

Global Markets April 2022 Outlook

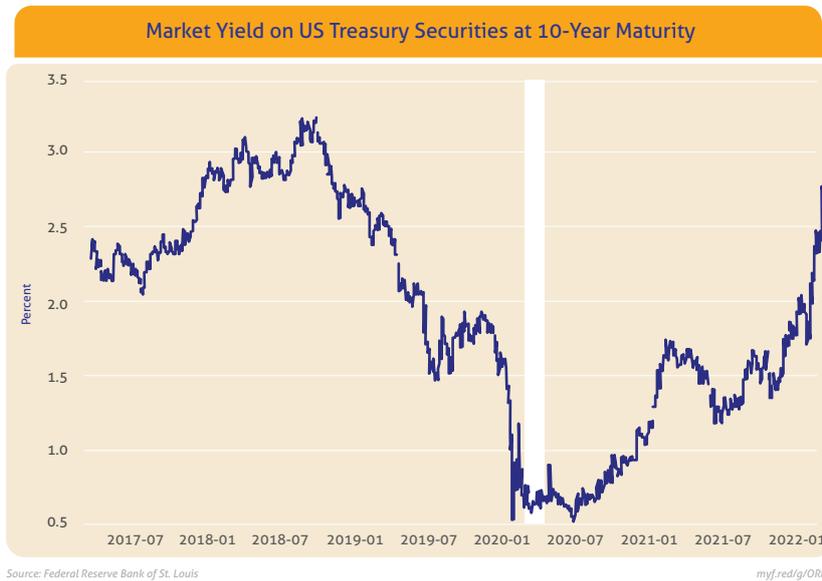
*Equity, bond
markets expected
to fare better in
second half 2022*

Our approach to investing is principally bottom-up; that is, we focus on individual company selection and portfolio construction. The global political economy can impact the investment outlook, individual company and portfolio performance, but we view these generally as factors that impact short-term performance. Our long-term, generational focus is on finding companies that are well-managed and have strong competitive market positions in countries where the rule of law is protected. Having said this, we do discuss our views on important trends in the global political economy to establish a context for the short to medium term performance of our portfolios and any meaningful changes to the long-term economic changes our portfolio companies operate under. In January of this year, we said the following:

The environment for risk assets appears to have changed since the start of 2022. The key change in our view is the market perception that the Federal Reserve is more hawkish than the prior consensus. Federal Reserve Chairman Powell and other members have suggested that short term rates will rise, and the Quantitative Easing program will end. We expect 2022 to be somewhat choppy as the markets adjust to inflation expectations, a hawkish Fed, and the impact of rates on the Economy. Fed Chairman Powell's tone on rates may be part of an attempt to adjust inflation expectations without having to tighten monetary policy to an extent where economic growth is significantly impacted. It appears that the Federal Reserve's change in tone is having an impact on the structure of rates. The US Yield curve has flattened significantly suggesting slowing economic growth and inflation ahead. While it is difficult to predict when the supply chain problems get sorted out, given the global pandemic, we think inflationary pressures are likely to moderate as we head to 2023. The MSCI US Index was down about 10% (as of January 27, 2021), but the last several months have seen deep corrections in high valuation stocks, with a large part of the Nasdaq in deep bear market territory. We expect markets to recover and post a low return (5-10%) for the full year.

For the Q1 2022, MSCI ACWI Index was -5.36%, EAFE Index -5.91% and the MSCI EM Index lagged at -6.97%. The Equity Markets rebounded from the deep correction in January but have retreated further in April. At the end of April, the MSCI ACWI was -12.94%, EAFE Index -12.00% and EM Index -12.15%. Among major markets, outperformers through April included ones that are commodity driven like Canada (3.72%), Australia (-0.67%) and Brazil (+14.24%), besides UK (-3.45%) and India (-3.69%). Underperformers included Germany (-20.52%), China (-17.74%), and USA

(-14.18%). The US bond market has performed worse than the equity market with yields higher across maturity. The bond ETF TLT which has an effective duration of 18.3 years is down 20.36% as of May 3rd, 2022¹.



While the bond markets have repriced inflation risks, the interest rate increases have been sharper over the shorter durations. The 10 year-2 year spread has narrowed significantly and the 5 year- 5 year inflation expectations remain reasonably anchored. Both of these suggest market expectations that inflation will subside over time and Federal Reserve actions in terms of short-term rate increases and quantitative tightening will slow down the economy.



1. <https://www.ishares.com/us/products/239454/ishares-20-year-treasury-bond-etf>



Commodity prices have generally been strongly driven by concerns about supply disruptions from the direct impact of the Ukraine war and secondary impact from sanctions against Russia.

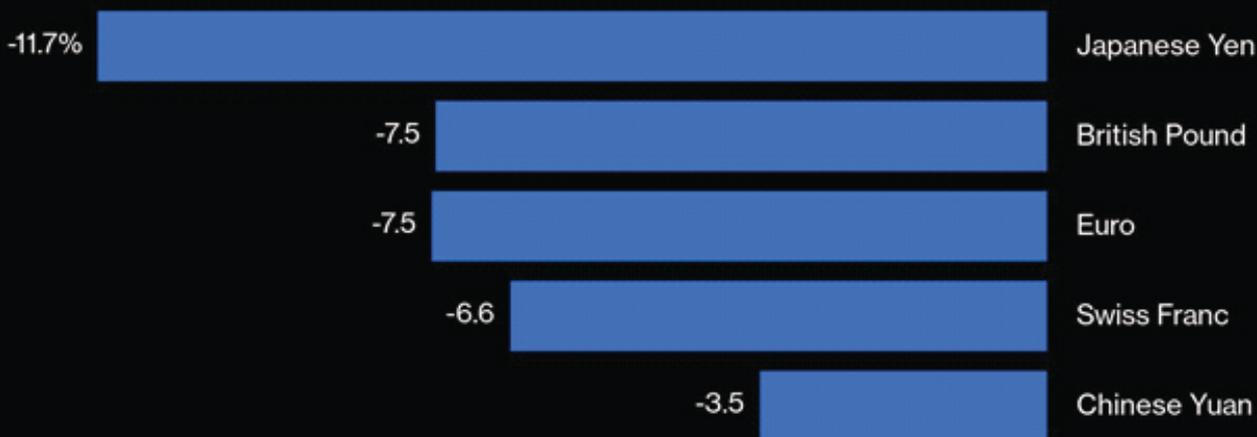


The US dollar has been strong over the last one year based on expectations of rising real interest rates and potentially the view that geo-political risks in Europe may remain elevated in the medium term.

Dollar Dominance

All of the world's major currencies have declined against the greenback

■ Year-to-date performance versus dollar



Source: Bloomberg

BloombergOpinion

In January we wrote the following:

The great risk to Europe this year is geo-political- the risk of conflict at its eastern border. Russia, which retains a relatively strong military but with much diminished economic power, feels threatened by NATO expansion to countries which were formerly in Russia's orbit. Any open conflict brings the threat of Western sanctions, but the interests of the United States and Europe may diverge when it comes to the scope of such sanctions. Europe depends on Russia for much of its Natural Gas supply and punitive sanctions against Russia brings the threat of Gas supply cut-off and substantial economic hardship. Our base case is that the conflict between Russia and Ukraine, and the indirect conflict with NATO, will remain a cold conflict.

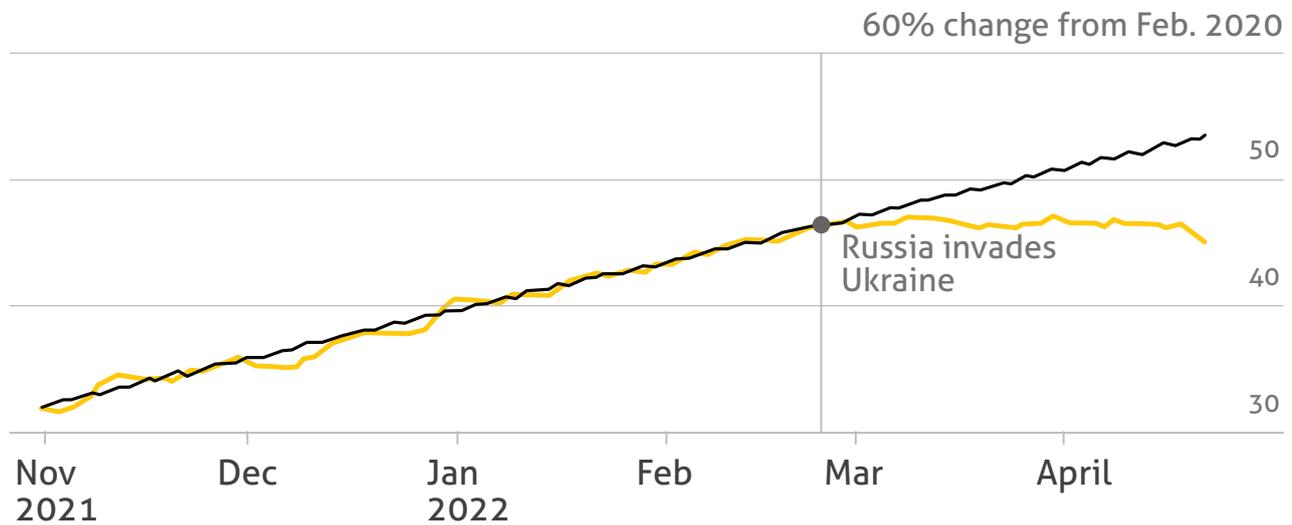
Our assessment of the likelihood was wrong- it was based on our view that Putin would act rationally to protect Russia's long-term economic and political interests. Putin's folly will be destructive for both Ukraine and Russia- much greater for Ukraine in the short-term and far greater for Russia in the long term unless it changes the strategic choices made under Vladimir Putin.

Europe faces weaker growth and rising prices as it deals with war on its eastern border.

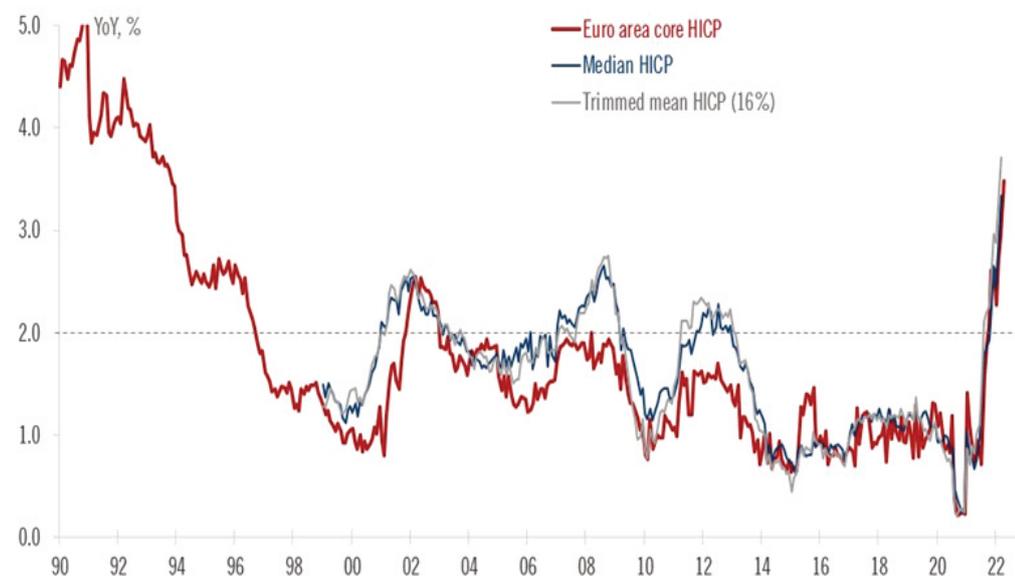
War Weighs on Jobs

European job growth stalled with the war in Ukraine

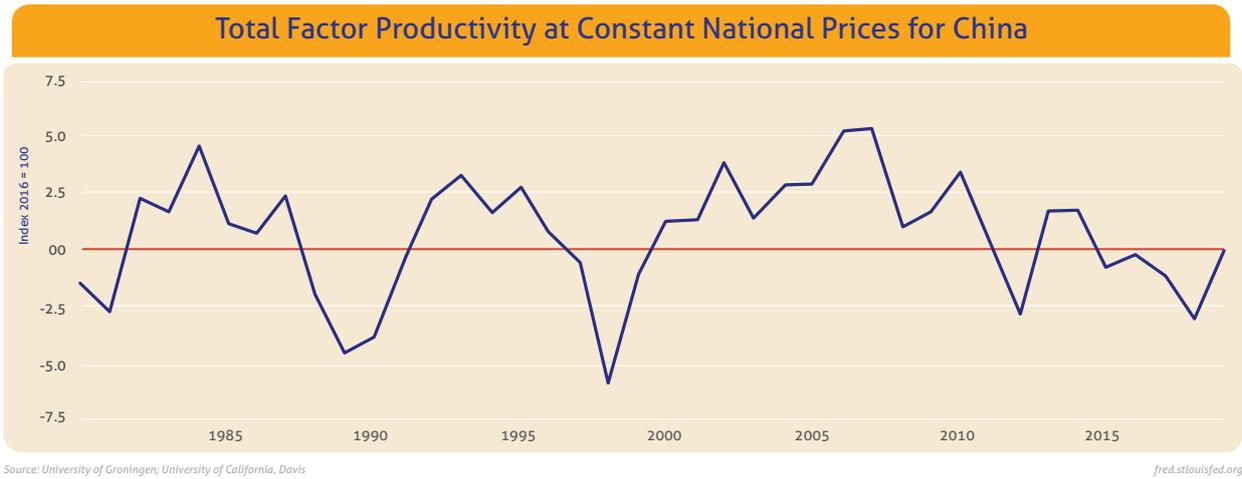
/ Growth trend
 / Job postings



Source: Indeed

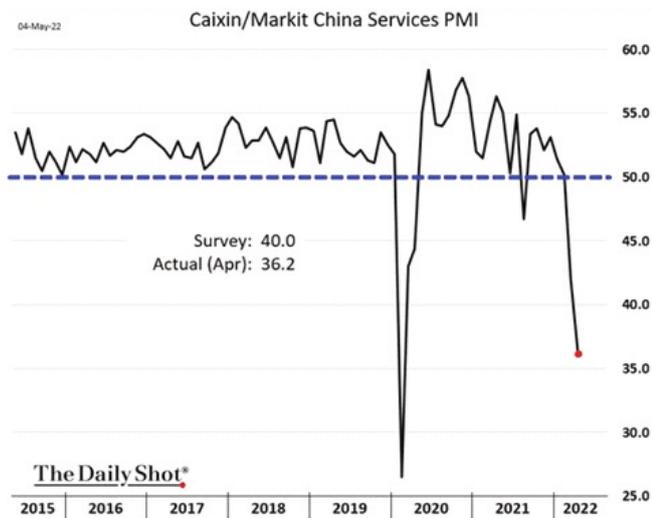


We have expressed caution on investing in China in the past for a number of reasons- weak rule of law, economic growth driven by unproductive investments, the large increase in debt after the Great Financial Crisis (2008), the likelihood that the working age population will decline over the next few decades and the increasingly authoritarian government in the country with no checks or balances to the Communist Leader, Xi Jinping.



As productivity has tailed off in China, economic growth has been supported by excess infrastructure investment. Economic growth has also been aided by focusing on export growth backed by low domestic wages relative to productivity. This lowers personal income and domestic consumption. Personal wealth creation has been driven by increasing real estate prices. The focus on achieving pre-set economic growth has created imbalances in the economy and these will result in lower future growth and/or unsustainable debt levels.

The lack of checks and balances to the Communist Leader, Xi Jinping creates long-term risk very similar to what we have witnessed in Russia. If we leave aside the issues of civil liberties (there is much to discuss here in terms of the treatment of Uighurs, Tibetans and residents of Hong Kong, but we will leave that for another day), the impact of what appears to be a highly irrational zero Covid policy on the economy demonstrates the risk investors face in the country. Large parts of the country appear to be shut down as the latest Covid variant spreads in the country. China's home-grown vaccine is widely considered to be ineffective, and the country's leaders have chosen pride over prudence resulting in a population that has minimal immunity compared to most parts of the world. We expect economic growth to be impacted, but it is possible that the Chinese Communist Party go back to their usual playbook of infrastructure or real estate investments to report GDP growth in line with the stated goal. Charts below suggest significant weakness in the economy.



Source: IHS Markit

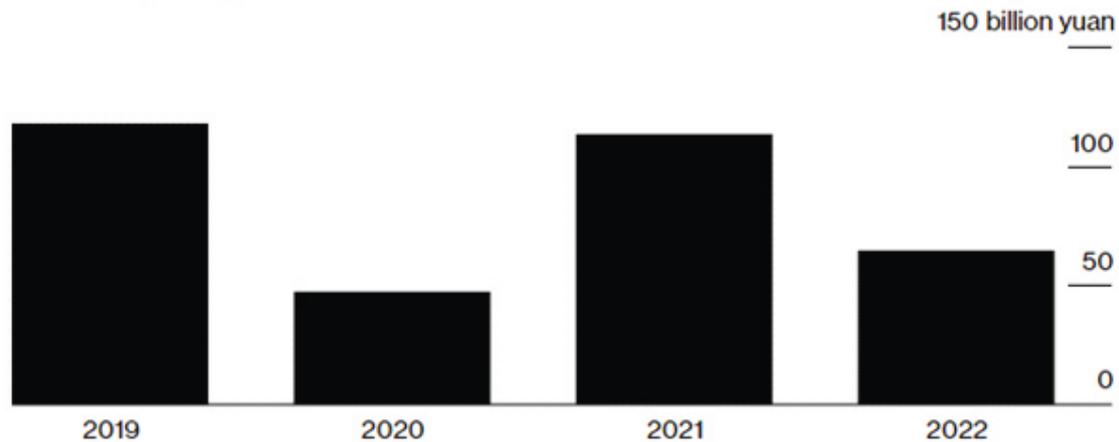


Source: IHS Markit

Vacation Curbs

Spending during China's Labor Day vacation fell sharply on virus curbs

■ Tourist spending



Source: China Ministry of Culture and Tourism

India is expected to continue as the fastest growing major economy in the near term. The IMF² is projecting GDP growth of 8.2% in 2022 and 6.9% in 2023. We expect the growing uncertainty in global geopolitics and rising interest in India and the United States to potentially result in slightly lower growth than these projections. Rising internet access, the Unified Payments Interface (UPI), an instant real-time payments system, increased access to the banking system, investment in infrastructure, greater expenditure on social welfare payments through direct bank deposits and better governance have all contributed to an economy that is far healthier than a decade ago. The Modi government has enacted economic reforms that have built the foundations for sustained economic growth in the years ahead. India has also emerged as a key strategic partner for the United States as it looks to counter the rising power and aggressive behavior of the CCP-led China. The Quad partnership which brings together major democracies in the Indo-Pacific- United States, Japan, India and Australia has the potential to offer an alternate vision to smaller countries in the Indo-Pacific- a partnership based on classical liberal values. ASEAN countries which have territorial disputes with China based on the latter's expansive claims to all of the South China Sea, may over time find it in their interests to build closer relationships with the Quad.

2. <https://www.imf.org/en/Publications/WEO/Issues/2022/04/19/world-economic-outlook-april-2022>

Latest World Economic Outlook Growth Projections

(real GDP, annual percent change)	PROJECTIONS		
	2021	2022	2023
World Output	6.1	3.6	3.6
Advanced Economies	5.2	3.3	2.4
United States	5.7	3.7	2.3
Euro Area	5.3	2.8	2.3
Germany	2.8	2.1	2.7
France	7.0	2.9	1.4
Italy	6.6	2.3	1.7
Spain	5.1	4.8	3.3
Japan	1.6	2.4	2.3
United Kingdom	7.4	3.7	1.2
Canada	4.6	3.9	2.8
Other Advanced Economies	5.0	3.1	3.0
Emerging Market and Developing Economies	6.8	3.8	4.4
Emerging and Developing Asia	7.3	5.4	5.6
China	8.1	4.4	5.1
India	8.9	8.2	6.9
ASEAN-5	3.4	5.3	5.9
Emerging and Developing Europe	6.7	-2.9	1.3
Russia	4.7	-8.5	-2.3
Latin America and the Caribbean	6.8	2.5	2.5
Brazil	4.6	0.8	1.4
Mexico	4.8	2.0	2.5
Middle East and Central Asia	5.7	4.6	3.7
Saudi Arabia	3.2	7.6	3.6
Sub-Saharan Africa	4.5	3.8	4.0
Nigeria	3.6	3.4	3.1
South Africa	4.9	1.9	1.4
<i>Memorandum</i>			
Emerging Market and Middle-Income Economies	7.0	3.8	4.3
Low-Income Developing Countries	4.0	4.6	5.4

Source: IMF, *World Economic Outlook*, April 2022

Note: For India, data and forecasts are presented on a fiscal year basis, with FY 2021/2022 starting in April 2021. For the April 2022 WEO, India's growth projections are 8.9 percent in 2022 and 5.2 percent in 2023 based on calendar year.

Outlook

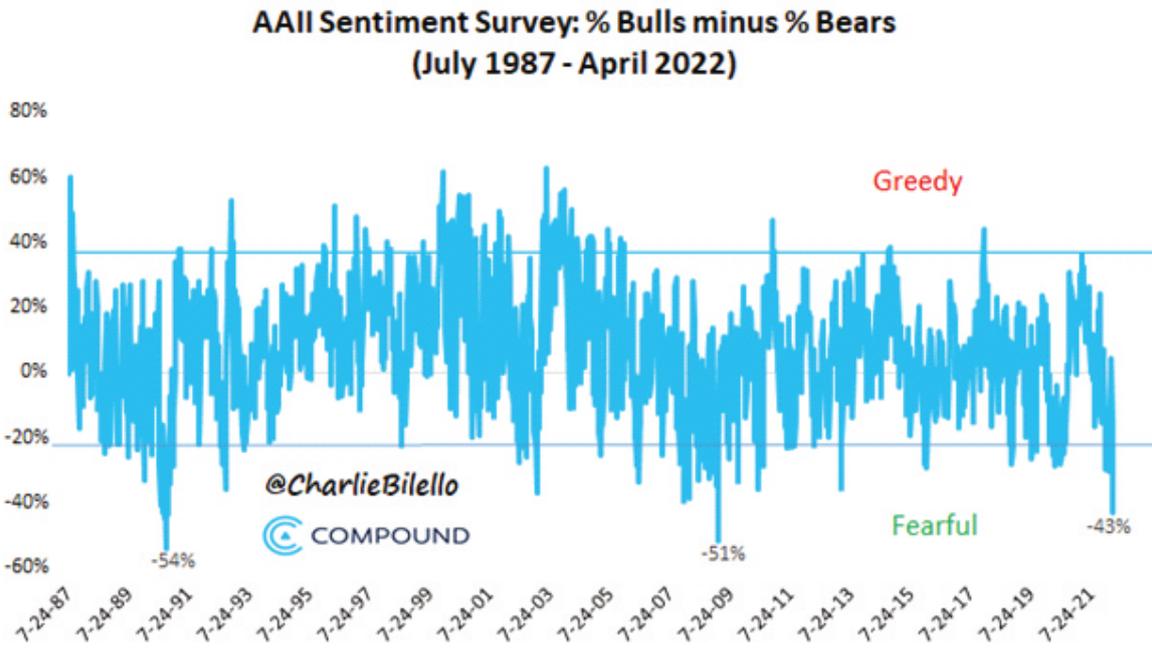
There are contradictory signals in the economic and market data which suggests that markets may remain choppy in the near term. Inflation remains high, but we expect that this eases as we head into 2023. The risk is that supply chain issues, the most recent being the Covid shutdowns in China, will counteract waning demand side pressures. There has been a significant rise in mortgage yields in recent weeks and this will have an impact on housing demand and consumer spending.



This is a nominal dollar chart, but the key takeaway is the rapid rise in mortgage payments based on the adjustment in mortgage yields. We expect company earnings expectations to be revised downwards into the second half of 2022. The key for investors is what is already factored into the markets. While short-term yields will rise as the Federal Reserve continues to tighten monetary policy, bond yields at longer durations have adjusted to the new regime. The tech-led Nasdaq is down 24% from its peak in November 2021, but this masks the damage to a large section of index components. Only about 14% of index components are above the 200-day average.



Investor sentiment is very weak.



Valuations are back to more reasonable levels in comparison with the last 25 years and relative to bond yields³.

S&P 500 Index: Forward P/E ratio



Source: FactSet, FRB, Refinitiv Datastream, Robert Shiller, Standard & Poor's, Thomson Reuters, J.P. Morgan Asset Management. Price-to-earnings is price divided by consensus analyst estimates of earnings per share for the next 12 months as provided by IBES since May 1997 and by FactSet since January 2022. Current next 12-months consensus earnings estimates are \$237. Average P/E and standard deviations are calculated using 25 years of history. Shiller's P/E uses trailing 10-years of inflation-adjusted earnings as reported by companies. Dividend yield is calculated as the next 12-months consensus dividend divided by most recent price. Price-to-book ratio is the price divided by book value per share. Price-to-cash flow is price divided by NTM cash flow. EY minus Baa yield is the forward earnings yield (consensus analyst estimates of EPS over the next 12 months divided by price) minus the Moody's Baa seasoned corporate bond yield. Std. dev. over-/under-valued is calculated using the average and standard deviation over 25 years for each measure. *P/CF is a 20-year average due to cash flow availability. Guide to the Markets - U.S. Data are as of May 5, 2022.

J.P.Morgan
ASSET MANAGEMENT

While the market as a whole is more reasonably priced, we also think pockets of irrationality remain. Tesla for example has an Enterprise Value of \$870 billion with 2022 year-end sales estimate of \$87 billion. In comparison, Toyota Motors has an Enterprise Value of \$427 billion with sales estimate of \$275 billion. We would expect that Tesla remains an important player in the auto industry but would not expect the size of the market itself to grow any faster than historical trends.

There are many imponderables in the global political economy- inflation expectations, geopolitical risks, tightening monetary environment and potential slowdown in the economy. However, company valuations in aggregate are more attractive than at the start of the year. We expect the second half of the year to be more constructive for both equities and bonds.

Updates on Portfolios (detailed performances since inception can be seen in Appendix I):

2022 Q1 PERFORMANCE	Portfolio	Benchmark	Morningstar Category Median
INTERNATIONAL VALUE	0.23%	0.33%	(2.25%)
GLOBAL	(4.98%)	(5.36%)	(7.62%)
EMERGING MARKETS	(5.90%)	(6.97%)	(7.59%)

Performance for Q1 was in-line to slightly ahead of the respective benchmarks. All strategies were well ahead of the respective Morningstar peer groups.

Portfolio changes

Global: We added one new name- Amazon. With the significant underperformance of the stock over the last several months (-40% since November 2021), we like the risk-reward set up. The 1P (first party retail) business of Amazon is often the focus since it is the largest component of revenue and has low operating margins. However, the more profitable segments 3P (3rd party retail), ad sales, subscription revenue and AWS (cloud services) are growing faster and now constitute majority of revenue. The stock is up 3% since Q1 2020 whereas during this period 3P revenue is +75%, ad sales +118%, subscription revenue +51% and AWS +80%. These segments are high margin businesses and have also seen increasing profitability. Company-wide capex has been high, but we expect it will moderate; new CEO Andy Jassy has not done a good job in communicating company strategy and on-line retail is showing subdued growth as people go back to in-store shopping. We believe the company is significantly undervalued relative to intrinsic value and expect to continue building our position in the stock.

International Value: We initiated new positions in Bayer, Danone, Glaxo Smith-Kline and Takeda Pharmaceuticals. We exited positions in Richemont and Symrise. The new additions are companies with durable businesses trading at attractive discounts to intrinsic value. Richemont and Symrise were long-term holdings and remain good businesses, but no longer traded at discounts to intrinsic value.

Emerging Markets: There were no new positions for the quarter. We exited Brazilian companies Itau Unibanco and XP Inc (spinoff of Itau Unibanco) during the quarter. No new companies were added to the portfolio during the quarter. We did have an index-like weight in Russia through two companies and both were marked down to zero for valuation purposes.

The market environment over the last two years has been volatile in both directions and perhaps a good learning environment for new investors. We had the sharp sell-off in early 2020, followed by a 20-month period of significant upside and the decline seen over the last four months. The period of global monetary easing in 2020 and 2021 created the illusion of new business models based on growth without profit, not unlike what we witnessed in the late 1990s. Our focus through this period has remained on investing in durable businesses with a focus on cash flow. The long-term performance (see Appendix I) remains strong and the low portfolio turnover and exposure to large-cap names makes all our strategies scalable.

APPENDIX I				
INTERNATIONAL VALUE				
	Portfolio	MSCI EAFE Va	Mornings tar FV C	Comment
	2016 (3.20%)	6.90%	n/a	<i>Start date 8/1/2016</i>
	2017 24.27%	21.43%	22.08%	
	2018 (14.28%)	(14.78%)	(15.50%)	
	2019 22.84%	16.09%	17.83%	
	2020 7.62%	(2.63%)	0.93%	
	2021 14.45%	10.89%	11.40%	
	2022 0.23%	0.33%	(2.25%)	<i>YTD 03/31/2022</i>
	ITD 56.29%	39.11%	n/a	<i>Cumulative (8/1/2016 to 03/31/2022)</i>
	ITD 8.20%	6.00%	n/a	<i>Annualized (8/1/2016 to 03/31/2022)</i>
	1-year 12.11%	3.55%	1.85%	<i>Annualized</i>
	3-year 11.19%	5.24%	6.36%	<i>Annualized</i>
	5-year 8.36%	4.18%	4.84%	<i>Annualized</i>
5- year Analytics (as of 03/31/2022)				
	Sharpe ratio 0.51			
	Sortino ratio 0.83			
	Upside capture 86.65%			
	Downside capture 71.45%			
GLOBAL				
	Portfolio	MSCI ACWI	Mornings tar WL	Comment
	2020 31.80%	23.10%	n/a	<i>Start date 7/1/2020</i>
	2021 24.03%	18.54%	18.04%	
	2022 (4.98%)	(5.36%)	(7.62%)	<i>YTD 03/31/2022</i>
	ITD 55.34%	38.10%	n/a	<i>Cumulative (7/1/2020 to 03/31/2022)</i>
	ITD 28.62%	20.26%	n/a	<i>Annualized (7/1/2020 to 03/31/2022)</i>
	1-year 6.54%	7.28%	5.83%	<i>Annualized</i>
ITD Analytics (as of 03/31/2022)				
	Sharpe ratio 1.94			
	Sortino ratio 5.53			
	Upside capture 108.40%			
	Downside capture 67.66%			
EMERGING MARKETS				
	Portfolio	MSCI EM	Mornings tar EM C	Comment
	2016 2.71%	8.67%	5.42%	<i>Start date 6/1/2016</i>
	2017 41.92%	37.06%	34.17%	
	2018 (11.93%)	(14.58%)	(16.07%)	
	2019 19.63%	18.42%	19.26%	
	2020 6.70%	18.31%	17.91%	
	2021 4.94%	(2.54%)	0.08%	
	2022 (5.90%)	(6.97%)	(7.59%)	<i>YTD 03/31/2022</i>
	ITD 61.95%	61.86%	54.39%	<i>Cumulative (6/1/2016 to 03/31/2022)</i>
	ITD 8.75%	8.74%	7.85%	<i>Annualized (6/1/2016 to 03/31/2022)</i>
	1-year (4.45%)	(11.37%)	(10.93%)	<i>Annualized</i>
	3-year 4.14%	4.94%	5.32%	<i>Annualized</i>
	5-year 6.44%	5.98%	5.57%	<i>Annualized</i>
5- year Analytics (as of 03/31/2022)				
	Sharpe ratio 0.28			
	Sortino ratio 0.41			
	Upside capture 105.26%			
	Downside capture 93.20%			