William Blair

GLOBAL EQUITY/
EMERGING MARKETS DEBT

Investment Management
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Emerging Markets:
A Great Awakening

This year is shaping up to be one of transition across emerging markets (EMs). As COVID restrictions ease, many EMs are reopening and economic activity is rising. China continues to advance its Common Prosperity initiative while transitioning into accommodative monetary policy. Meanwhile, inflation looms, and central banks in some developed markets have begun tightening. Now, two years after the virus emerged, we share our thoughts about how EM equity and debt are likely to fare in this reawakening.

January 2022

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Introduction

Stephanie G. Braming, CFA, Partner

As we entered 2021, much of the world celebrated human ingenuity and unprecedented global collaboration to develop COVID-19 vaccines, which promised to reduce severe lockdowns and promote a return to normalcy.

While 4.3 billion people had received at least one dose of a vaccine by year-end, uneven reopenings and supply-chain disruptions combined with labor shortages increased inflationary pressures. The inflationary impulse has remained stubbornly persistent and is expected to result in continued near-term tightening by developed market central banks. This dampens near-term expectations for EM growth and returns.

At the same time, China—the world's second largest economy—is focused on Common Prosperity, which has affected corporate valuations across a number of industries and has altered risk, return, and growth expectations.

Looking forward, there are changing growth drivers resulting from the global pandemic, shifting consumer preferences, and changing country dynamics, all of which are supported by technological advances. At the same time, existing trends in digitalization and stakeholder capitalism are accelerating and changing the competitive dynamic in emerging and developed markets alike.

In the following pages, our teams explore these ideas, as well as near-term opportunities and risks for EM equity and debt, with a specific focus on China.

> "While EMs are generally viewed monolithically, for discerning investors there is a wide array of opportunities from which to choose."
>
> **Stephanie G. Braming, CFA, Partner**

Introduction (continued)

While EMs are generally viewed monolithically, for discerning investors there is a wide array of opportunities from which to choose. Today, EM companies represent more than one-third of firms delivering the highest sustainable value creation globally, well above weightings in global equity benchmarks. In addition, while interest rates are expected to increase in many developed economies, EM debt spreads remain higher than normal and are particularly attractive relative to a number of fixed-income alternatives globally.

With this backdrop, we believe that there is a compelling opportunity for investors, as we believe current EM headwinds should ameliorate through the second half of 2022, given low market expectations, supportive valuations, and solid fundamentals.

Best,

Stephanie G. Braming, CFA, Partner
GLOBAL HEAD OF INVESTMENT MANAGEMENT

> "EM companies represent more than one-third of firms delivering the highest sustainable value creation globally, well above weightings in global equity benchmarks."
>
> **Stephanie G. Braming, CFA, Partner**

Macro | "Slowflation" to Expansion

Olga Bitel, Partner
GLOBAL STRATEGIST

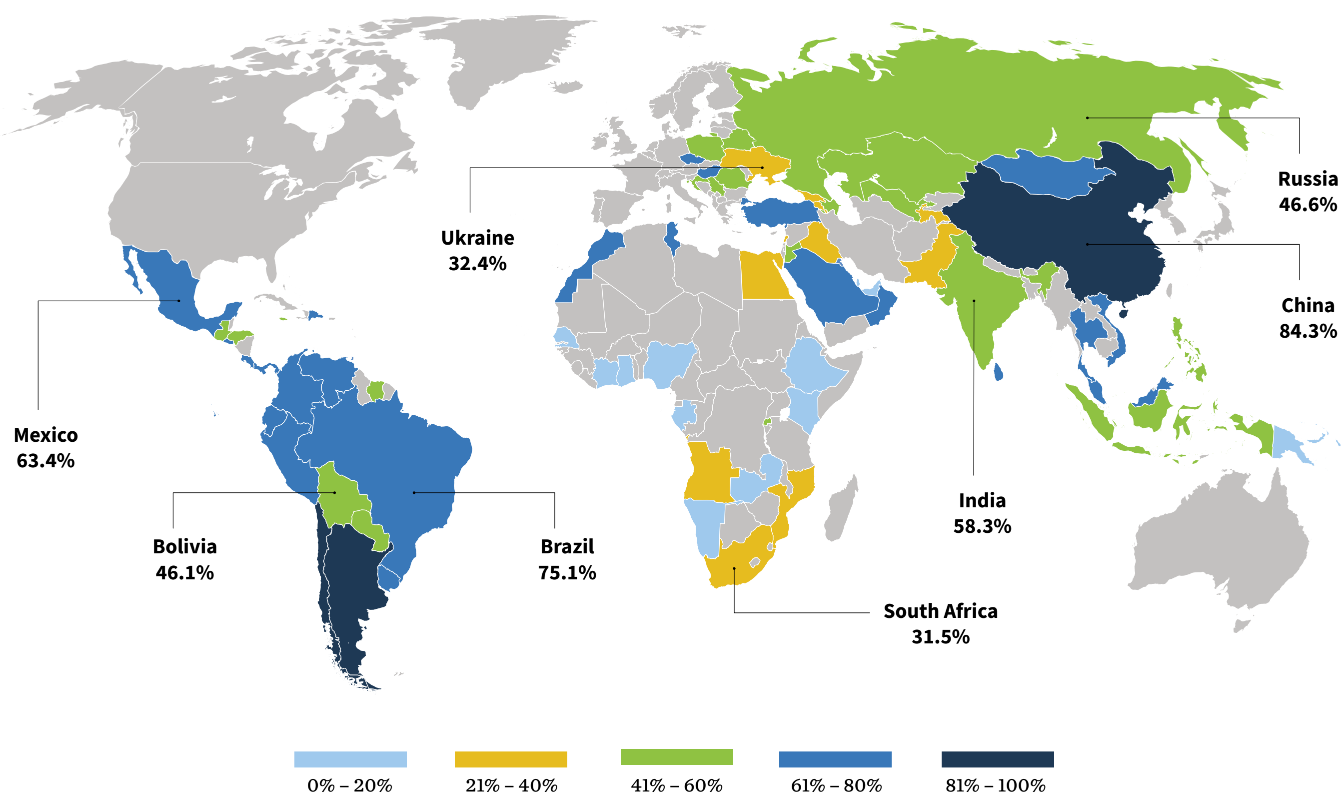
By all accounts, 2021 was a good year, economically speaking. Production and distribution challenges of the mass vaccination drive are largely resolved. The world's largest economies are firing on nearly all cylinders. Yet the latest COVID-19 variant suggests that the global pandemic is not quite in the rearview mirror, so the associated economic disruption and the resultant inflationary pressures may persist well into 2022.

As of early December 2021, more than half of the world's population—or roughly 4.3 billion people—had received at least one dose of the various COVID-19 vaccines. Annualized COVID-19 vaccine production ramped up from fewer than 100 million doses in January 2021 to more than 12 billion doses by December 2021. This extraordinary achievement resulted from close scientific, technical, and financial collaboration across companies; the effort defied national borders and spanned the globe. It suggests that requiems for globalization may be premature.

EXHIBIT 1

COVID Vaccination Rates in EMs

The percent of the population that has some form of vaccination against COVID-19 varies dramatically across EMs. As vaccine rollouts become more widespread in 2022, the narrowing of the vaccination gap—both between emerging and developed markets and among individual EMs—should lead to more broad-based economic growth across EMs.



Source: World Health Organization and William Blair, as of December 2021.

EM Growth Depends on Three Developed Demand Centers

The vast majority of EMs are small, open economies whose fortunes depend on what happens in the world's three principal demand centers: the United States, Europe, and China. Put another way, EMs are a high-beta play on developed market growth. Interest rates, exchange rates, and commodity prices are largely set by the economic and liquidity conditions in the three global demand centers. At the same time, these prices—interest rates, exchange rates, and commodity prices—set binding constraints on economic outcomes in most EMs.

The global economy began to recover some of its operating momentum. Economic recovery was decidedly V-shaped, in sharp contrast to our experience after the Global Financial Crisis (GFC). By the middle of the year, both sides of the Atlantic were growing at double-digit rates in year-over-year terms. The Atlanta Federal Reserve (Fed) nowcast model currently estimates that the U.S. economy is expanding at a 6.8% quarter-over-quarter annualized rate.

The emergence of the Omicron variant in late November reminded us that the pandemic is not quite in the last innings, to borrow a baseball analogy. More supply-chain disruptions may lie ahead, and the associated inflationary pressures will likely persist this year. So what do all these developments purport for the global economy in 2022?

The world economy most likely entered 2022 with strong growth momentum, which will likely dissipate as the major economies near their pre-COVID trajectory. Once the pandemic is behind us, unpredictable supply disruptions should recede, and the current bout of inflation will likely subside. "Slowflation" may make for a tougher backdrop for equities, in contrast to the strong returns equities provided as the "mother of all recoveries" unfolded.

Our expectations for output growth and inflation in 2022 rest on two key assumptions. First, we expect global vaccination efforts to reach near-universal levels by the second half of 2022 so that end-to-end supply chains can resume working as intended. Second, we assume structural growth decelerates to pre-pandemic trends as economies approach the pre-2020 output trajectory. Our outlook for supply-chain normalization and healthy economic activity is predicated on the expectation that COVID-19 follows past pandemic influenza experiences, becoming less virulent over time.

Exhibit 2 on the following page illustrates our estimates for the implied output trajectory in 2022. The top baseline reflects the conceptual output path for major developed market economies, assuming a 2% annual growth rate, consistent with the pre-pandemic experience.

The U.S. economy is much closer to its pre-pandemic output trajectory than are major European economies. Based on current trends, we expect the United States to reach its pre-crisis output by summer 2022 before settling into 2% annualized growth. In this scenario, full economic recovery implies significant sequential deceleration in annualized quarterly growth in 2022.

> "The U.S. economy is much closer to its pre-pandemic output trajectory than are major European economies."
>
> **Olga Bitel, Partner**

Most European economies remain somewhat below their pre-pandemic output trajectory, which leaves significant scope for strong growth throughout much of 2022. Thus, we believe European economies should generate stronger sequential growth than the United States, as we expect these economies, except Spain, to fully recover to pre-pandemic output by the end of 2022.

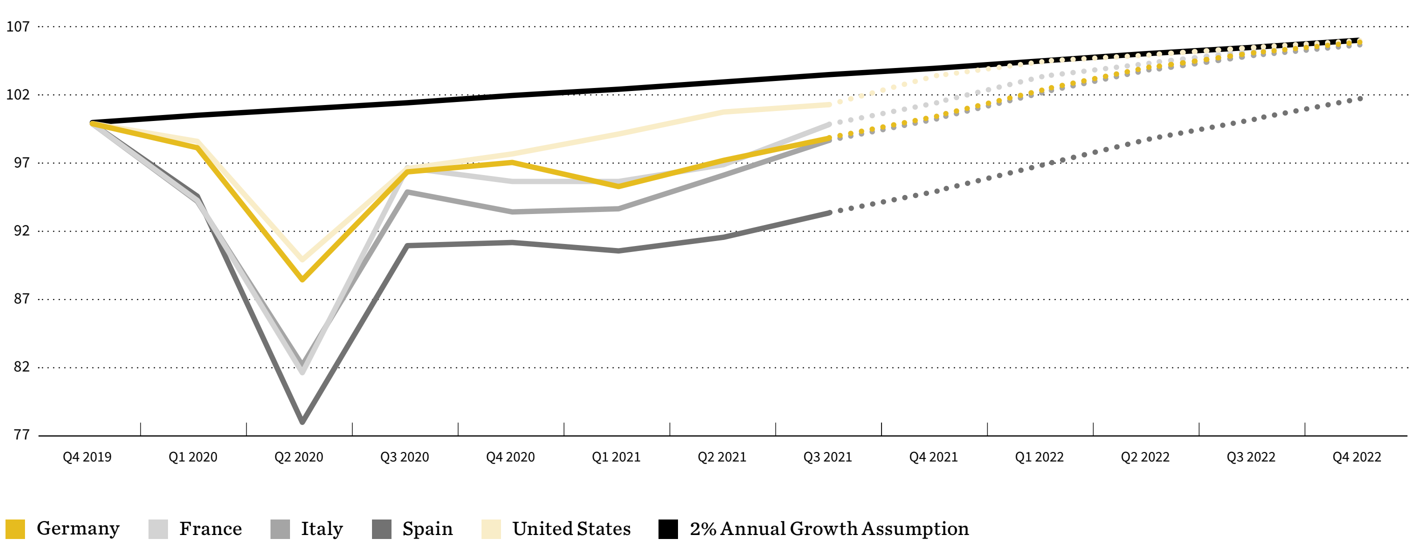
As China’s economy fully recovered by the end of 2020, growth in China decelerated materially in 2021, to the point where macroeconomic policy is already becoming more supportive of near-term growth pickup on the margin. On December 6, 2021, the People’s Bank of China announced a 50-basis-point reserve requirement ratio (RRR) cut, enabling banks to lend more. We expect China’s economy to accelerate gradually in 2022 as domestic policy is calibrated to reach annual output growth of 6% or more.

With output still well below trend on both sides of the Atlantic, rising inflation, especially in the United States, is largely a function of persistent and sudden supply disruptions as the pandemic continues to wreak havoc. COVID-19 exposed the weakness of pairing global supply chains with purely national responses to medical challenges: China pursued zero tolerance of infections, while the United States and many other countries embraced economic activity while minimizing severe illness outcomes.

EXHIBIT 2

Actual and Forecast Output Levels for Major Economies

Our estimates for the implied output trajectory in 2022. Based on current trends, we expect the United States to reach its pre-crisis output by summer 2022 before settling into 2% annualized growth.



Sources: Macrobond and William Blair analysis, as of January 2022. Q4 2019 = 100.

> “Goods prices are rising at a 12% rate, a sharp and temporary reversal of multi-decade price deflation.”
>
> **Olga Bitel, Partner**

The supply of goods has become a victim of rolling supply disruptions. Such divergence in national response translates into impossible-to-anticipate, sporadic, highly disruptive closures of plants and ports located in China. These rolling closures reverberated throughout the world economy for months after the initial disruption, as China’s ports process nearly 50% of global container volumes.

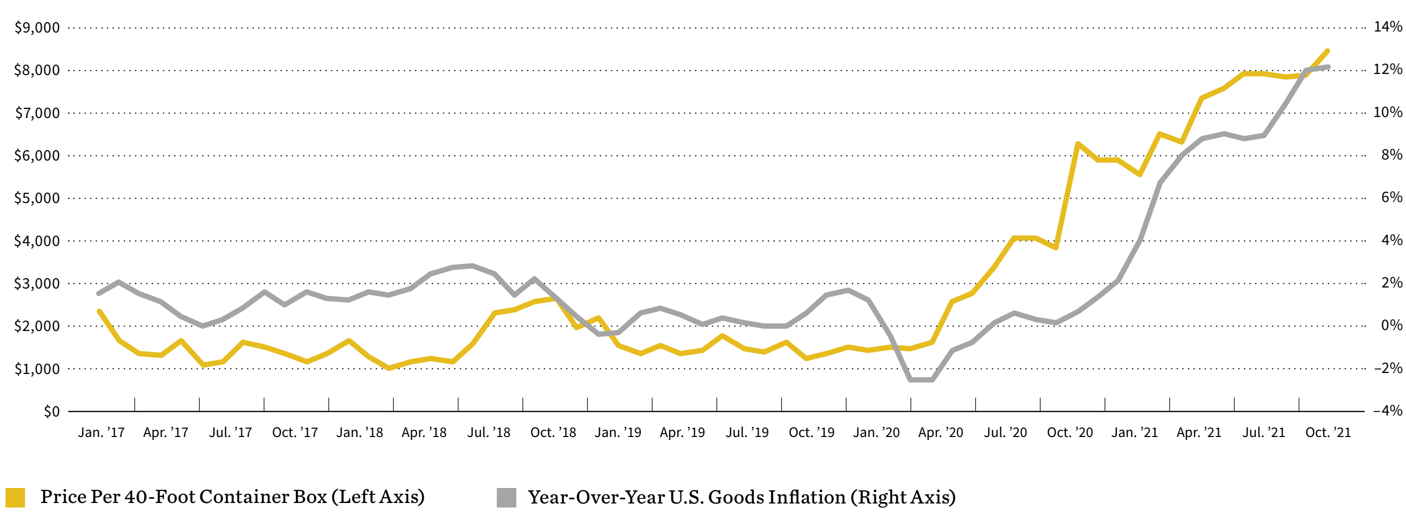
This is why goods prices are rising at a 12% rate, a sharp and temporary reversal of multi-decade price deflation. Exhibit 3 details annual changes in U.S. goods price inflation relative to shipping rates.

In addition, U.S. consumers feel another, more concentrated impact of COVID-19 on car prices. Many car producers underestimated the strength of demand resumption and canceled semiconductor orders, so today the current annualized supply is running 3 million to 4 million vehicles short of the pre-pandemic rate. A lack of new cars, in turn, elevates the prices of used vehicles, which is evident in the U.S. monthly consumer price inflation data. Exhibit 4 on the following page shows new and used vehicles’ abnormal contribution to annual inflation as the recovery unfolded.

EXHIBIT 3

Goods Price Inflation Has Coincided with Supply-Chain Disruptions

The supply of goods has become a victim of rolling supply disruptions. Such divergence in national response translates into impossible-to-anticipate, sporadic, highly disruptive closures of plants and ports located in China.



Source: Bloomberg and Macrobond, as of January 2022.

As the supply of semiconductors normalizes and new vehicles roll off the assembly lines in sufficient quantities, we believe price pressures are likely to subside.

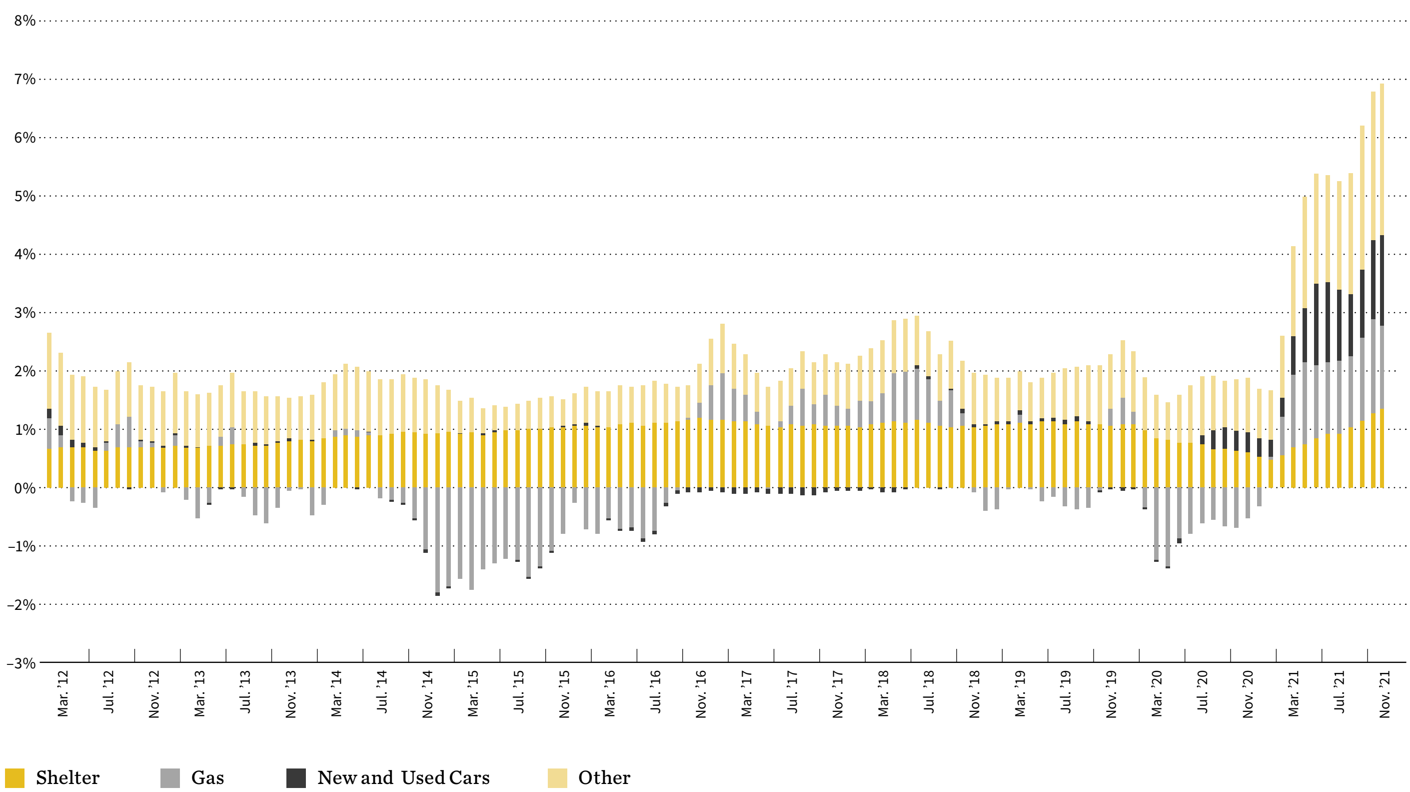
Purchasing patterns suggest that consumers do not expect pricing pressures and scarcity to persist: there are no signs of hoarding. In fact, the supply-demand adjustment is occurring as expected: consumers are postponing purchases in response to higher prices. Overall demand declined more than 10% since the reopening peak, with much of the deceleration concentrated in motor vehicles. Consumers are postponing purchases, and surveys indicate that affordability is not a deterrent. Instead, people believe that prices are too high at the moment and expect them to decline.

We believe 2022 is shaping up to be one of slowing toward healthy rates of economic growth and inflation, thereby paving the way to a sustainable, multiyear expansion.

EXHIBIT 4

Contribution to U.S. Year-Over-Year Inflation

A lack of new cars elevates the prices of used vehicles, which is evident in the U.S. monthly consumer price inflation data.



Sources: U.S. Bureau of Labor Statistics and William Blair analysis, as of January 2022.

EM Equity | Dissipating Headwinds, Attractive Valuation Opportunities

Todd McClone, CFA, Partner
PORTFOLIO MANAGER, EM EQUITIES

In the second half of 2021, EM equities faced a host of headwinds that caused the asset class to pull back sharply from its midyear highs. In China, slowing economic growth was accompanied by uncertainty largely centered on the implications of ongoing reforms in the Common Prosperity initiative for Chinese technology, education, healthcare, and other critical segments of the country's economy. The surge in COVID-19 cases related to the Omicron variant interrupted the progress that many EMs had been making in reopening their economies. In addition, varying monetary policy measures, both within EMs and between emerging and developed markets, have created a backdrop that is challenging for EM equities from a cyclical perspective in 2022.

We expect these challenges, however, to dissipate as we progress through 2022, leading to what could be an array of attractive valuation opportunities in mid-2022. With EM equities trading near record discounts to developed markets equities, it is important for investors to assess how the diverging short-term and longer-term outlooks for EM equities should affect their positioning in this critical asset class.

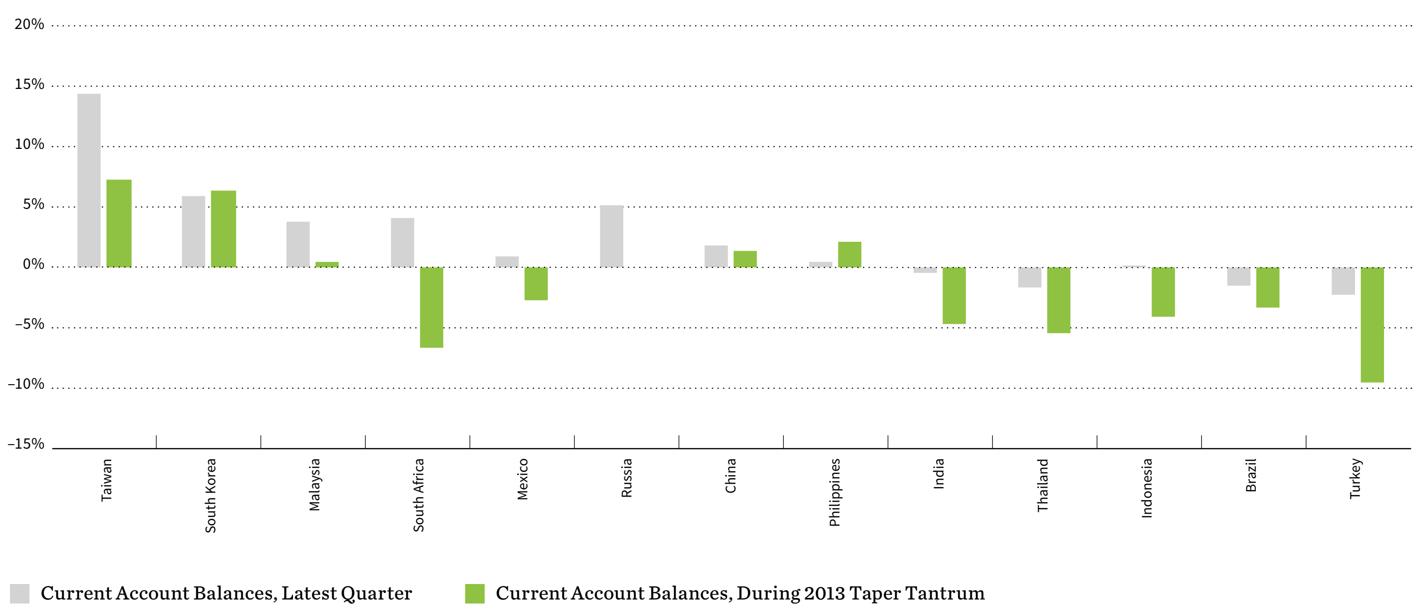
Fears of Another "Taper Tantrum" Are Overblown

EM equity investors are naturally concerned about surging U.S. inflation, acceleration in the tapering of the U.S.

EXHIBIT 5

EMs Are in a Stronger Fiscal Position to Weather U.S. Monetary Tightening

The current account balances of EM countries are more supportive of economic growth than they were in 2013. This improved fiscal positioning, along with stronger economic growth forecasts, should allow EMs to be more resilient to pressures that will likely accompany U.S. monetary tightening in 2022.



Source: Bloomberg, as of December 2021.

Federal Reserve's (Fed) asset-purchase program, and the fact that expectations for increases in the federal funds rate have been pulled forward. Historically, EMs have underperformed developed markets during periods of rising U.S. interest rates and a strengthening U.S. dollar (USD). More pointedly, many EM investors have vivid memories of the 2013 "Taper Tantrum," during which EM equities dramatically underperformed developed markets as Ben Bernanke's Fed began to taper its asset purchases.

While U.S. monetary tightening and a strengthening USD will certainly present headwinds for EM equity markets, we do not expect 2022 to be a repeat of 2013. For historical perspective, it is important to remember that going into 2013, EMs had significantly outperformed developed markets during the runup to the Taper Tantrum. EMs also had generally higher inflation and larger current account deficits than they do today, along with somewhat overvalued currencies. This was especially the case with the so-called "fragile five": India, Indonesia, Turkey, Brazil, and South Africa.

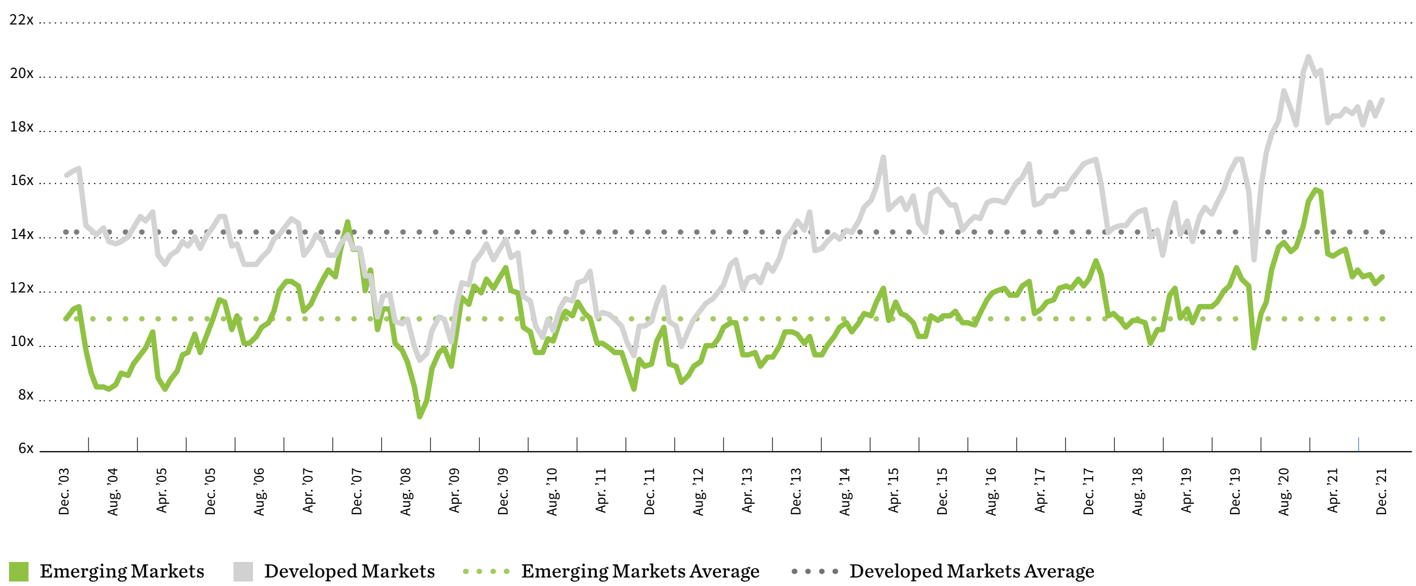
In our view, EM economies are now in a much better position to weather the U.S. tightening cycle than they were in 2013. EM gross domestic product (GDP) growth expectations are higher and current account balances are generally supportive, as shown in exhibit 5 on the previous page. Meanwhile, EM inflation is generally lower than it was during the Bernanke taper, with a few notable exceptions, such as Brazil and Turkey. We also expect that any increased USD strength will likely ebb toward the middle of 2022 as investors get more visibility into the path of U.S. interest rates.

EXHIBIT 6

Valuation Gaps Are Wide and Expanding

The gap between EM and developed market equity valuations reached its widest point in nearly two decades at the end of 2021. This valuation gap creates the potential for attractive entry points for EM investors, but we believe selectivity among countries and companies remains paramount.

FOLLOWING FISCAL YEAR (FY2) P/E RATIOS



Source: Factset, as of December 2021. Developed markets are represented by the MSCI World Index. EMs are represented by the MSCI Emerging Markets Index.

China Headlines Attractiveness of EM Valuations

In addition to strong macro fundamentals in EM countries, EM equity valuations look very attractive relative to developed markets heading into 2022. In fact, the gap between EM and developed market valuations is wider now than at any point since 2003, as shown in exhibit 6 on the previous page. This reflects the probability that equity markets have already priced in the kind of economic effects that occurred in 2013.

We believe that much of this gap is the result of EM valuations that still do not appropriately reflect the importance of technology and other growth-oriented, higher-valuation sectors within the MSCI Emerging Markets Index. In 2008, energy and materials made up about 40% of the index, while the higher-valuation IT, consumer, retail, and media sectors represented only about 10%, according to MSCI. Today, those proportions have more than reversed, and EM is the most tech-heavy region other than the United States.

Current valuations, however, still seem tied to the outdated notion that EM economic activity is dominated by commodities and low-value manufacturing. For growth investors, we believe that the current valuation gap between EMs and developed markets offers an especially attractive opportunity to invest in EMs at undervalued prices.

Still, the valuation story within EMs is far from monolithic. This is especially true when looking at the two largest developing economies—China and India.

Chinese equities traded at the lower end of their historical valuation range at the end of 2021. While China led the world in recovering from the early effects of the COVID-19 pandemic, its economic recovery also compelled the People's Bank of China (PBOC) to normalize and tighten its monetary policy. These efforts, together with the emergence of COVID variants, precipitated a slowdown in the Chinese economy. Increased regulations implemented in support of China's Common Prosperity agenda, particularly those affecting internet industries, exacerbated the slowdown and negatively affected investor sentiment. Against this backdrop, Chinese equities underperformed in 2021, with MSCI China Investible Market Index (IMI) falling 21% in USD terms as of year-end.

> "The gap between EM and developed market valuations is wider now than at any point since 2003."
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> **Todd McClone, CFA, Partner**

Given China's economic slowdown, in December 2021 the PBOC announced a reduction in the reserve requirement ratio (RRR) and cut the one-year loan prime rate—the first cut in almost two years—signaling a near-term change in Chinese monetary policy. This shift in monetary policy will also be perpetuated by China's increased focus on growth stabilization in 2022 as signaled during the Central Economic Work Conference held by the Chinese central government in December 2021.

We believe that this shift to a more accommodative monetary policy and increased support for growth offer investors an attractive opportunity to increase their allocations to China. Not surprisingly, the final weeks of 2021 saw increased fund flows to China as investors sought to position their portfolios ahead of the PBOC's efforts to spur growth. While unsettling news such as the Evergrande default, the potential delisting of many ADRs, and continued regulatory uncertainty paint a cloudy picture for Chinese equities, overall we are incrementally more positive on Chinese equities in the near term, thanks to the supportive macro policies mentioned above.

While Indian equities are currently trading at a premium to most other EMs, we believe that this reflects the fact that India generally has very attractive secular growth characteristics. Factors such as demographics, increased technology adoption, improving but still vast underpenetration in financial services, rising demand for consumer staples, and strong corporate management teams indicate to us that current valuations are justified. Consistently strong earnings growth among Indian companies is supportive of these valuations and suggests that Indian equity multiples may have additional room to increase going forward.

EM Recovery Likely to Broaden in 2022, but Country Selection Is Critical

Along with our optimism about China and India, we expect a much greater number of EM countries to participate in equity market upside in 2022 than in 2021. Strikingly, 2021 produced the greatest degree of dispersion among EM returns in more than a decade, as exhibit 7 illustrates.

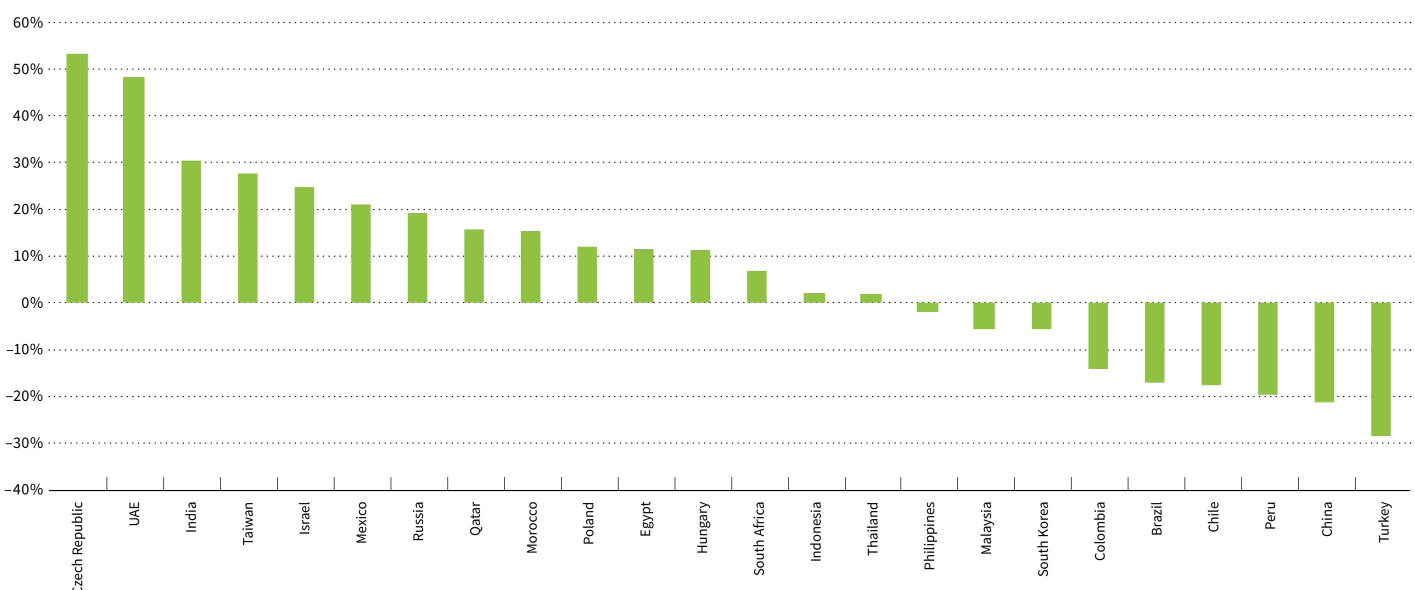
Varying degrees of COVID-19 shutdowns and reopenings drove much of this dispersion, as did the different monetary policy responses that EM central banks pursued in 2021. As 2022 begins, many EM countries appear set to reopen their economies more fully, especially Southeast Asian constituents such as Thailand, Indonesia, Vietnam, and the Philippines. We believe this should lead to a broadening of participation in the global economic recovery across EMs.

Nevertheless, country selection among EM constituents remains critical. Variations in inflation and monetary policy are likely to foster some continued dispersion in equity market returns, as will evolving political dynamics. For example, Brazilian inflation and interest rates remain high, while the leading candidate in the next presidential election (Luiz Inácio Lula da Silva) supports a socialist economic agenda, creating uncertainty for investors in Brazilian equities.

EXHIBIT 7

Broad Equity Return Dispersion in 2021

In 2021, equity returns among EMs varied dramatically as countries progressed through phases of economic reopening from the pandemic at different paces. The continued rollout of vaccinations should lead to more broad-based upside participation in 2022.



Source: Factset, as of December 2021. **Past performance is not indicative of future results**. Countries are those in the MSCI Emerging Markets Investible Market Index (IMI). Indices are unmanaged and do not incur fees or expenses. A direct investment in an unmanaged index is not possible.

> "The evolution of growth investing in EMs has shifted markedly toward Asia at the expense of Latin America and other regions."
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We are also monitoring developments with the Omicron variant of the COVID-19 virus. As of this writing, the variant appears more transmissible but less lethal than previous versions of the virus. EM healthcare systems tend to be less robust than their developed market counterparts, drawing into question how well certain EMs will be able to respond to large numbers of Omicron cases. For now, we are encouraged by the relatively low and manageable hospitalization rates for Omicron cases in South Africa, where the variant was first detected. In fact, new cases and hospitalizations related to South Africa's most recent infection wave seem to have already peaked. Nevertheless, EM investors should continue to monitor the pandemic and its evolution closely.

Secular Trends Create Opportunities for Sustainable Value Creation

For investors focused on sustainable value creation, we are encouraged by the expanding opportunity set within EMs. In 2002, EMs accounted for about 15% of the top quintile of companies globally in terms of sustainable value creation, which is an aggregate measure of returns on capital that we use to evaluate growth stocks, according to MSCI data and William Blair's analysis. In 2021, however, that figure grew to approximately 35%—a remarkable increase that highlights the opportunity to find EM companies that excel at generating high returns on invested capital.

Notably, much of this growth came from China, India, and other Asian countries such as Taiwan and South Korea. This is a prime example of how the evolution of growth investing in EMs has shifted markedly toward Asia at the expense of Latin America and other regions over the past two decades.

Within this expanding and increasingly Asian-dominated opportunity set for growth investors, we are focusing on several distinct secular themes:

- **Consumer spending and e-commerce:** The growth in spending on both staples and discretionary items among EM consumers is particularly compelling when we consider the potential for increased e-commerce activity. Despite the emergence of large, innovative local champions across EMs, e-commerce penetration is still only about half of that seen in developed markets.

- **Tech hardware:** Semiconductors and other segments of technology hardware are experiencing surging demand, fueled largely by the proliferation of 5G, cloud computing, and the Internet of Things (IoT). In addition to these secular trends, semiconductor manufacturers in EMs are benefiting from cyclical pricing power amid the global chip shortage.

- **Indian financial services:** Despite the Indian economy's evolution toward greater development, it continues to be plagued by low levels of financial services penetration. Still, the growth of Indian's digital economy and other positive trends suggest that the country is near an inflection point in terms of bringing banking, insurance, and other financial services to a broader portion of its massive population.

Despite Headwinds, EM Equities Provide Significant Upside Potential

Despite headwinds from U.S. monetary policy and uncertainty about the Omicron variant, we believe that EM equities will provide investors with ample opportunities for growth in 2022. EM's generally strong economic fundamentals and a broadening of the global economic recovery should provide a particularly supportive backdrop for sustainable value creation. Meanwhile, we believe that high-quality EM companies will be well positioned to capitalize on powerful secular trends amid the continuing development of these markets.

EM Debt | A Brighter Outlook for EM Debt

Marcelo Assalin, CFA, Partner
HEAD OF EM DEBT

The past year was a study in contrasts for investors; this was true for many asset classes, but particularly so in EM debt. After a remarkable recovery in global economic activity in the first half of the year, new concerns related to virus variants, inflation, and monetary-policy tightening emerged in the third and fourth quarters. The result was a challenging backdrop for EM debt as investor sentiment deteriorated, leading to outflows out of EM debt portfolios, widening EM debt credit spreads, higher EM local bond yields, and weaker EM currencies.

We anticipate that EM debt investors will continue to face several headwinds in the first half of 2022. These issues include a slowdown in Chinese economic activity, supply-chain disruptions, dysfunctional labor markets, rising energy prices, and persistently high inflation rates.

Inflation in particular poses significant challenges, and many EM central banks have started to tighten monetary policy in an attempt to rein in escalating prices. EM countries have started tightening as a way to get ahead of the Fed's tapering of its bond-buying program, which we expect to be concluded in March 2022, followed by rate hikes later in the year.

Despite these headwinds, we anticipate brighter days for EM debt. Increased vaccine supplies should help narrow the "vaccination gap" between emerging and developed markets, leading to a more broad-based reopening of economies. Similarly, we expect disruptions in supply chains and labor markets to slowly resolve as countries around the world continue to improve their management of the pandemic. Inflation should peak as a result of easing supply-side bottlenecks, slower increases in food and energy prices, and monetary tightening. Finally, by mid-2022, we expect that a majority of EM policy tightening will already be completed.

Against this backdrop, we examine the fundamental, technical, and valuation factors that are shaping the opportunity set and risks in EM debt in early 2022.

EM Fundamentals Continue to Improve

The current environment suggests that fundamentals for EM debt are on track to keep strengthening. We estimate that gross domestic product (GDP) growth in EM countries will hit 4.8% in 2022, below the 7% growth rate in 2021 but above pre-COVID trend levels. EM fiscal accounts should improve to -5.5% of GDP in 2022, from -6% in 2021 and -7.7% in 2020. At 1.6% of GDP, EM countries have maintained fairly strong basic balance levels, highlighting the resilience of EM external accounts even during the pandemic. EM countries' current account surplus is expected to decline somewhat, driven by stronger domestic demand, but should remain at healthy levels.

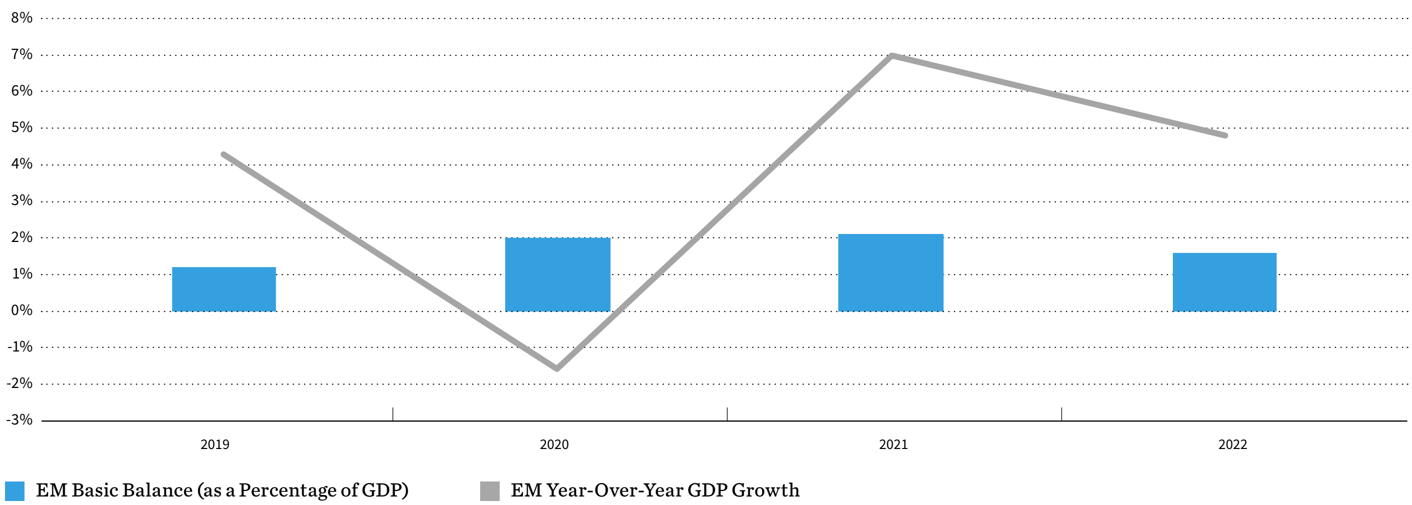
We anticipate that EM government debt as a percentage of GDP will stabilize at just over 60%. Inflation in EMs is expected to decline to 4.2% in 2022 from 4.3% in 2021. We anticipate that EM exports will increase by 7.9% in 2022 from 2021, reflecting improvements in global trade and high commodity prices.

In 2022, we foresee no systemic crisis and anticipate very low default rates. EM countries should benefit from strong multilateral and bilateral support, with ample and affordable funding. In particular, the International Monetary Fund (IMF) has taken proactive measures through the increase of special drawing rights (SDR) allocations during the pandemic. Country-specific risks remain, particularly in China. After struggling significantly in 2021, the Chinese economy appears poised to improve in the first half of 2022 and should benefit from stimulus support initiated in late 2021. Still, the country's overall growth trend will likely decline as Beijing places an emphasis on the quality of growth and on higher value-added sectors.

EXHIBIT 8

EM Countries Show Strong Fundamentals and Resilience

After falling into negative territory in 2020 because of the COVID-19 pandemic, GDP growth in EMs bounced back strongly in 2021. Despite slowing growth rates projected for 2022, EM countries should be able to maintain fairly robust basic balance levels, highlighting the resilience of these economies even through global turbulence.



Sources: Oxford Economics and William Blair estimates, as of October 2021. Shows GDP-weighted figures.

Corporate Credit Cycle May Hit an Inflection Point

After benefiting from years of fundamental credit improvement, the EM corporate credit cycle is starting to show signs of accommodation. At an aggregate level, balance sheets and maturity profiles remain healthy, despite a slight increase in capital expenditures. Corporate capital structures cannot improve in perpetuity, but a renewed focus on growth or shareholder returns, if executed prudently by corporate issuers, shouldn't be viewed as a negative for lenders. Nonetheless, while default rates should remain well contained, we don't believe that credit improvement will be a tailwind for the asset class in the near term.

Commodity Prices Remain Elevated

Higher commodity prices have presented a mixed picture for EM countries. Elevated prices should provide a tailwind for commodity exporters, though spiking energy prices negatively affected oil- and gas-importing countries. Commodities overall experienced quite a rebound in 2021, with energy prices leading the way. For the year, crude oil prices (West Texas Intermediate) rose 61% and natural gas prices rose 38%, according to the Energy Information Administration. These sharp increases were driven by higher demand, constrained supplies by Organization of the Petroleum Exporting Countries (OPEC) and non-OPEC countries, and weather-related disruptions. We believe that supply and demand dynamics will remain supportive of energy prices in 2022.

Rebounding economic activity also supported demand for copper and iron ore. Iron ore prices began to normalize as investors assessed 2022 supply and demand activity, while copper prices remained elevated on the back of low inventories. Looking ahead, the transition to electric vehicles and the infrastructure required for their operation will lead to new demand drivers for metals such as copper, nickel, and aluminum, benefiting countries with significant exports of these increasingly valuable resources.

Technical Conditions Appear Generally Positive

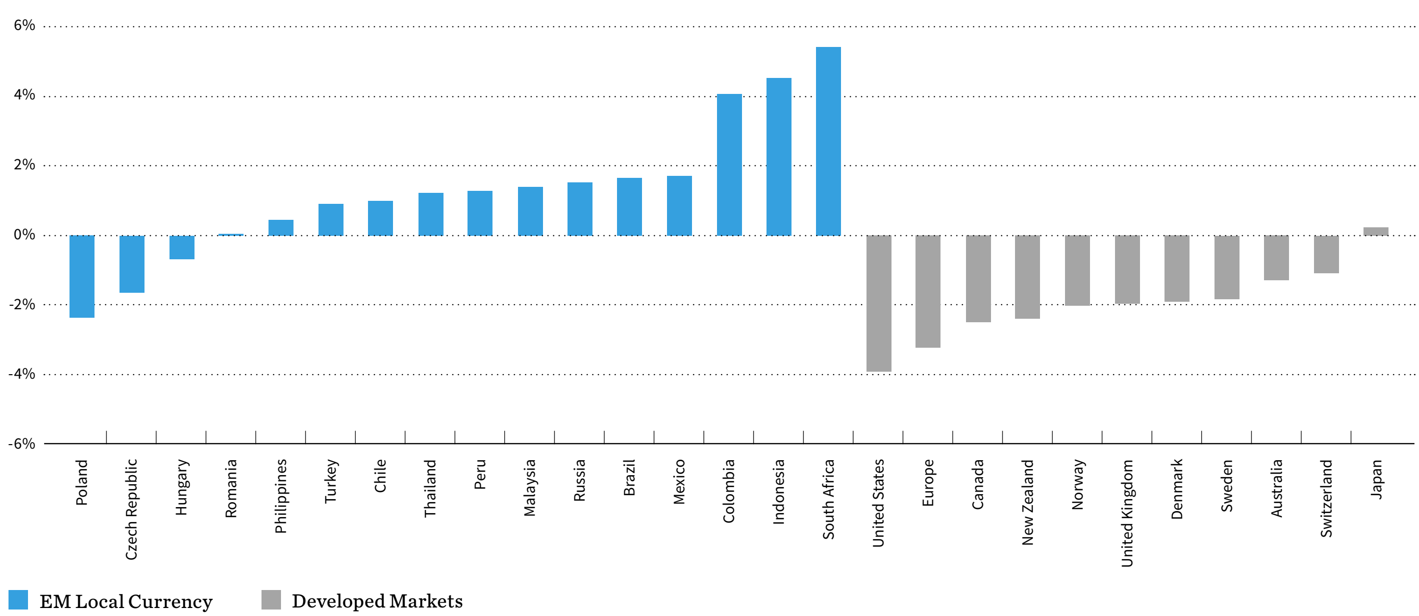
In addition to healthy fundamentals, the technical backdrop should also be supportive for EM debt in 2022. Supply should remain constrained as a result of declining net refinancing needs due to improved fiscal accounts and prefinancing activities. Inflows into EM debt should continue to recover as allocations to EM debt by global investors are well below peak levels and not in line with the size of the opportunity set. J.P. Morgan estimates that 2022 inflows will total $30 billion to $40 billion, just below long-term averages. Investor positioning is also supportive. Throughout 2021, investors reduced their positioning in EM debt during the "risk-off" sentiment, though we believe that a more benign environment could lead to larger allocations and inflows from investors in 2022, especially later in the year.

On a relative basis, EM debt should remain attractive compared with other fixed-income assets. Continued low global rates—including negative interest rates in many developed markets—should benefit EM debt. In addition, global liquidity, while past its peak, should remain ample, and we believe that any deterioration following tighter monetary policies should be very gradual.

EXHIBIT 9

Local-Currency EM Debt Offers Premium in Real Yields

Compared with other fixed-income assets, yields on local-currency EM debt remain attractive. With few exceptions, inflation-adjusted yields of local-currency EM debt were in positive territory, in stark contrast to the negative real yields for most developed markets.



Source: Bloomberg, as of November 2021. Shows real yields, which represent nominal 10-year bond yields less the Consumer Price Index.

Valuations for EM Debt Remain Attractive

EM debt appears attractively valued on both an absolute and relative basis, as spreads have remained wider than historical levels. EM sovereign high-yield spreads appear very compelling, as they are at heightened levels compared with their 10-year averages. EM sovereign high-yield spreads are particularly attractive versus U.S. high yield levels. EM credit spreads are well above developed-market credit spreads, again significantly wider than their 10-year averages.

In our view, EM debt investors are more than adequately compensated for default and loss-given-default risks. Our conservative probability-weighted default projection is approximately 2%, resulting in a potential negative impact of approximately 50 basis points (bps) on the index level.

Still, this projection is very conservative, and there is a significant chance that we do not see any sovereign credit defaults in 2022. We see value in selected EM corporate credit, where investors have a spread pick-up to sovereigns but with a significantly lower duration.

In the local currency space, EM currencies remain fundamentally undervalued and feature a higher carry compared with developed-market currencies. Balance-of-payment trends have become more positive in many markets, as many EM currencies are cheaper and interest-rate differentials versus developed markets have widened. EM local yield curves are steep and have already increased significantly. While developed-market central banks have generally maintained accommodative policies, in many EM countries monetary tightening is much closer to the end than the beginning of the cycle.

EXHIBIT 10

Valuations for EM Sovereign High-Yield Debt Appear Attractive

Valuations for EM sovereign high-yield debt appear very attractive heading into 2022 compared with U.S. high yield bonds, as spreads have widened considerably from the long-term average. Since the onset of the COVID-19 pandemic, EM sovereign high-yield spreads have remained wider than their U.S. counterparts despite what we see as attractive fundamentals.

Sources: Bloomberg and J.P. Morgan, as of November 2021. EM sovereign debt yields are presented by the J.P. Morgan Emerging Market Bond Index (EMBI). Global Diversified U.S. high yields are represented by the Bloomberg U.S. Corporate High Yield Total Return Index.

Virus, Geopolitical Tension, and Chinese Real Estate Loom as Significant Risk Factors

The COVID-19 pandemic, with the potential for more disruptive variants, has the most potential to cause widespread market volatility. We will continue to monitor policy responses to the virus, along with the resulting impact on consumer sentiment, industrial production, and economic growth. If the pandemic escalates again because of new vaccine-evading variants, we anticipate that central banks, including the Fed, are likely to pull back on the pace of tapering, and anticipated rate hikes will likely be delayed. As a result, in a situation in which the virus continues to disrupt the global economy, we anticipate that elevated liquidity levels will remain for longer.

Geopolitical tensions are a continued threat to global markets. In particular, we are monitoring ongoing tensions between the United States and China, Russia and Ukraine, and China and Taiwan. The political cycle in EM countries could also have broader effects, particularly with important elections in Latin America that could lead to a populist shift. Lastly, the Chinese real estate sector, which experienced significant volatility in late 2021, could affect markets beyond China's borders. We expect several issuers to default and/or exercise distressed exchanges given current bond prices. Although the landscape is uncertain, we believe that it will ultimately create significant opportunities for issuer selection within the sector.

Opportunities in Hard Currency and Local Currency Debt

We believe that investors should look past near-term headwinds in early 2022 and focus on the fundamental value of EM debt. In this environment, we have a tactical preference for hard currency over local currency debt, as the attractiveness of local markets should remain clouded by a still low growth differential between emerging and developed markets for most of 2022. We also see the potential for increased market volatility in the currency space as the Fed begins its tightening cycle.

In our view, hard currency EM debt should provide better volatility-adjusted returns to investors, especially in the first half of the year. We remain strategically overweight high-yielding, frontier-market countries. But we have recently reduced exposure to high- and medium-beta countries and raised cash levels as we anticipated more appealing valuations to reposition the portfolios in the next few months.

> "We have a tactical preference for hard currency over local currency debt."
>
> **Marcelo Assalin, CFA, Partner**

We have maintained our exposure to EM corporate credit, where we see generally favorable technical conditions. In particular, we have identified several issuers with strong credit profiles that have more attractive spreads than their sovereign counterparts. Our positions are focused on the commodity, consumer, utility, and financial sectors in Latin America; financials and commodities in Central and Eastern Europe, the Middle East, and Africa; and utilities, financials, industrials, and real estate in Asia.

While we prefer hard currency EM debt, we see potential for local currency EM debt to perform well in the latter part of 2022 as the rising growth differential between emerging and developed markets leads to increased capital flows into EM countries. We see opportunities in frontier markets as well as in countries that are likely to be added to benchmarks in 2022, such as Egypt, Ukraine, and India. Lastly, we find attractive several high-beta markets where rates have risen the most and valuations are at very compelling levels.

China | Opportunities at an Inflection Point

Vivian Lin Thurston, CFA, Partner
PORTFOLIO MANAGER

Clifford Chi-wai Lau, CFA
PORTFOLIO MANAGER

China is accelerating efforts to achieve Common Prosperity and implementing other policy initiatives aimed at sustainable growth. What will this reshuffling of policy priorities mean for investors in 2022 across China's equity and bond markets? We asked Vivian Lin Thurston, CFA, a portfolio manager on our Emerging Markets Growth, China A-Shares Growth, China Growth, and Emerging Markets ex China Growth strategies, and Clifford Chi-wai Lau, CFA, a portfolio manager on our EM debt team.

How do you view the performance of the Chinese economy in 2021? What is your outlook for 2022?

Vivian: China's economy was still quite strong in 2021, with consensus for real GDP growth at around 8.5%; this follows 2020's growth of 2.3%, the strongest among major economies. However, we have seen a broad-based slowdown in recent months as a result of COVID-19 Delta and Omicron variants, government environmental controls, and regulation impact.

We expect 2022 to be a year of rebalancing in the Chinese economy as the government looks to find a balance between supporting economic growth and accelerating structural reforms and sustainability initiatives, namely Common Prosperity and carbon neutrality. This may lead to decelerating growth around 5.5% in 2022.

Overall, we expect macro policies to turn more accommodating in 2022 to support the growth target. President Xi's stated goal is to double the size of China's GDP by 2035, which equates to average annual real growth of about 4.7% for the next 15 years. It would start higher and decline, probably toward 3% as we approach 2035—but that is still healthy growth for a $14.5 trillion economy.

Clifford: Economic performance has been on track, but there are many conflicting forces behind the scenes. The political agenda is gaining influence relative to technocratic economic policies as top-down policies such as decarbonization and Common Prosperity take precedence. Growth will be sustained into 2022, but export numbers might pull back somewhat as other major economies open up further.

How will the Common Prosperity agenda affect economic growth?

Vivian: Growth remains a key part of China's story, but the government is now more focused on fostering sustainable, broad-based growth. Income and wealth inequality have increased substantially in China in the past several decades, and one of the focuses of Common Prosperity is to change income distribution from a traditional pyramid shape to an oval. Broadening the base of economic productivity is necessary to offset some of the structural growth challenges, such as an aging population.

Against this backdrop, we are likely to see a shift in the growth mix of the Chinese economy. Previous growth drivers like the digital economy may contribute less. Others, such as high-end manufacturing, semiconductors, and green energy industries, will likely accelerate.

Clifford: There has been skepticism about Common Prosperity, but the government is intent on finding a balance between social stability and wealth generation for the broader Chinese population.

Another way of implementing Common Prosperity could be through patient inaction and holding back from conventional policy responses. For example, most people expected "pivotal" government actions to address the recent sell-off in the Chinese property market. So far, there has been none. However, "no policy" is itself a policy. The government may be trying to address a sector where high prices favor the rich and hurt the general population.

What is the inflationary outlook in China? Why is consumer inflation lower than other countries?

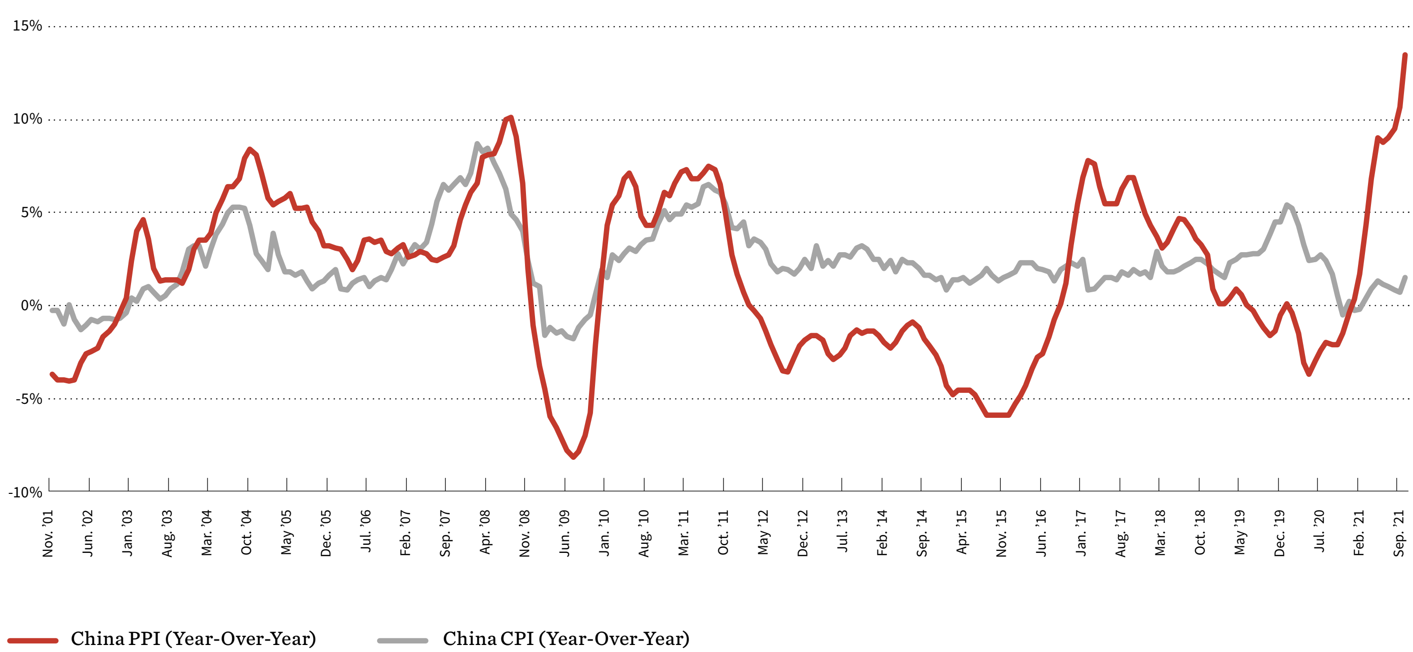
Vivian: China's producer price index (PPI) year-over-year change was 13.5% in October 2021, the highest level in the last 20 years. This sharp increase was driven by rising global commodities prices, structurally reduced supply of manufacturing capacity as a result of supply-side reforms, infrastructure stimulus, and export growth. But China's consumer price index (CPI) year-over-year increase in October 2021 was only 1.5%. There are structural reasons for this huge divergence. China has a strong and growing e-commerce business, which tends to lead to price deflation. Also, Chinese manufacturers have been able to largely absorb PPI pressure despite some margin compression in the near term given the compensation from strong unit volume growth and improved cost structure.

Clifford: Pork prices, a key inflation driver in China, have decreased in 2021 as pig herds expanded and slaughter rates increased. The big disruptor, however, so far this year has been vegetable prices, as heavy rainfalls in September and October are affecting crop productions. Meanwhile, there is a risk of surging raw materials prices and other elements of today's high PPI passing through to CPI in the second half of 2021. China has had several nationwide and regional lockdowns as a result of COVID-19, which curbed consumer spending and kept demand pressure off CPI. But a big question going forward is how the government will approach COVID-19 in 2022. Will China continue with zero tolerance, or start to learn to live with COVID-19? If there is more opening up, we could see more pressure on consumer prices.

EXHIBIT 11

Inflation Gap—Chinese Producer and Consumer Prices Diverge

Despite a massive spike in producers' input costs, consumer price growth in China remained muted in the second half of 2021. Inflation will be an important trigger for the performance of China's markets in 2022.



Source: Bloomberg, as of November 2021.

Vivian, how favorable do valuations appear in the Chinese equity markets heading into 2022?

Vivian: Valuation risk is lower overall than a year ago, which should be supportive for Chinese equities in 2022, everything else equal. Earnings growth was mixed in 2021, with divergence between consumer-driven and manufacturing-driven industries; this divergence was exacerbated by policy and regulatory developments. For example, China's internet industries experienced both fundamental and policy headwinds in 2021. As a result, the broader Chinese equity index, MSCI China All Shares Index, depreciated 13% in U.S. dollar terms in 2021. The domestic China A-Shares index, CSI 300, depreciated 3.5% in renminbi in the same period. We expect overall Chinese equities to fare better in 2022, predicated on earnings recovery and less demanding valuations. The MSCI China All Shares Index was trading at a 13.5x forward P/E ratio, comparing favorably to the S&P 500 Index, which is around 20x. But at the sector level, we have seen valuations rise for certain segments, such as high-end manufacturing and green energy.

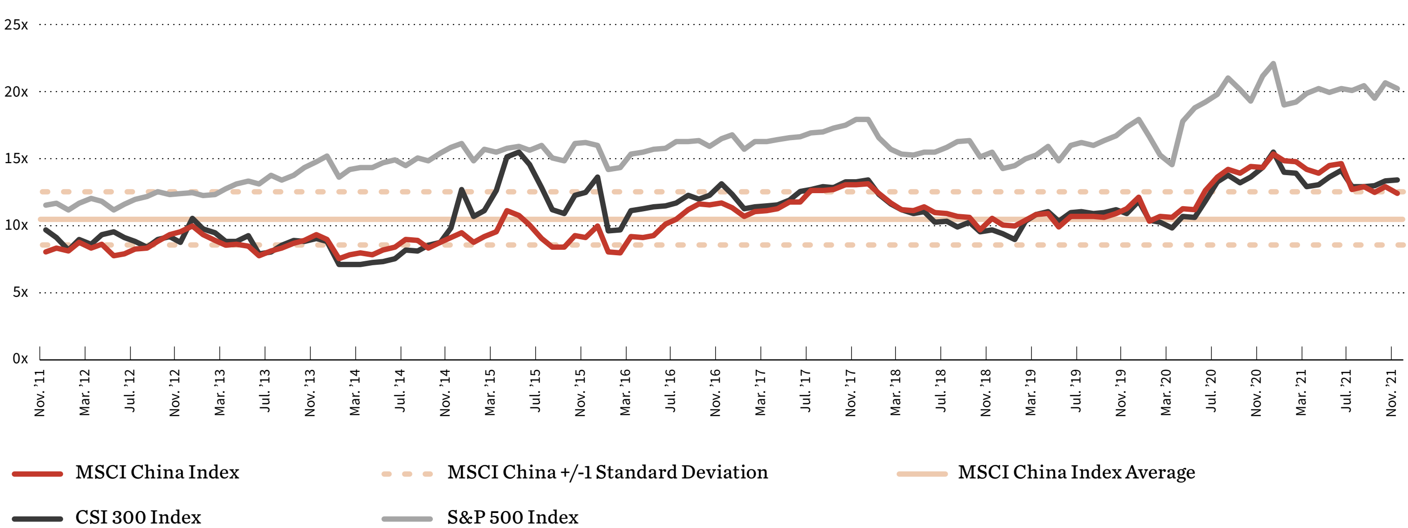
> "We have seen valuations rise for certain segments, such as high-end manufacturing and green energy."
>
> **Vivian Lin Thurston, CFA, Partner**

EXHIBIT 12

Relative Valuations for Chinese Equities Appear Attractive

After pulling back from early 2021 highs, valuations on Chinese equities look relatively attractive compared with U.S. equities heading into 2022. But sectors such as high-end manufacturing and green energy, however, continue to see rich valuations in China's equity market.

P/E RATIO (NTM): CHINA VERSUS UNITED STATES



Source: Bloomberg and William Blair, as of November 2021. P/E ratios are next 12 months (NTM).

Clifford, what's your outlook for the Chinese bond market in 2022?

Clifford: We expect more balanced, two-way flows to drive the market in 2022. Foreign inflows should continue to be strong because China is still one of the few major economies running positive real interest rates. Meanwhile, investors and index providers continue to increasingly recognize Chinese government bonds as a mainstream asset class, through either higher investment allocations or broader index inclusions.

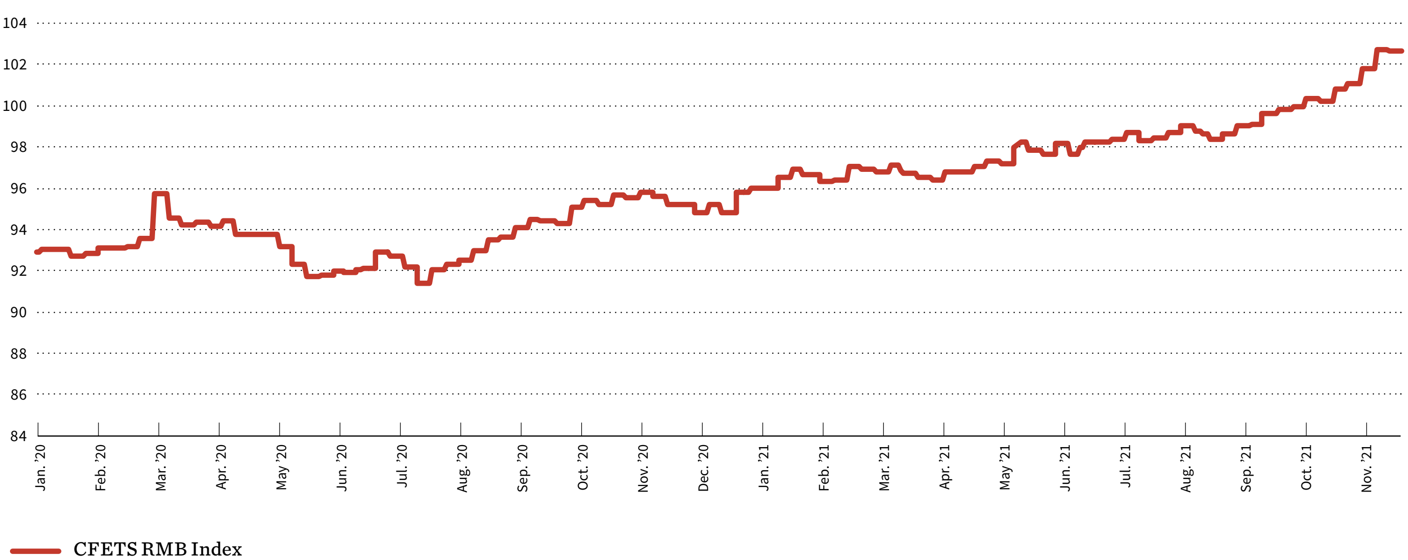
On the other hand, interest rates are rising globally amid pent-up inflationary pressures globally. This has the potential to make Chinese government bonds less attractive than U.S. Treasuries and European bonds from a valuation standpoint. Of course, there is still a long way to go in closing the valuation gap, but investors may need to seriously reevaluate the arbitrage trade of going decidedly long Chinese government bonds if inflationary risk in China increases like it has in other countries.

> "Rising interest rates have the potential to make Chinese government bonds less attractive than U.S. Treasuries and European bonds."
>
> **Clifford Chi-wai Lau, CFA**

EXHIBIT 13

Strong RMB Drives Bond Returns—But For How Long?

The strong renminbi has boosted Chinese government bond returns for offshore investors. But a strengthening U.S. dollar and expected slowdown in China's export growth could turn tailwinds into headwinds, and make the Chinese bond market much less attractive globally.



Source: Bloomberg, as of December 2021. **Past performance is not indicative of future results.** Indices are unmanaged and do not incur fees or expenses. A direct investment in an unmanaged index is not possible.

Given these countervailing pressures, local inflation could determine the fate of the Chinese bond market in 2022. Chinese CPI remains low, and I don't expect inflation to increase much, at least in the first half of 2022. So I am cautiously optimistic about Chinese government bonds, and I think that current valuations are attractive from both an outright and relative perspective.

The renminbi (RMB) is an important risk factor to watch for currency-adjusted bond returns. It is strong now—the CFETS RMB Index was over 102 at the end of 2021, driven by offshore investor inflows, FX (resilience thanks to the government's stable currency policy), and healthy current account positioning (which occurred as travel restrictions prevented leakage from tourism outflows). But a view of continued RMB strengthening will start to be challenged against a backdrop of a strengthening U.S. dollar and an eventual slowdown in China's export growth.

Vivian, given the large-scale social and economic rebalancing in China right now, where do you see opportunities in the equity markets?

Vivian: Traditionally, core investment opportunities in China have been in structurally growing sectors, such as consumer, healthcare, and technology. In our view, that has not changed, although the near-term growth outlook of these sectors such as consumer and healthcare may be impacted by the resurgence of COVID variants and the related lockdowns. Some segments have faced material policy headwinds in recent times, but these have largely stabilized. The internet and e-commerce industry remains an important opportunity because the business model is so favorable; plus, recent policy-related concerns have made valuations more attractive.

We also continue to see opportunities in healthcare, especially in areas such as contract research/ manufacturing organizations, innovative drugs, specialty hospitals, non-generic Chinese traditional medicine, and others. These are secular growth areas because they are underpenetrated, and/or there is a big domestic substitution story taking place. For example, certain highly innovative Chinese medical products and devices are much cheaper than global peers for the same technological efficacy.

We also like technology. Digital technology used to be dominant, and is still important, but hardware-driven technology is a bigger growth story now. This includes high-end manufacturing, automation, semiconductors, green energy, electric vehicle batteries, and the like. We think it will be even more attractive in the future, both from the perspective of industry growth and government support.

> "Digital technology used to be dominant, and is still important, but hardware-driven technology is a bigger growth story now."
>
> **Vivian Lin Thurston, CFA, Partner**

Final Takes

Marcelo Assalin, CFA, Partner

HEAD OF EM DEBT

We believe EM debt will be challenged in early 2022 by the same virus-related factors and shifts in monetary policy that led to a weakening of the asset class in the latter half of 2021. We anticipate a more positive trajectory for EM debt in the second half of 2022, however. We believe supportive fundamental and technical conditions, along with attractive valuations, should lead to strong performance for the asset class as 2022 progresses.

Olga Bitel, Partner

GLOBAL STRATEGIST

We believe 2022 is shaping up to be a year during which economic growth and inflation slow toward healthy rates, thereby paving the way to a sustainable, multi-year expansion.

Clifford Chi-wai Lau, CFA

PORTFOLIO MANAGER, EM DEBT

Chinese government bonds should see more volatility in 2022 as a result of pent-up inflationary risk. Meanwhile, the strong U.S. dollar backdrop makes the relative strength of RMB this year an important risk factor to watch for currency-adjusted bond returns.

Todd McClone, CFA, Partner

PORTFOLIO MANAGER, EM EQUITIES

Memories of the 2013 “Taper Tantrum” loom large for investors, but EM equities are in a starkly different position today. The recent underperformance of EM equities, coupled with improvements in their growth prospects and fiscal conditions, should position EMs to weather the headwinds of tightening U.S. monetary policy while benefiting from a broadening of the global economic recovery.

Vivian Lin Thurston, CFA, Partner

PORTFOLIO MANAGER, EM AND CHINESE EQUITIES

Despite the current transitioning and rebalancing phase the China economy faces, we believe the investment case for Chinese equities remains intact. It is supported by an accelerated shift to domestic consumption and services and broadened technological advancements.

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William Blair is committed to building enduring relationships with our clients and providing expertise and solutions to meet their evolving needs. We work closely with most sophisticated investors globally across institutional and intermediary channels. We are 100% active-employee-owned with broad-based ownership. Our investment teams are solely focused on active management and employ disciplined, analytical research processes across a wide range of strategies. As of December 31, 2021, we manage $79.6 billion in assets. We are based in Chicago with resources in New York, London, Zurich, Sydney, Stockholm, The Hague, and Singapore and dedicated coverage for Canada.

Beta is a quantitative measure of the volatility of a portfolio relative to the overall market, represented by a comparable benchmark. The **Bloomberg U.S. Corporate High Yield Total Return Index** covers performance for U.S. high-yield bonds. The **CFETS RMB Index** measures the value of yuan against a basket of 24 major currencies, with weights based on international trade and has an end-2014 base year. The **CSI 300 Index** is a free-float weighted index that consists of 300 A-share stocks listed on the Shanghai or Shenzhen Stock Exchanges. The **J.P. Morgan Emerging Market Bond Index Global Diversified (EMBIGD)** tracks the total return of U.S.-dollar-denominated debt instruments issued by sovereign and quasi-sovereign entities. (Index information has been obtained from sources believed to be reliable but J.P. Morgan does not warrant its completeness or accuracy. The indices are used with permission. The indices may not be copied, used, or distributed without J.P. Morgan's prior written approval. Copyright 2020, J.P. Morgan Chase & Co. All rights reserved.) The **MSCI China All Shares Index** captures large and mid-cap representation across China A-shares, B-shares, H-shares, Red-chips, P-chips and foreign listings (e.g. ADRs). The index aims to reflect the opportunity set of China share classes listed in Hong Kong, Shanghai, Shenzhen and outside of China; it is based on the concept of the integrated MSCI China equity universe with China A-shares included. The **MSCI China Investable Market Index (IMI)** captures large, mid and small cap representation of approximately 99% of the investable equity universe for China's mainland market. With 994 constituents, the index includes A, H, B, Red chip and P chip share classes. The **MSCI Emerging Markets (EM) Index** captures large- and mid-cap representation across 27 EMs. The **MSCI Emerging Markets Investable Market Index (IMI)** captures large-, mid- and small-cap representation across 27 EMs. The **MSCI World Index** captures large- and mid-cap representation across 23 developed markets. The **Standard & Poor's (S&P) 500 Index** tracks the performance of 500 large companies listed on stock exchanges in the United States. Index performance is provided for illustrative purposes only. Indices are unmanaged and do not incur fees or expenses. A direct investment in an unmanaged index is not possible.

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