Morgan Stanley
INVESTMENT MANAGEMENT

THE BIG PICTURE
Key Themes for 2023

MACRO INSIGHT | Q1 2023

The easy money era ended last year as the U.S. Federal Reserve raised rates at the fastest pace since the 1980s to control 40-year high inflation.[1] The COVID-19 pandemic has eased, the Russia-Ukraine conflict has reached a stalemate and the global economy is now adjusting to long-lasting impacts that will usher in new investment themes. Most notably among them are migration trends, a declining U.S. dollar, tighter commodity markets, cracks in the semisphere, a revival in Capex, supply chain resiliency and new leadership in economies and markets. In this paper, we roll out our key themes for the year that will likely have major economic, political and market implications.

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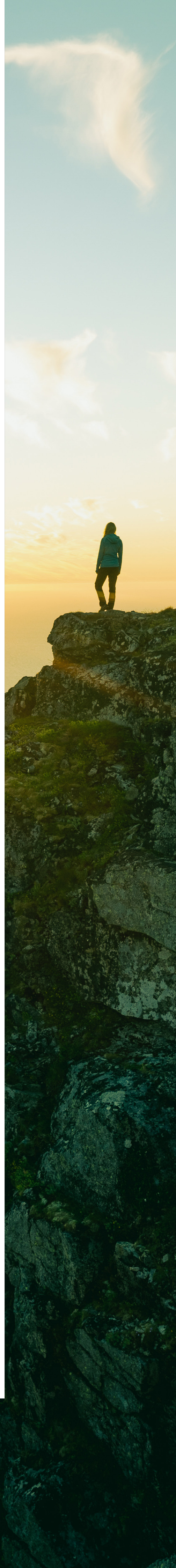
KEY THEMES FOR 2023

1. Prolonged Economic Adjustment
2. 3 M's: Millennials, Migrants and Millionaires
3. Commodities: Tighter for Longer
4. Dollar: Mighty No More
5. Cracks in the Semisphere
6. Supply Chains Untangled
7. 4 C's: 4 Capex Engines
8. 60/40 Reboot
9. Emerging Markets Step into the Spotlight
10. Time for Change: New Leaders, New Themes

1. Prolonged Economic Adjustment

The U.S. has experienced its highest inflation in 40 years and the fastest pace of interest rate hikes since Paul Volcker's crusade against rising prices in the 1970s. The percentage of economic forecasters expecting negative growth in 2023 is the highest it has been in the last 50 years at 44%, as the impact of the lagged monetary tightening is felt across the economy.[2] Wall Street's view is shared by Main Street as CEO sentiment hovers near historical lows. The same consensus believes the recession will lead to a fall in

[1] MSIM, Bloomberg, FactSet, Haver.
[2] MSIM, Bloomberg, FactSet, Haver.



inflation, followed by a Fed pivot and a cut in rates that will propel a growth pickup and market rally in the second half of the year—the quintessential tale of two halves of a dip followed by a rip. We believe the economic adjustment will be more drawn out rather than a V-shaped recovery.

Structural pressures in the labor market, such as a declining workforce, falling immigration and employer incentives to retain workers could limit job market declines. It may take a long time for the unemployment rate to climb from 50-year lows.[3] Wage growth at 4-5% suggests no sharp adjustment in consumption and may take sometime to fall to levels consistent with the Fed's 2% inflation objective.[4]

The housing sector will also be slow in adjusting given there are few sellers, and the buyers are stepping back. Sixty percent of the housing stock is owned by the 55+ age group that is less likely to relocate or downsize.[5] Since many homeowners obtained low interest rate mortgages, there is little incentive for them to sell and buy at a higher mortgage rate. At the same time, higher interest rates have led to a collapse in demand. It will take some time for the housing market price discovery and adjustment to occur.

Although inflation should ease from its recent highs, it could stay higher for longer. The Fed wants to avoid the monetary policy reversals of the 1970s when they tightened on three separate occasions to break the back of inflation, which could be more durable this time given tight labor markets, resource intensive energy decarbonization and less competition due to deglobalization.

2. 3 M's: Millennials, Migrants and Millionaires

The unmooring of three groups, Millennials, migrants and millionaires signals shifting global trends in consumption patterns and capital flows.

The Millennials, the generation that started the trend of playing football on a video game console instead of on the playground, now make up 23% of the world population.[6] There are more Millennials in China than the entire population of the U.S.[7] The most educated generation, with more women graduating than men,[8] Millennials are entering first-time home-buying age but can barely afford to rent a dwelling with windows let alone buy a house of their own. Perhaps they should spend less on $10 avocado toasts and $5 lattes. However, recent data suggests that adjusting for inflation and age, they are right on track with both baby boomers and Gen-Xers in terms of wealth per capita.[9] Reared on smartphones, Millennials are more likely to trust an app to assess financial risk and trade in cryptocurrencies more easily than older generations. As for starting a family, according to one survey, 58% of Millennials would rather have a pet than raise a kid.[10]

The working-age population of the world grew 0.8% in 2022 compared to 1.8% in 2002.[11] Countries are looking to migrants to grow their labor force. Yet, the pandemic spurred nativist political parties to clamp down on migrants. In the U.S., immigration has declined steadily since peaking at 1.15 million in 2016 to only 250,000 in 2021.[12] Anti-immigrant policies prevented 2 million immigrant workers from entering the U.S., which was two-thirds of the missing labor force in 2021.[13] Portugal, Spain and Poland have seen a rise in immigration, while Australia, Sweden and Iceland have seen a decline.[14]

Millionaires are an excellent barometer for economic health, and their movements can provide an early signal into future economic trends. The world's millionaires are decamping from geopolitical hot spots: Russia, China, Hong Kong and Ukraine. Russia lost 15,000 millionaires, China lost 10,000.[15] Even in countries where there was no conflict, like India, Brazil, the United Kingdom and Mexico, the financial elite left. While India produces far more millionaires than it loses to migration (India's millionaire population grew by 11.0% in 2021, the second highest in the world after the U.S.),[16] China's loss is a concern as the country's political leadership cracks down on the affluent class.

The UAE is expected to attract 4,000 millionaires, four times higher than before the pandemic thanks to lax visa requirements, low tax rates and friendly investment conditions.[17] The warm weather is a bonus for those escaping Russia's freezing winter. As for the U.S., higher taxes, political volatility, rising crime rates and complicated visa laws have deterred millionaires from arriving. While the U.S. saw around 10,000 millionaires immigrating in 2018, the estimate is only 1,500 in 2022.[18]

3. Commodities: Tighter for Longer

Russia's invasion of Ukraine has forced governments to focus more on alternative sources of energy, increasing demand for both fossil fuels and industrial metals at a time when global supplies have been constrained in the last decade.

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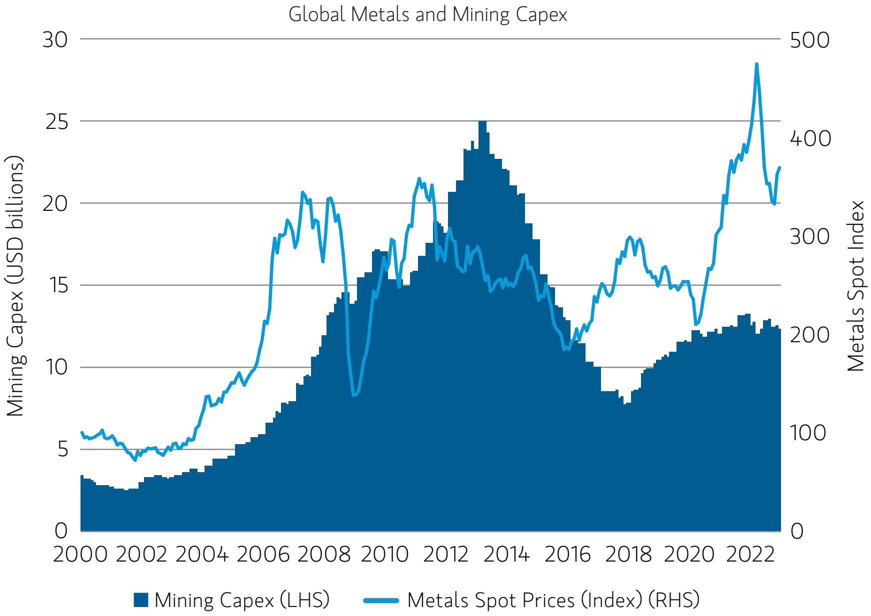
[3] MSIM, Bloomberg, FactSet, Haver.
[4] JEF Economics.
[5] MSIM, Federal Reserve Board, National Bureau of Economic Research, Empirical Research Partners, Haver.
[6] WeForum.
[7] The Business Insider, Haver.
[8] StatusofWomen.org, Pew research Center.
[9] EconomistWritingEveryday.
[10] Consumer Affairs.
[11] MSIM, Bloomberg, FactSet, Haver.
[12] OECD Migration Database.
[13] The Business Insider.
[14] OECD Migration Database.
[15] Henley & Partners.
[16] The Mint.
[17] Henley & Partners.
[18] Henley & Partners.

DISPLAY 1

Mining Capex Not Keeping Pace With Prices

Global metals and mining Capex has halved from a decade ago



Source: MSIM, Bloomberg, FactSet, Haver. As of December 2022.

The Metals Spot Index is represented by the S&P GSCI Industrial Metals Index. The index performance is provided for illustrative purposes only. **Past performance is no guarantee of future results.**

Historically, whenever a new energy source is unearthed, it has been added to the existing energy mix, rather than completely replacing the older source. In past energy transitions, the arrival of new technologies fueled increased competitiveness in old ones before ultimately being superseded by the new technology—steam technology spurred rapid innovation in sails, and electricity growth ignited a gas lighting boom in the early 1900s. This time is no different as global oil demand should remain relatively resilient even in the face of higher Electric Vehicle (EV) penetration and increased renewables at a time of underinvestment in new fields. Global oil Capex peaked at nearly $650 billion in 2014, while in 2021 it was barely above $300 billion.[19]

Although climate change is raising demand for the so-called "green" metals like aluminum, copper and nickel, investment in mines has not kept pace with prices. Global mining Capex has fallen by half from its $25 billion peak a decade ago[20] *(Display 1).* Green metals will continue to benefit from increased decarbonization and capital spending. Both the Inflation Reduction Act and RePowerEU redefine the renewables outlook for the coming decade in both the U.S. and EU, respectively.

However, geopolitical and environmental factors will also keep supply tight. In Chile, proposed laws to change water usage by miners were defeated, but new royalty laws may increase taxation on copper mining. Political tensions in Iran and the continued war in Ukraine may further support prices.

4. Dollar: Mighty No More

Last year, the U.S. dollar (USD) defied predictions of its decline and rose to new highs as interest rates and global growth differentials improved in favor of the U.S.[21] The dollar is expensive by most valuations, and in 2022 reached its second highest level in 50 years, close to the early 1980s peak.[22] Increasing debt and a deteriorating external position should weigh down the greenback. We expect a weaker dollar is in the cards for this year.

The dollar has been the global reserve currency for 100 years, longer than the 94-year average life span of past reserve currencies going back as far as 1450.[23] No single currency is ready to displace the dollar. Yet reserve diversification, alternate payment systems and regional currency blocs will erode the dollar's dominance.

The share of dollar reserves held by global central banks fell to 50%, down from 60% a decade ago.[24] Central banks bought 673 tons of gold in the first three quarters of 2022, compared with 454 tons for the whole of 2021.[25]

As the dominant currency of international trade, the dollar is used in roughly 40% of global trade transactions.[26] Beijing is pushing its partners to use the renminbi (RMB). Russia, the world's largest commodity exporter, has already shifted some of its trades from USD to RMB. An Australian miner made its first deal in iron ore in RMB. Others may follow.

[19] Bernstein, Rystad.

[20] MSIM, Bloomberg, FactSet, Haver. Data as of December 2022.

[21] MSIM, Bloomberg, FactSet, Haver.

[22] MSIM, Bloomberg, FactSet, Haver.

[23] EconomicReason.com, JP Morgan, HKMA, Erste Group.

[24] MSIM, IMF.

[25] World Gold Council. Data as of Q3 2022.

[26] SWIFT.

The size of dollar currency blocs, a group of countries that all use the same currency, has declined from 50% of global GDP in 2000 to 34% today[27] *(Display 2)*. The renminbi bloc has climbed to 29% from 15% in the same period.[28] Alternate payment systems like central bank digital currencies could also dim the dollar's dominance.

In the absence of further geopolitical shocks, we expect the USD to decline from 2022 peaks.

5. Cracks in the Semisphere

Global trade in semiconductors at $770 billion has overtaken trade in oil for the first time in 2020[29] *(Display 3*). Limiting the flow of technology to global rivals has become a key element of U.S. foreign policy. Washington has weaponized the semiconductor industry to cut off China's access to advanced microchips and derail Beijing's defense industry.

The U.S. and its allies control the bulk of advanced semiconductor firms and chip designers, allowing the U.S. to control the choke points.

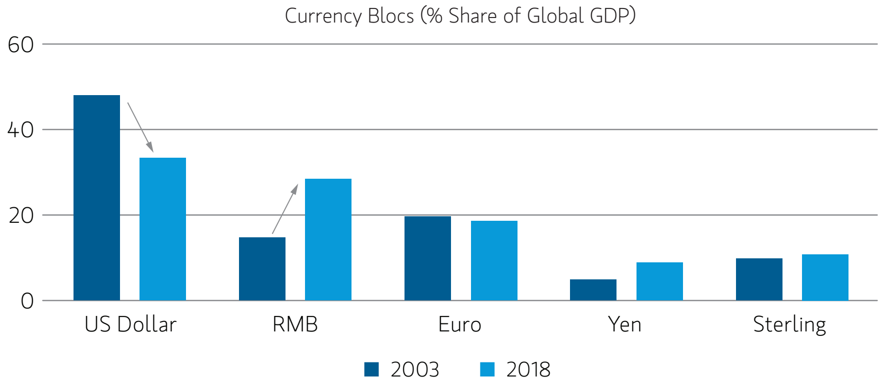
But China is the world's top chip importer, acquiring more than $400 billion in semiconductors, double what it spent importing crude oil[30] and any disruption will be highly damaging. The restrictions come at a time of increased geopolitical tensions over Taiwan, a major manufacturer of advanced chips, creating more reason for China to be careful about how it plans to deal with the island. Though a trade giant, with 20% of global exports and a 19% share in the global economy,[31] China commands less than 3% of world currency reserves and international payments.[32] That should drive the Chinese leadership to invest more in indigenous technology rather than retaliate.

The U.S. track record on sanctions is mixed, judging by the results of actions taken against Iran, North Korea, Venezuela and now Russia.

DISPLAY 2

Currency Blocs Reflect Declining US Dollar Dominance

US Dollar bloc loses and RMB bloc gains



Source: MSIM EM Research, Silk Road Briefing, MS Research, Bloomberg.

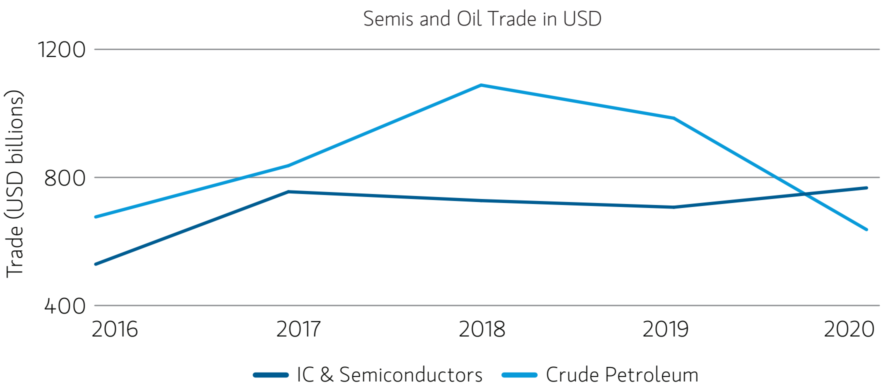
Embargoed countries usually find a way to bypass sanctions. There are cost and talent constraints for the U.S. that will hamper its efforts to meet its goal. Building a fabrication facility in the U.S. can be 50% more expensive than a similar one in Taiwan.[33] The U.S. share of global chip manufacturing has eroded, from 37% in 1990 to 12% in 2020, while China's share has gone from around zero to about 15%.[34]

Chips are the new oil and the tech war between the two superpowers could define the limitations of digital sovereignty and the extent to which countries can weaponize trade, finance and technology given the interlinkages between them. The U.S. is limited in how long it can restrict China from acquiring advanced chips, while Beijing is also constrained in how it can retaliate against Washington.

DISPLAY 3

Semis Are the New Oil

Global trade in semiconductors exceeds global trade in crude oil



Source: MSIM, Deutsche Bank, WTO.

[27] MSIM, IMF.
[28] Deutsche Bank, OEC Data.
[29] Deutsche Bank, OEC Data.
[30] Deutsche Bank.
[31] MSIM, Bloomberg, FactSet, Haver.
[32] MSIM, Bloomberg, FactSet, Haver.
[33] The BBC.
[34] Deutsche Bank.

6. Supply Chains Untangled

The decoupling of the two economic superpowers has gathered pace. While China now accounts for 18% of total U.S. imports, down from 23% in 2018, Beijing has in fact increased its share of global exports to 20% from 18% in 2019, by sending more goods to Europe and other developing countries.[35]

The four key drivers of the supply chain changes are: onshoring, friend-shoring/reshoring, inventory buildup and data-centric approaches.

Bringing production back home has received much publicity. Growth in manufacturing employment has been the highest since 2010, and corporations increased their capital spending in 2022.[36] However, onshoring will be limited to the manufacturing of critical equipment because of high labor costs.

Complete decoupling from China is unlikely, but companies are looking at reshoring, or "China Plus One" strategy, to diversify their supply chains. Beijing's geopolitical muscle flexing, rising labor costs and human rights issues create concerns for many global companies. Supply chain untangling is opening new pockets of growth opportunities in emerging economies where the cost of land, labor and capital is competitive, and politics is stable.

India, Indonesia, Malaysia, Mexico, Thailand and Vietnam are all expected to benefit from U.S.-China decoupling in industries like textiles, electronics, chemicals, pharmaceuticals, machinery and autos.

7. 4 C's: 4 Capex Engines

We believe there are four areas of capital spending that are of particular interest: clean energy, defense, resilience and substitution.

CLEAN ENERGY: The Inflation Reduction Act directs nearly $400 billion of subsidies and tax credits for energy-related projects which could boost annual spending on energy infrastructure by as much as $200 billion a year by the end of the decade.[37] Europe foresees €210 billion of investments by 2027 to end dependency on Russian gas.[38] We expect increased demand for "green" metals like copper, lithium, nickel and platinum.

DEFENSE: Spending on military budgets is increasing around the world. Currently, nine NATO members are expected to meet the target of spending 2% of their GDP on defense but if all members did, that would add another $83 billion to defense budgets.[39] Cybersecurity spending is estimated to exceed $200 billion by 2024, a 43% increase from 2021 levels.[40]

RESILIENCY: Countries, and corporations, plan to reduce their dependence on foreign powers for energy, industrial commodities, food, semiconductors and medicine. Onshoring is picking up. The S&P 500 manufacturer's annual capital spending in 2021 was the highest it has been since 2012.[41] Companies are moving some capacity in cars, electronics, phone assembly and batteries to India, Mexico and the ASEAN region.

SUBSTITUTION: Ongoing labor shortages will force companies to look to technology-driven solutions. New capital spending should advance technology initiatives from AI to Robotics and digitization to boost productivity.

As capital spending moves in multi-year cycles, we expect the current boom to last for a while. The broader capital equipment sector, industrial goods manufacturers and infrastructure assets should do well.

8. 60/40 Reboot

Last year, the traditional 60/40 portfolio (60% equities, 40% bonds) recorded its worst performance since 1937 and the fourth worst year in the last 200 as correlation between bonds and equities turned positive.[42] The appeal of this portfolio is that when stocks have a down year, bonds usually provide some relief and vice versa. Since 2000 the rolling 10-year correlations between stock and bond returns have been negative but moved dramatically higher in the last couple years as long-term bond rates rose from historically low levels.[43] Correlations are no longer negative, undermining some of these diversification benefits.[44] In fact, inflation, rising interest rates, lower economic growth and a strong dollar created the worst macro conditions for the 60/40 portfolio in 2022.[45]

However, reports of the 60/40 demise may be greatly exaggerated. Market participants often have a bias to extrapolate recent trends into the future, and have questioned the value of diversification embedded within the traditional 60/40. But based on historical data, the probability of stocks and bonds both turning negative in the same year is only 8%, or 16 years out of the 202 years of data we analyzed.[46] Hence, one is investing *against a 92% historical probability* when assuming that the 2022 outcome is the new norm moving forward.[47] In addition, we believe getting the macro right is a key determinant of 60/40 portfolio outcomes.

Portfolios need to be adjusted for complex macro conditions going forward, now that the "Great Moderation," an era of low inflation and low interest rates, has ended. Expected returns for both stocks and bonds should also be lower compared to the past decade, given lower earnings growth compared to the past and higher bond yields.

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35 MSIM, Bloomberg, FactSet, Haver.
36 Empirical Partners.
37 Congressional Budget Office, Empirical Research Partners Analysis. Data as of September 2022.
38 European Commission. Data as of May 2022.
39 MSIM, Bloomberg, FactSet, Haver, MSIM Market Research. Data as of 2022.
40 Bloomberg Intelligence.
41 Corporate Reports, Empirical Research Partners Analysis. Data as of November 2022.
42 MSIM, Robert Shiller, Global Financial Data.
43 MSIM, Robert Shiller, Global Financial Data.
44 MSIM, Robert Shiller, Global Financial Data.
45 MSIM, Robert Shiller, Global Financial Data.
46 MSIM, Robert Shiller, Global Financial Data.
47 MSIM, Robert Shiller, Global Financial Data.

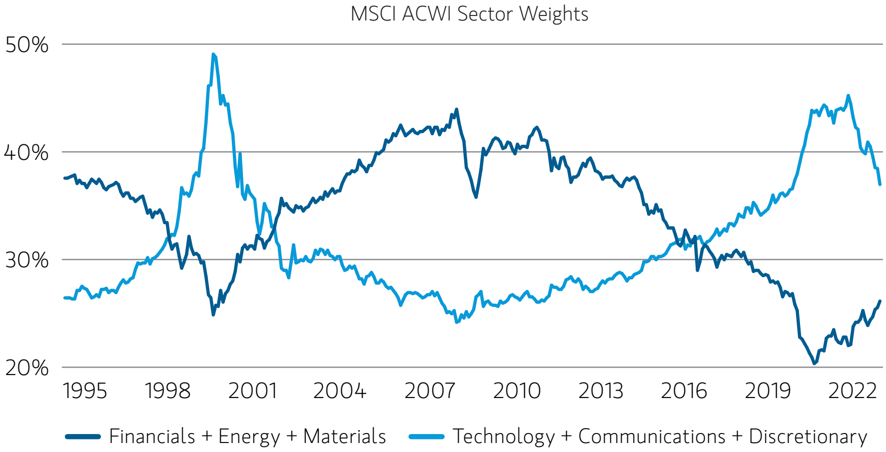
A prolonged economic adjustment implies a multi-asset portfolio will still be beneficial. The total amount of negative yielding global debt has been virtually erased after peaking at $17 trillion in 2020, creating opportunities.[48] A weaker dollar suggests better growth elsewhere compared to the U.S., such that international equity and fixed income look attractive to us. Currencies in both developed and emerging markets historically have contributed to a third of equity returns for USD investors.[49] Alternative investments are key diversifiers given higher interest rates, inflation and growth volatility.

After a year of turmoil, the returns of 60/40 portfolios can likely improve over the coming year as macro conditions change. We believe going global within both equity and bond allocations should enhance returns, while redirecting some bond allocations to alternatives can offer potential for alpha, inflation protection and further diversification. Stay invested, stay diversified.

DISPLAY 4

Changing Fortunes: Old Economy versus New Economy

Last decade's winners should give way to new leaders this decade



Source: MSIM, Bloomberg, FactSet, Haver.

9. Emerging Markets Step into the Spotlight

In the 2010s, emerging market (EM) equities suffered their worst performance as an asset class since the 1930s.[50] An important factor inhibiting EM equity performance was the deterioration in the growth differential between emerging economies and the developed world (mainly the U.S.). Emerging market countries ran high twin deficits and suffered from a series of loose fiscal and monetary policies that led to currency depreciations.[51]

EMs are in a much stronger position to outperform developed countries this decade. Relative growth differentials favor EM equities; EM sovereigns and corporates are in better shape compared to Developed Markets because of deleveraging; EM external balances have improved, and EM equities and currencies are trading at crisis-level valuations.[52]

After four decades of growth, China's economic engine is faced with a series of challenges: mounting debt, lower productivity and a declining working age population.[53] The weight of China in the MSCI Emerging Markets Index peaked at 43% in 2020 and has fallen to 33% today.[54] China's weight in the index will decline as other economies experience faster growth.[55]

Emerging economies beyond China should benefit from new thematic drivers. The decarbonization push will help commodity exporters like Brazil. Manufacturing revival from the "China Plus One" strategy should be a boon for certain countries in ASEAN, India and Mexico. Digitization will have a bigger impact in emerging economies than developed ones. Policies and politics in EM look more favorable as countries like India, Indonesia, Saudi Arabia and Brazil implement reforms.

Despite offering better growth opportunities, EM equities are trading at crisis-level valuations.[56] Emerging Markets have outperformed Developed Markets since the MSCI EM Index inception in 1988 even after weathering numerous financial storms and large drawdowns.

10. Time for Change: New Leaders, New Themes

Looking back at markets in the post-war era, we see that during every decade a new investment theme dominated market leadership. In the 1950s the theme was European stocks; in the 1960s the Nifty Fifty; in the 1970s gold and oil; in the 1980s Japan; in the 1990s U.S. technology, media and telecom (TMT) companies; in the 2000s BRICS (Brazil, Russia, India, China and South Africa) and commodities and in the 2010s U.S. mega caps.[57]

Beyond thematic shifts, there is churn at country, sector and stock level too as each investment theme produces new stock leadership that is different

[48] JPM, Bloomberg.
[49] MSIM, Bloomberg, FactSet, Haver
[50] Bloomberg, FactSet, Haver.
[51] MSIM EM Research.
[52] MSIM, Bloomberg, FactSet, Haver.
[53] MSIM, Bloomberg, FactSet, Haver.
[54] MSIM, Bloomberg, FactSet, Haver. Data as of 2022.
[55] MSIM, Bloomberg, FactSet, Haver.
[56] MSIM, Bloomberg, FactSet, Haver.
[57] MSIM, Bloomberg, FactSet, Haver.

from the previous decade's leaders. The dominant stocks of one decade do not extend to the next, with rare exceptions like Microsoft, GE and Walmart that were in the top 10 largest companies for 2-3 consecutive decades.[58]

When one group of sectors rises, another falls. Technology, communications and discretionary peaked at 45% of the global equity indexes last year, not far from the peaks of the 2000 tech euphoria.[59] Energy, materials and financials troughed at their three-decade low at 20% of the MSCI All Country World Index in 2021, back to levels last seen at the time of the 2000 tech bust.[60] Now, energy, materials and financials are on the rise[61] *(Display 4).* The last decade's sector winners should give way to new leaders.

Economies in Latin America, India, Indonesia and the Gulf Cooperation Council countries outperformed the U.S. in 2022, signaling a change in market leadership.[62] In fact, 9 of the top 10 performing markets were emerging countries.[63]

The U.S. and mega cap stocks were last decade's growth stars. It's time to look for new leaders in international economies, sectors and stocks that will be this decade's drivers.

Risk Considerations

There is no assurance that a portfolio will achieve its investment objective. Portfolios are subject to market risk, which is the possibility that the market values of securities owned by the portfolio will decline and that the value of portfolio shares may therefore be less than what you paid for them. Asset allocation/Diversification does not protect you against a loss in a particular market; however it allows you to spread that risk across various asset classes. Market values can change daily due to economic and other events (e.g. natural disasters, health crises, terrorism, conflicts and social unrest) that affect markets, countries, companies or governments. It is difficult to predict the timing, duration, and potential adverse effects (e.g. portfolio liquidity) of events. Accordingly, you can lose money investing. In general, **equities securities'** values also fluctuate in response to activities specific to a company. Investments in **foreign markets** entail special risks such as currency, political, economic, market and liquidity risks. The risks of investing in **emerging market countries** are greater than the risks generally associated with investments in foreign developed countries. Stocks of **small-capitalization companies** entail special risks, such as limited product lines, markets, and financial resources, and greater market volatility than securities of larger, more-established companies. The **commodities markets** may fluctuate widely based on a variety of factors. These include changes in overall market movements, domestic and foreign political and economic events and policies, war, acts of terrorism, changes in domestic or foreign interest rates and/or investor expectations concerning interest rates, domestic and foreign inflation rates and/or investor expectations concerning inflation rates and investment and trading activities of mutual funds, hedge funds and commodities funds.

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[58] Bloomberg.

[59] MSIM, Bloomberg, FactSet, Haver.

[60] MSIM, Bloomberg, FactSet, Haver.

[61] MSIM, Bloomberg, FactSet, Haver.

[62] Bloomberg.

[63] MSIM, Bloomberg, FactSet, Haver.

DEFINITIONS

Gross Domestic Product (GDP) is the monetary value of all the finished goods and services produced within a country's borders in a specific time period. It includes all private and public consumption, government outlays, investments and net exports.

INDEX DEFINITIONS

The **MSCI Emerging Markets Index (MSCI EM)** is a free float-adjusted market capitalization weighted index that is designed to measure equity market performance of 23 emerging markets.

The **MSCI All Country World Index (ACWI)** is a free float-adjusted market capitalization weighted index designed to measure the equity market performance of developed and emerging markets. The term "free float" represents the portion of shares outstanding that are deemed to be available for purchase in the public equity markets by investors. The performance of the Index is listed in U.S. dollars and assumes reinvestment of net dividends.

The **S&P 500® Index** measures the performance of the large cap segment of the U.S. equities market, covering approximately 75% of the U.S. equities market. The Index includes 500 leading companies in leading industries of the U.S. economy.

The **S&P GSCI Industrial Metals Index** provides investors with a reliable and publicly available benchmark for investment performance in the industrial metals market.

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There is no guarantee that any investment strategy will work under all market conditions, and each investor should evaluate their ability to invest for the long-term, especially during periods of downturn in the market.

A separately managed account may not be appropriate for all investors. Separate accounts managed according to the particular Strategy may include securities that may not necessarily track the performance of a particular index. A minimum asset level is required.

For important information about the investment managers, please refer to Form ADV Part 2.

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