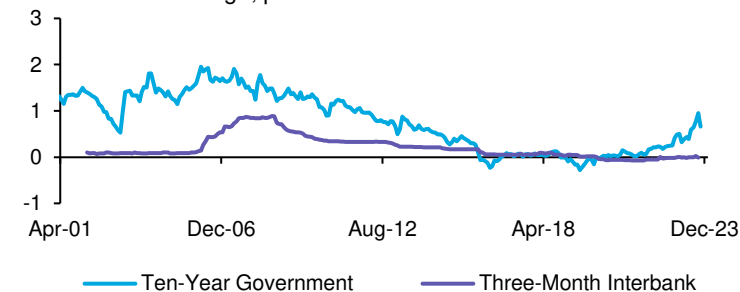
Wage & Price Inflation

Twelve-month change, percent



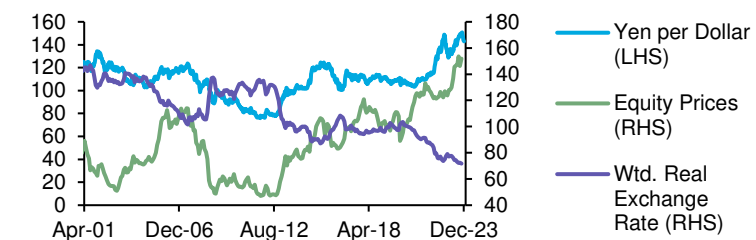
Interest Rates

Twelve-month change, percent



Selected Financial Market Prices

Yen per dollar (LHS), equity prices, and the weighted real exchange value of the yen (indexes, RHS)



GLOBAL MACRO

CHINA

China's economy has been hit by the slowing in global trade and its ongoing real estate crisis. Economic indicators touched a low point around the middle of 2023 but stabilized as policymakers implemented stimulus measures. The scope for additional stimulus is limited.

Developments in the property market are key to the growth outlook, local finance and household confidence.

Chinese inflation is benign: Twelve-month inflation shrunk -0.5% in November, with core inflation rising only 0.6%. The People's Bank of China (PBOC) expects inflation to remain mild and has delivered another round of monetary policy easing. Further monetary easing may come into play this year.

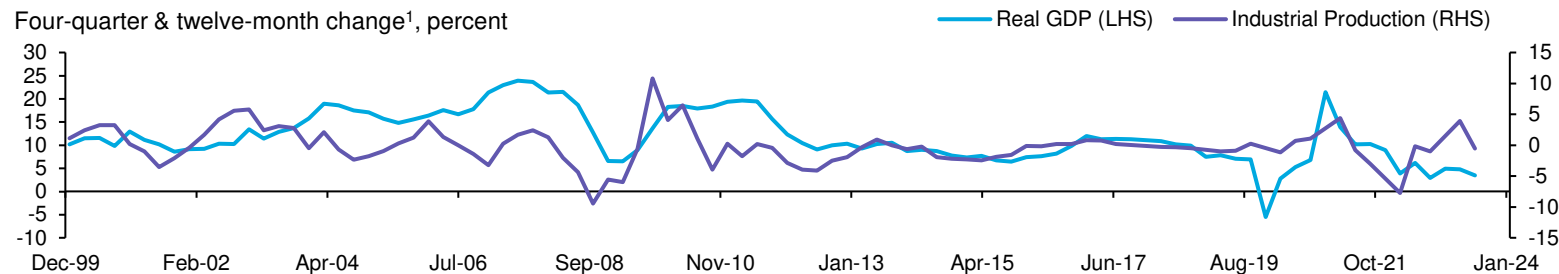
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SELECTED ECONOMIC & FINANCIAL MARKET INDICATORS FOR CHINA

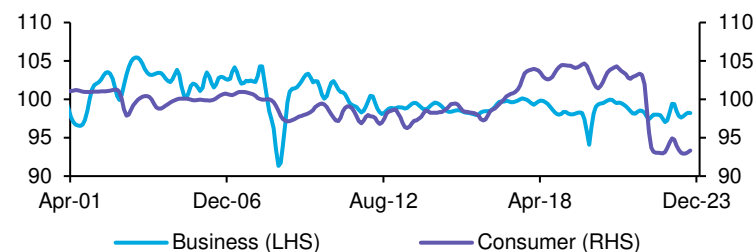
Nominal GDP & Industrial Production

Four-quarter & twelve-month change¹, percent



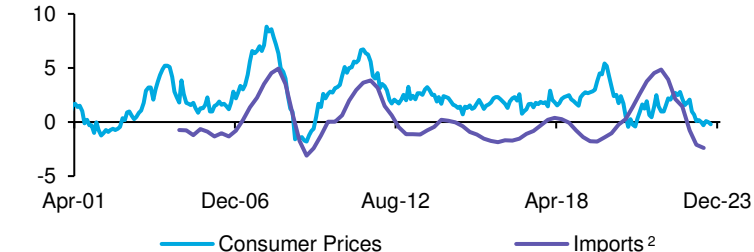
Business & Consumer Confidence

Index



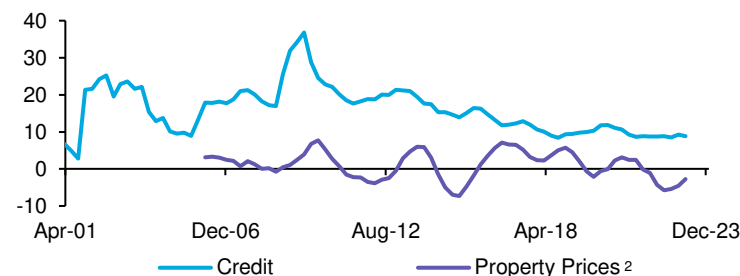
Consumer & Import Price Inflation

Twelve-month change, percent



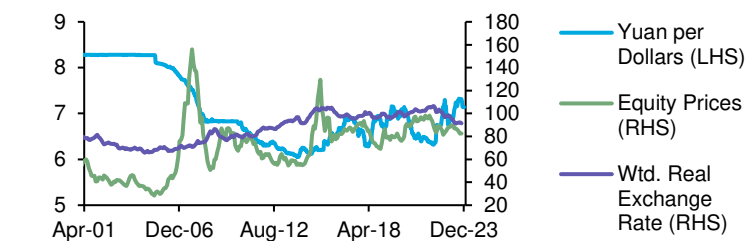
Property Prices & Credit to Nonfinancial Sectors

Four-quarter change, percent



Selected Financial Market Prices

Yuan per dollar (LHS), equity prices, and the weighted real exchange value of the yuan (indexes, RHS)



MARKET RETURNS

SUMMARY

MARKET OVERVIEW

Global equity and fixed income markets ended 2023 on a positive note. Investor sentiment improved markedly during the month on expectations that interest rates have peaked and the global economy may yet be able to avoid recession, thereby allowing central bank officials to begin lowering interest rates soon. As measured by the MSCI All-Country World Index, global equities posted a return of +4.8% during December. US markets led the way forward but were well-paced by European and Asian shares. Emerging market equities also turned in positive performance but continued to trail their developed market peers. Most sovereign bond yields dropped during the month while credit spreads continued to tighten, contributing to a +4.2% return for the Bloomberg Global Aggregate Index. Volatility in both equity and fixed income markets continued to recede.

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Data as of 12/31/23, sourced from Bloomberg. ¹Bloomberg Emerging Markets Hard Currency (USD) Aggregate Index. ²Chicago Board Options Exchange Volatility Index. ³US Fed Trade Weighted Dollar Emerging Market Economies Index. ⁴US Fed Trade Weighted Nominal Emerging Market Economies Dollar Index. Investors cannot invest directly in an index. Please see the disclosures for the full benchmark description. Level = index or price level. Green shading = positive; Red shading = negative. See Additional Information in Disclosure Statements. [28857]

	Level	1M	YTD	1Y	3Y
Equities (MSCI) – Returns					
MSCI All-Country World	1,655	4.8%	22.8%	22.8%	19.9%
MSCI All-Country ex-US	790	5.1%	16.2%	16.2%	6.3%
MSCI Emerging Markets	2,641	3.9%	10.3%	10.3%	-13.5%
MSCI Europe	13,733	5.0%	20.7%	20.7%	20.6%
MSCI Asia Pacific	345	4.6%	11.8%	11.8%	-8.2%
MSCI EAFE Small Cap	561	7.3%	13.7%	13.7%	-0.8%
Country Equities – Returns					
US (S&P 500®)	10,328	4.5%	26.3%	26.3%	33.1%
US (NASDAQ)	18,209	5.6%	44.6%	44.6%	19.2%
US (Russell 1000®)	16,215	4.9%	26.5%	26.5%	29.4%
US (Russell 2000®)	10,813	12.2%	16.9%	16.9%	6.8%
Japan (NIKKEI 225 JPY)	58,704	0.1%	31.0%	31.0%	29.4%
EU (STOXX 600 USD Hedged)	279	3.9%	16.5%	16.5%	31.4%
UK (FTSE 100)	8,265	3.9%	7.9%	7.9%	33.8%
France (CAC 40 EUR)	22,825	3.3%	20.1%	20.1%	47.9%
Germany (DAX 40 EUR)	291	3.4%	23.5%	23.5%	29.9%
China (MSCI China USD)	115	-2.4%	-11.0%	-11.0%	-45.5%
Canada (S&P/TSX 60 CAD)	4,138	4.1%	12.1%	12.1%	34.5%
Australia (S&P ASX 200 AUD)	95,767	7.3%	12.4%	12.4%	30.4%
Fixed Income – Total Return, Unhedged					
Bloomberg US Aggregate	2,162	3.8%	5.5%	5.5%	-9.6%
Bloomberg Global Aggregate	471	4.2%	5.7%	5.7%	-15.6%
Bloomberg Global Treasury	559	4.3%	4.2%	4.2%	-19.7%
Bloomberg US Treasury	2,277	3.4%	4.1%	4.1%	-11.0%
Bloomberg Global Aggregate Credit	267	4.2%	9.2%	9.2%	-12.2%
Bloomberg Global High Yield	1,522	4.0%	14.0%	14.0%	0.5%
Bloomberg EMD USD Aggregate	379	5.0%	11.0%	11.0%	-10.5%

	Level	1M	YTD	1Y	3Y
Commodities – Returns					
Bloomberg Commodity Index	99	-3.1%	-12.6%	-12.6%	26.4%
Oil (WTI, USD/Barrel)	72	-5.7%	-10.7%	-10.7%	47.7%
Gold (USD/Troy Ounce)	2,063	1.3%	13.1%	13.1%	8.7%
Copper (USD/MT)	8,464	0.9%	1.2%	1.2%	9.2%
Spreads – bps					
Bloomberg US Corporate	99	-5	-31	-31	3
Bloomberg US Corporate High Yield	323	-47	-146	-146	-37
Bloomberg EM HC Aggregate ¹	1,171	47	98	98	-117
Bloomberg EuroAgg Corporate	138	-9	-29	-29	46
Bloomberg Pan-European High Yield	399	-39	-113	-113	41
Key Rates – change in yield, %					
3M Treasury Bill	5.34	-0.05	0.97	0.97	5.27
2Y US Treasuries	4.25	-0.43	-0.18	-0.18	4.13
10Y US Treasuries	3.88	-0.45	0.00	0.00	2.97
10Y German Bund	2.02	-0.42	-0.54	-0.54	2.59
10Y UK Gilt	3.53	-0.64	-0.13	-0.13	3.34
10Y Japanese Bond	0.61	-0.06	0.20	0.20	0.59
US 30Y Fixed Rate Mortgage	6.99	-0.58	0.33	0.33	4.12
Volatility Indicators					
CBOE VIX ²	12.45	-0.47	-9.22	-9.22	-10.30
ICE BofA MOVE Index	114.62	-0.70	-6.99	-6.99	65.64
Currencies – change in exchange rate					
Foreign Economies US Dollar Index ³	113.47	-1.7%	-1.9%	-1.9%	10.6%
EM Economies US Dollar Index ⁴	127.14	-0.2%	-1.4%	-1.4%	4.3%
Euro	1.10	1.4%	3.1%	3.1%	-9.6%
British pound	1.27	0.8%	5.4%	5.4%	-6.9%
Japanese yen	141.04	4.8%	-7.6%	-7.6%	-36.6%
Chinese yuan	7.10	0.5%	-2.9%	-2.9%	-8.8%

SUMMARY

WORLD EQUITY MARKETS

Global equity markets returned +4.8% for the month of December as recorded by the MSCI All-Country World Index. US equity markets led all regions with a return of +5.4%. European equity markets such as France, Germany, Switzerland and the UK all performed well in local currency terms, which were further bolstered by the weaker US Dollar (USD). Asian shares also performed well in both local and USD terms, led by Australia, South Korea and Taiwan. Japan managed more modest returns, while Chinese shares continued to sell off. Led by double-digit returns for US shares, global small-cap equities performed strongly in December and outperformed large- and mid-cap stocks.

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Note: The charts shown are equity markets indexed to 100 = 1/1/2020 to track the last few years of performance.

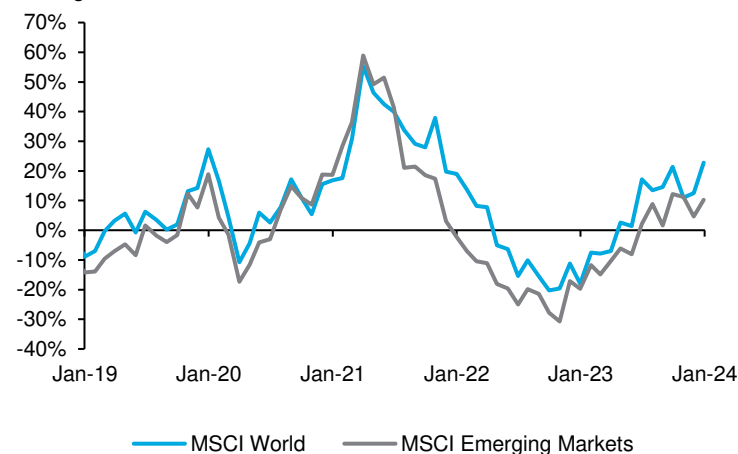
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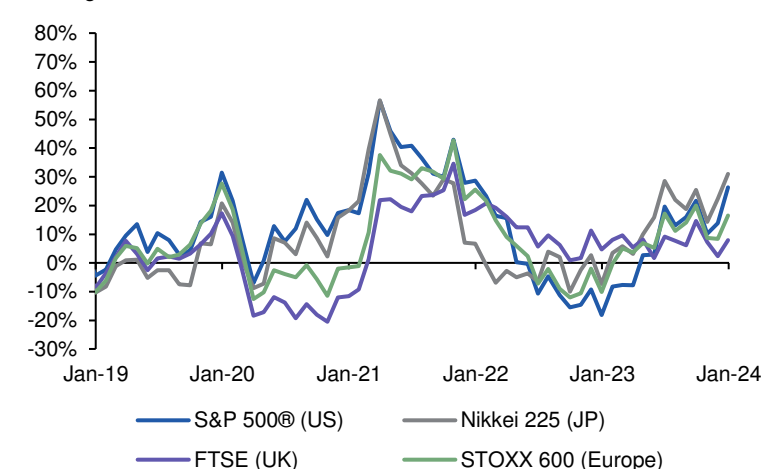
Developed Markets vs. Emerging Equity Markets

Rolling 12-month returns



Country Equities

Rolling 12-month returns



SUMMARY

US EQUITY PERFORMANCE

As measured by the Russell 3000® Index, US equities returned +5.3% during December. As widely expected, the Fed left rates unchanged at its final policy meeting of 2023, though the accompanying Summary of Economic Projections delivered several notable changes. In keeping with a slightly more dovish message, the Fed marked down economic growth for 2024 while reducing expectations for interest rates at year-end by 50 basis points.

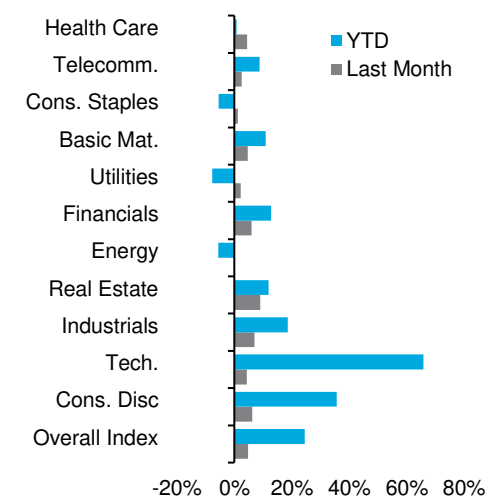
Continuing the trend from the prior month, US small-cap equities returned +12.1% and outperformed the 4.8% return of large-cap shares. Value stocks outperformed growth, returning +5.9% versus +4.8%, respectively. Sector performance was uniformly positive, with large-cap Energy as the lone sector to post negative returns for the period.

PAST PERFORMANCE IS NOT NECESSARILY INDICATIVE OF FUTURE RESULTS.

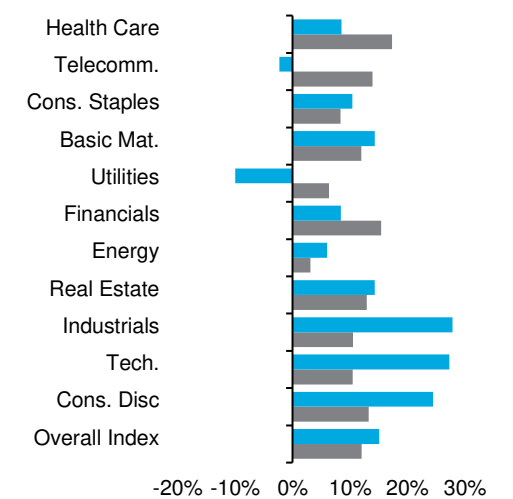
Data as of 12/31/23, sourced from Bloomberg. R1000®=Russell 1000®. R2000®=Russell 2000®. Investors cannot invest directly in an index. Please see the disclosures for the full benchmark description. Level = index or price level. Green shading = positive; Red shading = negative. See Additional Information in Disclosure Statements. [28857]

	Level	1M	YTD	1Y	3Y
US Equities – Returns					
S&P 500®	10,328	4.5%	26.3%	26.3%	33.1%
NASDAQ	18,209	5.6%	44.6%	44.6%	19.2%
R1000®	16,215	4.9%	26.5%	26.5%	29.4%
R2000®	10,813	12.2%	16.9%	16.9%	6.8%

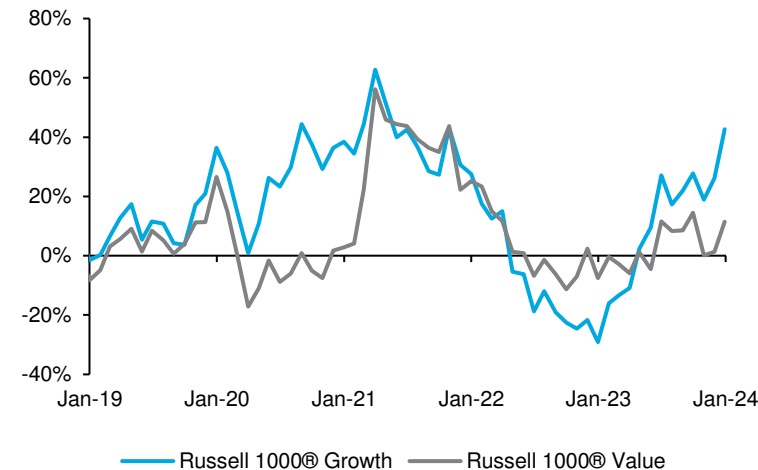
Russell 1000® Sub-Sectors



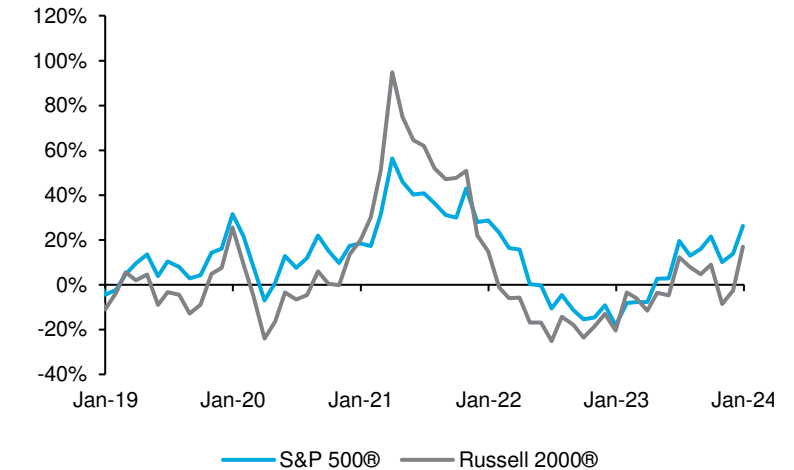
Russell 2000® Sub-Sectors



Russell 1000® Growth vs. Russell 1000® Value
Rolling 12-month returns



S&P 500® (Large Cap) vs. Russell 2000® (Small Cap)
Rolling 12-month returns



SUMMARY

EMERGING MARKETS (EM) EQUITY PERFORMANCE

Emerging market equities returned +3.9% for December but trailed their developed market counterparts for the third month in a row. The continuing rally in technology shares contributed to strong performance in South Korean, Taiwanese and Indian equity markets. Mexico and Brazil also outperformed the broader index. Conversely, regulatory uncertainty and renewed concern regarding the direction of economic growth in China weighed on shares, resulting in a -2.4% return for the period. Turkey trailed all other emerging market countries in December.

PAST PERFORMANCE IS NOT NECESSARILY INDICATIVE OF FUTURE RESULTS.

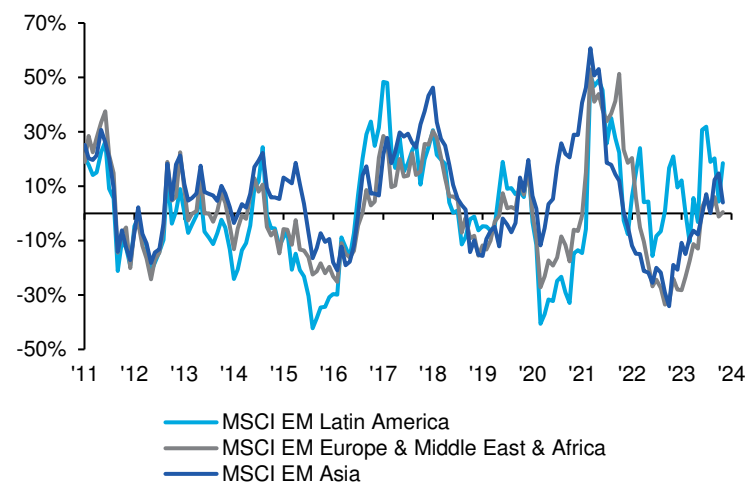
Data as of 12/31/23, sourced from Bloomberg. Investors cannot invest directly in an index. Please see the disclosures for the full benchmark description. Level = index or price level. Green shading = positive; Red shading = negative. See Additional Information in Disclosure Statements. [28857]

	Level	1M	YTD	1Y	3Y
MSCI USD – Returns					
China	115.35	-2.4%	-11.0%	-11.0%	-45.5%
Taiwan	1,578.62	5.5%	31.3%	31.3%	18.0%
India	1,477.96	8.1%	21.3%	21.3%	42.1%
Korea	945.88	6.7%	23.6%	23.6%	-19.1%
Brazil	8,228.27	7.3%	33.4%	33.4%	26.6%
Saudi Arabia	1,504.88	7.7%	12.0%	12.0%	52.4%
South Africa	1,072.64	6.5%	2.3%	2.3%	3.4%
Thailand	1,021.23	5.9%	-10.3%	-10.3%	-6.6%
Mexico	14,980.25	9.5%	41.5%	41.5%	71.1%
Indonesia	9,638.14	3.0%	3.2%	3.2%	3.3%

	Level	1M	YTD	1Y	3Y
MSCI USD – Returns					
Czech Republic	1,649.51	-0.3%	39.1%	39.1%	93.3%
Hungary	1,443.62	6.4%	50.9%	50.9%	16.6%
Poland	1,346.28	8.3%	49.5%	49.5%	19.3%
Turkey	980.28	-6.3%	-5.3%	-5.3%	30.6%
Chile	4,464.98	6.0%	6.3%	6.3%	10.6%

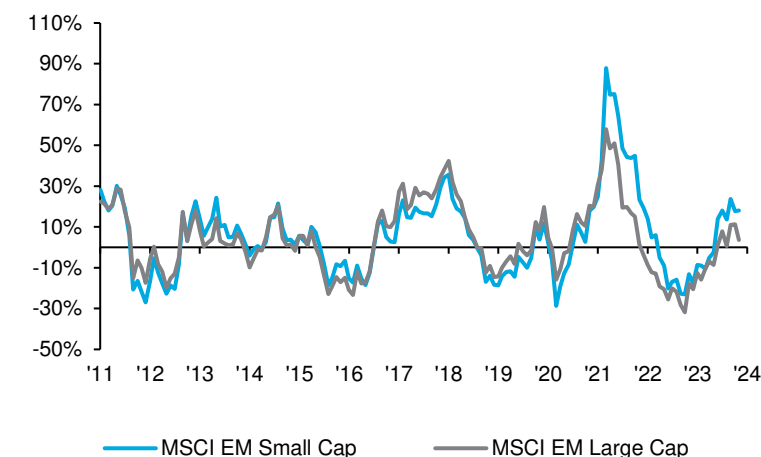
EM Regional Performance

Rolling 12-month returns



EM Large vs. Small Cap

Rolling 12-month returns



SUMMARY

US FIXED INCOME PERFORMANCE

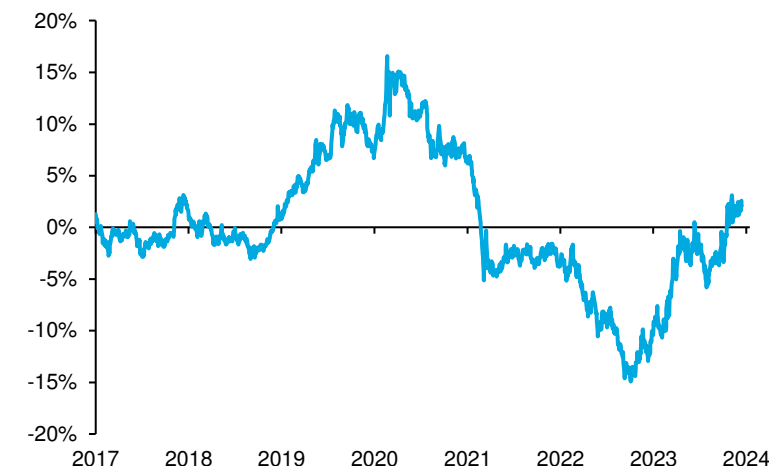
The Bloomberg® US Aggregate Index rose by +3.8% during December. Yields across the US Treasury curve ended the month lower, with the 2-year falling by -43 basis points and the 10-year dropping by -45 basis points, while overall market volatility continued to decline. Longer-maturity bonds again outperformed short- and intermediate-term debt by a healthy margin. By sector, US Treasuries returned +3.4%, while US mortgage-backed securities and corporate bonds both returned +4.3%.

PAST PERFORMANCE IS NOT NECESSARILY INDICATIVE OF FUTURE RESULTS.

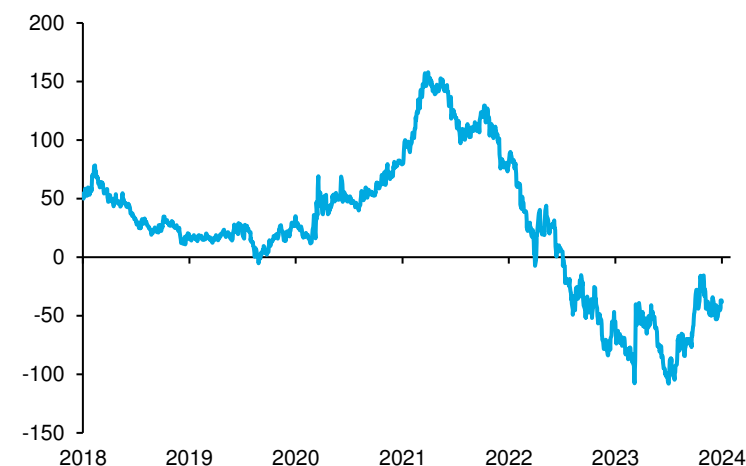
Data as of 12/31/23, sourced from Bloomberg. ¹Chicago Board Options Exchange Volatility Index. Investors cannot invest directly in an index. Please see the disclosures for the full benchmark description. Level = index or price level. Green shading = positive; Red shading = negative. See Additional Information in Disclosure Statements. [28857]

	Level	1M	YTD	1Y	3Y
Key Rates – change in yield, %					
3M Treasury Bill	5.34	-0.05	0.97	0.97	5.27
2Y US Treasuries	4.25	-0.43	-0.18	-0.18	4.13
10Y US Treasuries	3.88	-0.45	0.00	0.00	2.97
10Y German Bund	2.02	-0.42	-0.54	-0.54	2.59
10Y UK Gilt	3.53	-0.64	-0.13	-0.13	3.34
10Y Japanese Bond	0.61	-0.06	0.20	0.20	0.59
US 30Y Fixed Rate Mortgage	6.99	-0.58	0.33	0.33	4.12
Volatility Indicators					
CBOE VIX ¹	12.45	-0.47	-9.22	-9.22	-10.30
ICE BofA MOVE Index	114.62	-0.70	-6.99	-6.99	65.64

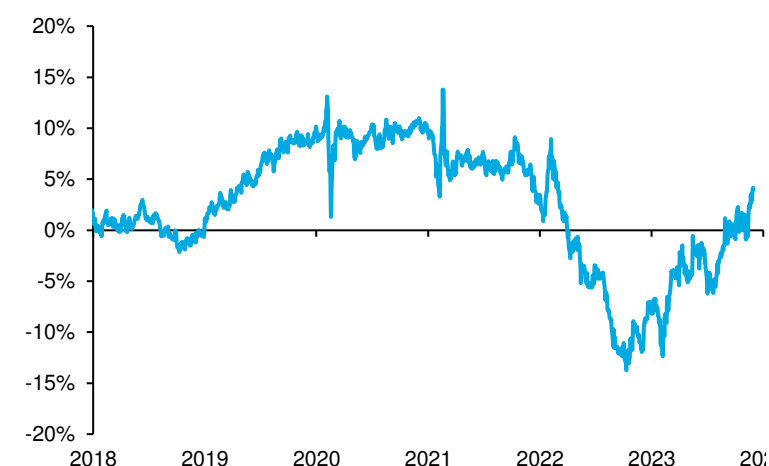
Bloomberg US Treasury Bond Index Total Return
Rolling 12-month returns



US Yield Curve (10 Year – 2 Year Yield)



Bloomberg Global Inflation-Linked US TIPS Total Return
Rolling 12-month returns



SUMMARY

GLOBAL FIXED INCOME PERFORMANCE

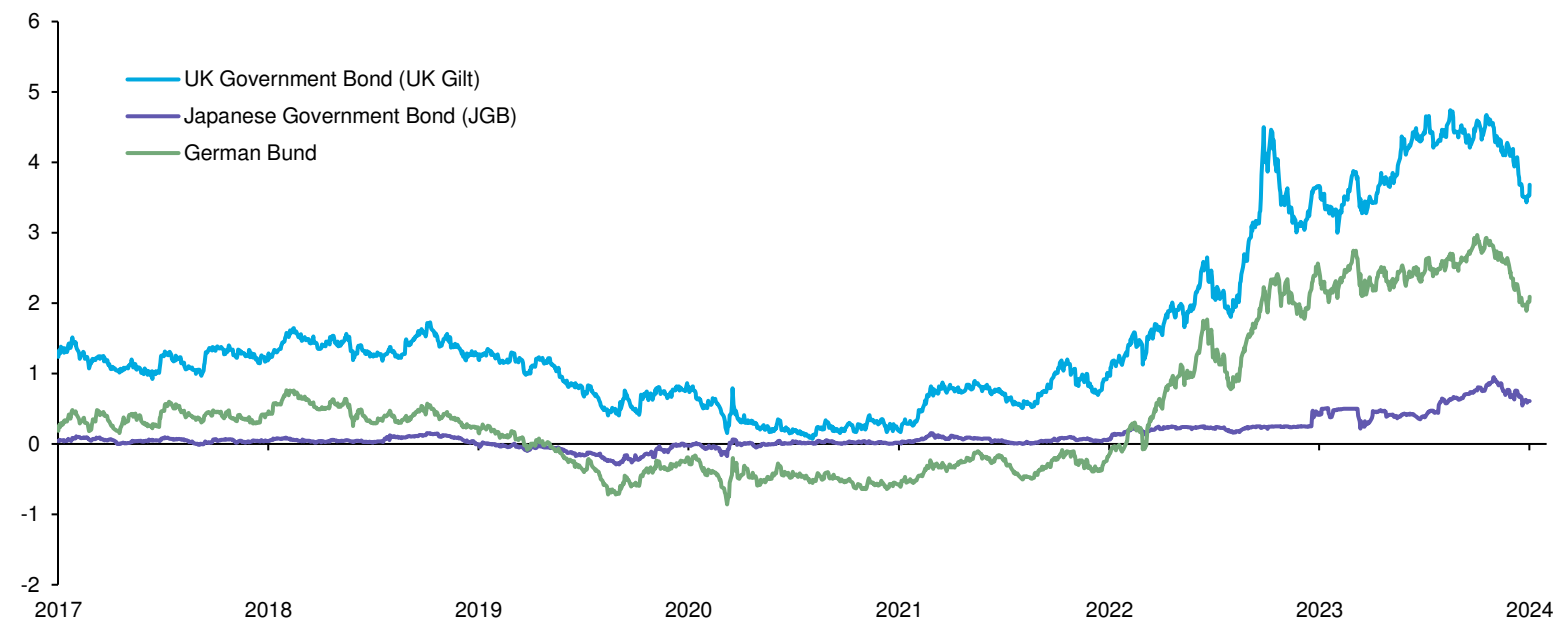
The Bloomberg® Global Aggregate Index posted an unhedged return of +4.2% during December. Expectations that policymakers in the US, Europe and the UK are nearing the end of their rate-hike campaigns, coupled with cooling inflation and softer (but not recessionary) economic data, contributed to further drops in yields across most sovereign debt markets. 10-year UK Gilts led the way lower as yields fell by -64 basis points, while yields on 10-year US Treasuries and German Bunds fell by -45 and -42 basis points, respectively. Government yields in Japan continued to underperform major market peers.

PAST PERFORMANCE IS NOT NECESSARILY INDICATIVE OF FUTURE RESULTS.

Data as of 12/31/23, sourced from Bloomberg. Investors cannot invest directly in an index. Green shading = positive; Red shading = negative. Please see the disclosures for the full benchmark description. See Additional Information in Disclosure Statements. [28857]

	Level	1M	YTD	1Y	3Y
Fixed Income – Total Return, Unhedged					
Bloomberg US Aggregate	2,162	3.8%	5.5%	5.5%	-9.6%
Bloomberg Global Aggregate	471	4.2%	5.7%	5.7%	-15.6%
Bloomberg Global Treasury	559	4.3%	4.2%	4.2%	-19.7%
Bloomberg US Treasury	2,277	3.4%	4.1%	4.1%	-11.0%
Bloomberg Global Aggregate Credit	267	4.2%	9.2%	9.2%	-12.2%
Bloomberg Global High Yield	1,522	4.0%	14.0%	14.0%	0.5%
Bloomberg EMD USD Aggregate	379	5.0%	11.0%	11.0%	-10.5%

Global Government Rates, 10 Year Yields



SUMMARY

CORPORATE FIXED INCOME PERFORMANCE

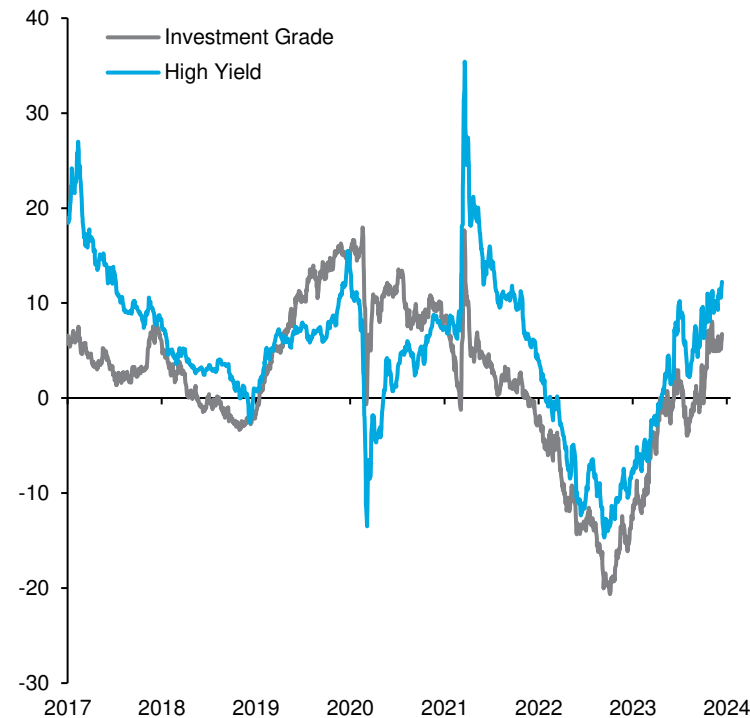
US and European investment-grade spreads tightened modestly by -5 and -9 basis points, respectively, in December. The average spread on US credit securities slid below 100 basis points, reaching levels last seen in early 2022. As is typical for December, both primary and secondary market activity for the month was muted while benchmark sovereign rate volatility inched lower. High-yield corporate spreads tumbled by -47 and -39 basis points in the US and Europe, respectively, supported by expectations for continued positive economic growth and the possibility that central bank policymakers may be able to start lower interest rates sooner than expected.

PAST PERFORMANCE IS NOT NECESSARILY INDICATIVE OF FUTURE RESULTS.

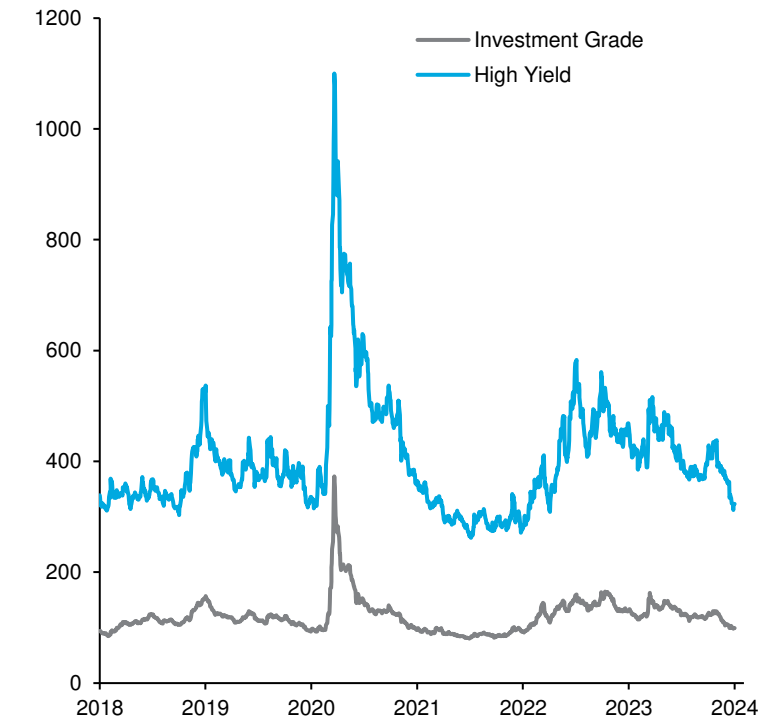
Data as of 12/31/23, sourced from Bloomberg. ¹Bloomberg Emerging Markets Hard Currency (USD) Aggregate Index. Investors cannot invest directly in an index. Please see the disclosures for the full benchmark description. Level = index or price level. Green shading = positive; Red shading = negative. See Additional Information in Disclosure Statements. [28857]

	Level	1M	YTD	1Y	3Y
Spreads – bps					
Bloomberg US Corporate	99	-5	-31	-31	3
Bloomberg US Corporate High Yield	323	-47	-146	-146	-37
Bloomberg EM HC Aggregate ¹	1,171	47	98	98	-117
Bloomberg EuroAgg Corporate	138	-9	-29	-29	46
Bloomberg Pan-European High Yield	399	-39	-113	-113	41

Bloomberg US Corporate & High Yield Total Return
12-month percent change



US Corporate OAS
Basis Points



SUMMARY

CURRENCIES

The US Dollar continued to weaken in December, falling -1.7% against a broad basket of developed market currencies. While US economic data released during the month continued to moderate, the growing consensus among investors appears to be that the US economy will successfully avoid recession, leading investors to move forward expectations for when the Fed will begin lowering interest rates. Among major currencies, the Japanese Yen and Australian Dollar performed positively while the British Pound and Chinese Yuan trailed their peers.

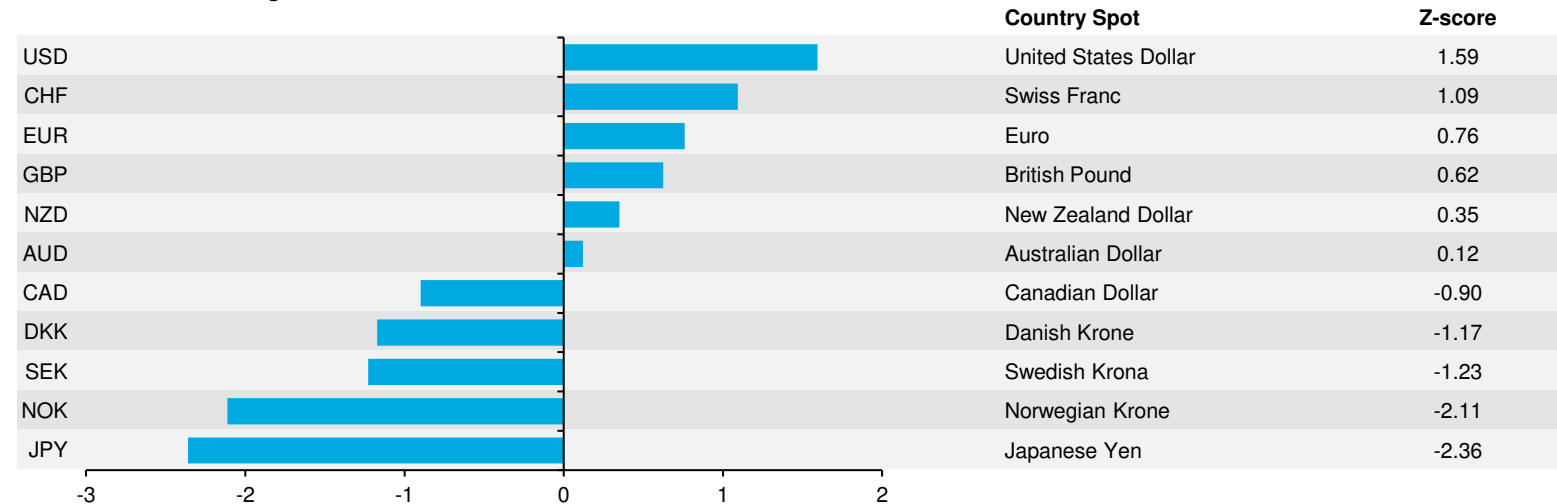
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Federal Reserve's Trade Weighted Nominal Dollar Indices



Real Effective Exchange Rates



SUMMARY

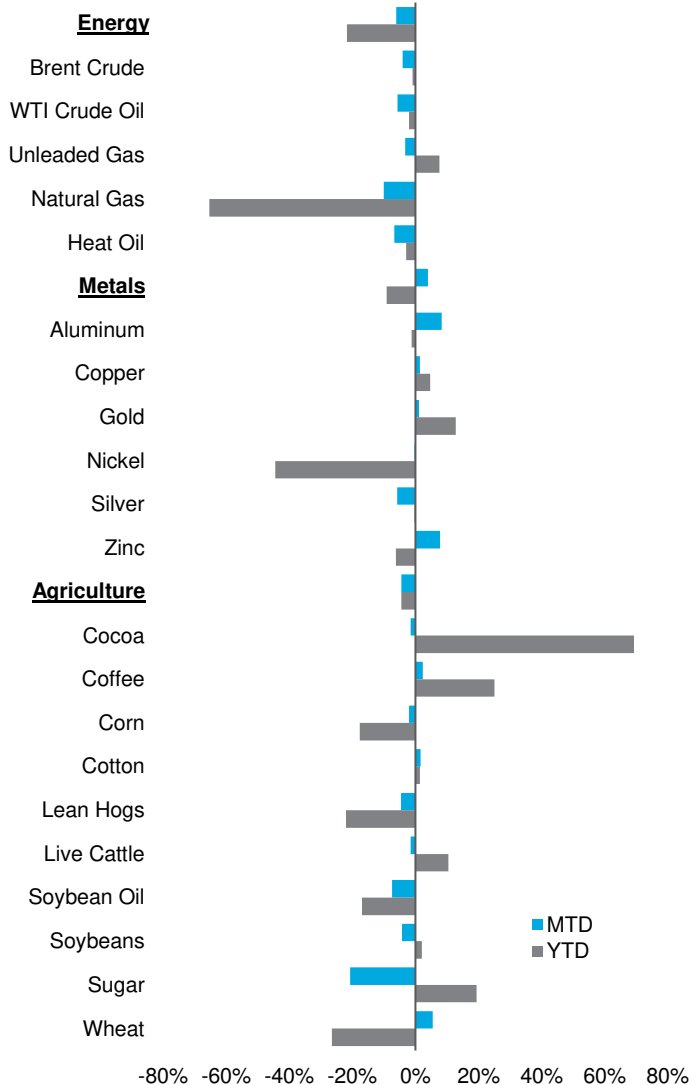
COMMODITIES

The Bloomberg Commodity Index fell by -3.1% in December. Crude oil prices continued to fall as waning demand and strong US production more than offset OPEC+ production quotas and the increasingly precarious state of shipping in the Middle East. Natural gas and heating oil prices also fell sharply as mild weather continued to persist across the Northern Hemisphere. Most agricultural commodity prices fell during the month, led by sugar and soybean oil. Industrial metal prices rose during December, with particularly positive increases registered by aluminum and zinc. Though silver prices tumbled, gold advanced slightly.

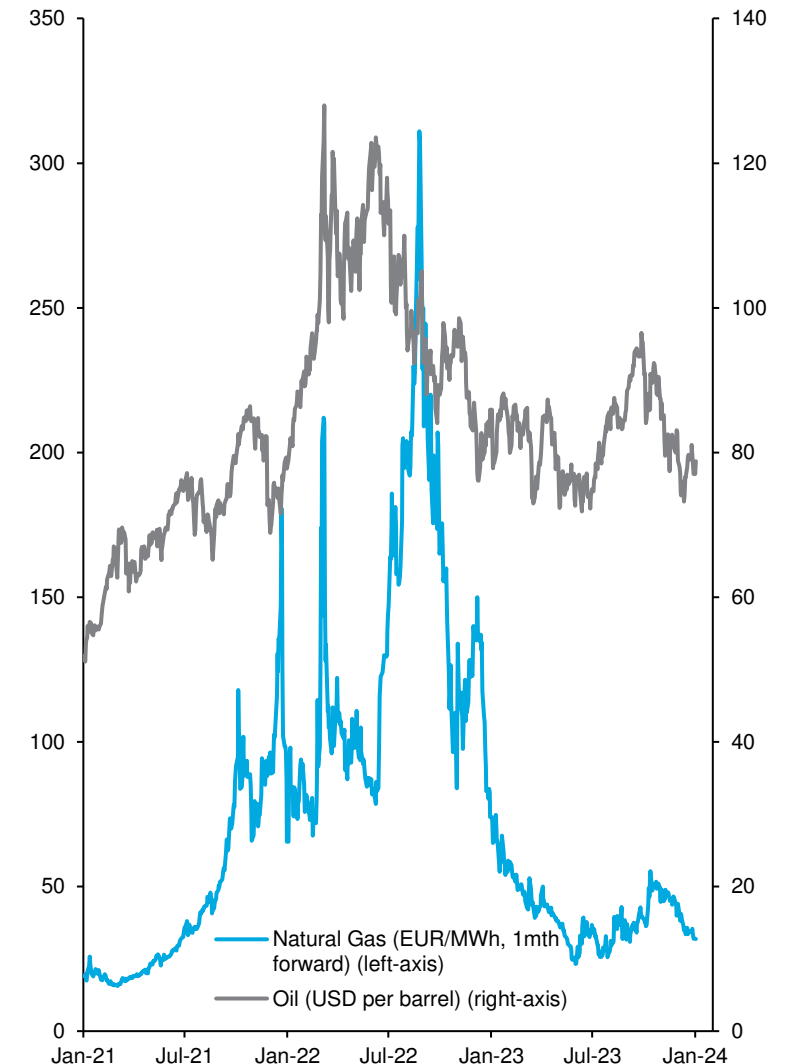
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Commodities Sub-Indices Returns



Oil & Natural Gas Prices



INDEX DESCRIPTIONS

INDEX DESCRIPTIONS

Bankrate.com US Home Mortgage 30 Year Fixed National Avg Index

The Bankrate.com US Home Mortgage 30 Year Fixed National Avg Index includes only 30-Year Fixed Mortgage products, with and without points. This index is the Overnight National Average. You will see daily rate averages on Bankrate.com in boxes labeled overnight averages (these calculations are run after the close of the business day). Included there are rates we have collected on the previous day for a specific banking product. Overnight averages tend to be volatile. They help consumers see the movement of rates day to day. The institutions included in the overnight averages tables will be different from one day to the next, depending on which institutions' rates we gather on a particular day for presentation on the site.

Bloomberg Commodity Index

The Bloomberg Commodity Index is a broadly diversified index that tracks the commodities markets through commodity futures contracts.

These are subindices of the Bloomberg Commodity Index: Agriculture, Aluminum, Brent Crude, Cocoa, Coffee, Copper, Corn, Cotton, Energy, Gold, Heat Oil, Lean Hogs, Live Cattle, Natural Gas, Nickel, Silver, Soybean Oil, Soybeans, Sugar, Unleaded Gas, Wheat, WTI Crude Oil, Zinc

Bloomberg Emerging Markets Hard Currency (USD) Aggregate Index

The Bloomberg Emerging Markets Hard Currency (USD) Aggregate Index is a flagship hard currency Emerging Markets debt benchmark that includes USD-denominated debt from sovereign, quasi-sovereign, and corporate EM issuers.

Bloomberg Emerging Markets USD Aggregate Bond Index

The Bloomberg Emerging Markets USD Aggregate Bond Index is a flagship hard currency Emerging Markets debt benchmark that includes fixed and floating-rate US dollar-denominated debt issued from sovereign, quasi-sovereign, and corporate EM issuers. Country eligibility and classification as Emerging Markets is rules-based and reviewed annually using World Bank income group and International Monetary Fund (IMF) country classifications.

Bloomberg Euro Aggregate Corporate Index

The Bloomberg Euro Aggregate Corporate Index measures the corporate component of the Euro Aggregate Index. It includes investment grade, euro-denominated, fixed-rate securities

Bloomberg Global Aggregate Bond Index

The Bloomberg Global Aggregate Bond Index is a measure of global investment-grade debt performance. This multicurrency benchmark includes Treasury, government-related, corporate, and securitized fixed-rate bonds from both developed and emerging market issuers.

Bloomberg Global Aggregate Credit Index

The Bloomberg Global Aggregate Credit Index contains publicly issued corporate and specified foreign debentures and secured notes that meet the specified maturity, liquidity, and quality requirements.

Bloomberg Global High Yield Corporate Bond Index

The Bloomberg Global High Yield Corporate Bond Index is a rules-based market-value-weighted index engineered to measure the below-investment-grade, fixed-rate, global corporate bond market. Eligible denominations include USD, EUR, GBP, and CAD.

Bloomberg Global Treasury Index

The Bloomberg Global Treasury Index tracks fixed-rate, local currency government debt of investment-grade countries, including both developed and emerging markets. The index represents the treasury sector of the Global Aggregate Index and contains issues from 37 countries denominated in 24 currencies.

Bloomberg Pan-European High Yield Index

The Bloomberg Pan-European High Yield Index measures the market of non-investment grade, fixed-rate corporate bonds denominated in the following currencies: euro, pounds sterling, Danish krone, Norwegian krone, Swedish krona, and Swiss franc. Inclusion is based on the currency of issue, and not the domicile of the issuer. The index excludes emerging market debt.

INDEX DESCRIPTIONS

Bloomberg US Aggregate Bond Index

The Bloomberg US Aggregate Bond Index is a broad-based benchmark that measures the investment-grade, US-dollar-denominated, fixed-rate taxable bond market, including Treasuries, government-related and corporate securities, mortgage-backed securities (agency fixed-rate and hybrid adjustable-rate mortgage pass-throughs), asset-backed securities, and commercial mortgage-backed securities.

Bloomberg US Corporate Bond Index

The Bloomberg US Corporate Bond Index is an unmanaged market-value-weighted index of investment-grade corporate fixed-rate debt issues with maturities of one year or more.

Bloomberg US Corporate High Yield Index

The Bloomberg US Corporate High Yield Index is an unmanaged, US dollar-denominated, nonconvertible, non-investment-grade debt index. The index consists of domestic and corporate bonds rated Ba and below with a minimum outstanding amount of \$150 million.

Bloomberg US Treasury Bond Index

The Bloomberg US Treasury Bond Index is an unmanaged index of prices of US Treasury bonds with maturities of 1 to 30 years.

Bloomberg US Treasury Inflation-Linked Bond Index

The Bloomberg US Treasury Inflation-Linked Bond Index measures the performance of the US Treasury Inflation Protected Securities (TIPS) market. Federal Reserve holdings of US TIPS are not index eligible and are excluded from the face amount outstanding of each bond in the index. Inception date is 03/01/1997. It's a USD, unhedged index.

British Pound Sterling

The British Pound Sterling is the official currency of The United Kingdom.

CAC 40

The CAC 40 is a benchmark French stock market index. The index represents a capitalization-weighted measure of the 40 most significant stocks among the 100 largest market caps on the Euronext Paris.

Chicago Board Options Exchange Volatility Index (VIX)

The Chicago Board Options Exchange Volatility Index (VIX) is calculated from options on the S&P 500 Index and is supposed to reflect the market expectation of the index's annualized 30-day volatility. The volatility measured by the VIX reflects both the possibility of upside movements as well as the possibility of downside movements

Chinese renminbi (yuan)

The Chinese renminbi (yuan) is the official currency of The People's Republic of China.

DAX

The DAX is a stock market index consisting of the 40 major German blue-chip companies trading on the Frankfurt Stock Exchange.

Euro

The Euro is the official currency of the European Economic & Monetary Union.

Financial Times Stock Exchange 100 Index

The Financial Times Stock Exchange 100 Index, also called the FTSE 100 Index, FTSE 100, FTSE, or, informally, the "Footsie", is a share index of the 100 companies listed on the London Stock Exchange with the highest market capitalization.

INDEX DESCRIPTIONS

Generic 1st Crude Oil Commodity

The Generic 1st Crude Oil Commodity measures the performance of the nearest expiration date of the WTI Crude Oil Future.

Generic German Bund 10 Year Bond Index

The Generic German Bund 10 Year Bond Index measures the performance of a 10 Year German Government Bond.

Generic Japan 10 Year Bond Index

The Generic Japan 10 Year Bond Index measures the performance of a 10 Year Japanese Government Bond.

Generic UK 10 Year Bond Index

The Generic UK 10 Year Bond Index measures the performance of a 10 Year British Government Bond.

Generic US 3 Month Government Bill

The Generic United States 3 Month Government Bill represents the yield for the current 3 month US Treasury Bill.

Generic US Government 10 Year Bond Index

The Generic US Government 10 Year Bond Index measures the performance of a 10 Year US Treasury.

Generic US Government 2 Year Bond Index

The Generic US Government 2 Year Bond Index measures the performance of a 2 Year US Treasury.

Gold Spot

The Gold Spot price measures the gold spot price quoted as US Dollars per Troy Ounce.

ICE BofaA MOVE Index

The ICE BofaA MOVE Index measures the implied volatility of US Treasury options across various maturities.

ICE LIBOR USD 3 month Index

The ICE LIBOR USD 3 month Index is based on the London - Interbank Offered Rate - ICE Benchmark Administration Fixing for US Dollar. The fixing is conducted each day at 11am & released at 11.45am (London time). The rate is an average derived from the quotations provided by the banks determined by the ICE Benchmark Administration. The top and bottom quartile is eliminated and an average of the remaining quotations calculated to arrive at fixing. The fixing is rounded up to 5 decimal places where the sixth digit is five or more. ICE Libor day count follows normal market convention: 365 days for GBP, 360 days for the other currencies and for value two business days after the fixing. Please note that for the overnight rate, the value date is on the same day as the fixing date, with the maturity date falling the next business day in both centres.

Japanese yen

The Japanese yen is the official currency of Japan.

LME Copper Cash

The LME Copper Cash measures the copper cash price from the end of LME day Final Evening Evaluations.

INDEX DESCRIPTIONS

MSCI ACWI ex USA Index

The MSCI ACWI ex USA Index captures large and mid cap representation across 22 of 23 Developed Markets (DM) countries (excluding the US) and 24 Emerging Markets (EM) countries. With 2,258 constituents, the index covers approximately 85% of the global equity opportunity set outside the US.

MSCI ACWI Index

The MSCI ACWI Index, MSCI's flagship global equity index, is designed to represent performance of the full opportunity set of large- and mid-cap stocks across 23 developed and 24 emerging markets. As of May 2022, it covers more than 2,933 constituents across 11 sectors and approximately 85% of the free float-adjusted market capitalization in each market.

MSCI Asia Pacific Index

The MSCI Asia Pacific Index is a free float-adjusted market capitalization-weighted index of the stock markets of Australia, China, Hong Kong, India, Indonesia, Japan, Malaysia, New Zealand, Philippines, Singapore, South Korea, Taiwan and Thailand.

MSCI Brazil Index

The MSCI Brazil Index is designed to measure the performance of the large- and mid-cap segments of the Brazilian market. The index covers about 85% of the Brazilian equity universe.

MSCI Chile Index

The MSCI Chile Index is designed to measure the performance of the large, mid and small cap segments of the Chilean market. The index covers approximately 85% of the Chile equity universe.

MSCI China Index

The MSCI China Index is a free-float-adjusted market-capitalization-weighted index that is designed to measure equity market performance in China.

MSCI Czech Republic Index

The MSCI Czech Republic Index is designed to measure the performance of the large and mid cap segments of the Czech Republic market. The index covers approximately 85% of the free float-adjusted market capitalization in Czech Republic.

MSCI EAFE Small Cap Index

The MSCI EAFE Small Cap Index is an equity index which captures small cap representation across 21 Developed Markets countries around the world, excluding the US and Canada.

MSCI Emerging Markets (EM) Asia Index

The MSCI Emerging Markets (EM) Asia Index captures large and mid cap representation across 8 Emerging Markets countries (China, India, Indonesia, Korea, Malaysia, the Philippines, Taiwan and Thailand).

MSCI Emerging Markets (EM) Europe & Middle East & Africa (EMEA) Index

The MSCI Emerging Markets (EM) Europe & Middle East & Africa (EMEA) Index captures large and mid cap representation across 11 EM countries in EMEA (Czech Republic, Egypt, Greece, Hungary, Kuwait, Poland, Qatar, Saudi Arabia, South Africa, Turkey and United Arab Emirates).

MSCI Emerging Markets (EM) Latin America Index

The MSCI Emerging Markets (EM) Latin America Index captures large and mid cap representation across 5 EM countries in Latin America (Brazil, Chile, Colombia, Mexico, and Peru).

MSCI Emerging Markets Index

The MSCI Emerging Markets Index captures large and mid cap representation across 24 Emerging Markets (EM) countries. The index covers approximately 85% of the free float-adjusted market capitalization in each country.

INDEX DESCRIPTIONS

MSCI Europe Index

The MSCI Europe Index represents the performance of large and mid-cap equities across 15 developed countries in Europe. The index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI Hungary Index

The MSCI Hungary Index is designed to measure the performance of the large and mid cap segments of the Hungarian market. The index covers approximately 85% of the Hungarian equity universe.

MSCI India Index

The MSCI India Index is designed to measure the performance of the large- and mid-cap segments of the Indian market. The index covers approximately 85% of the Indian equity universe.

MSCI Indonesia Index

The MSCI Indonesia Index is designed to measure the performance of the large- and mid-cap segments of the Indonesian market. The index covers about 85% of the Indonesian equity universe.

MSCI Japan Index

The MSCI Japan Index represents 8% of the MSCI World Index. It is designed to measure the performance of the large and mid-cap segments and aims to represent ~85% of the Japanese market.

MSCI Korea Index

The MSCI Korea Index is designed to measure the performance of the large- and mid-cap segments of the South Korean market. With 107 constituents, the index covers about 85% of the Korean equity universe.

MSCI Mexico Index

The MSCI Mexico Index is designed to measure the performance of the large- and mid-cap segments of the Mexican market. With 27 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Mexico.

MSCI Poland Index

The MSCI Hungary Index is designed to measure the performance of the large and mid cap segments of the Hungarian market. The index covers approximately 85% of the Hungarian equity universe.

MSCI Saudi Arabia Index

The MSCI Saudi Arabia Index is designed to measure the performance of the large- and mid-cap segments of the Saudi Arabian market.

MSCI South Africa Index

The MSCI South Africa Index is designed to measure the performance of the large- and mid-cap segments of the South African market. With 54 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in South Africa.

MSCI Taiwan Index

The MSCI Taiwan Index is designed to measure the performance of the large- and mid-cap segments of the Taiwan market. With 88 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Taiwan.

MSCI Thailand Index

The MSCI Thailand Index is designed to measure the performance of the large- and mid-cap segments of the Thailand market. With 36 constituents, the index covers about 85% of the Thailand equity universe.

INDEX DESCRIPTIONS

MSCI Turkey Index

The MSCI Turkey Index is designed to measure the performance of the large and mid cap segments of the Turkish market. The index covers about 85% of the equity universe in Turkey.

Nasdaq Composite Index

The Nasdaq Composite Index is a stock market index that includes almost all stocks listed on the Nasdaq stock exchange.

Nikkei 225

The Nikkei 225, or the Nikkei Stock Average, more commonly called the Nikkei or the Nikkei index, is a stock market index for the Tokyo Stock Exchange.

Russell 1000[®] Basic Materials Index

The Russell 1000[®] Basic Materials Index measures the performance of the Basic Materials sector of the Russell 1000[®] Index.

Russell 1000[®] Consumer Discretionary Index

The Russell 1000[®] Consumer Discretionary Index measures the performance of the Consumer Discretionary sector of the Russell 1000[®] Index.

Russell 1000[®] Consumer Staples Index

The Russell 1000[®] Consumer Staples Index measures the performance of the Consumer Staples sector of the Russell 1000[®] Index.

Russell 1000[®] Energy Index

The Russell 1000[®] Energy Index measures the performance of the Energy sector of the Russell 1000[®] Index.

Russell 1000[®] Financials Index

The Russell 1000[®] Financials Index measures the performance of the Financials sector of the Russell 1000[®] Index.

Russell 1000[®] Growth Index

The Russell 1000[®] Growth Index measures the performance of the large-cap growth segment of the US equity universe.

Russell 1000[®] Health Care Index

The Russell 1000[®] Health Care Index measures the performance of the Health Care sector of the Russell 1000[®] Index.

Russell 1000[®] Industrials Index

The Russell 1000[®] Industrials Index measures the performance of the Industrials sector of the Russell 1000[®] Index.

Russell 1000[®] Real Estate Index

The Russell 1000[®] Real Estate Index measures the performance of the Real Estate sector of the Russell 1000[®] Index.

Russell 1000[®] Technology Index

The Russell 1000[®] Technology Index measures the performance of the Technology sector of the Russell 1000[®] Index.

Russell 1000[®] Telecommunications Index

The Russell 1000[®] Telecommunications Index measures the performance of the Telecommunications sector of the Russell 1000[®] Index.

Russell 1000[®] Utilities Index

The Russell 1000[®] Utilities Index measures the performance of the Utilities sector of the Russell 1000[®] Index.

INDEX DESCRIPTIONS

Russell 1000[®] Value Index

The Russell 1000[®] Value Index measures the performance of the large-cap value segment of the US equity universe.

Russell 2000[®] Index

The Russell 2000[®] Index is a small-cap U.S. stock market index that makes up the smallest 2,000 stocks in the Russell 3000[®] Index.

Russell 2000[®] Basic Materials Index

The Russell 2000[®] Basic Materials Index measures the performance of the Basic Materials sector of the Russell 2000[®] Index.

Russell 2000[®] Consumer Discretionary Index

The Russell 2000[®] Consumer Discretionary Index measures the performance of the Consumer Discretionary sector of the Russell 2000[®] Index.

Russell 2000[®] Consumer Staples Index

The Russell 2000[®] Consumer Staples Index measures the performance of the Consumer Staples sector of the Russell 2000[®] Index.

Russell 2000[®] Energy Index

The Russell 2000[®] Energy Index measures the performance of the Energy sector of the Russell 2000[®] Index.

Russell 2000[®] Financials Index

The Russell 2000[®] Financials Index measures the performance of the Financials sector of the Russell 2000[®] Index.

Russell 2000[®] Health Care Index

The Russell 2000[®] Health Care Index measures the performance of the Health Care sector of the Russell 2000[®] Index.

Russell 2000[®] Industrials Index

The Russell 2000[®] Industrials Index measures the performance of the Industrials sector of the Russell 2000[®] Index.

Russell 2000[®] Real Estate Index

The Russell 2000[®] Real Estate Index measures the performance of the Real Estate sector of the Russell 2000[®] Index.

Russell 2000[®] Technology Index

The Russell 2000[®] Technology Index measures the performance of the Technology sector of the Russell 2000[®] Index.

Russell 2000[®] Telecommunications Index

The Russell 2000[®] Telecommunications Index measures the performance of the Telecommunications sector of the Russell 2000[®] Index.

Russell 2000[®] Utilities Index

The Russell 2000[®] Utilities Index measures the performance of the Utilities sector of the Russell 2000[®] Index.

S&P 500[®] Index

The S&P 500[®] Index includes 500 leading companies and covers approximately 80% of available market capitalization.

S&P/ASX 200 Index

The S&P/ASX 200 Index is a market-capitalization weighted and float-adjusted stock market index of stocks listed on the Australian Securities Exchange.

INDEX DESCRIPTIONS

S&P/TSX 60 Index

The S&P/TSX 60 Index is a stock market index of 60 large companies listed on the Toronto Stock Exchange.

STOXX Europe 600

The STOXX Europe 600, also called STOXX 600, SXXP, is a stock index of European stocks designed by STOXX Ltd.

US Fed Trade Weighted Nominal Advanced Foreign Economies Dollar Index

A weighted average of the foreign exchange value of the U.S. dollar against a subset of the broad index currencies that are advanced foreign economies.

US Fed Trade Weighted Nominal Emerging Market Economies Dollar Index

A weighted average of the foreign exchange value of the U.S. dollar against a subset of the broad index currencies that are emerging market economies.

GLOSSARY OF TERMS

GLOSSARY

Advanced Economies

The IMF World Economic Outlook classifies 39 economies as “advanced,” based on such factors as high per capita income, exports of diversified goods and services, and greater integration into the global financial system.

Country Spot

Country Spot rate is expressed as the home currency per one unit of foreign currency.

Emerging Market & Developing Economies

Countries classified as emerging market economies are those with an economy that is transitioning into being developed. These countries have a unified currency, stock market, and banking system, and they're in the process of industrialization.

EUR/MWh

Euros per mega-watt hour.

Last Mile

The 'last mile' refers to the final stages of the disinflation process in the US.

OAS

Option-Adjusted Spread is a yield spread which is added to the benchmark yield curve to price security with an embedded option. This spread measures the deviation of the security's performance from the benchmark on the back of an embedded option.

Real Effective Exchange Rates

Real effective exchange rate is the nominal effective exchange rate (a measure of the value of a currency against a weighted average of several foreign currencies) divided by a price deflator or index of costs. International Monetary Fund, International Financial Statistics.

Spreads

Spread is the measurement, in basis points, of the difference or gap between a fixed-income security rate and the risk-free rate of return.

Z-score

Z-score is a statistical measurement that describes a value's relationship to the mean of a group of values. Values are rankings on z-scores of real effective exchange rates.

DISCLOSURE

For more market perspectives and insights from our teams, please visit www.mellon.com

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