



**T.RowePrice**

# PANORAMA

QUARTERLY THOUGHT LEADERSHIP PUBLICATION FOR OUR CLIENTS

## SECOND QUARTER, 2024

---

### GLOBAL EQUITIES

Market concentration:  
Facts versus opinions

---

### GLOBAL FIXED INCOME

The value of a multi-sector  
diversified income approach  
for fixed income

---

### GLOBAL MULTI ASSET

Momentum: Don't fear  
the reapers (of high profits)

---

### U.S. EQUITY

The U.S. economy has defied  
recessionary fears. What now?

---

### CHINA EQUITY

China's economy enters a  
new cycle

---

### PERSONAL PROFILE

Meet Haider Ali,  
Associate Manager, Emerging  
Markets Discovery Equity Strategy

---

# WELCOME.....

.....to the second quarter 2024 edition of Panorama, T. Rowe Price's investment magazine for Asian investors.

April brought an end to the global equity rally after a very strong first quarter. Many investors are asking "What comes next?" Will reduced Fed rate cuts and above target inflation result in a more prolonged correction in stocks? Not necessarily, provided growth does not weaken and corporate earnings continue to deliver, as they did in the first quarter. In addition, global economic indicators remain healthy and continue to point to positive cyclical momentum.

In our leading article, global equity portfolio specialist Rahul Ghosh notes that the degree of market concentration in U.S. and technology stocks is a hot topic currently. He shares his thoughts on an issue that is clearly causing some discomfort and anxiety among investors.

Ken Orchard, head of International Fixed Income at T. Rowe Price, and associate portfolio manager Vincent Chung, see an attractive opportunity for diversification amid likely monetary policy divergence in 2024 among major central banks. Adopting a diversified approach enables bond investors to capture consistent returns and income opportunities from across the global fixed income universe, while managing risks and volatility.

Next, Sebastian Page, Head of Global Multi-Asset at T. Rowe Price, in a new research study, finds that high momentum doesn't always indicate excessive speculation. Often, momentum and quality are correlated, as they are currently. When the momentum factor works, it's not always because "fundamentals don't matter" to investors!

In the U.S., the economy has continued to outperform in 2024, defying fears of recession. Justin White, who manages T. Rowe Price's U.S. All-Cap Opportunities Equity Strategy, looks at what this might imply for U.S. stocks in the second half of 2024. A concern is that markets are pricing in considerable optimism that the current regime of robust growth and disinflation will persist.

China's economy has undergone a deep structural adjustment since 2021, bringing about a paradigm shift in markets. Amid the prevailing market pessimism toward Chinese equities, China equity manager Wenli Zheng believes investors are overlooking the positive changes that are happening.

In this quarter's Personal Profile, we spoke with Haider Ali, associate portfolio manager for the Emerging Markets Discovery Equity Strategy. We asked Haider about his role and responsibilities and how he first came to join T. Rowe Price.

As always, we welcome comments and feedback on Panorama. Our contact details can be found on page 30 of the magazine.

T. Rowe Price Australia

---

**PAGE 3: GLOBAL EQUITIES**

Market concentration:  
Facts versus opinions

**PAGE 8: GLOBAL FIXED INCOME**

The value of a multi-sector diversified income approach for fixed income

**PAGE 13: GLOBAL MULTI ASSET**

Momentum: Don't fear the reapers (of high profits)

**PAGE 18: U.S. EQUITY**

The U.S. economy has defied recessionary fears. What now?

**PAGE 22: CHINA EQUITY**

China's economy enters a new cycle

**PAGE 27: PERSONAL PROFILE**

Meet Haider Ali,  
Associate Manager,  
Emerging Markets Discovery  
Equity Strategy

**PAGE 30: CONTACT US**

---

# Market concentration: Facts versus opinions



The degree of market concentration in U.S. and technology stocks is something of a hot topic currently. We have received many questions from clients and wanted to share our thoughts on an issue that is clearly causing some discomfort and anxiety for investors.



*Rahul Ghosh  
Portfolio Specialist,  
Global Equities*

A high level of concentration in U.S. equities is viewed as a significant risk, a "problem" that must be dealt with. The concern seems to be that a high level of concentration, especially in tech stocks, draws capital away from other sectors and, in a global context, away from other regions. And that cannot be good! Given that the universal assumption seems to be that high market concentration is a problem, I thought it worth a closer look to see (a) if the problem is real, and (b) what is the best way to deal with it from an investor's point of view.

## **U.S. dominance of global markets is not new**

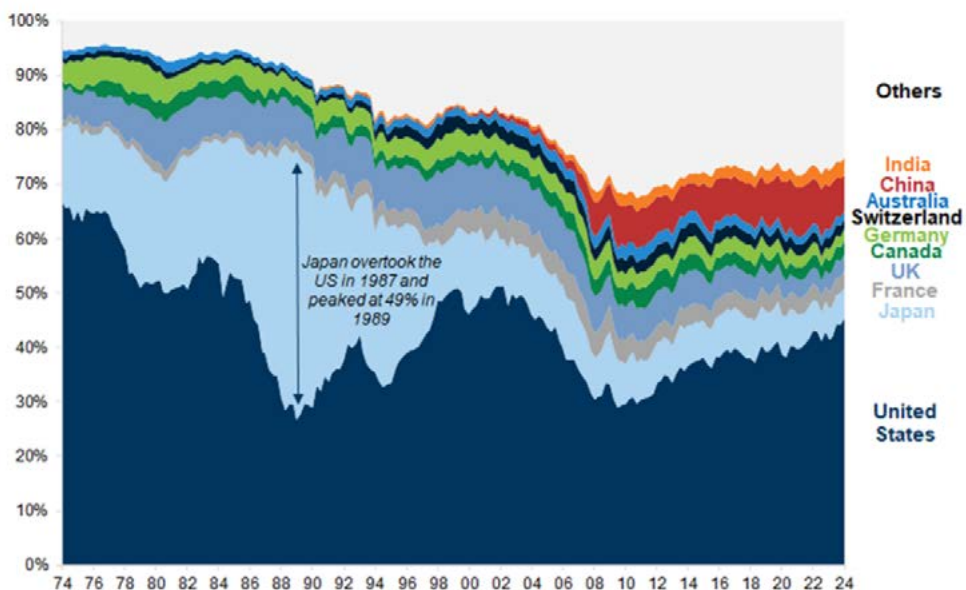
U.S. equities have performed well over the past decade, trouncing other major markets and taking its share of the global equity market to around 45% (Figure 1). It is worth noting that we have been here before when it comes to concentration worries, albeit we have to go back quite a bit time.

The chart below from Goldman Sachs (Figure 1) shows the evolution of global market capitalization shares by country. It is clear that the U.S. stock market has been the leading market globally for most of the period since the 1970s, a result of the increasing dominance of the U.S. economy and companies on the global scene. Add to this the fact that many overseas companies choose to list in the U.S. to take advantage of the market's depth, liquidity and sophisticated investor base, and U.S. dominance can be seen not as an anomaly but the result of a natural sequence of events.



**FIGURE 1: U.S. share of global equity market is rising**

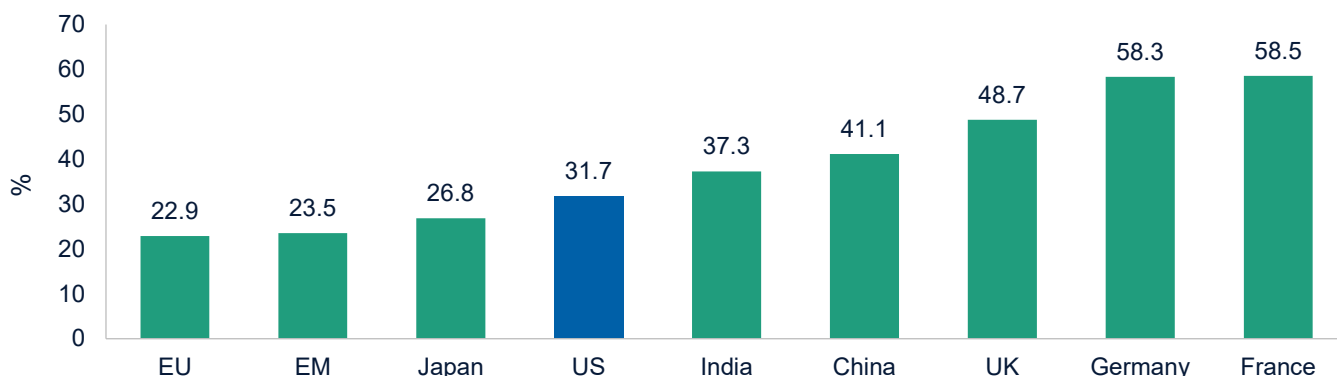
Country shares of global equity markets



Source: Goldman Sachs Global Investment Research. As of March 11, 2024.

**FIGURE 2: U.S. not the most concentrated stock market (I)**

Weight of top 10 stocks in MSCI country equity indices



Source: Bloomberg Finance LP. T. Rowe Price calculations. As of March 22, 2024.

**Market concentration is not just a U.S. issue**

The first thing to note is that market concentration is real. In the MSCI All Country World Index (MSCI ACWI), the top 5 stocks make up 14.8% of the index. And if one looks at just the U.S., the top 5 names in the MSCI U.S. Index account for just over 23% of total market cap.<sup>1</sup> It is interesting to note that in comparison to other major developed and emerging markets, the U.S. is not the worst offender when it comes to index concentration. Figure 2 compares the percentage of the market accounted by the top 10 stocks, using MSCI country equity indices.

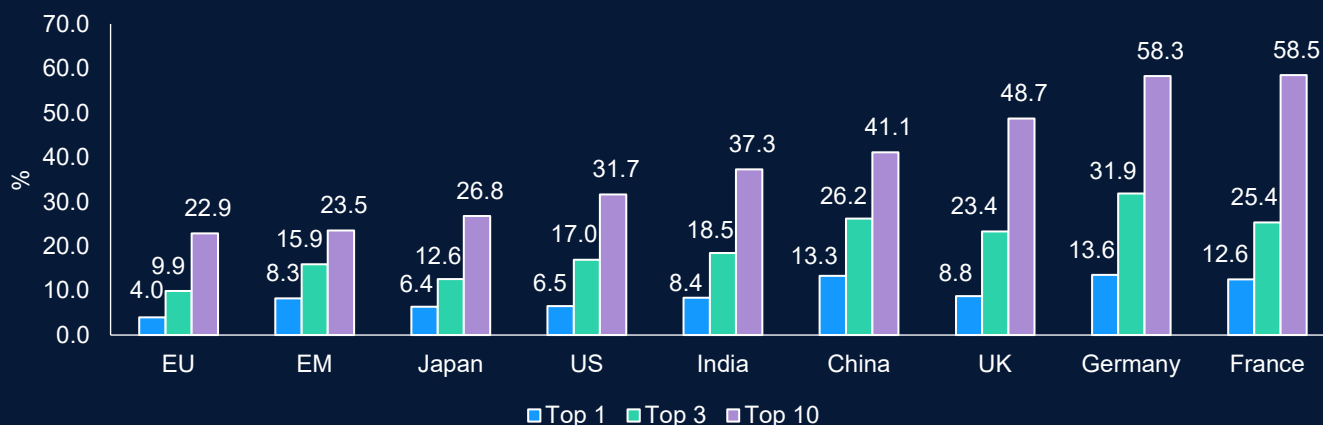
It may be tempting to look at the above chart and assume that markets less concentrated than the U.S. such as the European Union (EU), Emerging Markets (EM) or Japan are currently “better” markets for an investor to diversify into. But it turns out that when one looks with a bit more granularity, other issues with concentration emerge.

The chart in Figure 3 looks at the % of each index that comprises the top 1, 3 and 10 stocks. One can see that in EM, while the overall index may seem more diversified, the largest stock in that index (TSMC, Taiwan Semiconductor Manufacturing Co.) accounts for around 8% of the total, a much larger figure than Microsoft’s 6.5% in

<sup>1</sup> Source: MSCI, T. Rowe Price calculations, year-end data for 2010 to 2023.

**FIGURE 3: U.S. not the most concentrated stock market (II)**

Weight of top 1, 3 and 10 stocks in MSCI country equity indices



Source: Bloomberg Finance LP. T. Rowe Price calculations.  
As of March 22, 2024.

the U.S. Similarly in Japan, while the share of the largest stock, Toyota, is similar to that of Microsoft in the U.S., one might reasonably question whether you'd want to make the same allocation to Toyota as you would to Microsoft!

### Market concentration largely a function of past returns

I am a firm believer that over time stocks will tend to follow earnings and returns. In broad terms, this applies to markets as well. U.S. equities have performed well since the Global Financial Crisis, especially compared to other major markets in U.S. dollar terms. They have returned more than twice as much as the MSCI World ex-U.S. Index since 2011 (Figure 4).

This largely reflects the fact that U.S. markets over this period have been more profitable and have grown faster than others. As the charts below (Figure 4 and Figure 5) show, the U.S. market is unique among major equity markets in having been able to maintain a high level of return on equity (ROE) relative to other markets and combine that with better earnings growth.

The dominance of Technology largely follows a similar line of reasoning. The US tech sector has been the dominant factor behind returns in the equity market overall. Looking again at the breakdown of earnings growth and ROE's over time, this time for key U.S. sectors (Figure 6), it is immediately apparent that the tech sector has been unique in being able to grow earnings while simultaneously improving the quality of returns over time. i.e. they have continually progressed

in becoming more efficient, capital asset-light businesses. This has been recognized in how the market values them.

### So what should investors do?

If I adopted the persona of my old family physician, here's how he would probably have put things...

#### "Embrace concentration... insofar as it is healthy"

While arbitrary headlines on concentration "issues" make for good press, we should remind ourselves that fundamentals matter more. Concentration in one sense results from success and is a characteristic of market cap-weighted indices. As long as the fundamentals of sales / earnings / returns are strong, there's no shame in embracing the concentration that has boosted equity returns.

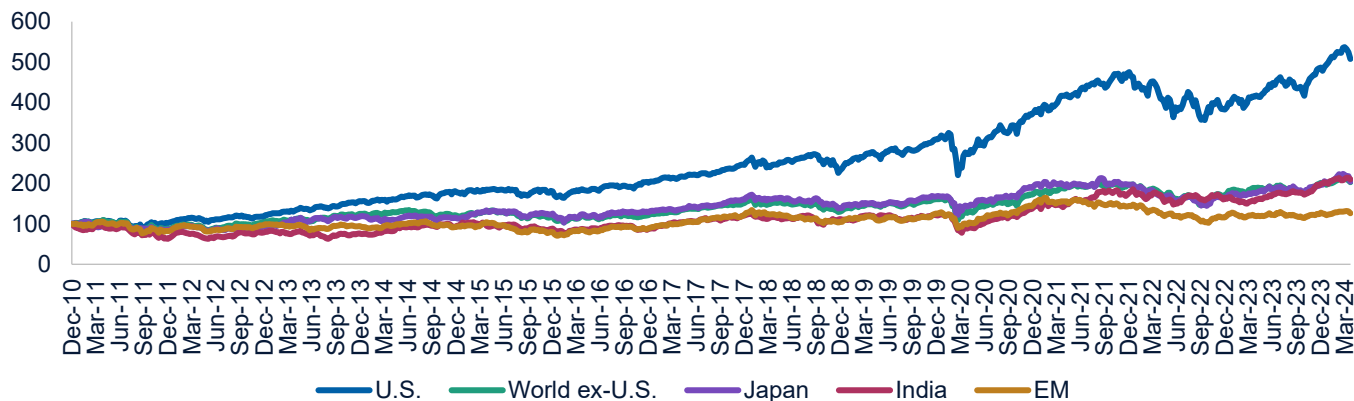
#### "Embrace diversification... but sensibly"

Almost daily, investors are faced with suggestions and advice to diversify away from U.S. Technology – be it to Value, Emerging Markets, or Japan. While I am a fan of "Global Exposure," I also believe it is important for investors to understand their underlying portfolio exposures thoroughly and diversify appropriately – not just for the sake of index diversification alone.

So for example, while it may sound sensible to increase international exposure away from the U.S. and technology by adding, say, to Japan and/or Europe, the real question is whether

**FIGURE 4: U.S. has strongly outperformed other major equity markets**

MSCI price returns indexed to 31 December 2010



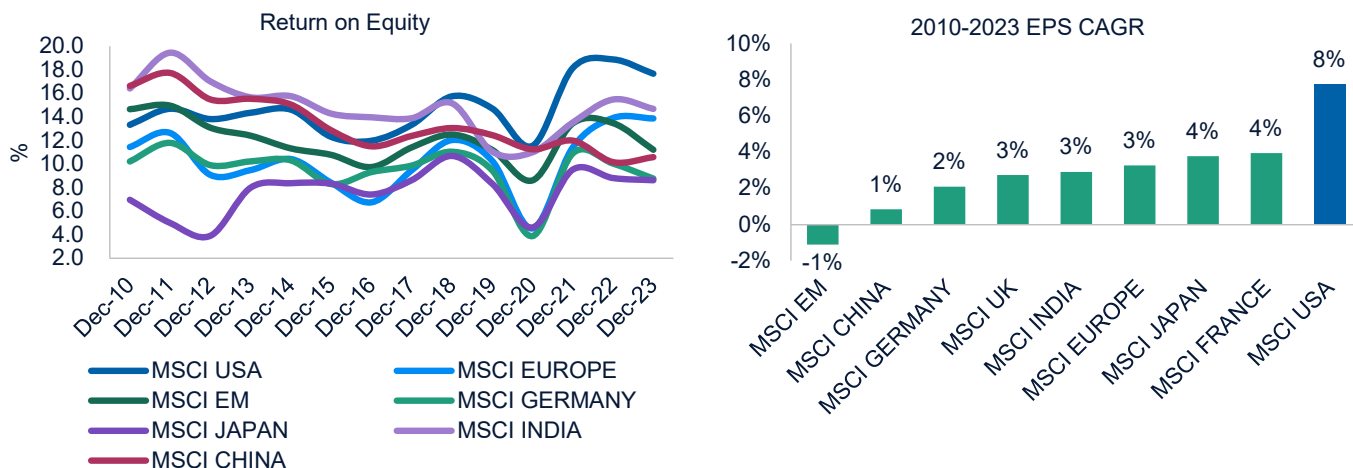
Past performance is not a reliable indicator of future performance.

Source: Bloomberg LP. T. Rowe Price calculations.

As of March 22, 2024.

**FIGURE 5: U.S. has strongly outperformed other major equity markets**

MSCI price returns indexed to 31 December 2010



Past performance is not a reliable indicator of future performance.

Source: Bloomberg Finance LP. T. Rowe Price calculations.

As of March 22, 2024.

that in fact does so. Many stock markets today are very closely correlated to the U.S., and so diversification to international markets, may not achieve the desired outcome (Figure 7).

Correspondingly, while the chart in Figure 7 may suggest that markets such as Japan or China are strong candidates for diversification, arbitrary portfolio allocations to those markets may end up with undesired outcomes, e.g. portfolios that are either increasingly sensitive to global auto markets (as in the case of Japan), or which may end up doubling down on tech exposure (given how Tencent, Alibaba and PDD dominate the MSCI China Index, with a combined weight of 26%).<sup>2</sup>

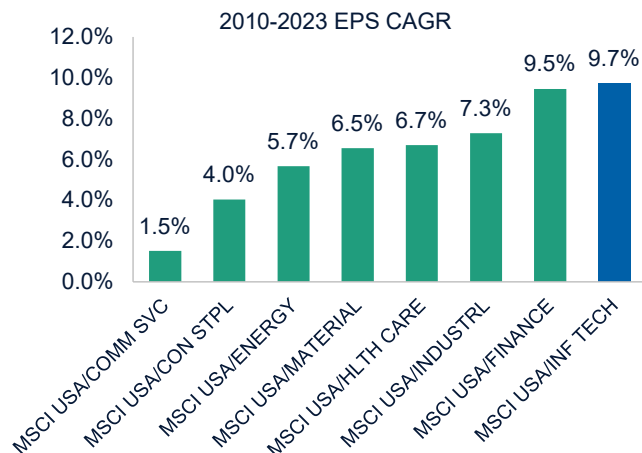
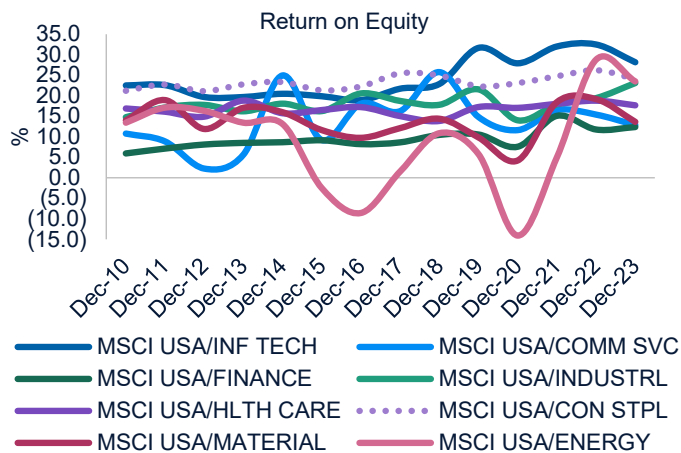
<sup>2</sup> As of March 22, 2024.

**“Let earnings be your North Star”**

In any global equity portfolio, I believe it is important to **maintain exposure to earnings growth, while trying to diversify the sources of that growth**. So for example, in Figure 7, when looking at two-year forward multiples versus consensus earnings growth estimates across the different sectors in the MSCI ACWI, one can see how pockets of the market in areas such as Industrials and Healthcare can offer significant earnings growth potential at lower multiples than technology, and there may be good, underappreciated ideas to look at within those sectors.

**FIGURE 6: Technology has strongly outperformed other U.S. sectors**

MSCI price returns indexed to 31 December 2010



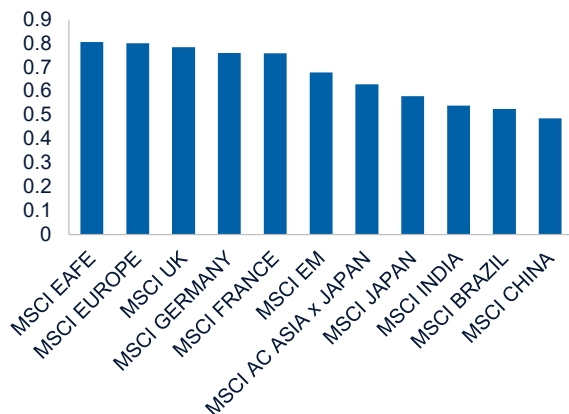
**Past performance is not a reliable indicator of future performance.**

Source: Bloomberg Finance LP. T. Rowe Price calculations.

As of March 22, 2024.

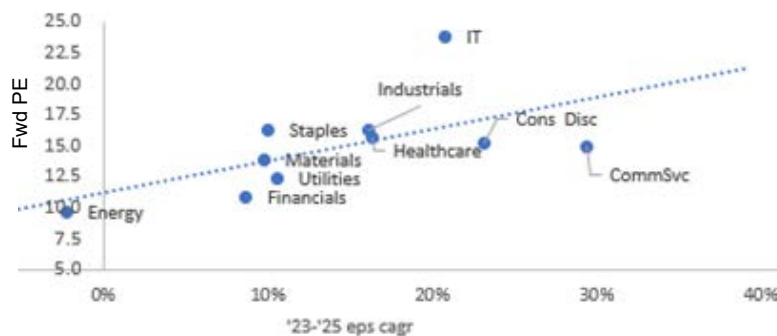
**FIGURE 7: International equities are closely tied to the U.S.**

Correlation of weekly returns to the MSCI USA (in USD) (2010-2023)



MSCI ACWI Global Sectors

Forward PE vs Consensus EPS Growth Estimates



**Past performance is not a reliable indicator of future performance.**

These statistics are not a projection of future results. Estimates are subject to change. Actual results may vary significantly.

Source: Bloomberg Finance LP. T. Rowe Price calculations.

As of March 22, 2024.

**“Hope is not a plan....”**

I would argue that the focus on earnings and returns are even more important when looking at “value-oriented” sectors such as Energy and Financials. While it’s all very well to buy cheap assets, the fundamental question that needs to be answered is **“what is going to make them less cheap?”** And while we can wait / hope / pray for a multiple re-rating, that’s not really under anyone’s control (with the exception of perhaps the Fed), so one has to instead look for the value release of **increased earnings and returns**, whether that comes from internal restructuring or a cyclical upswing.

**Conclusion**

While concentration in the markets is real, it is likely less of an issue than most commentators make it out to be, as it is driven by real improvements in returns and earnings that are in turn recognized and rewarded by the stock market. As investors, it behooves us to be aware of the risks and diversify portfolios appropriately. In this environment, there is an opportunity for good active managers to prove their worth in generating significant risk-adjusted alpha. ■



INVESTMENT

## High yield returns, investment grade risks: The value of a multi-sector diversified income approach for fixed income

- Global Multi-Sector and Diversified Income Bond is an actively managed, 'go anywhere' strategy, aiming to provide high yield-like returns with investment grade risks.
- Our approach seeks to diversify return sources and risks, integrating top-down macro views with bottom-up fixed income security research.
- Global bonds are well positioned in 2024, an attractive opportunity for diversification amid likely monetary policy divergence among central banks worldwide.



*Kenneth Orchard, CFA  
Head of International Fixed Income  
Lead Portfolio Manager,  
Global Multi-Sector and  
Diversified Income Bond Strategy*



*Vincent Chung, CFA  
Associate Portfolio Manager,  
Global Multi-Sector and  
Diversified Income Bond Strategy*

The past few months highlight how quickly the investment landscape can shift for fixed income investors. After a strong rally, global bonds began 2024 on the back foot as hopes for as many as six U.S. Federal Reserve (Fed) rate cuts receded. They recovered some ground on indications that the Fed might begin cutting in June but pulled back again when policymakers signaled that the timeline for easing may be delayed due to resilient U.S. growth and inflation. Going forward, it appears that economic data releases will continue to influence sentiment and trigger swings in financial markets.

However, going beneath the headline numbers reveals that the returns of various underlying fixed income sectors year to date are far from uniform. Although high quality sovereign and corporate credit declined, high yield corporate bonds produced gains. Dollar-denominated emerging market (EM) debt has also performed well as credit spreads compressed meaningfully. Such variation in sector performance can be seen over longer time periods too (Figure 1), with changing market conditions favoring different bond sectors.



# FIGURE 1: Dispersion in returns across fixed income sectors

Constant changes in market leadership supports case for active management

Figures shown in table are percentages (%)

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 YTD
Global HY 58.90	CMBS 20.40	US TIPS 13.56	EM Hard 18.54	US HY 8.24	HY Muni 13.84	Muni 3.30	US HY 18.91	EM Local 15.21	HY Muni 4.76	Global HY 14.59	US TIPS 10.99	HY Muni 7.77	Bank Loans -0.61	EM Local 14.02	Bank Loans 2.53
US HY 58.18	EM Local 15.68	Muni 10.70	HY Muni 18.14	Global HY 7.42	Muni 9.05	HY Muni 1.81	Global HY 18.27	HY Muni 9.69	ABS 1.77	US IG Corp 14.54	US IG Corp 9.89	US TIPS 6.00	ABS -4.30	US HY 13.77	EM Corp 2.32
Bank Loans 52.53	Global HY 15.05	US Govt 9.81	EM Local 16.76	Bank Loans 5.41	US IG Corp 7.46	MBS 1.51	Bank Loans 10.36	EM Hard 9.32	US Agency 1.34	EM Hard 14.42	Global Agg 9.20	US TIPS 5.96	US Agency -7.87	Bank Loans 13.72	Global HY 2.24
EM Corp 34.88	US HY 14.73	HY Muni 9.25	Global HY 16.21	CMBS 0.23	MBS 6.08	EM Corp 1.30	EM Hard 10.19	Global HY 8.28	Muni 1.28	US HY 14.08	CMBS 8.11	Bank Loans 5.42	Muni -8.53	Global HY 13.26	US HY 2.03
HY Muni 32.73	EM Corp 13.08	EM Hard 8.46	US HY 15.39	ABS -0.27	US Agg 5.97	ABS 1.25	EM Local 9.94	EM Corp 7.96	MBS 0.99	EM Local 13.47	US Govt 8.00	Global HY 4.89	Global HY -10.16	EM Hard 10.45	HY Muni 1.51
CMBS 28.45	EM Hard 12.04	US IG Corp 8.15	EM Corp 15.02	EM Corp -0.60	EM Hard 5.53	EM Hard 1.23	EM Corp 9.65	US HY 7.59	US Govt 0.86	EM Corp 13.09	US Agg 7.51	Muni 1.52	US HY -10.57	HY Muni 9.21	EM Hard 1.40
EM Hard 28.18	Bank Loans 10.38	US Agg 7.84	US IG Corp 9.82	US Agency -1.38	US Govt 5.05	US Agency 1.01	US IG Corp 6.11	Global Agg 7.39	CMBS 0.78	HY Muni 10.68	EM Corp 7.13	EM Corp 0.91	CMBS -10.91	EM Corp 9.08	CMBS 0.85
ABS 24.72	US IG Corp 9.00	US HY 6.96	Bank Loans 9.76	MBS -1.41	EM Corp 4.96	CMBS 0.97	US TIPS 4.68	US IG Corp 6.42	Bank Loans 0.60	US Agg 8.72	EM Hard 5.88	ABS -0.34	MBS -11.81	US IG Corp 5.72	ABS 0.68
EM Local 21.98	HY Muni 7.80	MBS 6.23	CMBS 9.66	US IG Corp -1.53	CMBS 3.86	US Govt 0.84	CMBS 3.32	Muni 5.45	US Agg 0.01	Bank Loans 8.70	US Agency 5.48	MBS -1.04	US TIPS -11.85	Muni 6.40	US Agency 0.08
US IG Corp 18.68	US Agg 6.54	CMBS 6.02	US TIPS 6.98	US Agg -2.02	US TIPS 3.64	US Agg 0.55	HY Muni 2.99	Bank Loans 4.32	Global Agg -1.20	US TIPS 8.43	Global HY 5.42	US IG Corp -1.04	EM Corp -12.26	Global Agg 5.72	US TIPS -0.08
Muni 12.91	US TIPS 6.31	Global HY 5.73	Muni 6.78	Muni -2.55	US Agency 3.88	Bank Loans 0.10	US Agg 2.65	US Agg 3.54	US TIPS -1.26	CMBS 8.29	Muni 5.21	CMBS -1.16	US Govt -12.46	ABS 5.54	Muni -0.39
US TIPS 11.41	US Govt 5.87	Global Agg 5.64	Global Agg 4.32	Global Agg -2.60	US HY 2.17	US IG Corp -0.68	Global Agg 2.09	CMBS 3.35	EM Corp -1.65	Muni 7.54	US HY 5.19	US Agency -1.32	US Agg -13.01	US Agg 5.53	US IG Corp -0.40
Global Agg 6.93	ABS 5.85	ABS 5.14	US Agg 4.21	US Govt -2.75	ABS 1.88	US TIPS -1.44	ABS 2.03	US TIPS 3.01	Global Agg -2.37	US Govt 6.86	HY Muni 4.89	EM Hard -1.51	HY Muni -13.10	CMBS 5.42	US Agg -0.78
US Agg 5.93	Global Agg 5.54	US Agency 4.82	ABS 3.66	HY Muni -5.51	Bank Loans 1.82	Global HY -3.15	MBS 1.67	MBS 2.47	US HY -2.39	Global Agg 6.84	ABS 4.52	US Agg -1.54	US IG Corp -15.76	US Agency 5.13	US Govt -0.96
MBS 5.89	MBS 5.37	EM Corp 2.31	MBS 2.59	EM Hard -0.58	Global HY 1.67	Global HY -4.25	US Agency 1.39	US Govt 2.31	US IG Corp -2.51	US Agency 6.35	MBS 3.87	US Govt -2.32	EM Local -15.85	MBS 5.05	MBS -1.04
US Agency 1.53	US Agency 4.36	Bank Loans 1.50	US Agency 2.16	US TIPS -8.61	Global Agg 0.59	US HY -9.99	US Govt 1.04	US Agency 2.06	EM Hard -4.61	US Agency 5.89	Bank Loans 3.50	Global Agg -4.71	Global Agg -16.25	US Govt 4.05	Global Agg -2.08
US Govt -3.57	Muni 2.38	EM Local -1.75	US Govt 1.99	EM Local -8.98	EM Local -5.72	EM Local -14.92	Muni 0.25	ABS 1.55	EM Local -6.21	ABS 4.53	EM Local 2.11	EM Local -9.71	EM Hard -16.45	US TIPS 3.90	EM Local -2.19

As of March 31, 2024.

## Past performance is not a reliable indicator of future performance.

Sources: T. Rowe Price; "MBS" represents the Bloomberg MBS Index; "CMBS" represents the Bloomberg CMBS Index; "Emerging Markets Debt" represents the J.P. Morgan Emerging Markets Bond Global Index; "Global High Yield" represents the J.P. Morgan Global High Yield Index; "U.S. Corporates" represents the Bloomberg U.S. Corporate Investment Grade Bond Index; "ABS" represents the Bloomberg ABS Index; "Banks Loans" represents the S&P/LSTA Performing Loan Index; "Emerging Markets Local (unhedged)" represents the J.P. Morgan GBI-EM Global Diversified Index; "U.S. Agg." represents the Bloomberg U.S. Aggregate Bond Index; "Emerging Market Corporates" represents the J.P. Morgan CEMBI Broad Diversified Index; "Global Aggregate" represents the Bloomberg Global Aggregate Index; "Municipals" represents Bloomberg Municipal Bond Index Total Return Index Value Unhedged USD; "High Yield Municipals" represents the Bloomberg Municipals High Yield Index. "U.S. Agency" represents the Bloomberg US Agency Index; "U.S. Government" represents the Bloomberg U.S. Treasury Index; "U.S. High Yield" represents the J.P. Morgan Domestic High Yield Index; "U.S. TIPS" represents the Bloomberg U.S. TIPS Index.

Source for Bloomberg index data: Bloomberg Index Services Limited. Please see Additional Disclosures for more information about this Bloomberg information. Information has been obtained from sources believed to be reliable, but J.P. Morgan does not warrant its completeness or accuracy. The index is used with permission. The index may not be copied, used, or distributed without J.P. Morgan's prior written approval. Copyright © 2024, J.P. Morgan Chase & Co. All rights reserved.

We believe that this divergence, alongside expectations for continued market fluctuations, speak to the importance of maintaining a globally diversified fixed income allocation. Investing across multiple fixed income sectors can help investors to generate more stable returns while also mitigating volatility, in our view. Here to discuss the outlook are Kenneth Orchard and Vincent Chung, who manage T. Rowe Price's Global Multi-Sector and Diversified Income Bond Strategy.

## What are the key features of the Global Multi-Sector and Diversified Income Bond Strategy?

**Kenneth Orchard:** The Global Multi-Sector and Diversified Income Bond Strategy (the Strategy) is an actively-managed, flexible 'go-anywhere' core bond strategy that aims to provide investors high yield-like returns, with investment grade levels of risk (Figure 2). To do so, we leverage the full breadth and depth of T. Rowe Price's fixed income









capabilities and integrate the best income ideas from our global research platform into a single high-quality portfolio.

We have the flexibility to invest across the entire fixed income universe, spanning more than 15 major fixed income sectors, 80 countries, and 40 currencies, to help us identify the most attractive opportunities. We believe that opening up the global bond opportunity set in this way allows us to seek higher yields and better risk-adjusted returns.

More importantly, diversifying return and income sources from various higher yielding sectors also allows the Strategy to take on different types of risks that may be unrelated or even negatively correlated. This helps to lower overall portfolio volatility, better positioning it to pursue consistent long-term returns.

## FIGURE 2: Global Multi-Sector and Diversified Income Bond Strategy

Seeking to build an optimal global fixed income portfolio

Deep experience	Diversified drivers	Wide opportunity set
<p><b>Est. 2008</b> Success through many cycles</p> <p> Takes advantage of T. Rowe Price global fixed income platform</p> <p> Seeks to add value to and diversify traditional fixed income</p>	<p> <b>Sector and Security Selection</b> 15+ major fixed income sectors</p> <p> <b>Duration/Interest Rates</b> 80+ countries</p> <p> <b>Currency<sup>1</sup></b> 40+ currencies</p>	<p> Global Governments, Corporates, and Securitized</p> <p> Investment Grade and High Yield</p> <p> Developed and Emerging Markets</p>

<sup>1</sup>The majority of the currency exposure will be hedged back to the U.S. dollar.

### What solution does the Strategy provide to investors? Who might consider the Strategy?

**Kenneth Orchard:** The Global Multi-Sector and Diversified Income Strategy really offers a “one-stop shop” for investors’ fixed income allocations. Not only do we seek diversified exposure across the full global fixed income opportunity set, we also tactically adjust sector, duration and currency exposures depending on the insights from our research platform on market developments, valuations and the stage of the economic cycle, to name a few examples. This flexible process helps to relieve the burden of investors having to worry about what to buy or when to make reallocation decisions.

Therefore, we believe the Strategy is a good fit for all types of investors. In particular, it may be helpful for those who seek consistent income streams in a more prudent manner and without taking on excessive risk. A more stable potential income stream may also provide a cushion during periods of market stress.

### What are the key differentiators of T. Rowe Price’s approach?

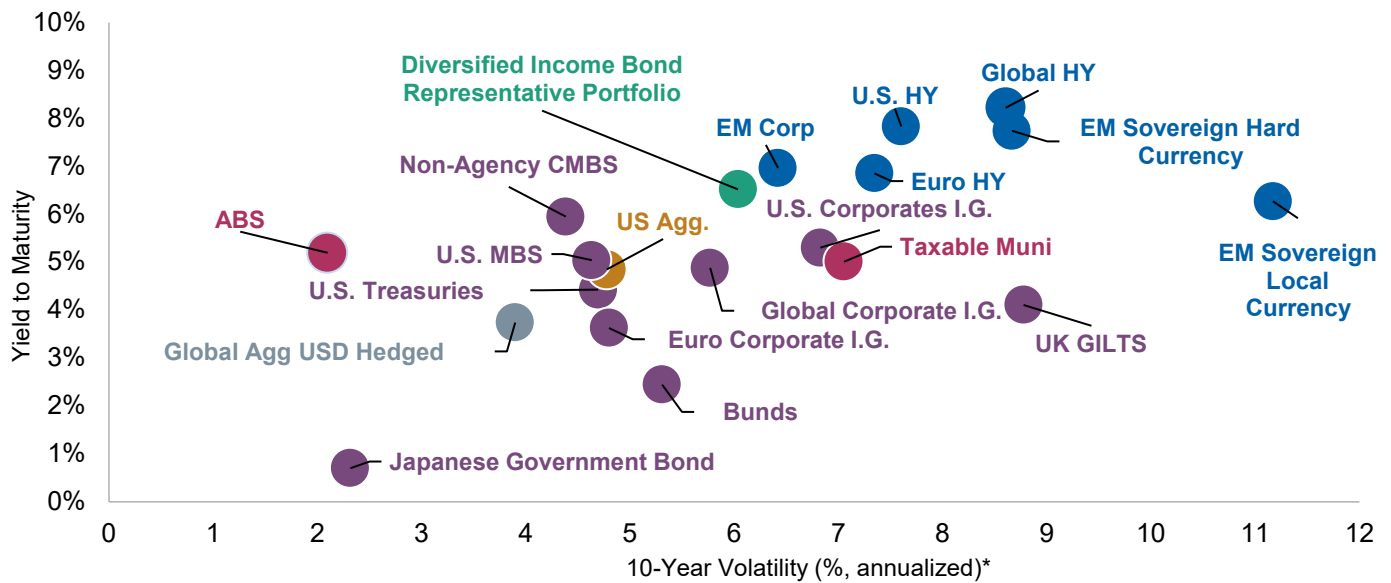
**Vincent Chung:** One of the Strategy’s major distinguishing features is its truly global nature.

This is distinct from other fixed income solutions that may have heavier tilts towards specific sectors, such as U.S. core bonds or securitized credit. In contrast, we prefer not to focus on geographies or sectors to avoid concentrations in a single sector or interest rate cycle. Instead, we utilize the full global opportunity set, including government, corporate and securitized debt, both investment grade and high yield issues across developed and emerging markets. We are also able to invest in non-mainstream sectors, such as mortgage-backed securities, and convertible bonds.

We view access to such a wide fixed income investment universe as crucial because it gives the Strategy more sectors, issuers, and interest rate exposures to choose from, enabling us to pursue geographically and sectorally diversified sources of total return and income (Figure 3). This, in turn, also means we are harvesting a variety of risk premiums. Our portfolios are well-diversified across global duration, currencies, credit, emerging markets, structured and liquidity risks, rather than being excessively exposed to any one factor. It is this combination that enables the Strategy to capture attractive yield and return opportunities with lower levels of volatility.

**FIGURE 3: Casting a wider net for bond opportunities**

Diversification of returns sources and risks



As of March 31, 2024.

**Past performance is not a reliable indicator of future performance.**

Sources: Bloomberg Finance L.P., T.Rowe Price, and J.P. Morgan Chase. Indexes used: U.S. Treasuries: Bloomberg U.S. Treasury Index; U.S. Agg.: Bloomberg U.S. Aggregate; U.S. Corporates I.G.: Bloomberg U.S. Corp. I.G. Index; U.S. HY: Bloomberg U.S. High Yield; EM Sovereign Hard Currency: J.P. Morgan Emerging Market Global Diversified Bond Index; EM Corp: J.P. Morgan CEMBI Broad Diversified; EM Sovereign Local Currency: J.P. Morgan GBI EM GD Index; Global Corporate I.G.: Bloomberg Global Aggregate ex-U.S. Index; Global Agg.: Bloomberg Global Aggregate (USD Hedged) Index; Euro HY: Bloomberg Pan-European High Yield; Japan Government Bond: Bloomberg Asian Pacific Japan; Bunds: Bloomberg Global Treasury Germany; UK GILTS: Bloomberg Global Treasury UK; Global HY: Bloomberg Global High Yield; Euro Corporates I.G.: Bloomberg Euro Aggregate Corporate Index; U.S. MBS: Bloomberg U.S. MBS Index; ABS: Bloomberg ABS Index; Non-Agency CMBS: Bloomberg Non-Agency CMBS US Agg Eligible; Taxable Muni: Bloomberg Taxable Municipal Bond Index. Please see the Additional Disclosures page for additional legal notices and disclaimers. The representative portfolio is an account in the composite we believe most closely reflects current portfolio management style for the strategy. Performance is not a consideration in the selection of the representative portfolio. The characteristics of the representative portfolio shown may differ from those of other accounts in the strategy. GIPS® Composite Report is available upon request.

Of course, the effectiveness of our approach primarily stems from our strength in security and sector selection, which is underpinned by our extensive global research resources. Across our global platform, we have more than 240 fixed income investment professionals, including seasoned portfolio managers supported by dedicated credit and sovereign analysts who cover all major sectors. Further setting our capabilities apart is a culture of true cross-asset class collaboration. Fixed income analysts often work closely with their equity counterparts, sharing fundamental research and attending joint meetings with companies. This strong relationship gives access to corporate fundamentals that are not typically afforded to credit researchers.

**How do you identify opportunities and determine sector allocations? Do you take a top-down or bottom-up approach?**

**Vincent Chung:** In managing the Strategy, we take a holistic approach that synthesizes top-down macro views with bottom-up fundamental research. The goal is to build an optimal fixed income

portfolio, drawing on the best ideas from across our research platform.

Kenneth and I have primary oversight of the Global Multi-Sector and Diversified Income Bond Strategy. We are responsible for setting sector allocation targets, as well as decisions on exposures to global rates and currencies. We also work with a team of experienced sector portfolio managers, all of whom are experts in their respective market areas. The sector portfolio managers contribute high-conviction ideas for security selection, in coordination with their respective teams of credit analysts and traders.

Our credit analysts conduct bottom-up, fundamental, technical and relative value analysis on securities that they cover, including assessment of environmental, social and governance factors.<sup>1</sup> Their recommendations, expressed via proprietary credit ratings and conviction scores, are key to helping us uncover promising investment opportunities while avoiding issues with deteriorating fundamentals.

<sup>1</sup> For certain types of investments, including, but not limited to, cash, currency positions, and particular types of derivatives, an ESG analysis may not be relevant or possible due to a lack of data. Where ESG considerations are integrated into the investment research process, we may conclude that other attributes of an investment outweigh ESG considerations when making investment decisions.

**What is your outlook for the rest of 2024? How might the Global Multi-Sector and Diversified Income Bond Strategy add value for investors in this environment?**

**Kenneth Orchard:** Continued U.S. economic exceptionalism, relative to the rest of the world, raises the likelihood of monetary policy divergence from major central banks. We think this may present an appealing opportunity for fixed income investors to increase exposure to global bonds, which could be well-positioned to benefit from falling interest rates outside the U.S. (Figure 4).

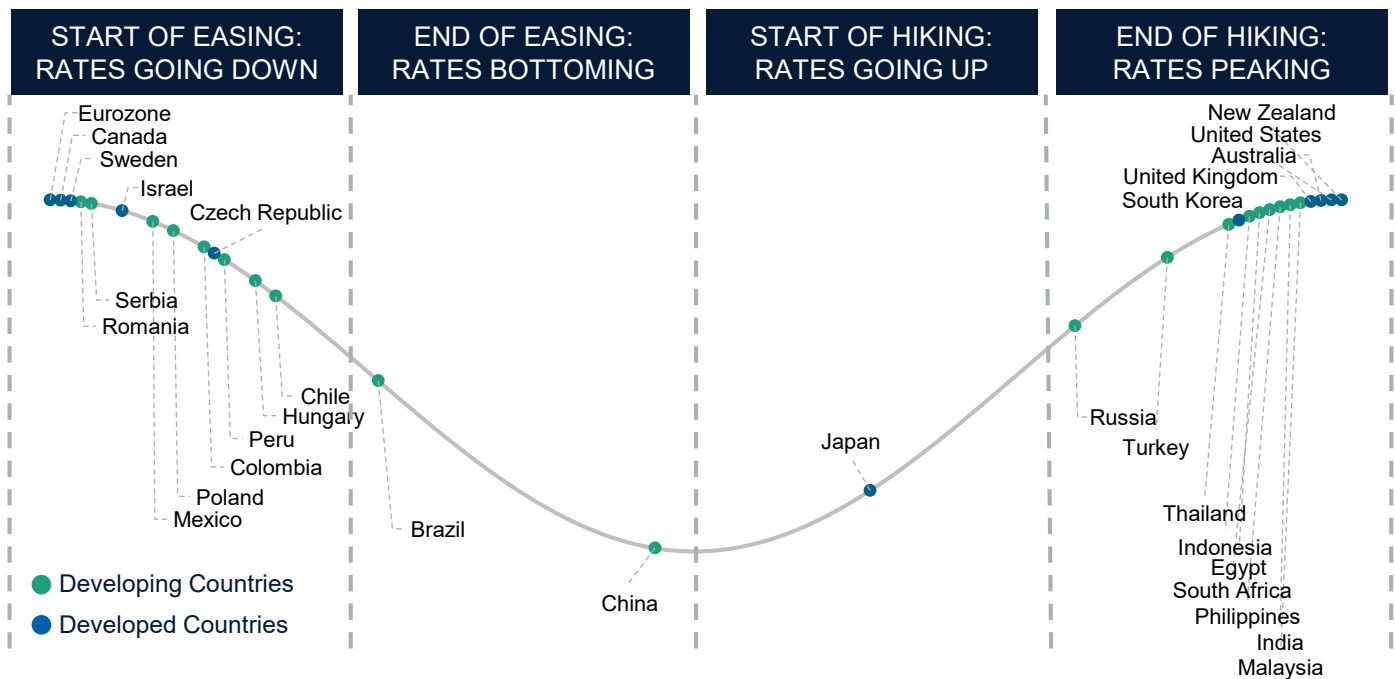
Meanwhile, all-in yields remain attractive, while improving macroeconomic conditions should continue to be supportive for risk assets. That

said, credit spreads have tightened considerably, leaving limited buffer should conditions suddenly deteriorate. This underscores the importance of maintaining a selective and diversified approach to manage downside risks.

Ultimately, the T. Rowe Price Global Multi-Sector and Diversified Income Bond Strategy’s active management style and robust risk controls helps it to minimize volatility through different market cycles. We can adjust risk positions, hedges and liquidity, and are able to take more defensive or opportunistic positions as market conditions evolve. It is this flexibility that helps the Strategy achieve its value proposition – giving investors a smoother ride through market volatility while still pursuing consistent returns and income. ■

**FIGURE 4: Global monetary policy divergence**

Rate cuts have begun in EM, waiting on DM



As of March 31, 2024.  
Sources: IMF with T. Rowe Price analysis.



# Momentum: Don't fear the reapers (of high profits)

## Are YOLO and FOMO driving MOMO?\*

I don't like acronyms, but I can't help it in this case. The momentum factor (MOMO) has been performing better than during any rolling 12-month period since at least the early 1990s. Over the last several months, you would have done very well if you had picked the top-performing stocks based on past performance. What goes up keeps going up, it seems.

It's not supposed to work that way. Finance theory—and every money manager pitch book—says that past returns aren't indicative of future returns. Besides, trees don't grow to the sky.

Or do they? What if they bear fruit in the form of high-performing computer chips for artificial intelligence? Will you risk missing out on what may be a once-in-a-lifetime opportunity in a new technology?

Therefore, the question at hand, in my humble opinion, becomes:

***Is this momentum-oriented market being driven by “you only live once” and “fear of missing out?”***

## Our analysis

Over the last two weeks, my colleagues Andrew Tang, associate portfolio manager; Charles Shriver, cochair of the Asset Allocation Committee and portfolio manager; Stefan Hubrich, head of Global Multi-Asset Research; Rob Panariello, associate director of research; and I have taken a deep dive into the momentum factor.

**Our results are counterintuitive.** Andrew worked days, nights, and weekends to accommodate our countless requests to rerun the numbers and try different methodologies to kick the tires on our conclusions in time for our monthly Asset Allocation Committee meeting.

\*YOLO = You only live once; FOMO = Fear of missing out; MOMO = momentum factor, often defined as the past 12-month return.



Sébastien Page  
Head of Global Multi-Asset and CIO

Here's what we found:

- Historically, high momentum was a positive signal for market returns. (However, that's an average result with fat tails—more on this shortly.)
- High momentum doesn't always indicate excessive speculation. Often, momentum and quality (strength in fundamentals) are correlated, as they are currently. When momentum works, it's not always because "fundamentals don't matter."

**My conclusion is the following: Don't fear the MOMO.** I'm not telling you to load up on risk assets with a concentrated position in large-cap tech. But I would not hit the panic button. A fully invested and balanced approach, with disciplined rebalancing from growth toward value, leading to a tilt toward value, seems warranted. That's how our Asset Allocation Committee is positioned.

Let's review the research that led us to this conclusion—and why the results surprised us.

### Momentum effectiveness

We built a new measure to evaluate what we term "momentum effectiveness." Instead of using the

traditional long-short academic factor construction approach, we used a simpler, more intuitive methodology.

We simulated what a naïve momentum investor might do. Looking back at monthly performance statistics, we created a basket of the top 10 S&P 500 Index constituents based on their trailing 12-month returns. We then held them before rebalancing again the following month.

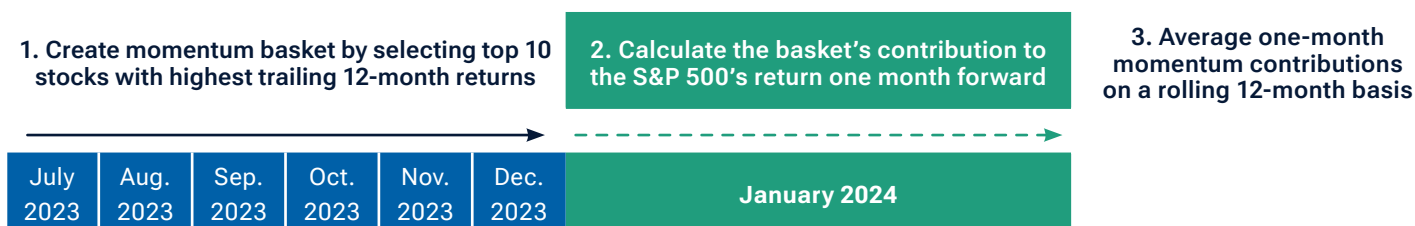
To normalize for market returns, we calculated the momentum basket's monthly contribution to the S&P 500's total return.

Last, we calculated the rolling 12-month average of this measure.

To illustrate:

We replicated this methodology to calculate the effectiveness of the quality factor (ranked by return on equity) and the negative earners or "junk" factor (ranked by the most negative earnings). The chart below shows that **momentum effectiveness is at an all-time high** based on data stretching back to the early 1990s.

**FIGURE 1: Is momentum working?**



For illustrative purposes only.

**FIGURE 2: Momentum effectiveness**



August 1990—February 2024.  
Source: Standard & Poor's, IDC. Analysis by T. Rowe Price.

Several factors drive momentum effectiveness. Excessive speculation (FOMO) is one of them. However, improving fundamentals also tend to boost momentum.

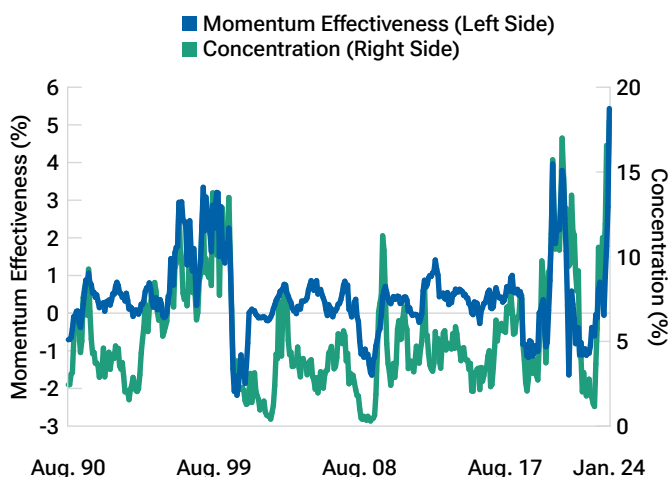
The chart below shows that momentum and market concentration tend to coexist. Here, we define concentration as the percentage of the market's trailing 12-month returns explained by the top 10 contributors. Recently, a handful of large-cap tech stocks have driven almost all the gains in the S&P 500. Concentration, like momentum effectiveness, is at an all-time high. The momentum basket is now composed of large-cap stocks. Sell-side research firm Piper Sandler showed that *the weight of high-momentum stocks in the index is at an all-time high going back to 1929.*<sup>1</sup>

If winners keep winning forever, a few companies will eat the world. Passive index investors pushing their marginal dollars into stocks in proportion to market capitalizations probably exacerbates this effect. However, that debate is outside the scope of this analysis.

**The immediate question is whether this is a bubble. Is a crash in large-cap tech right around the corner? Not necessarily. Look at the table below. The average 12-month forward return of the S&P 500 was 15.4% when momentum effectiveness was in its top quintile, as it is now.**

<sup>1</sup> I want to credit an excellent research report from Piper Sandler (Portfolio Strategy, Macro Research, March 13, 2024) for highlighting some of these ideas, albeit with a different methodology.

**FIGURE 3: Momentum effectiveness and concentration**



August 1990—February 2024.  
Source: Standard & Poor's, IDC. Analysis by T. Rowe Price.

However, like the statistician who had his head in the freezer and his feet in the oven and claimed to feel great on average, this 15.4% number is misleading. It blends strong continued momentum during the mid-1990s and the COVID recovery (2020–2021) with the spectacular crash of momentum effectiveness when the internet bubble burst in 2000.

Figure 5 below shows the 12-month forward market returns distribution when momentum effectiveness was in its top quintile. The average is 15.4%, but notice the large left tail, which is mostly from the 2000 crash.

Before the crash of 2008, there was one blip on the radar: Momentum effectiveness was in its top quintile for one month in September 2007. In the years before the financial crisis, however, momentum effectiveness was weak. It was in its bottom quintile before the crash in the fall of 2008. It was also in its bottom quintile before the bear markets of 2018 and 2022.

So, when momentum effectiveness was high, there were plenty of times when the market did well in the following 12 months. Three bear markets (2008, 2018, 2022) occurred when momentum effectiveness was at its *bottom* quintile.

My point is that the current situation does not necessarily indicate bubble risk. The chart below provides additional evidence to support this view.

In 1999 and early 2000, momentum effectiveness

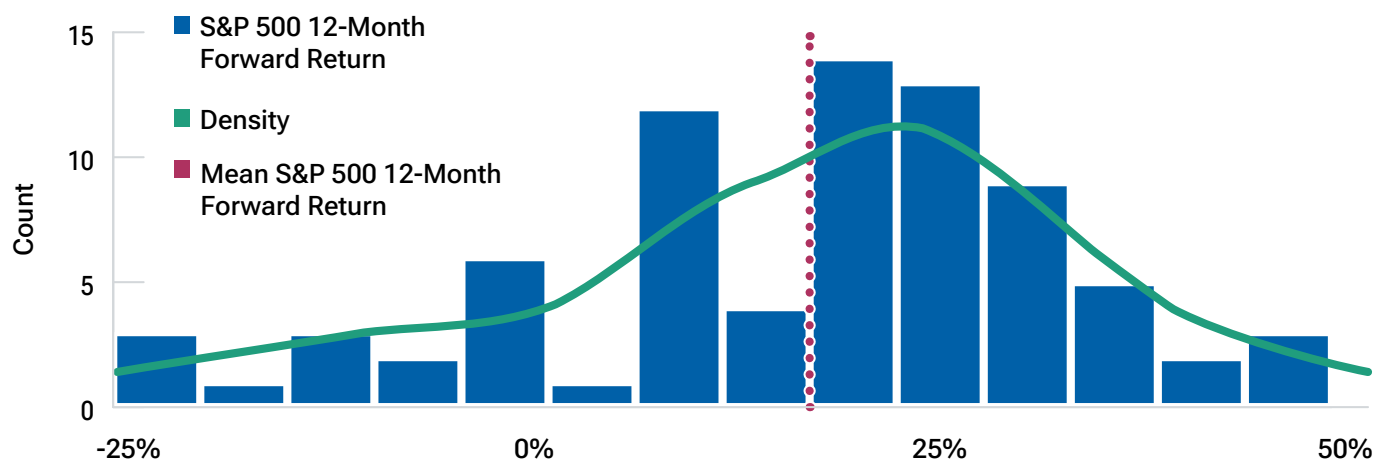
**FIGURE 4: Average 12-month forward performance of S&P 500 as a function of momentum effectiveness**

Market Implications	
S&P 500	
Quintile 1	15.41%
Quintile 2	10.43
Quintile 3	11.73
Quintile 4	11.10
Quintile 5	10.53

August 1990—February 2024.  
**Past performance is not a reliable indicator of future performance.**  
Source: Standard & Poor's, IDC. Analysis by T. Rowe Price.



**FIGURE 5: Distribution of S&P 500 Index forward 12-month returns in top quintile of momentum effectiveness**



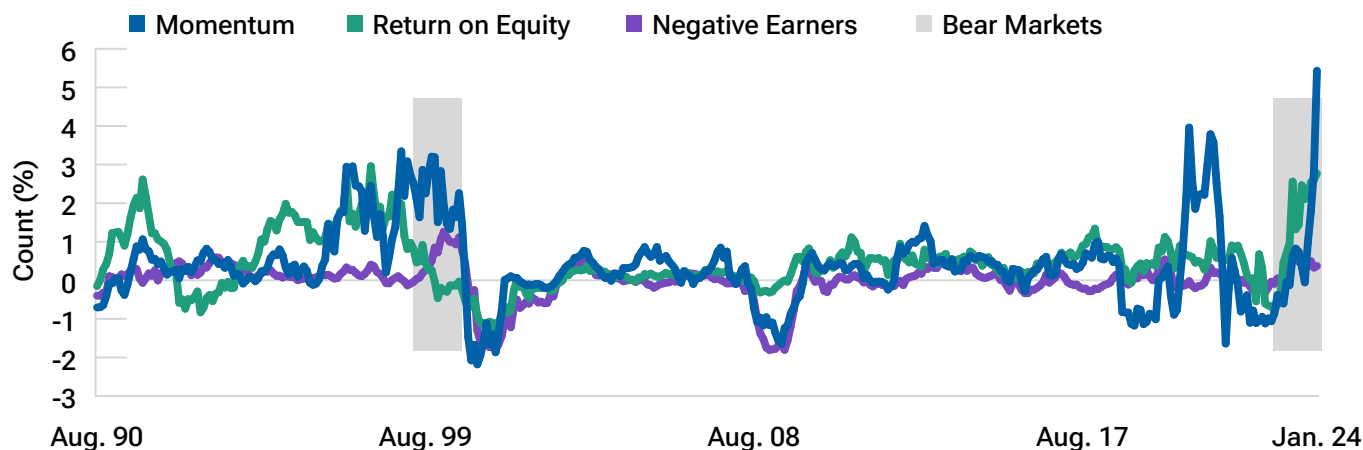
**Past performance is not a reliable indicator of future performance.**

August 1990 – February 2024.

Source: Standard & Poor’s, IDC. Analysis by T. Rowe Price.

**FIGURE 6: Momentum isn’t always the culprit in bear markets (Part II)**

Factor Effectiveness: Junk vs. Quality Momentum



August 1990 – February 2024.

Source: Standard & Poor’s, IDC, Compustat. Analysis by T. Rowe Price.

was correlated with what we might call negative-earners effectiveness more than quality effectiveness. It was a “junk rally.”

The situation is reversed now. **Companies in the momentum basket have strong fundamentals.**

The correlation between momentum and quality effectiveness is reminiscent of 1996–1997, not 1999. Momentum effectiveness is more extreme now than ever before, but to a certain extent, so is the “momentum” in fundamentals. NVIDIA is making *a lot of money*.

Its earnings were up 486% year over year in the fourth quarter.<sup>2</sup> Since its earnings have grown faster than its share price, NVIDIA’s price-to-earnings ratio is *down*, not up.

**Still, we need to watch whether momentum and quality effectiveness start to diverge. That’s when my finger will get closer to the red button.**

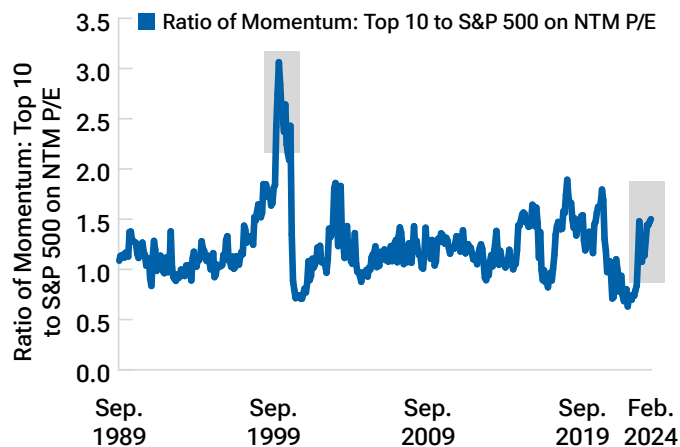
**And no, a market broadening does not necessarily mean a junk rally.** There are plenty of value and small-cap companies with high returns on equity.

<sup>2</sup> NVIDIA earnings: [fortune.com/2024/02/22/nvidia-earnings-growing-faster-than-stock/](https://fortune.com/2024/02/22/nvidia-earnings-growing-faster-than-stock/).



One last argument against the panic narrative:  
The relative valuation of the momentum basket is nowhere near its 1999–2000 level, as shown below.

**FIGURE 7: Ratio of momentum: Top 10 to S&P 500 Next 12 Months Price/Earnings (NTM P/E)**



September 1989—February 2024.  
Source: Standard & Poor’s, IDC, Compustat. Analysis by T. Rowe Price.

**The bottom line is that momentum and market concentration bear watching, but we remain fully invested and diversified between growth and value.**

**Addendum**

Andrew was so fast and precise in running these analyses that we kept peppering him with follow-up questions. Below is a summary of this Q&A. The supporting table follows.

**Q:** What happened to the stocks in the momentum basket when momentum was extreme (looking 12 months forward)?

**A:** The conclusions are similar to what we found for market returns: Momentum stocks did well on average but with a fat left tail when it crashed following junk rallies.

**Q:** Does this analysis reveal anything about value versus growth?

**A:** We didn’t find anything conclusive in the data. Tech stocks sometimes drive momentum, but not always. Out of sample, momentum effectiveness was a relatively weak signal for value versus growth returns.

**Q:** What about small versus large?

**A:** As expected from our analysis of market concentration, large-cap stocks tend to do better out of sample when momentum effectiveness is high.

**Q:** And global versus U.S.?

**A:** When momentum effectiveness is in its top quintile, U.S. stocks tend to outperform non-U.S. stocks. ■

**FIGURE 8: Average 12-month forward performance by momentum effectiveness quintile**

	Market Implications				Implications for Performance of Top 10 Stocks
	S&P 500	Growth vs. Value	Small vs. Large	Global vs. U.S.	Market Cap Weight Returns - S&P 500
Quintile 1	15.41%	1.03%	-2.71%	-8.73%	16.21%
Quintile 2	10.43	0.59	-1.60	-3.02	4.84
Quintile 3	11.73	1.66	-0.82	-2.77	11.06
Quintile 4	11.10	0.16	0.97	-3.34	7.25
Quintile 5	10.53	3.74	1.42	-3.18	-0.16

**Past performance is not a reliable indicator of future performance.**  
August 1990—February 2024.  
Source: Standard & Poor’s, IDC, GPAR. Analysis by T. Rowe Price.  
Please see Additional Disclosures for more information about the sourcing information.

# The U.S. economy has defied recessionary fears. What now?



- The risk of a U.S. recession has notably decreased in 2024, and this is encouraging for equity markets in the near term.
- However, equity and credit risk markets are pricing in a great deal of optimism that the current regime of robust growth and disinflation will persist.
- Given this backdrop, focusing on reasonably priced companies demonstrating durable growth, and supported by solid fundamentals, seems appropriate.



*Justin White*  
Portfolio Manager,  
U.S. All-Cap Opportunities  
Equity Strategy

The U.S. Federal Reserve (Fed) appears to have pulled a rabbit from the hat and orchestrated a much-hoped-for economic soft landing. Despite an extreme campaign of monetary tightening (Figure 1), macroeconomic conditions have meaningfully improved in recent quarters, enabling the Fed to pivot from its aggressive tightening bias and creating a scenario in which inflation has potentially been tamed without triggering a recession. So, what does this mean for U.S. equity investors in 2024 and beyond?

## **Strong stock picking with a particular focus on managing risk**

The risk of recession in 2024 has notably decreased, and this is very encouraging for equity markets in the near term. Real U.S. growth has stayed resilient while inflation has fallen substantially from the generation-high levels of 18 months ago.

Nevertheless, renewed “risk on” confidence warrants caution, particularly when it is undiscerning, as was the case at the end of 2023 with the sharp market rally being led by low-quality/higher-risk stocks. History shows that the outperformance of companies lacking fundamental support has not tended to persist for long. And it proved so again this time, with higher-quality, fundamentally stronger companies assuming market leadership once more since the start of 2024.

The risk of recession in 2024 has notably decreased, and this is very encouraging for equity markets in the near term.

## FIGURE 1: Taming U.S. inflation

Federal Reserve interest rate hikes 2022–2023

Federal Open Market Committee Meeting Date	Rate Change (bps)	Federal Funds Rate
Jul. 26, 2023	+25	5.25% to 5.50%
May 3, 2023	+25	5.00% to 5.25%
Mar. 22, 2023	+25	4.75% to 5.00%
Feb. 1, 2023	+25	4.50% to 4.75%
Dec. 14, 2022	+50	4.25% to 4.50%
Nov. 2, 2022	+75	3.75% to 4.00%
Sep. 21, 2022	+75	3.00% to 3.25%
Jul. 27, 2022	+75	2.25% to 2.50%
Jun. 16, 2022	+75	1.50% to 1.75%
May 5, 2022	+50	0.75% to 1.00%
Mar. 17, 2022	+25	0.25% to 0.50%

As of March 8, 2024.

Source: Refinitiv Eikon. © 2024 Refinitiv. All rights reserved.

In the near term, the path of least resistance for U.S. equities looks like a continuation of the move higher that began in late 2023. However, with a number of ongoing risks to the outlook, sentiment will continue to fluctuate in line with the latest data releases or geopolitical developments. Given this prospective backdrop, good stock picking—targeting quality companies with durable or accelerating growth and reasonable valuations—is vital. Equally important will be managing risk and having the courage to “lean against the wind” should market sentiment become irrational or fundamentally unsupported, as was the case in late 2023.

### A dynamic economy with structural advantages

One risk surrounding the U.S. equity market relates to the current high valuation levels, raising questions as to whether such levels are sustainable. While these concerns are amplified by the elevated valuations of a handful of stocks at the top of the market, it is also true that broader market valuations are currently expensive compared with history and versus major market peers.

However, there are reasons to suggest that the current U.S. valuation premium is not only reasonable, but is likely to continue.

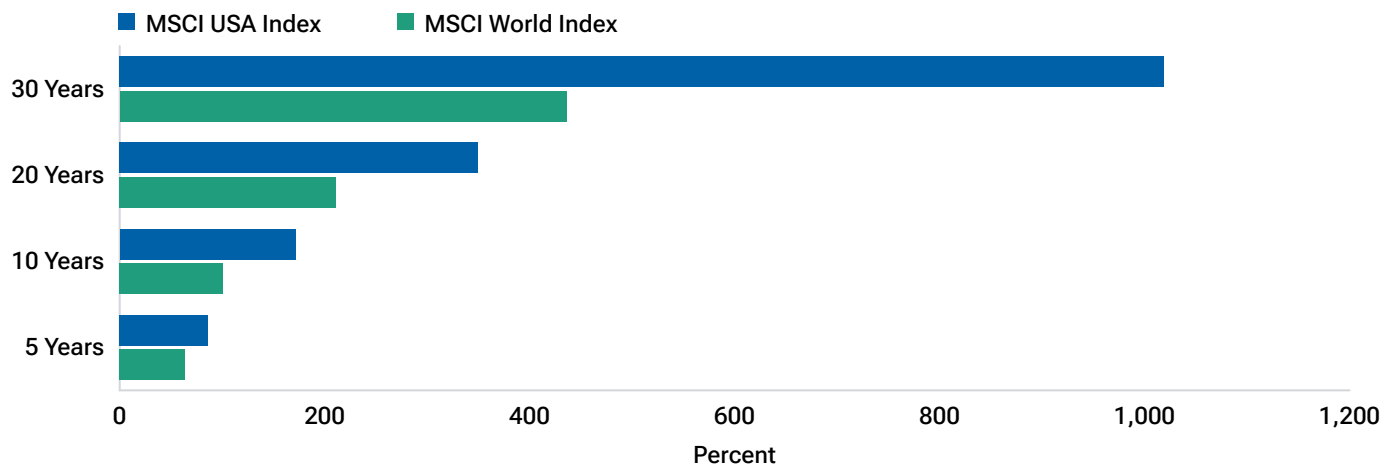
Risk appetite and valuations typically rise when an improving economic outlook enhances investors’ confidence that companies will be able to deliver consistent profit growth. And stocks tend to move higher as long as earnings expectations rise, even if valuations (as indicated by forward price-to-earnings ratios) are elevated. This is the environment we are currently in, with higher valuations being driven by increased earnings expectations.

In terms of longer-term sustainability, the U.S. economy is diverse and dynamic and features certain structural advantages that have helped U.S. equities outperform global stock indices over the last 5-, 10-, 20-, and 30-year periods (Figure 2). With attributes including a large, well-educated, and productive workforce; a culture that embraces capitalism and champions entrepreneurship; and leadership in technological innovation, a higher market valuation may not be quick to revert to long-term averages.

### Key risks to the outlook

Current U.S. data are consistent with an economic soft landing as the most likely near-term scenario. Growth is robust, the labor market is healthy but no longer overheated, corporate earnings growth is positive overall, and the Fed historically has been

**FIGURE 2: U.S. equities have consistently outperformed**  
 MSCI USA Index vs. MSCI World Index comparative returns



As of March 8, 2024.

**Past performance is not a reliable indicator of future performance.**

Source: Refinitiv Eikon, analysis by T. Rowe Price. Cumulative returns. © 2024 Refinitiv. All rights reserved.

inclined toward a more dovish tilt during an election year. However, equity and credit risk markets are pricing in a great deal of optimism that the current regime of robust growth and disinflation will persist. We think there is reason to be a little more cautious. Given the dogged resilience of the economy over the past year in the face of severe monetary tightening, the potential for overheating in 2024 as monetary policy is eased cannot be ruled out. This could lead to stickier, or even reaccelerating, inflation, particularly if oil prices move higher.

...equity and credit risk markets are pricing in a great deal of optimism that the current regime of robust growth and disinflation will persist.

This scenario would not only be detrimental for lower-quality, highly levered companies, it would also have negative implications for longer-duration stocks, including less cash-generative technology companies. These businesses tend to be more reliant on future earnings and so are more vulnerable to any increase in the interest rates used to discount those earnings.

### Targeting durable, reasonably priced growth

While the positivity surrounding the U.S. soft landing is encouraging and would arguably benefit cyclical companies, many of these stocks appear to be pricing in considerable optimism, with seemingly little regard for any potential deterioration in the outlook. We remain more circumspect than this. As such, more reasonably priced companies demonstrating durable/accelerating growth, appear appropriate in the current environment.

Investment opportunities are underpinned by a “four-pillars” framework that considers and scores each company on the basis of quality, market expectations, fundamentals, and valuation. Currently, there appear to be a number of stocks within the energy sector, for example, that fit this reasonably priced growth profile. Similarly, while not all parts of the technology sector look appealing, certain companies geared to the exciting potential of artificial intelligence (AI) appear reasonably priced. These specific investment areas are discussed in more detail below.

### Looking ahead in 2024

The outlook for equities early in 2024 appears considerably brighter than during most of 2023. Growth remains resilient, the labor market is healthy but no longer hot, and the Federal Reserve has already made its easing intentions clear. It is also worth noting that in every election year since WWII where an incumbent has been up for



reelection, U.S. equities have finished the year an average of 13.6%<sup>1</sup> higher than they began. The key risk to this outlook, in our view, is that the economy starts to heat up once more as the year progresses. The oil market could tighten in 2024, services inflation is still elevated, while a too-dovish Fed could also stoke renewed inflationary pressure.

That said, we remain confidently positioned for a prospective “soft landing” environment, leaning toward good-value, higher-growth business with fundamental support. At the same time, we continue to tread carefully around low-quality, highly levered companies (e.g., the stocks that rallied sharply into the end of 2023) and also long duration, noncyclical assets given their heightened sensitivity to any potential rise in inflation. ■

<sup>1</sup> As of March 8, 2024. Source: Refinitiv Eikon, analysis by T. Rowe Price.  
© 2024 Refinitiv. All rights reserved. **Past performance is not a reliable indicator of future performance.**



## Energy

- Near-term energy sector fundamentals look supportive, particularly for upstream producers and services companies.
- Oil inventories are slowly trending lower, and there is the potential that we could see a flattening of or decline in U.S. production in the first half of 2024.
- If the global economy stays resilient, this could put upward pressure on oil prices.
- With energy sector company valuations currently at attractive levels, there may be potential for positive earnings revisions and share price rerating should oil prices begin to rise.



## Artificial Intelligence

- Artificial intelligence is a hugely exciting new technology.
- With so many potential applications and areas of impact, AI looks set to be an incredible productivity enhancer for the global economy over the long term.
- However, as exciting as AI potentially is, we see it more as a sustaining innovation, rather than a disruptive force.
- The transition from PC to mobile is an example of truly disruptive innovation. Different winners emerged for the mobile ecosystem, with new products, business models, etc., than had previously dominated the PC ecosystem. Sustaining innovation, on the other hand, is when the potential winners in the new landscape are the same companies that were dominant previously.
- In the case of AI technology, innovation is being led by incumbent companies—the dominant businesses of today that have accrued significant advantages over the past decade. Thanks to platform supremacy, resource depth, and vast data accumulation, these tech giants effectively own and control the ingredients necessary to develop and deploy large-scale AI.

# China's economy enters a new cycle – unveiling fresh opportunities



China's economy has undergone a deep structural adjustment since 2021, bringing about a paradigm shift in its investment markets. Amid the prevailing market pessimism toward Chinese equities, we believe investors have overlooked the positive changes that are happening within many excellent companies. We believe that breaking away from reliance on traditional approaches and exploring new growth drivers can help investors to capture some of the many new investment opportunities emerging in Chinese stocks.



Wenli Zheng  
Portfolio Manager,  
China Evolution Equity Strategy

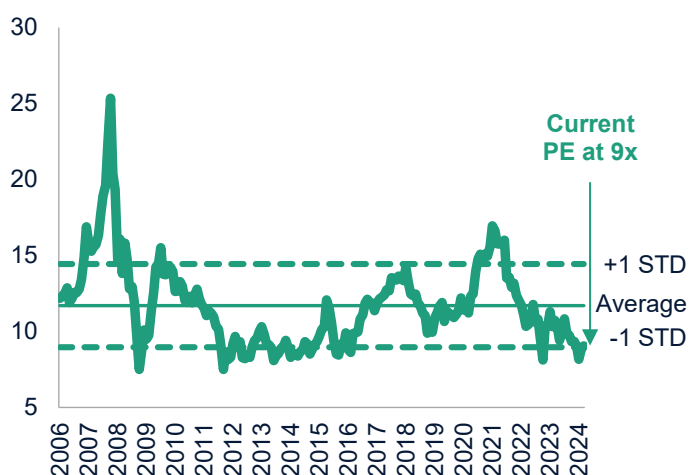
## China's economy enters a new cycle

In recent years, the real estate industry has been in deep contraction while the issue of local government debt pressures has suppressed

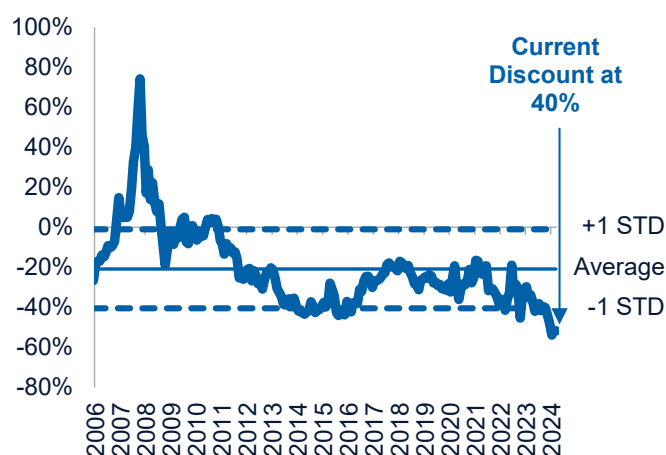
### FIGURE 1: Chinese equities are historically cheap

China market is trading at attractive valuation

MSCI China<sup>1</sup> Forward PE (x)



MSCI China<sup>1</sup> Valuation premium/discount relative to MSCI World<sup>1</sup> (%)



As of March 31, 2024.

There is no guarantee that any forecast made will come to pass.

Source: Financial data and analytics provider FactSet. Copyright 2024 FactSet. All Rights Reserved.

<sup>1</sup> Please see the Additional Disclosures page for additional legal notices and disclaimers.

demand in related sectors. The booming new energy industry from 2021 to 2022 has faced challenges of increased competition and temporary overcapacity. Traditional internet platforms and blue-chip consumer companies have also encountered growth slowdowns.

These headwinds are well known and have been extensively analyzed, and so should be largely discounted in the current market price. Taking the property sector as an example, the government clearly became determined to tackle the issues of excess supply and leverage some two to three years ago. Property broadly defined currently accounts for about 20% of GDP, down from a peak closer to 30%. Housing new starts have declined by 50%-60% over the past two to three years and that has been a very major drag for the overall economy. However, the major part of the decline is likely behind us and on a sequential basis residential property appears to be more stable.

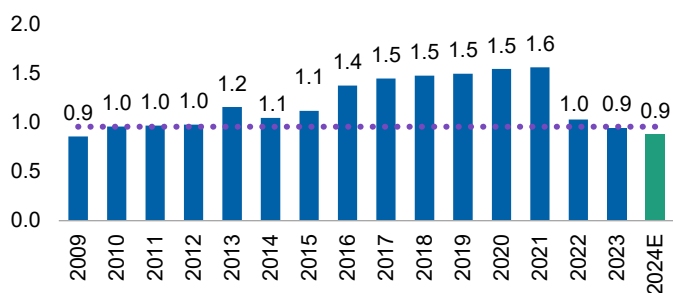
The second area that has been a headwind in recent years is geopolitics and the U.S.-China trade war. Over the past five to six years, China's share of total U.S. imports has declined meaningfully. But at the global level, China's market share of

global trade has actually held up well. While some manufacturing has moved to Vietnam, Mexico, ASEAN etc many high-end components and the more technology intensive products are still supplied by China. In some sectors we are seeing parts of the global supply chain moving out of China, but in the more technology-intensive, higher value-added areas, China's market share has actually been strengthened not diminished.

Against these headwinds, positive changes are also taking place in China today that should not be ignored by investors. From a bottom up perspective, many Chinese companies are continuously exploring new growth drivers through innovation. Chinese companies in aggregate have been enhancing their global competitiveness in high-end manufacturing. Favorable shifts in supply and demand patterns are occurring in certain traditional industries. In every economic cycle, the market leaders tend to change. This requires investors to break free from path dependency, move beyond index-weighted stocks, and delve deeper into the new investment opportunities in areas experiencing positive changes. We believe this structural differentiation will continue, and those investors who can keenly adapt to changing

**FIGURE 2: Deleveraging a headwind, diversification a plus**

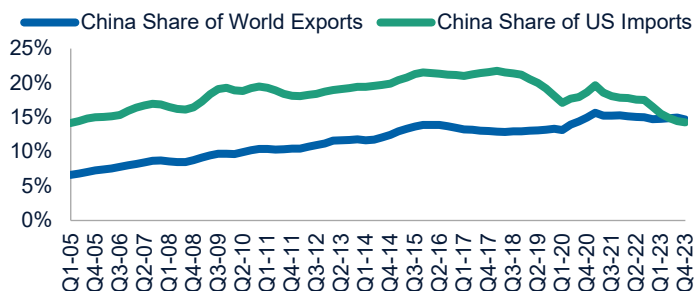
**Residential GFA sold (bn sqm GFA)<sup>2</sup>**



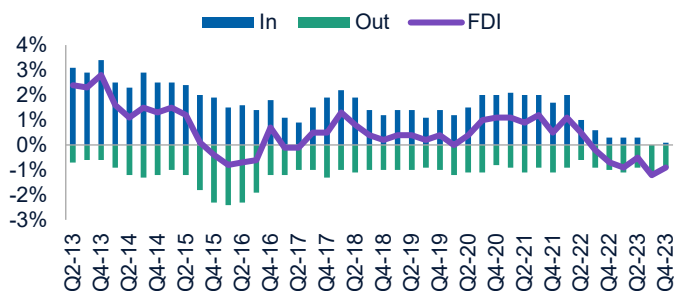
**Property de-stocking (% change compared to 2020)**



**China's share of exports**



**China: FDI (SA, % of GDP)**



As of March 31, 2024.

<sup>2</sup> GFA = Gross Floor Area

FDI = Foreign Direct Investment

SA = Seasonally Adjusted

There is no guarantee that any forecast made will come to pass.

Sources: Financial data and analytics provider FactSet. Copyright 2024 FactSet. All Rights Reserved. Citi Research. Wind, China Customs, NBS.

dynamics and make informed stock selections are more likely to achieve desirable investment returns.

### Rise of new growth leaders

Chinese internet platforms, blue-chip consumer stocks, and the healthcare sector have previously brought substantial returns to investors. These companies retain prominent positions in equity indices and investor portfolios. However, as these companies have already expanded greatly in size and face changing external environments, we believe many are entering a stage of growth deceleration. Investors need to reassess the future prospects and valuations of what until now have been some of the most popular Chinese growth stocks.

Beyond traditional blue-chip stocks, new growth leaders are emerging. Companies leading in areas with lower penetration rates for example, online recruitment and online music are experiencing rapid growth through technological innovation. Leading companies in consumer sectors related to services and experiences, such as hotels and shopping centers, benefit from both market expansion and increased market concentration. Moreover, the electrification revolution is not only driving the automotive industry but is also rapidly improving the competitiveness of Chinese companies in sectors like engineering machinery, excavators, and landscaping equipment. These

structural trends are expected to continue for the next three to five years and are worthy of close attention from investors.

### Traditional industries enter an upward cycle

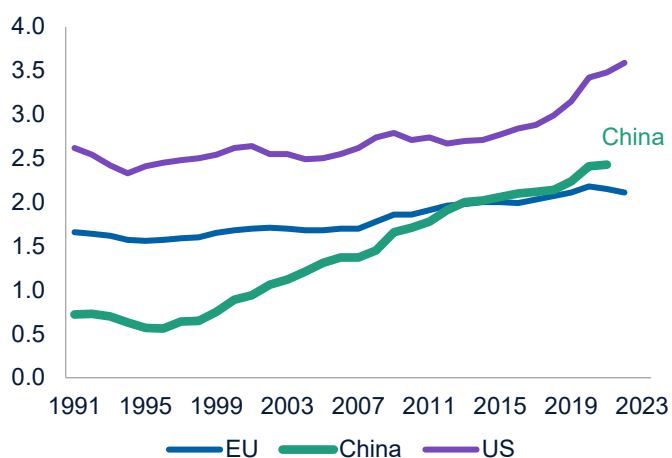
Many traditional industries in China have experienced prolonged downward cycles over the past 10 to 15 years. As supply continues to contract, supply-demand rebalancing is gradually occurring in certain sectors. When demand recovers and supply bottlenecks emerge, relevant companies regain some of their bargaining power and are poised to enter a profit growth cycle lasting several years. We can observe these favourable supply-demand dynamics in sectors such as shipbuilding, offshore oilfield services, aircraft leasing, and industrial metals (copper and aluminium).

Simultaneously, we believe that Chinese industries such as railway equipment, ultra-high-voltage power grids, and nuclear power will also accelerate their growth in the coming years. These sectors experienced a trough in the past 3 to 5 years but are now being propelled by the growth in end-market demand, initiating new investment cycles. Equipment suppliers in these areas benefit from high industry concentration and sufficient reserve capacity. The recovery in demand is expected to significantly improve profitability and shareholder returns.

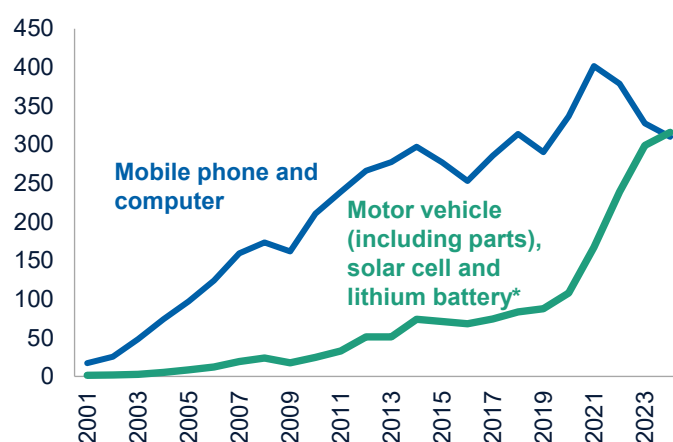
**FIGURE 3: Areas of opportunity: industrial upgrading**

Rising R&D spend; surge "new industry" exports

#### R&D spending (%/GDP)



#### Export value (USD bn)



\*Solar cell data is not available before 2012, while lithium

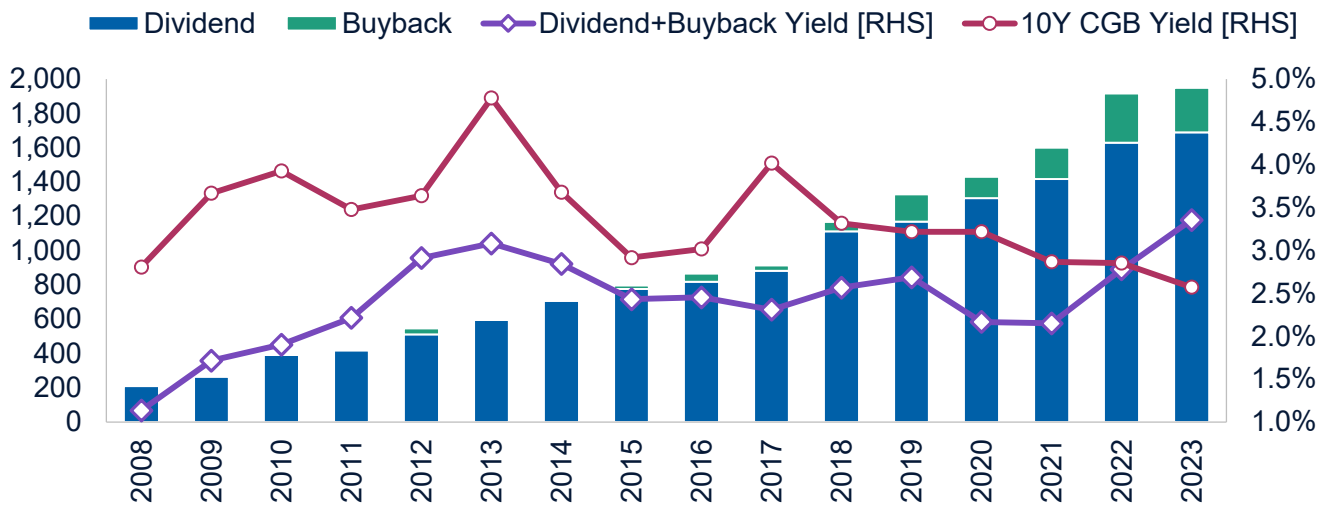
As of March 31, 2024.

Actual outcomes may differ materially from estimates. Estimates are subject to change. Source: General Administration of Customs, Morgan Stanley Research Estimates (E).



**FIGURE 4: Chinese companies are paying a higher dividend**

Use of cash for MSCI China companies (Renminbi billion)



As of April 23, 2024.

Source: FactSet, Goldman Sachs Global Investment Research.

After experiencing a prolonged period of downturn, these traditional sectors have temporarily fallen off investors' radar screens. Consequently, the market may not fully recognize the positive changes in their fundamentals. We believe that with accelerated growth in demand and improved profitability, the investment value of these sectors is likely to be reevaluated.

**Improved shareholder returns**

Another encouraging development in the Chinese market is the significant improvement in shareholder returns in recent years. Dividends and share repurchases for listed Chinese companies on the Hong Kong Stock Exchange and US-listed Chinese companies with a market capitalization exceeding USD1 billion<sup>3</sup> have increased by over 30% compared to 2019. The cash return rate (dividends or repurchases divided by market capitalization) for overseas-listed Chinese companies is as high as 4.1%, surpassing mainstream markets such as the United States and Japan.<sup>4</sup>

The increased focus on shareholder returns and dividends by state-owned enterprises is a crucial factor driving the improvement in shareholder returns. However, fundamental factors also play a vital role. State-owned enterprises in various sectors such as energy, telecommunications, and transportation have passed through rapid

expansion investment cycles. With declining capital expenditures and continued stable cash flows, these companies are positioned to enhance shareholder returns.

The improvement in shareholder returns is not limited to state-owned enterprises. Internet companies, including small and medium-sized enterprises, have also achieved remarkable growth in returns. Dividends for listed internet companies in 2023 increased by over 130% compared to 2022, with the total amount of dividends and repurchases reaching USD33 billion.<sup>5</sup> With the stock valuations of many sectors at low levels, the sustained improvement in cash returns presents an effective path for valuation reassessment and value realization.

**Conclusion**

Although China's macro-economic outlook still faces challenges in terms of growth transition and external geopolitical factors, we think investors can still find attractive investment opportunities by identifying new growth leaders, reassessing traditional industries, and considering companies with improving shareholder returns. It is important to stay informed about market dynamics, adapt to changing trends, and conduct thorough company research in order to make successful investment decisions in the Chinese equity market.

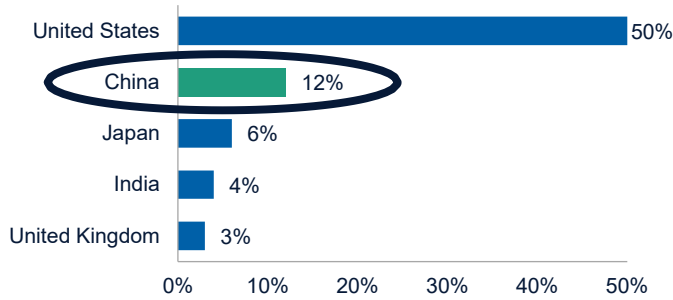
<sup>3</sup> As of March 31, 2024. Source: Goldman Sachs Global Investment Research.

<sup>4</sup> As of March 31, 2024. Source: Goldman Sachs Global Investment Research.

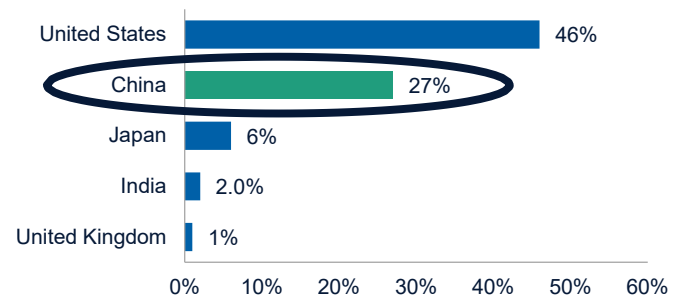
<sup>5</sup> As of March 31, 2024. Source: Goldman Sachs Global Investment Research.

**FIGURE 5: China equity market under-represented and unloved**  
 Chinese stocks structurally underweight in global indices

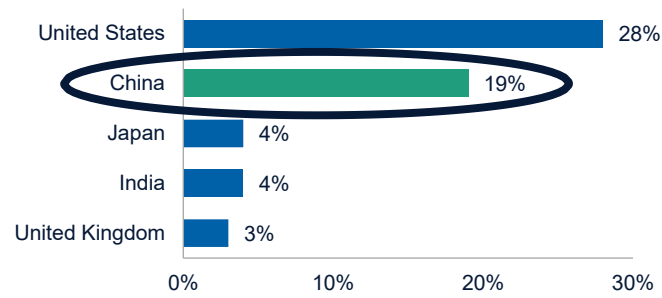
**Global equity market cap distribution**



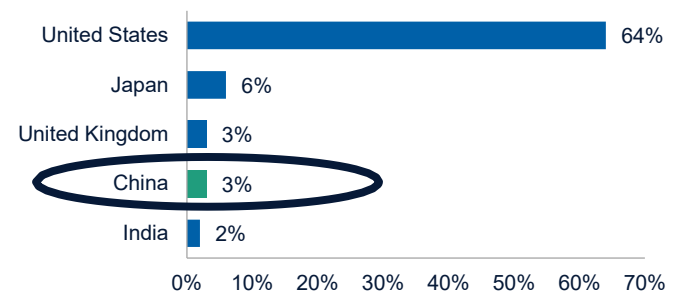
**Global equity turnover distribution**



**Global GDP distribution**



**MSCI AC world index weight**



As of 31 March 2024.

Sources: Goldman Sachs, MSCI, World Bank/Haver Analytics. Financial data and analytics provider FactSet. Copyright 2024 FactSet. All Rights Reserved. Please see the Additional Disclosures page for additional legal notices and disclaimers.

With regard to the market outlook for China, what I am most excited about as a portfolio manager is not how fast GDP is growing, but what a deep, liquid market it continues to be, with over 6,000 listed companies with a total market cap of over USD10 trillion. More importantly, it is one of the least efficient stock markets globally, with retail investors accounting for 70% of A-share trading volume with an average holding period of less than 20 days.<sup>6</sup> Inefficiencies create opportunities and from a bottom-up perspective, we are finding many attractive investment opportunities in China

in 2024. The proof of the pudding is, of course, in the eating. If I look at my portfolio today, I see 45 to 50 holdings with an average PE of 13x and consensus 2024 EPS growth close to 20% with an ROIC (return on invested capital) of 28% it makes for a high quality, high growth portfolio trading on very attractive valuations.<sup>7</sup> The current investor pessimism toward China is already fading, which reinforces my conviction that this China Evolution Equity Strategy is well positioned to provide good potential long-term returns over time. ■

<sup>6</sup> As of March 31, 2024. Source: Goldman Sachs Global Investment Research.

<sup>7</sup> As of April 23, 2024. Source: T. Rowe Price.

---

# Meet Haider Ali

An interview with Haider Ali

Associate Portfolio Manager, Emerging Markets Discovery Equity Strategy.



*Haider Ali  
Associate Portfolio  
Manager, Emerging  
Markets Discovery  
Equity Strategy*

## BIOGRAPHY

### Career

Haider Ali is Associate Portfolio Manager for the Emerging Markets Discovery Equity Strategy, supporting Ernest Yeung, the Portfolio Manager, on all aspects of the investment process. He is a vice president of T. Rowe Price Hong Kong Ltd.

Haider has 28 years of investment experience, 14 of which have been with T. Rowe Price. Prior to joining T. Rowe Price in 2010, he was an analyst with Credit Suisse Securities for five years. He also worked for seven years in investment banking at J.P. Morgan in Karachi and Hong Kong.

**1995** – Haider joined the investment banking team of Jardine Fleming (later J.P. Morgan) in Karachi, later moving to Hong Kong.

**2005 – 2010** Joined Credit Suisse as Equity Analyst in Hong Kong later moving to Jakarta and then Singapore.

**2010 – 2018** Asia ex-Japan Equity Research Analyst covering energy, resources, and materials stocks at T. Rowe Price.

**2018 – 2024** Associate Portfolio Manager for the Emerging Markets Discovery Equity Strategy based in Hong Kong.

### Professional & Education

Haider earned a B.Sc. in Physics and Mathematics from Forman Christian College in Lahore, Pakistan, and an M.B.A. from Lahore University of Management Sciences.

## Haider, can you begin by telling us about your background. How did you come to pursue a career in asset management and what first attracted you to T. Rowe Price?

I joined T. Rowe Price in May 2010 as an analyst covering the energy, resources, and materials sectors in the Asia Pacific region. I took the scenic route to asset management, having worked for over 28 years in international capital markets of which about half has been in asset management. I started my career as a sell-side analyst before joining J.P. Morgan as an investment banker in Karachi, Pakistan and then moved to Hong Kong. Immediately prior to T. Rowe Price I worked as an equity analyst at Credit Suisse. So I have had the good fortune to look at markets from different angles and cycles as I lived and worked in Karachi, Jakarta, Singapore, and Hong Kong.

One of the things which attracted me to T. Rowe Price is that it is one of the few truly globally-scaled active managers. Other differentiating factors were T Rowe Price's long investment horizon and its strong focus on putting clients first. As an independent investment advisor, T. Rowe Price doesn't have any potential distractions or conflicts of interests when it comes to providing the best investment advice to our clients. After joining, I learned that the company also has a very collegial environment. The firm has a strong corporate culture of mutual respect and investment rigor, which is important to anyone developing their career in asset management over the longer term. Finally, as someone working and living in Asia, it's important for me to work for a firm which genuinely sees itself as international and which continues to invest in and grow its business in the Asia Pacific region.

## Can you tell us about your role at T. Rowe Price as associate portfolio manager for T. Rowe Price's Emerging Markets Discovery Equity Strategy?

The EM Discovery Strategy was founded by Ernest Yeung in September 2015 and I joined as Associate Portfolio Manager (APM) three years later in September 2018. Over the years as we built this strategy, we have also developed and refined the APM's role in EM Discovery. At its heart, the job is to help Ernest manage the strategy. I generate investment ideas, work with Ernest on portfolio construction, position sizing, work with our research analysts on stock ideas, liaise with our clients, participate in investment forums, literally anything and everything that can extend Ernest's reach and



Haider competing in the Paris Marathon

can help deliver the best service and returns for our clients.

On a daily basis, the majority of my time is spent looking for new investment opportunities. This involves a wide range of activities such as meeting companies and “kicking the tyres,” site visits, market visits, assessing corporate business models and future prospects. What’s key to our process is understanding what’s changing in a company’s earning power and gauging whether it is recognized by the market. We believe that the market - or shall we say “mainstream investors” - can sometimes be very narrowly focused on the high quality / high growth basket. There is a large universe of “average” quality / growth companies, some of which may be getting better over time. But that might not be reflected in their share price because of the market’s narrow focus. That is the sweet spot for EM Discovery. Finding these forgotten companies or dislocated stocks is a resource intensive bottom-up activity which takes up most of my time.

## **EM today dance more to their own beat and are less of a beta play on global growth. How much have investment opportunities widened as a result?**

One of the things that makes emerging markets so interesting is that they are very diverse. You have about 24 markets that are at different stages of economic development, with different resource endowments, demographics, and growth potential. As these economies grow and open up to international capital, the investment universe for the EM portfolio manager has never been deeper, wider, or more promising than it is today.

And EM is always evolving. For example, several EM economies are undertaking key economic and financial reforms which over time will further deepen and broaden the EM universe. Let’s not forget that just 30 years or so ago China was a far more closed economy, with private capital accounting for a much smaller share of the economy. At one point, Malaysia used to have the largest weight in EM benchmark indices. Today, Vietnam is opening up, Korea is introducing reforms to improve corporate governance and shareholder friendliness, India is forging a path forward to greater economic prosperity, and Argentina may be returning to international capital markets. There’s never a dull moment in EM!

## **With Emerging Markets so geographically and structurally diverse, accounting for around 50% of the global economy, how do you decide where to focus your bottom-up research efforts?**

Great question, so yes, if there is a good investment opportunity in, say, Peru then how are we going to learn about it? There are two points there. First and foremost, T. Rowe Price has a truly global research platform with coverage of all major emerging markets - not just for equities, but also for currencies, and sovereign/corporate credit. We believe, we have one of the largest, if not the largest, and most experienced teams of EM buy-side analysts globally. Our research platform is also global, meaning that it serves all portfolio strategies. There are no internal silos or competition for resources. We truly share ideas not just between analysts and PMs but also across portfolios. That is our culture. This combination of broad analyst coverage and experienced regional PMs are our secret sauce for sourcing ideas; a process that we believe cannot be easily replicated.



---

The second point is that markets are also providing us with input and guidance. What do I mean by this? With our contrarian approach, we are continually visiting and revisiting out-of-favour sectors and markets. If a market is not seen as a top investment destination, then we want to understand why. If a stock chart is flatlining then we want to learn more about it. So to some extent, we let the market guide us.

**Lastly, Haider, can you please share with us some of your personal interests. How do you usually relax outside work?**

I have a young family with a 14-year-old son and 10-year-old daughter so spending time with family takes priority. We are truly blessed to be living in Hong Kong which in my view is unique amongst urban metropolises because of its close proximity to nature parks and reserves. Within minutes, you can move from a dense urban environment to a

quiet park or a trail with no trace of the city (apart from some gorgeous views). So as a family, we have been taking advantage of the hiking trails around Hong Kong. My son is a budding birder and my daughter is a budding environmentalist. I hope by exploring Hong Kong trails, they will deepen their connection with this city and their passions.

I'm also a distance runner, something that I discovered relatively later in life. My favourite distance is a half-marathon though I have also run marathons in Hong Kong, Paris and New York. I like distance and endurance events over shorter speed races because you get to enjoy the journey. An endurance run demands your focus and full attention, not just during the event but also when training and preparing for it. Hong Kong also offers numerous trail runs throughout the year which are a terrific way to explore the island. ■

# ABOUT US

T. Rowe Price is a global independent investment management firm. We are solely focused on long-term results for our clients, managing a full range of investment strategies in multiple asset classes. For over 80 years, our consistent investment approach has helped us focus on promising opportunities while at the same time carefully managing risk.

We established our Tokyo office and Hong Kong office in 1982 and 1987 respectively, and since then we have expanded our business by operating in Australia and Singapore. Today we have more than 200 associates based locally.

## INDEPENDENT ASSET MANAGER

Our sole business is managing our clients' interests

## ALIGNMENT OF INTERESTS

We are a publicly listed company with substantial employee ownership

## FINANCIAL STRENGTH

We carry no outstanding long-term debt and maintain substantial cash reserves

## GLOBAL EXPERTISE

Continually growing global team of investment professionals

Founded in

**Baltimore, USA in 1937**

**USD1.54**

trillion in assets under management<sup>1,2</sup>

**801**

investment professionals worldwide<sup>3</sup>

Local presence in

**17**

markets

# CONTACT US

To learn more about our capabilities, please contact us directly:



**DARREN HALL**  
Head of Distribution  
Australia and New Zealand  
+61 421 382 850  
darren.hall@troweprice.com



**CRAIG HURT**  
Head of Institutional  
Australia and New Zealand  
+61 (0)2 8667 5754  
craig.hurt@troweprice.com



**JONATHON ROSS**  
Head of Intermediary  
Australia and New Zealand  
+61 408 669 295  
jonathon.ross@troweprice.com



**CASSANDRA CROWE**  
Head of Consultants  
Australia and New Zealand  
+61 477 749 090  
cassandra.crowe@troweprice.com



**DAVID FRAZER**  
Relationship Management  
Australia & New Zealand  
+61 400 280 164  
david.frazer@troweprice.com



**SUZANNE HA**  
Relationship Management Analyst  
+61 474 923 070  
Suzanne.ha@troweprice.com

<sup>1</sup> Firmwide preliminary AUM includes assets managed by T. Rowe Price Associates, Inc. and its investment advisory affiliates.

<sup>2</sup> As at 31 March 2024.

<sup>3</sup> As at 31 March 2024.

---

**Additional Disclosures**

Bloomberg Finance L.P.

"Bloomberg®" and the Bloomberg Indices are service marks of Bloomberg Finance L.P. and its affiliates, including Bloomberg Index Services Limited ("BISL"), the administrator of the index (collectively, "Bloomberg") and have been licensed for use for certain purposes by T. Rowe Price. Bloomberg is not affiliated with T. Rowe Price, and Bloomberg does not approve, endorse, review, or recommend this Product. Bloomberg does not guarantee the timeliness, accurateness, or completeness of any data or information relating to this product.

**J.P. Morgan** - Information has been obtained from sources believed to be reliable but J.P. Morgan does not warrant its completeness or accuracy. The index is used with permission. The Index may not be copied, used, or distributed without J.P. Morgan's prior written approval. Copyright © 2023, J.P. Morgan Chase & Co. All rights reserved.

CFA® and Chartered Financial Analyst® are registered trademarks owned by CFA Institute.

Copyright © 2024, S&P Global Market Intelligence (and its affiliates, as applicable). Reproduction of any information, data or material, including ratings ("Content") in any form is prohibited except with the prior written permission of the relevant party. Such party, its affiliates and suppliers ("Content Providers") do not guarantee the accuracy, adequacy, completeness, timeliness or availability of any Content and are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, or for the results obtained from the use of such Content. In no event shall Content Providers be liable for any damages, costs, expenses, legal fees, or losses (including lost income or lost profit and opportunity costs) in connection with any use of the Content. A reference to a particular investment or security, a rating or any observation concerning an investment that is part of the Content is not a recommendation to buy, sell or hold such investment or security, does not address the suitability of an investment or security and should not be relied on as investment advice. Credit ratings are statements of opinions and are not statements of fact.

The S&P indices are a product of S&P Dow Jones Indices LLC, a division of S&P Global, or its affiliates ("SPDJI"), and has been licensed for use by T. Rowe Price. Standard & Poor's® and S&P® are registered trademarks of Standard & Poor's Financial Services LLC, a division of S&P Global ("S&P"); Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC ("Dow Jones").

## IMPORTANT INFORMATION

Where securities are mentioned, the specific securities identified and described are for informational purposes only and do not represent recommendations.

This material is being furnished for general informational purposes only. The material does not constitute or undertake to give advice of any nature, including fiduciary investment advice, nor is it intended to serve as the primary basis for an investment decision. Prospective investors are recommended to seek independent legal, financial and tax advice before making any investment decision. T. Rowe Price group of companies including T. Rowe Price Associates, Inc. and/or its affiliates receive revenue from T. Rowe Price investment products and services. **Past performance is not a reliable indicator of future performance.** The value of an investment and any income from it can go down as well as up. Investors may get back less than the amount invested.

The material does not constitute a distribution, an offer, an invitation, a personal or general recommendation or solicitation to sell or buy any securities in any jurisdiction or to conduct any particular investment activity. The material has not been reviewed by any regulatory authority in any jurisdiction.

Information and opinions presented have been obtained or derived from sources believed to be reliable and current; however, we cannot guarantee the sources' accuracy or completeness. There is no guarantee that any forecasts made will come to pass. The views contained herein are as of the date noted on the material and are subject to change without notice; these views may differ from those of other T. Rowe Price group companies and/or associates. Under no circumstances should the material, in whole or in part be copied or redistributed without consent from T. Rowe Price.

The material is not intended for use by persons in jurisdictions which prohibit or restrict the distribution of the material and in certain countries the material is provided upon specific request. It is not intended for distribution to retail investors in any jurisdiction.

**Australia** — Issued by T. Rowe Price Australia Limited (ABN: 13 620 668 895 and AFSL: 503741), Level 28, Governor Phillip Tower, 1 Farrer Place, Sydney NSW 2000, Australia. For Wholesale Clients only.

**Brunei** — This material can only be delivered to certain specific institutional investors for informational purpose only. Any strategy and/or any products associated with the strategy discussed herein has not been authorised for distribution in Brunei. No distribution of this material to any member of the public in Brunei is permitted.

**Mainland China** — This material is provided to qualified investors only. No invitation to offer, or offer for, or sale of, the shares will be made in the mainland of the People's Republic of China ("Mainland China", not including the Hong Kong or Macau Special Administrative Regions or Taiwan) or by any means that would be deemed public under the laws of the Mainland China. The information relating to the strategy contained in this material has not been submitted to or approved by the China Securities Regulatory Commission or any other relevant governmental authority in the Mainland China. The strategy and/or any product associated with the strategy may only be offered or sold to investors in the Mainland China that are expressly authorized under the laws and regulations of the Mainland China to buy and sell securities denominated in a currency other than the Renminbi (or RMB), which is the official currency of the Mainland China. Potential investors who are resident in the Mainland China are responsible for obtaining the required approvals from all relevant government authorities in the Mainland China, including, but not limited to, the State Administration of Foreign Exchange, before purchasing the shares. This document further does not constitute any securities or investment advice to citizens of the Mainland China, or nationals with permanent residence in the Mainland China, or to any corporation, partnership, or other entity incorporated or established in the Mainland China.

**Hong Kong** — Issued in Hong Kong by T. Rowe Price Hong Kong Limited, 6/F, Chater House, 8 Connaught Road Central, Hong Kong. T. Rowe Price Hong Kong Limited is licensed and regulated by the Securities & Futures Commission. For Professional Investors only.

**Indonesia** — This material is intended to be used only by the designated recipient to whom T. Rowe Price delivered; it is for institutional use only. Under no circumstances should the material, in whole or in part, be copied, redistributed or shared, in any medium, without prior written consent from T. Rowe Price. No distribution of this material to members of the public in any jurisdiction is permitted.

**Korea** — This material is intended only to Qualified Professional Investors. Not for further distribution.

**Malaysia** — This material can only be delivered to specific institutional investor upon specific and unsolicited request. This material is solely for institutional use and for informational purposes only. This material does not provide investment advice or an offering to make, or an inducement or attempted inducement of any person to enter into or to offer to enter into, an agreement for or with a view to acquiring, disposing of, subscribing for or underwriting securities. Nothing in this material shall be considered a making available of, solicitation to buy, an offering for subscription or purchase or an invitation to subscribe for or purchase any securities, or any other product or service, to any person in any jurisdiction where such offer, solicitation, purchase or sale would be unlawful under the laws of Malaysia.

**New Zealand** — Issued by T. Rowe Price Australia Limited (ABN: 13 620 668 895 and AFSL: 503741), Level 28, Governor Phillip Tower, 1 Farrer Place, Sydney NSW 2000, Australia. No Interests are offered to the public. Accordingly, the Interests may not, directly or indirectly, be offered, sold or delivered in New Zealand, nor may any offering document or advertisement in relation to any offer of the Interests be distributed in New Zealand, other than in circumstances where there is no contravention of the Financial Markets Conduct Act 2013.

**Philippines** — ANY STRATEGY AND/OR ANY SECURITIES ASSOCIATED WITH THE STRATEGY BEING DISCUSSED HEREIN HAVE NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION UNDER THE SECURITIES REGULATION CODE. ANY FUTURE OFFER OR SALE OF THE STRATEGY AND/OR ANY SECURITIES IS SUBJECT TO REGISTRATION REQUIREMENTS UNDER THE CODE, UNLESS SUCH OFFER OR SALE QUALIFIES AS AN EXEMPT TRANSACTION.

**Singapore** — Issued by T. Rowe Price Singapore Private Ltd. (UEN: 201021137E), 501 Orchard Rd, #10-02 Wheelock Place, Singapore 238880. T. Rowe Price Singapore Private Ltd. is licensed and regulated by the Monetary Authority of Singapore. For Institutional and Accredited Investors only.

**Taiwan** — This does not provide investment advice or recommendations. Nothing in this material shall be considered a solicitation to buy, or an offer to sell, a security, or any other product or service, to any person in the Republic of China.

**Thailand** — This material has not been and will not be filed with or approved by the Securities Exchange Commission of Thailand or any other regulatory authority in Thailand. The material is provided solely to "institutional investors" as defined under relevant Thai laws and regulations. No distribution of this material to any member of the public in Thailand is permitted. Nothing in this material shall be considered a provision of service, or a solicitation to buy, or an offer to sell, a security, or any other product or service, to any person where such provision, offer, solicitation, purchase or sale would be unlawful under relevant Thai laws and regulations.

© 2024 T. Rowe Price. All Rights Reserved. T. Rowe Price, INVEST WITH CONFIDENCE, and the Bighorn Sheep design are, collectively and/or apart, trademarks of T. Rowe Price Group, Inc.