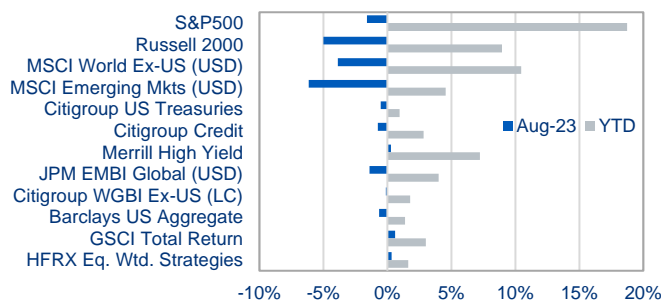


Global Market Review

Advanced and emerging equity markets retreated in August but remain solidly higher so far in 2023. Slowing economic growth, especially in the euro area and China, weighed on sentiment, as did the prospect that monetary policies in advanced economies would remain tight for a bit longer than expected. Chinese equities fell sharply in August and have lagged other emerging markets this year. High debt, deflation, and depressed consumer spending have weighed on Chinese economic activity, deepened youth unemployment, and raised doubts about the stability of the property and financial sectors. Global bond markets also declined in August as the yields on long-dated bonds adjusted to the prospect of a longer than expected period of contractionary monetary policies. U.S. 10-year Treasury yields reached their highest levels in more than a decade, while 30-year mortgage rates touched heights not approached in over 20 years.

Performance of Major Market Indices

Sources: S&P, MSCI, FTSE Russell, Barclays, Citigroup, Bank of America Merrill Lynch, J.P. Morgan, HFR, Bloomberg.



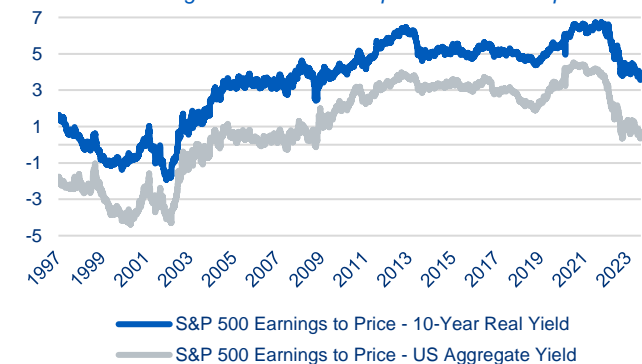
Global equities fell in August, reducing earlier gains.

Rising Yields Undermine U.S. Equity Valuations

The S&P 500 declined 1.6% in August, but nevertheless remains up 18.7% so far this year. Growth stocks continue to perform better than value, returning 31% in 2023 versus value's 5.8% gain. Growth's dominance continues to reflect the meteoric performance of a small number of large cap stocks in the tech sector. The FANG+ index comprising these large tech stocks remains up over 80% so far this year, despite a pullback in August. Given the dominance of these stocks, large cap stocks have led small caps by a wide margin throughout the year. This dynamic has contributed to the further concentration of the U.S. equity market. The share of the ten largest firms in the total market capitalization of the S&P 500 remains well above previous highs during the 2000 tech bubble. Across sectors, tech shares have set the pace, while the shares of energy and materials companies have lagged.

Exhibit 1. Rising Yields Erode Equity Valuations

Source: Bloomberg. YoY actual and expected inflation in percent.



The equity risk premium measured by the difference between the real yield on 10-year TIPS and the earnings yield of the S&P 500 has fallen sharply this year reflecting a jump in real yields. The spread advantage of the earnings yield of stocks over the yield of the U.S. Aggregate bond index has been similarly undermined (Exhibit 1). The newly enticing yields on cash and bonds do not yet seem to be reflected in equity prices, however, resulting in a further deterioration of their fundamentals. Moreover, this year's rally reflects multiple expansion rather than earnings growth. With nearly all of the firms in the S&P 500 reporting, year-on-year earnings declined by about 4% in Q2, the third successive quarter of falling earnings.

Limits to Debt-Fueled Growth in China

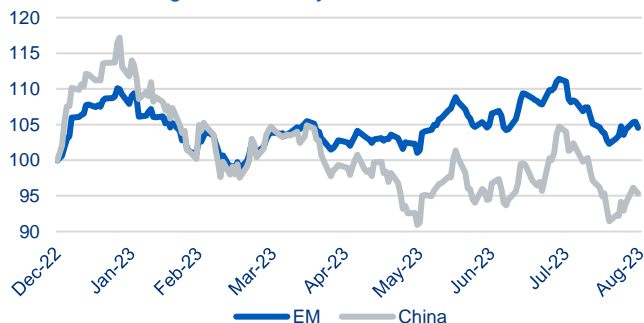
The MSCI World ex-U.S. index of advanced equity markets fell 3.9% in August but remains up 10.4% so far in 2023. European bourses also fell about 4% in August, while Japanese equities lost 2.4%. In both cases, an appreciating dollar compounded the local currency decline. Despite August's declines, European and Japanese equity markets remain up 12.4% and 13.6%, respectively, so far this year.

The economic outlook in Europe remains grim. The European manufacturing and service sectors are experiencing declining output and new orders. The German economy appears particularly hard hit by falling demand for manufactured goods and services, stagnating employment growth, and gloomy expectations for the year ahead. Euro area inflation, although declining, remains well above the ECB policy target and inflation in the U.S. The combination of rising wages – German wage growth in Q2 was a record 6.6% – and declining productivity make it especially difficult for the ECB to reduce inflation without hurting output and employment.

Emerging market equities plunged 6.2% in August, following a gain of the same amount in July. The driver of this seesaw performance was China, whose equity market fell 9% in August and is down 4.7% so far this year. (Exhibit 2). Emerging equity markets as a whole have gained 4.6% in 2023, reflecting especially strong gains in Latin American bourses, which are up 15.6%.

Exhibit 2. Chinese Equities Fall Sharply

Source: Bloomberg. Index January 1, 2023 = 100.



The challenges facing the Chinese economy are daunting. In the near term, these include high levels of youth unemployment, an over-built, over-leveraged property market, leading property developers teetering on the edge of bankruptcy, weak export demand, cautious consumers, borderline deflation, and a fragile financial sector. Adding to these near-term challenges, impediments to growth over the medium term include high debt levels, declining productivity growth, and an aging population.

The current malaise marks a stark contrast from the past performance of the Chinese economy, which more than doubled between 2009 and 2022. This growth was fueled by a massive accumulation of debt, which increased over this period from 145% to 285% of GDP. The rapid accumulation of debt created two related sources of vulnerability in: China's

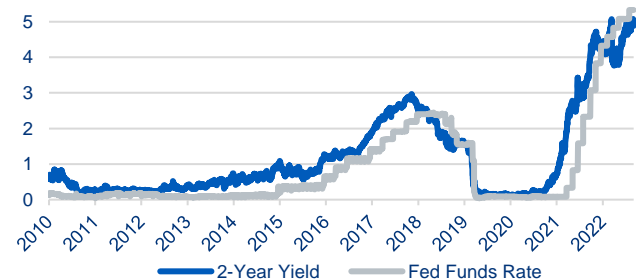
financial system and the sectors that most benefited from rapid credit expansion – the property market and inefficient state-owned enterprises. As economic growth slows and the limits to debt-fueled expansion are reached, fault lines previously masked by rapid growth are being uncovered, notably in the form of defaults by large property developers. This dynamic is undermining confidence and increasing the risk of financial instability.

Long and Variable in this Tightening Cycle

The time between the initiation of tighter monetary policies and their impact on economic activity is notoriously "long and variable". The Fed has raised rates 11 times this tightening cycle from effectively zero to a target range of 5¼ - 5½% and reduced the size of its balance sheet (Exhibit 3). The yield on 10-year U.S. Treasuries is at highs not seen in over a decade, largely reflecting an increase in real yields, while the 30-year mortgage rate is at 20+ year highs. Bank lending standards have tightened and the demand for loans has declined. Despite these forces of contraction, the economy has so far avoided recession and the job market remains strong, raising hopes for a soft landing, a sentiment reinforced by steadily declining inflation.

Exhibit 3. Fed Funds Rate and U.S. Treasury Yields

Source: Bloomberg. Fed Funds rate and U.S. Treasury yields in %.



U.S. Treasuries have held onto a small gain this year of about 1%, although bond prices at the long end of the maturity spectrum are down 1.2%. U.S. investment grade bonds are up 1.4% this year, while the high yield sector has gained 7.3%. The outlook for credit continues to be mixed as default rates are up, and consumers are increasingly resorting to credit card debt. Outside of the U.S., the WGBI ex-U.S. index of advanced sovereign bonds is little changed so far this year. The EMBI index of emerging market sovereign bonds is up 4%.

Performance of Major Market Indices through 8-31-2023

Sources: MSCI, FTSE, Barclays, Citigroup, Bank of America Merrill Lynch, J.P. Morgan, S&P GSCI, HFR, Bloomberg.

	1-Month	QTD	YTD	1-Year	3-Year	5-Year
S&P500	-1.6%	1.6%	18.7%	15.9%	10.5%	11.1%
Russell 2000	-5.0%	0.8%	9.0%	4.7%	8.1%	3.1%
MSCI World Ex-US (USD)	-3.9%	-0.8%	10.4%	16.4%	6.3%	4.3%
MSCI Emerging Mkts (USD)	-6.2%	-0.3%	4.6%	1.3%	-1.4%	1.0%
Citigroup US Treasuries	-0.5%	-0.9%	1.0%	-2.0%	-5.0%	0.2%
Citigroup Credit	-0.7%	-0.3%	2.8%	0.8%	-4.1%	1.4%
Merrill High Yield	0.3%	1.7%	7.2%	7.0%	1.9%	3.2%
JPM EMBI Global (USD)	-1.4%	0.2%	4.0%	5.0%	-3.9%	0.8%
Citigroup WGBI Ex-US (LC)	-0.1%	-0.6%	1.8%	-3.0%	-4.9%	-1.3%
Barclays US Aggregate	-0.6%	-0.7%	1.4%	-1.2%	-4.4%	0.5%
GSCI Total Return	0.6%	11.4%	3.0%	-1.8%	26.2%	5.5%
HFRX Eq. Wtd. Strategies	0.3%	0.8%	1.6%	1.5%	1.6%	1.3%