June 2023

From the front page of this weekend's WSJ:

Markets Defy Expectations, But Outlook Remains Murky

BY AKANE OTANI

Any number of things could have derailed markets in the first half of the year. Investors kept buying risky assets anyway.

Stocks burst out of a bear market, with the Nasdaq Composite up 32% and posting its best first half of a year since the 1980s. Bitcoin surged more than 80%, despite the U.S. Se-curities and Exchange Commission suing the world’s biggest cryptocurrency exchanges. Bonds enjoyed some reprieve, too. Indexes tracking everything from Treasurys to junk bonds have posted modest gains following their historic selloff last year.

Why did markets keep rising, despite a banking crisis, the threat of a U.S. default and more interest-rate increases from the Federal Reserve? The simplest answer: Time and time again, investors’ worst-case scenarios failed to materialize.

Quick action from regulators and bankers in March helped prevent the collapse of Silicon Valley Bank from morphing into a systemic credit crunch. Lawmakers managed to strike an agreement on government spending in late May, just in time to avert what would have been an unprecedented U.S. default on debt.

Perhaps most important, the recession that so many economists anticipated would strike has so far remained out of sight, giving investors hope that markets might be able to keep climbing.

The Fed has continued to raise interest rates in an effort to rein in inflation. Ordinarily, higher rates, which translate into higher borrowing costs for consumers and companies, should help cool the economy. And they have, a bit: Sales of existing homes have fallen by about a third since the start of 2022.

But the Fed’s rate increases haven’t ended the economic expansion, either. Commerce Department data on Wednesday showed gross domestic product increased at a 2% annualized pace in the first quarter, significantly faster than the previous estimate of 1.3%. The labor market has continued to add jobs at a pace well above its prepandemic average. Ultimately, those who stayed out of the markets this year in fear of another selloff missed out on robust gains. The S&P 500 is up nearly 16% this year. The Dow Jones Industrial Average has climbed 3.8%.

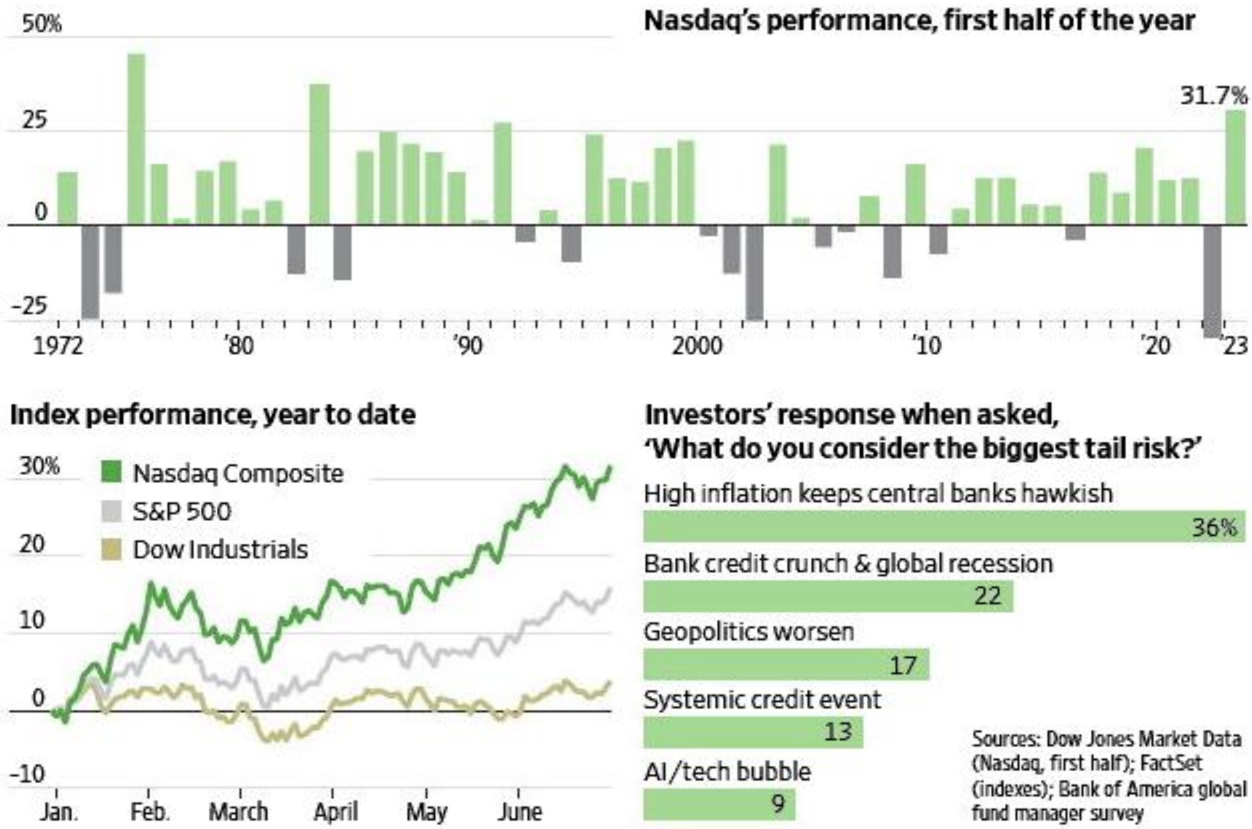
“All these people in the industry are always trying to guess what the next blowup is going to be,” said Stacie Mintz, head of the quantitative equity team at PGIM Quantitative Solutions. If this year has shown anything, she said, it is that it is difficult to predict which headline-grabbing events wind up having a lasting impact on market returns. ...

“There are still so many question marks: when the [Fed’s] rate hikes are going to end, when we go into recession, and how deep that recession is going to be,” Mintz said.

Some money managers are still questioning whether the market’s gains are here to stay. Fund managers surveyed by Bank of America still have less exposure to stocks in their portfolios than usual, according to a report released in mid-June. And a measure of sentiment among those investors has stayed relatively low, too.

Why the skepticism? One thorn in investors' sides has been the fact that the market's gains have been relatively narrow. Although other parts of the market have gained ground in the past month, many of the best-performing stocks this year remain megacap technology companies that investors think will be at the forefront of artificial intelligence.

Without the outsize gains of those stocks, the market's returns would be greatly diminished. ...



It is difficult to ignore, too, that while economic data have largely been better than expected, some cracks have begun to emerge.

From the start of the year through May, 286 U.S. companies filed for bankruptcy protection, including Silicon Valley Bank, Bed Bath & Beyond and Vice Media, according to S&P Global Market Intelligence. That is the highest number for the first five months of the year since 2010.

Data on the manufacturing sector has been deteriorating for months. And jobless claims, considered a proxy for layoffs, at one point this year rose to their highest level since 2021. Although on Thursday, initial claims for unemployment benefits unexpectedly dropped.

Investors and analysts widely agree that the economy is slowing. They also agree that historically, recessions have been bad news for markets.

They just can't agree when the much-anticipated downturn, if it materializes, will begin to weigh down markets.

"It's best not to get too cute about timing it," said William Sterling, global strategist at investment firm GW& K. "This year has been a lesson about not getting overly pessimistic."

From Thursday's Global Investment Strategy:

Third Quarter 2023 Strategy Outlook – They Never See It Coming

I. Macroeconomic Outlook

A Year of Two Halves, But Not in the Order Most Expected

In our Annual Outlook published last December, we wrote: "The conventional wisdom sees stocks falling in the first six months of 2023 in anticipation of a US recession and then recovering in the back half of the year once the first green shoots appear. We think the exact opposite will happen: Stocks will rise in the first half of 2023 as hopes of a soft landing intensify, and then dip in the second half."

In a nutshell, the rationale for our view was:

• US inflation would fall significantly in 2023 without much increase in unemployment.

• Equity investors would applaud this outcome because, to them, it would raise the odds of a soft landing.

• Unfortunately, just when most people become convinced that a recession has been avoided, a recession will begin in 2024.

To briefly recap ... When unemployment is high and begins to fall, there still will be plenty of workers eager for a job. Firms will not have to raise wages very much to attract workers. It is only when the economy reaches full employment ... that firms have to offer higher wages to lure workers from other firms. ...

In March 2020, the global economy was hit by a shock that left millions of people out of work. After a few weeks of commotion, central banks responded by cutting rates and ramping up quantitative easing, while governments rolled out generous fiscal support.

This policy easing caused aggregate demand to increase. Despite the fact that aggregate supply remained constrained by pandemic disruptions, inflation did not increase very much because there was still slack in the labor market.

Eventually, however, aggregate demand caught up with supply, causing inflation to jump. While the surge in inflation was consistent with our kinked Phillips curve framework, it was not something that either the Fed or most strategists had expected.

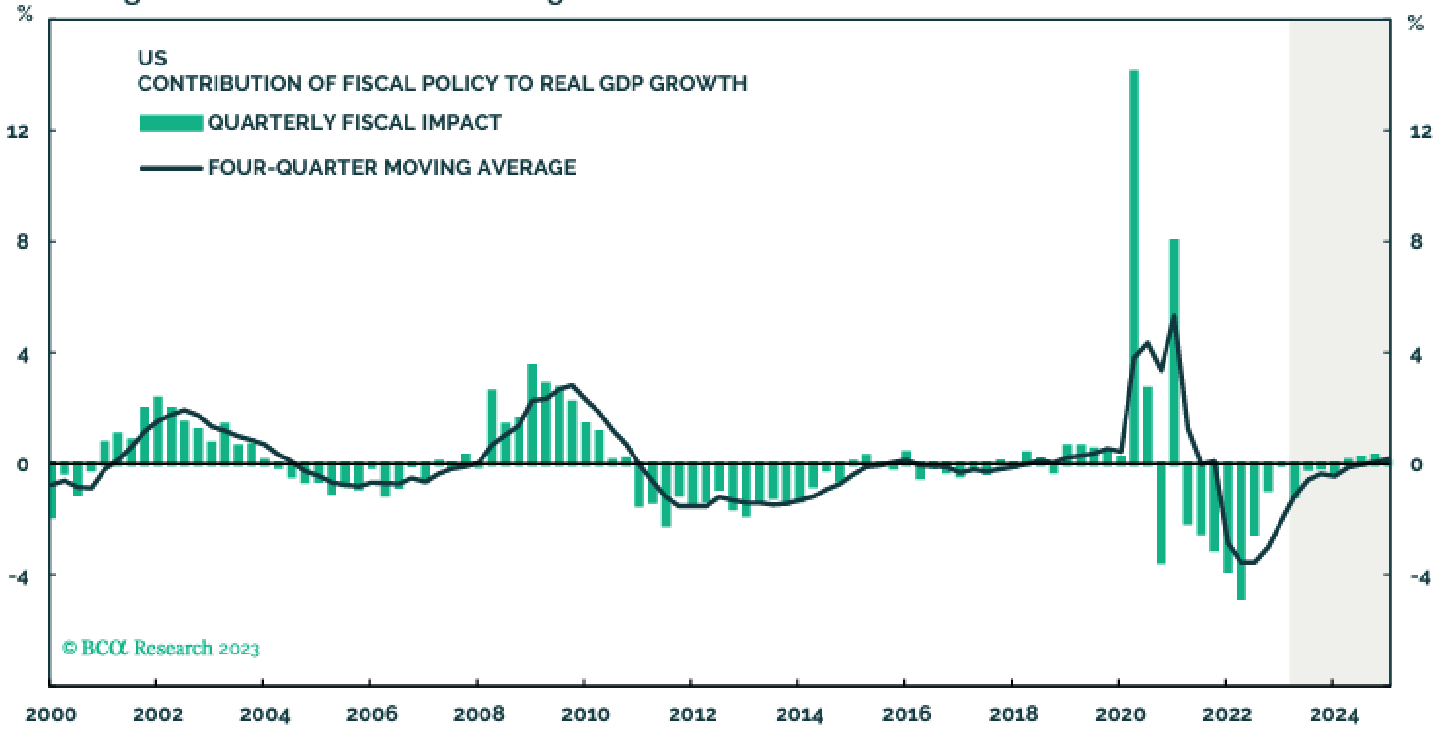
By early 2022, the Fed had abandoned its "transitory" narrative on inflation and began raising rates. The increase in interest rates came alongside a tightening in fiscal policy, reflecting the wind-down of pandemic support measures. According to the Brookings Institution, the fiscal thrust dropped from a peak of 14.1% of GDP in 2020 Q2 to -4.8% of GDP in 2022 Q2 (**Chart 4**).

The combination of tighter monetary and fiscal policies helped to arrest the rise in demand. Together with an increase in supply stemming from a rebound in labor participation, inflation began to fall. The so-called supercore inflation – core inflation excluding shelter and used vehicles – peaked in mid-2022 and has been trending lower since then.

We like to go a step further and exclude financial services from supercore inflation. This is because financial services inflation is notoriously difficult to measures, and in practice, tends to be highly correlated with equity

CHART 4

Fading Fiscal Thrust Has Been Putting Downward Pressure On Demand



SOURCE: THE HUTCHINS CENTER ON FISCAL AND MONETARY POLICY AT THE BROOKINGS INSTITUTION.
NOTE: SHADED AREA DENOTES PROJECTIONS.

prices. The resulting series, which we jokingly call super-duper core inflation, has fallen from a peak of 7.0% to 3.2% on a 6-month basis based on the CPI, and from a peak of 5.8% to 3.7% based on the PCE (Chart 6).

Other measures designed to extract the underlying trend in inflation tell a similar story. The New York Fed's Multivariate Core Trend (MCT) has dropped from a high of 5.5% in June 2022 to 3.4%. Sticky core price inflation excluding shelter has decelerated from 7.1% to 3.2% on a 6-month basis. Measures of embedded inflation based on unit costs have also hooked down.

Inflation Set to Fall Further

Most leading indicators of US inflation continue to point lower. For instance, the fraction of business owners planning to raise prices in the NFIB survey reliably leads core PCE inflation by six months. This series has plunged back to 2019 levels.

The Fed likes to break the inflation basket into three components: goods, shelter, and services excluding shelter. All three components signal further disinflation ahead.

Goods prices are still 8% above services prices relative to their pre-pandemic trend (typically, goods inflation is lower than services inflation because the former benefits from faster productivity growth). Unless services inflation surges, goods inflation will remain very low.

The manufacturing ISM prices paid index tends to move in tandem with goods prices, and it has fallen below 50. The New York Fed's Supply-Chain Pressure index, having hit a record high in December 2021, is now in deflationary territory. Used car prices are falling again.

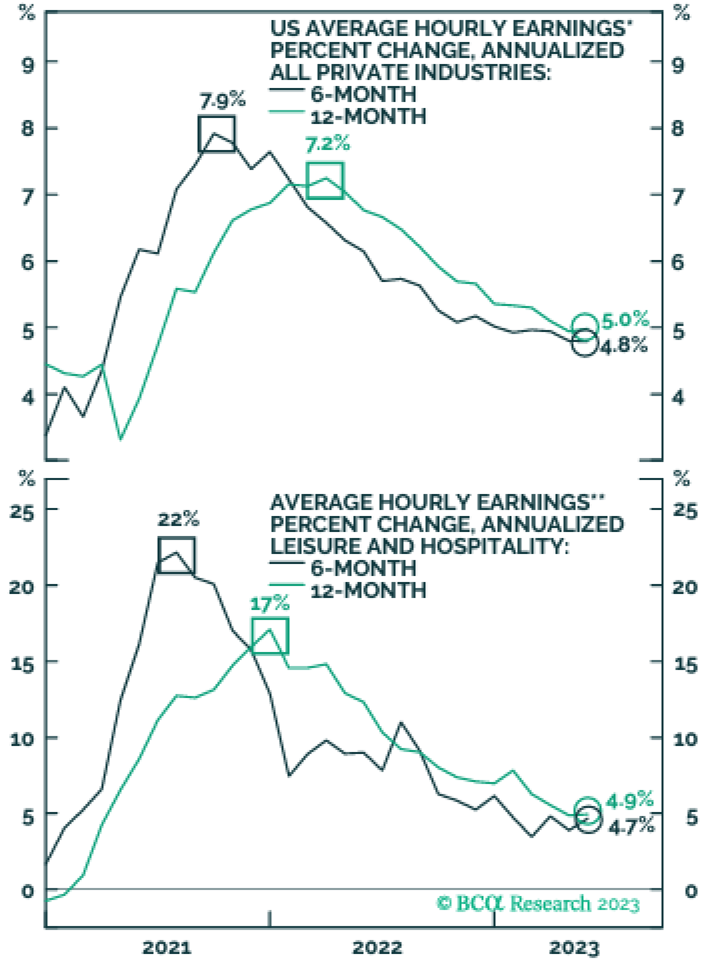
Asking rents lead shelter inflation by about 6-to-12 months. They have been growing fairly slowly for the past 10 months, suggesting that shelter inflation will drop rapidly during the remainder of the year

Wages are the dominant driver of non-shelter services inflation. Average hourly earnings growth, adjusted for changes in sector composition, has decelerated from around 7%-to-8% to about 5%, with even bigger declines in once red-hot sectors such as leisure and hospitality (**Chart 10**).

Most leading indicators for wage growth are pointing down. The quits rate, a reliable leading indicator of wage growth, is back to 2019 levels. So are various survey measures of expected compensation growth.

CHART 10

Wage Growth Is Slowing



* PRODUCTION AND NONSUPERVISORY EMPLOYEES. ADJUSTED FOR CHANGING COMPOSITION OF EMPLOYMENT IN MAJOR INDUSTRIES. THE OVERALL MONTHLY RATE OF CHANGE IN EARNINGS IS CALCULATED AS A WEIGHTED-AVERAGE OF INDUSTRY-LEVEL EARNINGS. THE INDUSTRY WEIGHTS ARE CALCULATED USING PRIOR MONTH'S TOTAL HOURS WORKED.

** PRODUCTION AND NONSUPERVISORY EMPLOYEES.

A Benign Disinflation

Normally, when labor demand falls but labor supply rises, unemployment goes up. That is what most strategists expected last year, and yet it did not happen. ... When the economy is at full employment, falling labor demand will mainly result in slower wage growth and lower job openings rather than lower employment.

This is precisely what occurred: Job openings declined but in contrast to past episodes, unemployment barely rose. Once mocked and ridiculed, the idea that the US economy could experience a soft landing became increasingly plausible.

When They Least Expect It

Unfortunately, there is a twist in the story. The very same framework that successfully predicted both the surge in inflation and the benign disinflation that followed also makes another prediction: When inflation approaches the Fed's target, a recession will become more likely rather than less likely.

... any further decline in demand will lead to a steep drop in output and rising unemployment. Just as investors are celebrating a soft landing, a hard landing will begin.

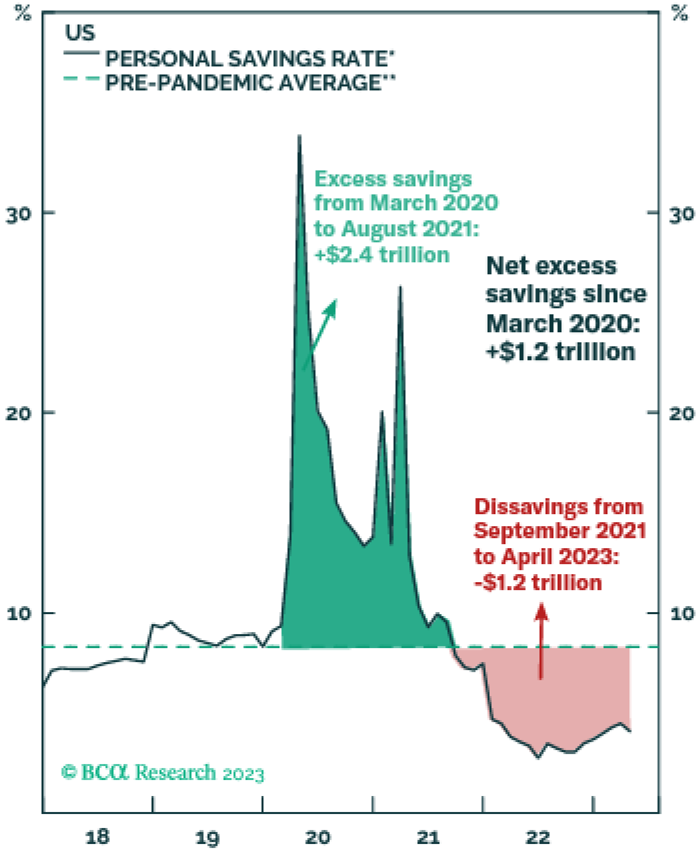
Still A lot Of Insulation Left

When will this fateful day arrive? While it is impossible to be sure, we continue to think that the next US recession will not start until 2024, and probably not until the second half of that year. We have been saying "2024" since last April.

Our view that a recession was not imminent was controversial at that time but has become more mainstream as the clock kept ticking and "the most anticipated recession in history" never materialized.

CHART 16

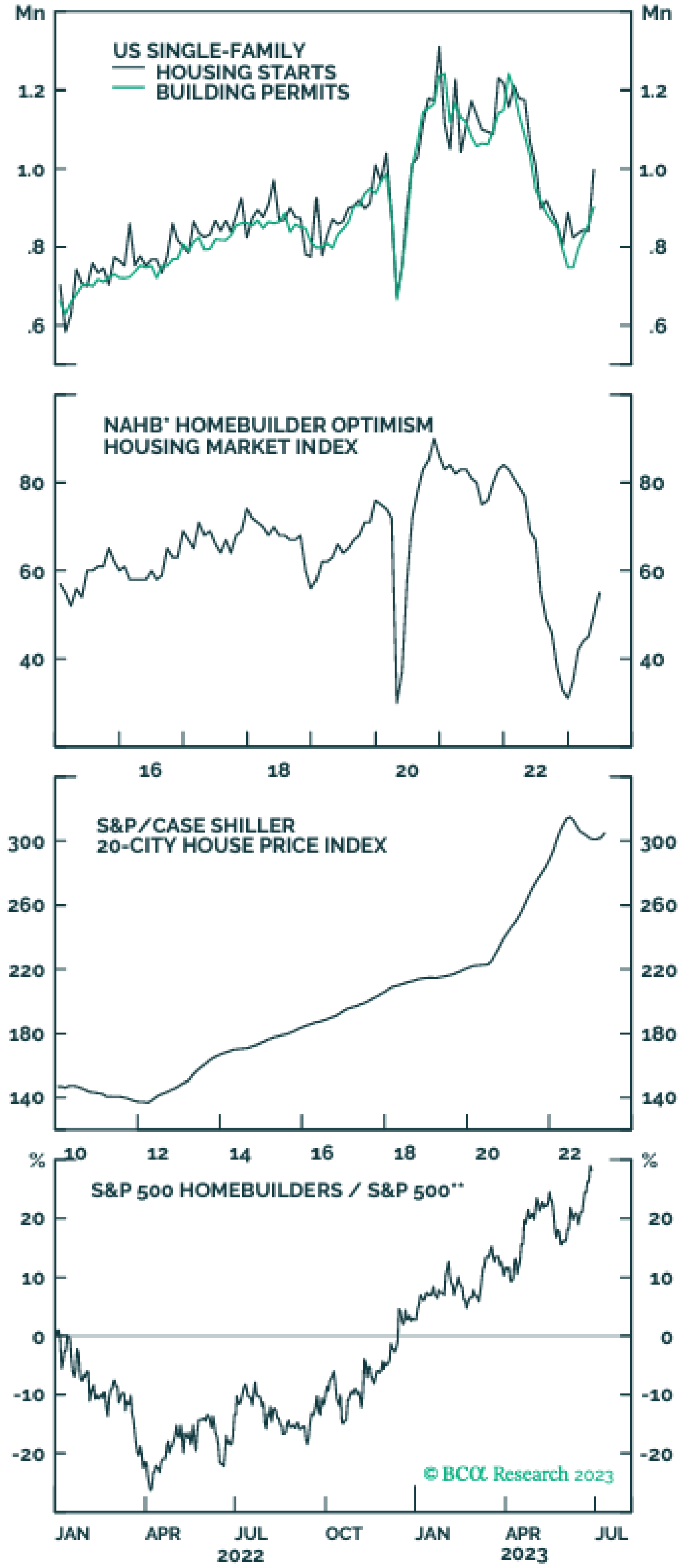
US Economy: Plenty Of Accumulated Pandemic Savings



* SHOWN AS A PERCENT OF DISPOSABLE INCOME.
** AVERAGE SAVINGS RATE FROM THE BEGINNING OF 2018 UNTIL THE START OF THE PANDEMIC.
NOTE: THE CALCULATION OF EXCESS SAVINGS ASSUMES A PRE-PANDEMIC BASELINE WITH 4% DISPOSABLE INCOME GROWTH AND 8.3% SAVINGS RATE.

CHART 17

Some Green Shoots In The US Housing Market



* NATIONAL ASSOCIATION OF HOMEBUILDERS.
** SERIES REBASED TO JAN. 3, 2022 = 0%.

At the moment, there are still not enough headwinds to foment a recession. Job openings are coming down, but they are still quite high by historic standards. Based on our estimates, there were 1.6 job openings for every unemployed worker compared to 1.2 before the pandemic. For now, most laid-off workers will be able to find a new job fairly easily, preventing a self-reinforcing rise in unemployment.

In addition, US households hold around $1.2 trillion in excess pandemic savings (**Chart 16**). At the current savings rate, it would take 15 months to exhaust those savings.

The housing market is also showing signs of improvement (**Chart 17**). Both housing starts and building permits rebounded in May. Homebuilder confidence is rising, as are homebuilder stocks. The Case-Shiller index has started to recover.

As time goes by, more new homeowners will be saddled with a high-rate mortgage. However, that will be a slow process because most homeowners either took out a new mortgage or refinanced an existing one when rates were low. ... the effective mortgage rate is still below where it was in 2019.

Stresses among regional banks have failed to make much of a dent in the economy. Only one percent of business owners reported that all their borrowing needs had not been satisfied in the latest NFIB survey. Banking lending to the business sector has largely stabilized since the turmoil in March.

A Bottom In the 3-Year Manufacturing Cycle?

The one part of the economy that remains under duress is manufacturing. The ISM manufacturing index tumbled to 46.9 in May, with the forward-looking new orders component dropping to 42.6. The flash S&P US manufacturing PMI fell to a 6-month low of 46.3 in June. New orders dropped to a dismal 42.7.

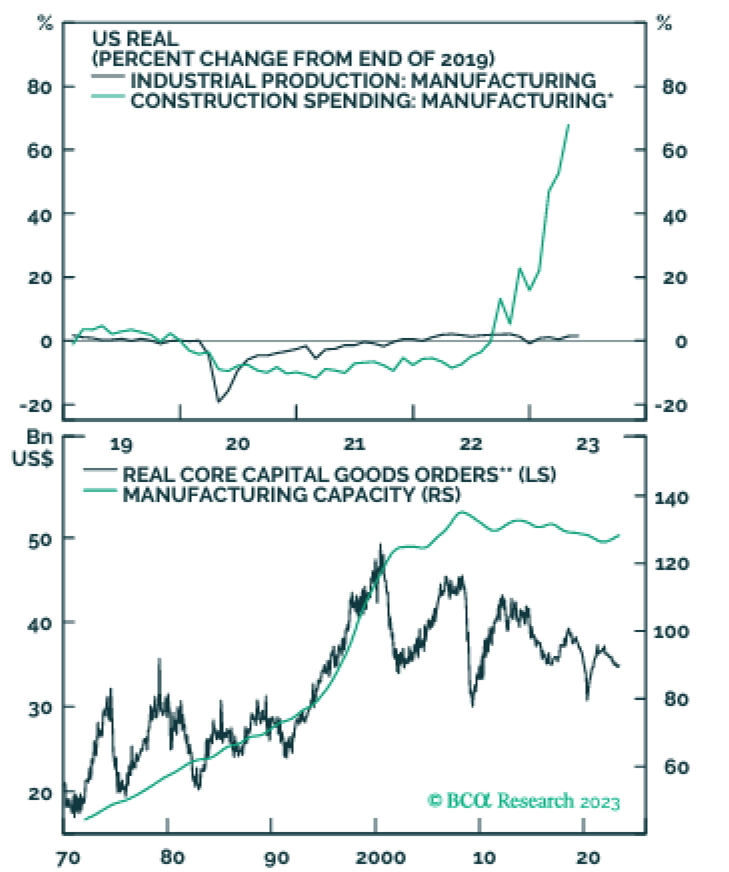
Historically, the manufacturing cycle has averaged three years – 18 months down followed by 18 months up. The current down-leg, which began in mid-2021, has lasted longer than usual because the up-leg was so strong. Spending on manufactured goods surged during the pandemic thanks to bountiful stimulus payments and the curtailment of many service offerings.

That said, our guess is that the manufacturing cycle is reaching a bottom. While goods spending is still above its pre-pandemic trend, with the opposite true for services, relative spending on goods and services has not changed much over the past nine months. This suggests that the economy has reached a new equilibrium – an equilibrium where certain types of services (public transport, cinemas, dry cleaning, services related to in-person shopping, etc.) may remain constrained by the proliferation of work-from-home practices, leaving households with more income to spend on goods.

Capex intentions, which tend to correlate closely with the ISM manufacturing index, have also bottomed. All five of the regional Fed surveys that we track show that more businesses are planning to increase capital spending.

Relatedly, an interesting development has occurred that has largely escaped notice: Manufacturing construction is booming, even as manufacturing output is sagging (**Chart 23**). After decades of rampant offshoring, the US manufacturing renaissance has finally arrived. Nowhere is this more evident than in the IT sector, where companies have begun to add to capacity at a rapid pace.

CHART 23
US Manufacturing Construction Is Booming...



* DEFLATED BY PPI FOR NEW INDUSTRIAL BUILDING CONSTRUCTION SECTOR.
** MANUFACTURING NONDEFENSE CAPITAL GOODS EXCLUDING AIRCRAFT. DEFLATED BY PPI PRIVATE CAPITAL EQUIPMENT. SHOWN IN 1982 US DOLL
NOTE: TOP PANEL SERIES REBASED TO DECEMBER 2019 = 0%.

Too Much of a Good Thing?

... fluctuations in demand will primarily lead to fluctuations in inflation rather than fluctuations in output. This implies that the sources of economic resilience described above are both a blessing and a curse: A blessing because they keep the economy out of recession; a curse because they heighten the risks of either higher interest rates or a second wave of inflation.

We got a taste of this earlier this year. Real personal disposable income grew by 8.5% quarter-over-quarter annualized in Q1, partly due to a one-off adjustment to security payments and lower tax receipts (Chart 25). Personal consumption tends to correlate quite closely with real incomes. Thanks to faster income growth, real PCE increased by 4.2% in 2023 Q1, the fastest quarterly growth rate since 2021 Q2. As a consequence, inflation temporarily rose, before falling again as income growth decelerated.

The irony is that falling inflation can sow the seeds of its own demise. Since wages tend to be stickier than prices, falling price inflation can boost real wage growth, which in turn can boost spending and inflation.

Subjectively, we would assign 20% odds to a scenario where either the US economy experiences a second wave of inflation, or the Fed has to raise rates to over 6% to cool it down sufficiently to keep inflation from rising.

Our baseline, however, is that demand will continue to sink to the point that the economy slips into recession next year without the need for substantially higher rates. This reflects the fact that monetary policy is already restrictive, as evidenced by the fact that the job-workers gap has declined by 1.6 percentage points from its peak. And while a restocking cycle in manufacturing will add to aggregate demand, the lagged effects of tighter monetary policy will subtract from it.

... credit growth tends to respond to tighter bank lending standards with a long lag. Thus, while credit availability is not yet a problem, that could change next year. This could happen right around the same time that pandemic savings are disappearing, student debt-servicing costs are rising, and more homeowners are facing larger mortgage bills.

In the past five business cycles, the unemployment rate has moved sideways for 21-to-23 months before starting

TABLE 2

If History Is Any Guide, Unemployment Should Rise Meaningfully In 2024

US UNEMPLOYMENT RATE PRIOR TO RECESSIONS				
	MINIMUM (%)	MAXIMUM (%)	DIFFERENCE (%)	DURATION (MONTHS)
APR 1978 TO DEC 1979	5.6%	6.2%	0.6%	21
SEP 1988 TO JUN 1990	5.0%	5.4%	0.4%	22
MAR 1999 TO JAN 2001	3.8%	4.3%	0.5%	23
JAN 2006 TO NOV 2007	4.4%	4.8%	0.4%	23
MAY 2018 TO FEB 2020	3.5%	4.0%	0.5%	22
SINCE MARCH 2022	3.4%	3.7%	0.3%	15

to rise (**Table 2**). This time will not be different; this time will just be longer.

The Economic Picture Abroad: Europe

After a brief rebound following the drop in gas prices, the European economy has softened again. While services have generally held up well, manufacturing has weakened. If, as discussed earlier, global manufacturing starts to recover in the second half of the year, this could generate some renewed growth momentum.

Lower European inflation should also help. Producer price inflation leads the CPI in both the euro area and the UK by 3-to-5 months. Falling inflation will boost real wages, and against a backdrop of still-elevated pandemic savings, consumption should strengthen.

Granted, as last weekend's bizarre on-then-off coup in Russia highlights, there is still considerable uncertainty about the energy situation in Europe going into next winter. Fortunately, Europe is much more energy independent now than it was this time last year thanks to significant investment in new gas pipelines, LNG terminals, and the securing of new sources of supply.

The futures market is predicting that natural gas prices will not rise much over the next few years. We have generally found that energy futures are a helpful, though far from unerring, guide to where spot prices are going.

Beyond energy security, the structural outlook for Europe has brightened in other ways. After lagging behind the US, the tier-1 capital ratio has risen above US levels in all the major euro area economies. The gap in unit labor costs between Germany and the periphery has also evaporated, giving the once struggling economies of Southern Europe a much-needed competitiveness boost.

Still, as with the US, Europe will stumble again later next year as the effects of higher interest rates work their way through to the economy. Monetary growth has already slowed sharply in Europe, which has been a good predictor of subsequent GDP growth. Tighter bank lending standards and weakening credit demand will also weigh on European growth.

China: Why Middling Growth Is Best

After a spurt of growth following the post-Covid reopening, China's economy finds itself on the back foot again. As a major exporter of manufactured goods, the downturn in global manufacturing demand is weighing on activity.

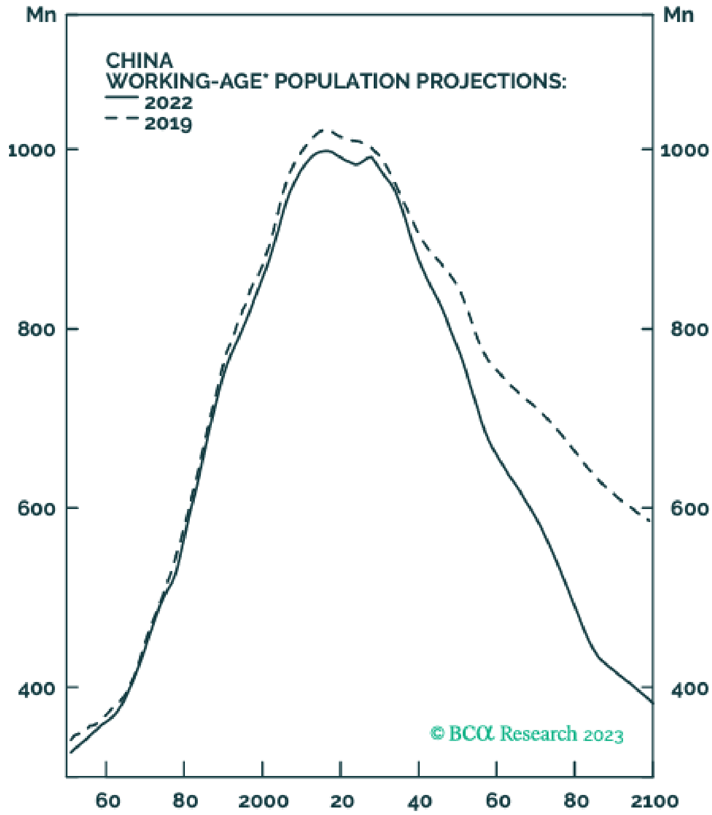
While the manufacturing headwind may fade over the coming months, another headwind is likely to persist: housing. After a half-hearted attempt at recovery, both housing starts and sales have turned down recently.

In many ways, China's housing market resembles the Japanese market of the early 1990s. Like Japan back then, China's housing market is brutally overvalued and plagued by overbuilding and an excess of debt.

Moreover, like Japan, China faces a daunting demographic outlook. According to the UN, China's working-age population is expected to shrink in half by the end of the century, a much more rapid decline than the UN expected just four years ago (**Chart 35**). Chinese household formation has been closely correlated with residential floor space started over the past few decades.

CHART 35

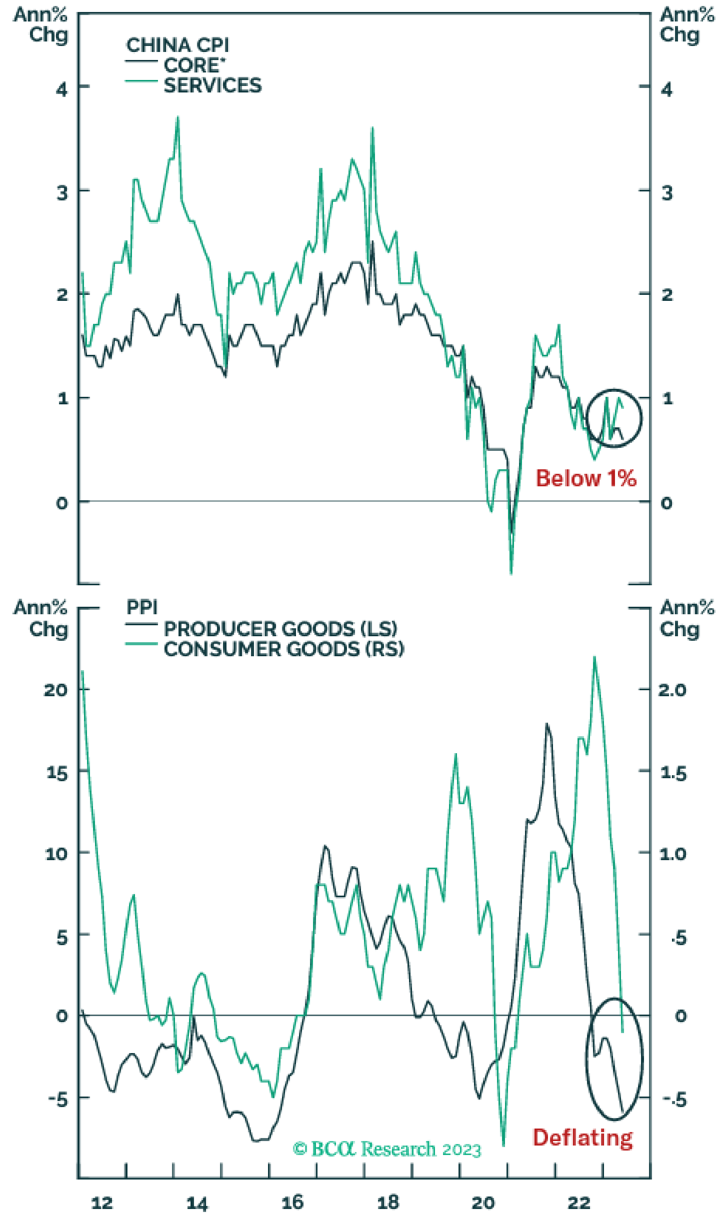
China Faces A Sharp Decline In Its Working-Age Population Over The Coming Decades



* ESTIMATED POPULATION BETWEEN 15-AND-64 YEARS OF AGE.
SOURCE: UN POPULATION DIVISION.

CHART 37

Chinese Consumer Price Inflation Is Low, While Producer Prices Are Deflating



* EXCLUDING FOOD AND ENERGY.

The good news, to the extent that there is any, is that China's housing bust will be a slow-moving phenomenon. Chinese banks are majority state-owned, and hence will not implode like many western banks did during the Global Financial Crisis. The government is also providing financial support to property developers to enable them to complete a large backlog of outstanding projects. While this will boost housing supply and lead to lower home prices down the road, it will support employment and economic activity in the near term.

Although a major stimulus program is not in the cards, a bit more monetary and fiscal easing should also help. Core CPI is below 1% and falling. The producer price index is now in deflationary territory (**Chart 37**). In response, the PBOC has cut several key benchmark lending rates. We expect the central bank to keep lowering rates, and to reduce reserve requirements. Increased spending on infrastructure and more policy support to boost domestic consumption are also likely.

The end result is that China's economy will achieve middling growth in the remainder of the year. Such a Goldilocks outcome is probably optimal for the rest of the global economy – not so hot as to stoke global inflation but not so cool as to produce an imminent recession.

II. Financial Markets

A. Global Asset Allocation

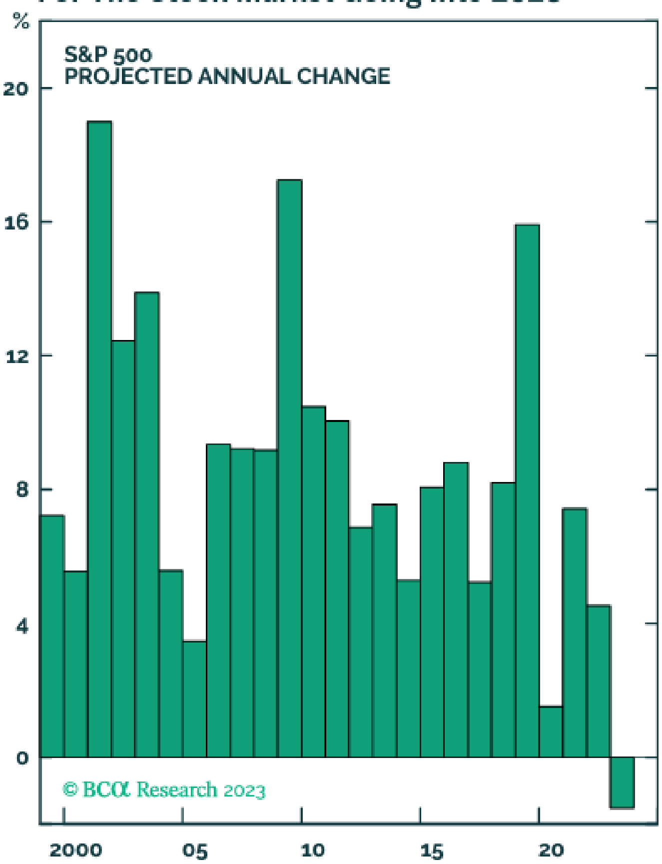
A Divergence Between Sentiment and Positioning

For the first time in history, going into 2023, most Wall Street strategists expected equities to decline on the year (**Chart 38**). Against such a backdrop, it is not surprising that stocks were able to climb the proverbial wall of worry.

What is striking is that while equity sentiment has improved sharply over the past few months, many investors remain underweight stocks. In fact, fund managers in the BofA Global Fund Manager Survey were 2.1 standard deviations underweight equities in June, an even bigger underweight than in May (**Chart 39**).

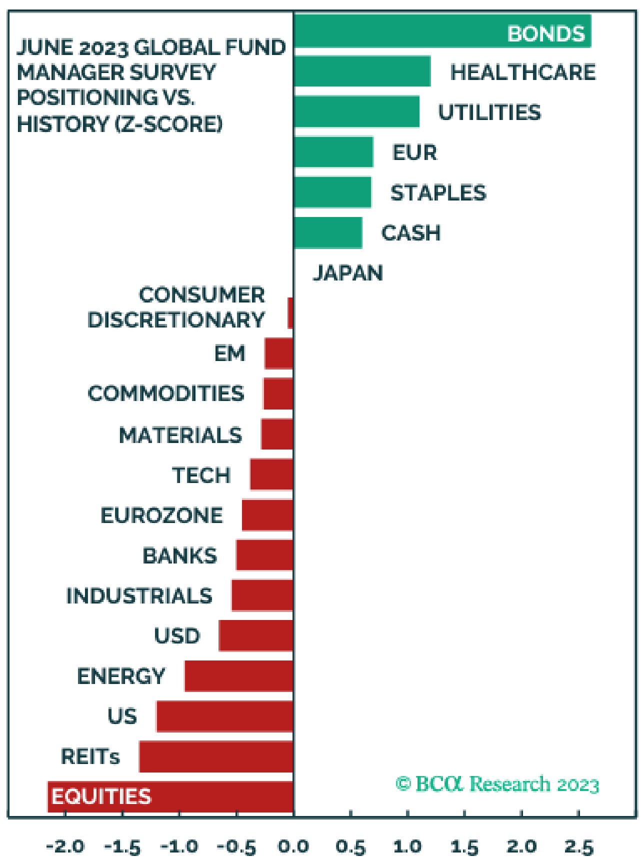
If fund managers now have to adjust their positioning so that it matches their newfound optimism, they will need to buy shares, sending stocks higher.

CHART 38
Strategists Were Gloomy About The Prospects For The Stock Market Going Into 2023



SOURCE: BLOOMBERG FINANCE L.P.

CHART 39
Fund Managers Remain Underweight Equities



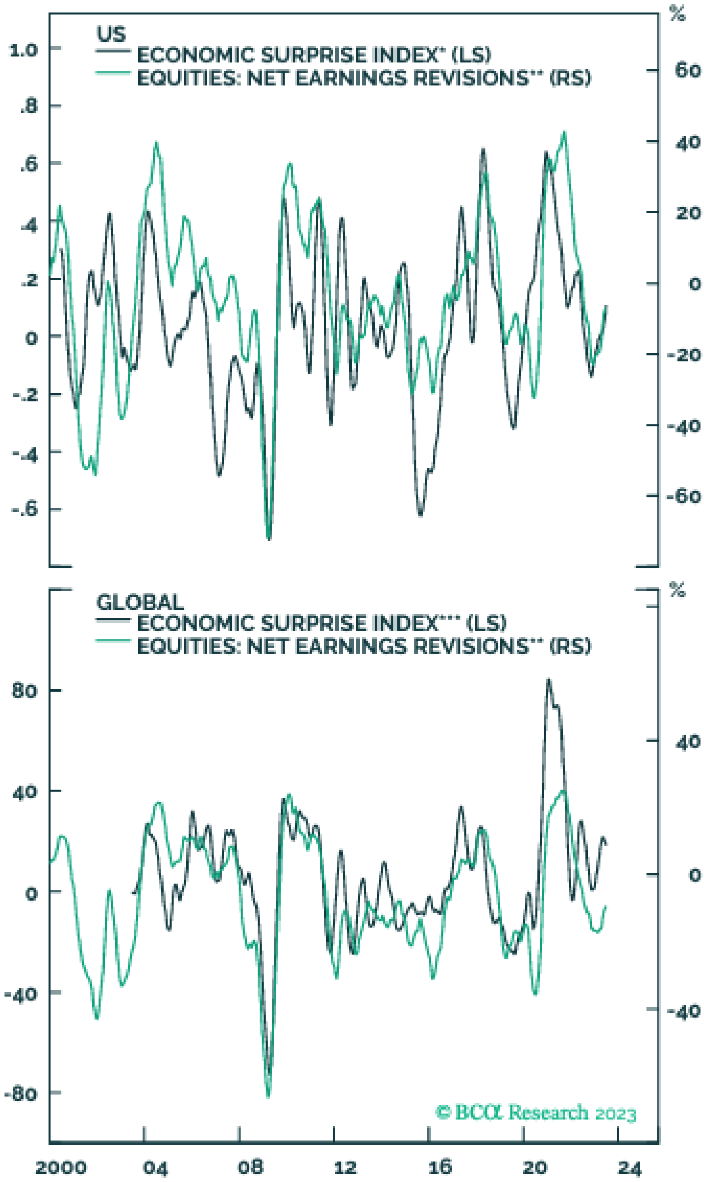
SOURCE: BOFA GLOBAL FUND MANAGER SURVEY.

B. Equities

It’s Not Just AI

CHART 43

Positive Economic Growth Surprises Tend To Bode Well For Earnings



* SOURCE: BLOOMBERG FINANCE L.P.

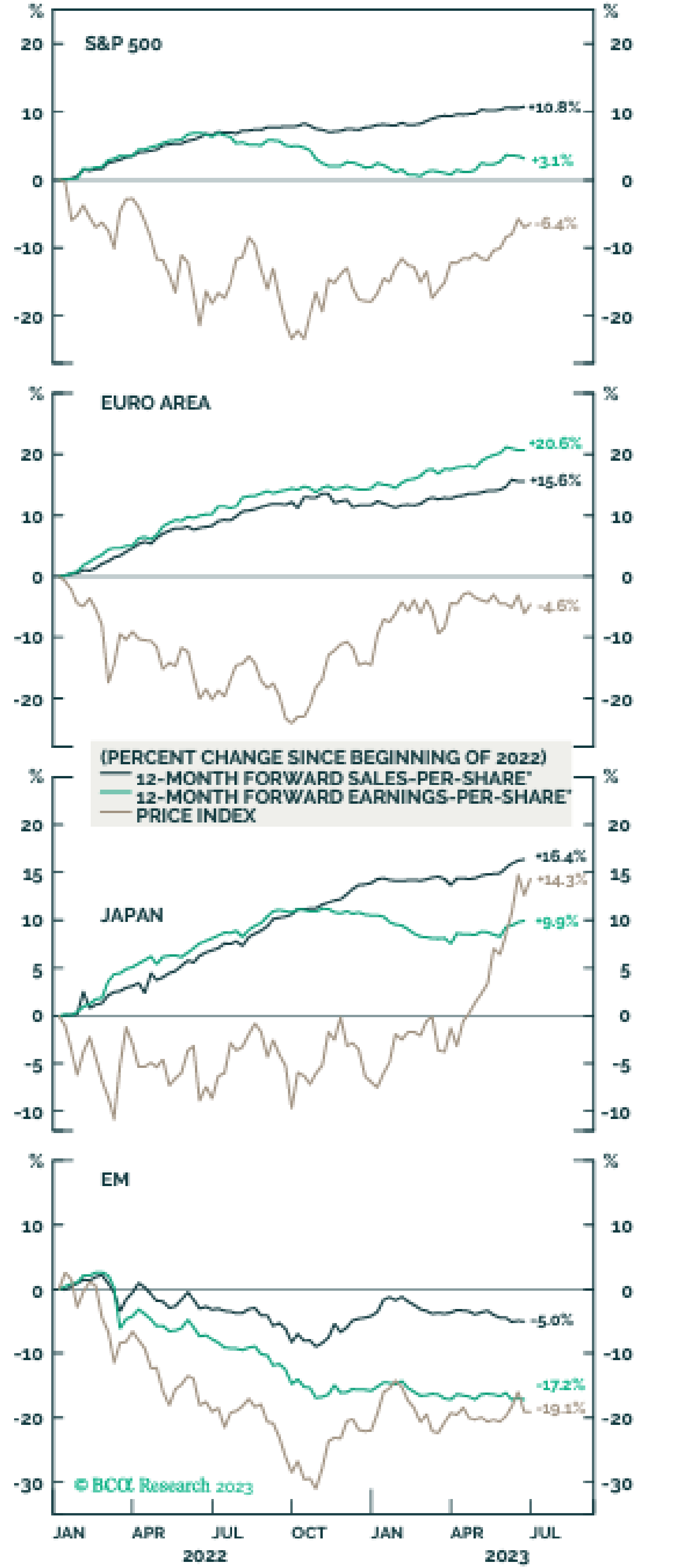
** NET POSITIVE REVISIONS AS A SHARE OF TOTAL REVISIONS. SOURCE: REFINITIV / IBES.

*** ROLLING 3-MONTH STANDARD DEVIATION OF DATA SURPRISES. SOURCE: CITIGROUP GLOBAL MARKETS INC.

NOTE: ALL SERIES SHOWN AS A 26-WEEK MOVING AVERAGE.

CHART 44

US Sales Growth Has Outstripped Earnings Growth Over The Past Year



* SOURCE: REFINITIV / IBES AND MSCI INC. (SEE COPYRIGHT DECLARATION).

An often-heard view is that stocks have only recovered because of the AI frenzy. It is obviously true that the hopes about AI capabilities have lifted a select number of mega cap tech names .... However, AI-mania does not explain why the S&P 500 equal-weight index has still managed to rise 16% from last autumn's lows.

More than anything else, it is the hope of a soft landing that helped put a bottom under stocks on October 13 – the exact same day that the US CPI peaked on a year-over-year basis. ...

Earnings Are Rebounding

There is a fairly consistent relationship between earnings revisions and economic surprise indices (**Chart 43**). When the economic data surprise on the upside, analysts typically revise up their earnings estimates.

After declining for eight straight months, US 12-month forward earnings estimates began to rise in February and are now up 2.5% from their lows (**Chart 44**).

It is noteworthy that forward sales estimates barely contracted during the period when earnings estimates were being cut, an indication that margin compression was at the heart of the earnings squeeze. At this point, US profit margins are back to 2019 levels, suggesting that the pandemic surge in margins has largely reversed.

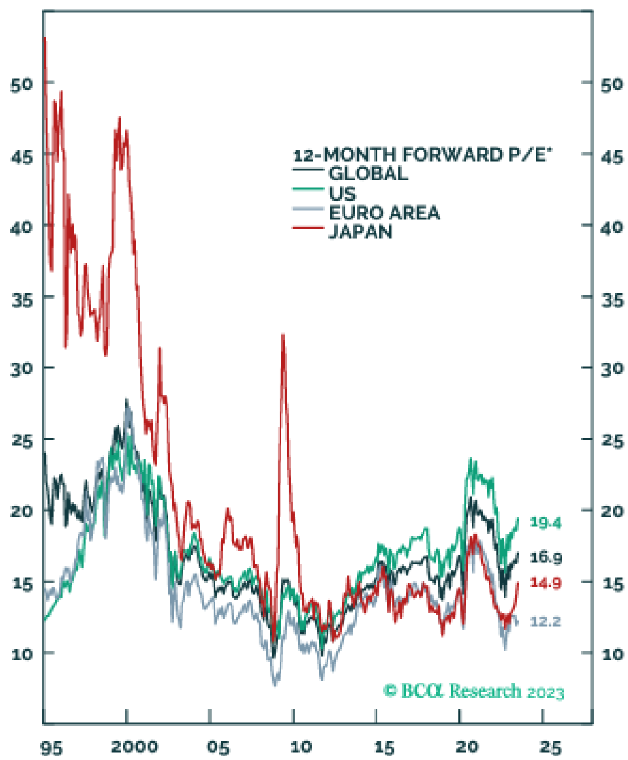
US margins are still high by historic standards and will decline further during the next recession. However, until that fateful day arrives, margins are likely to remain stable. With sales still growing, this means that earnings will continue to rise, providing near-term support to stocks.

If economic growth surprises on the upside against fairly beaten-down expectations during the remainder of the year, the more cyclical sectors of the stock market should outperform. ...

Favor Euro Area and Japan Over the US

... Both regions have seen positive earnings and sales momentum and would both disproportionately benefit from a rebound in global manufacturing. They are also reasonably cheap – trading at 12.2 and 14.9-times forward earnings, respectively, compared to 19.4-times for the US (**Chart 48**).

CHART 48
Euro Area And Japanese Stocks Are Cheap Compared To The US



* SOURCE: REFINITIV / IBES, AND MSCI INC. (SEE COPYRIGHT DECLARATION).
NOTE: GLOBAL IS THE MARKET CAPITALIZATION-WEIGHTED AVERAGE OF THE US EURO AREA, JAPAN, UK, CANADA, AUSTRALIA, SWITZERLAND, SWEDEN, AND EMERGING MARKETS.

... less upbeat about EM where earnings and sales trends remain disappointing. That said, there is a lot of heterogeneity within the EM universe. Arthur Budaghyan, BCA's Chief EM strategist, favors Mexico, Chile, Peru, Korea, Vietnam, and Chinese A Shares. Ritika Mankar's call to overweight Indian stocks has also worked out well. Indian equities have outperformed the EM benchmark by 12 percentage points and the global benchmark by 2 percentage points since she published her report on January 27.

C. Fixed Income

Bond Yields: Flat-to-Up, Then Down

... Until the next recession arrives, bond yields will be stuck in a tug of war between falling inflation on the one hand, and a still resilient economy on the other hand. ...

D. Currencies

The US Dollar Will Resume Its Slide, At Least Until the Next Recession Begins

After a sharp sell-off between early November and late January, the trade-weighted dollar has moved largely sideways. Swings in interest rate differentials between the US and its trading partners explain much of the change in the dollar's value (**Chart 54**).

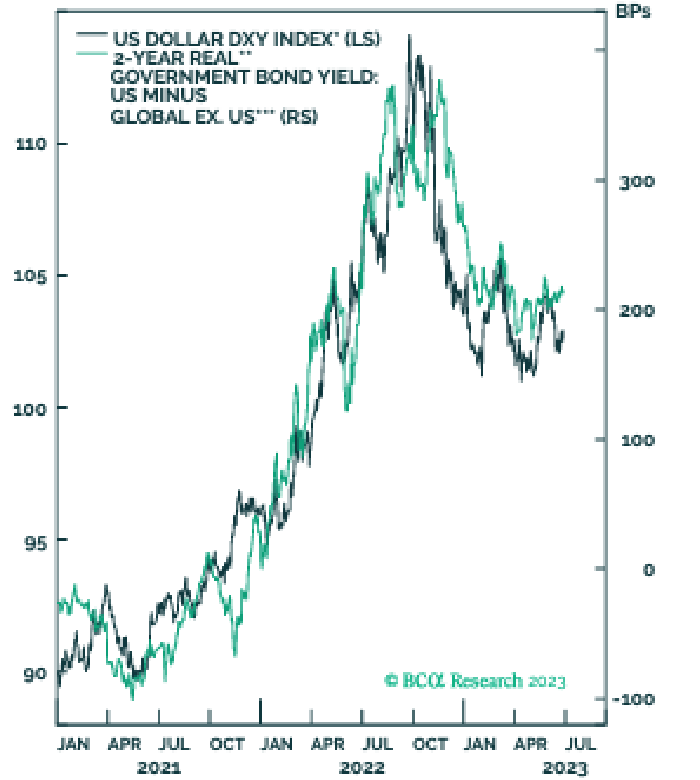
Looking out, it is probable that short-term interest rate differentials will move against the dollar. With inflation coming down, the Fed will likely be content with only one more rate hike in July. In contrast, temporarily sticky inflation in Europe and a potential rebound in the global manufacturing cycle will put pressure on the ECB to raise rates at least two more times.

Meanwhile, other smaller developed economies such as Norway, Canada, and Australia, which had seemingly paused raising rates earlier this year, have started hiking again.

From a valuation perspective, the US dollar remains quite pricey, trading 19% above its Purchasing Power Parity (PPP) exchange rate (**Chart 55**). Historically, the dollar's deviation from PPP has been a good guide to its long-term direction (**Chart 56**). ...

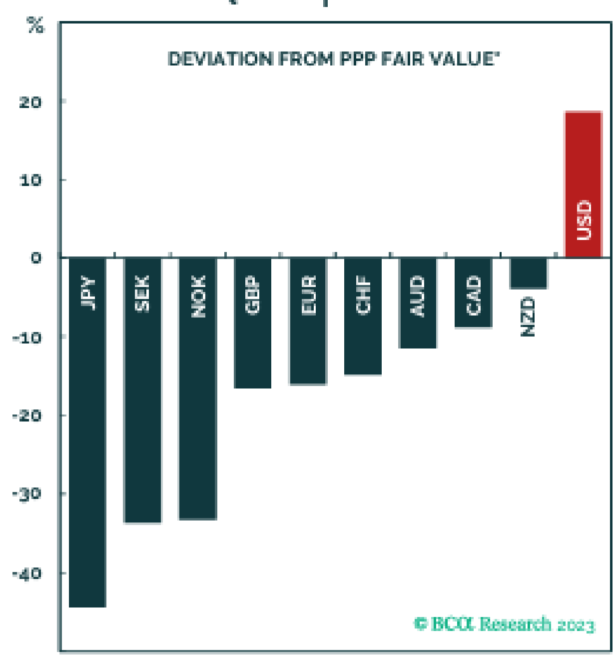
Under what conditions could the dollar strengthen? We see two main possibilities. First, if the US experiences a second wave of inflation, the Fed would need to raise rates much more than what the markets are discounting. Second, if financial stresses increase sharply during the next recession, then as a safe-haven currency, the dollar would benefit. Our base case is that the next recession will be fairly mild, in which case the dollar will probably trade sideways, much like it did during the 2001 downturn. ...

CHART 54
Swings In Rate Differentials Go A Long Way In Explaining The Moves In The Dollar



* SOURCE: ICE FUTURES US.
** DEFLATED BY CPI SWAPS AND CORE CPI FOR CANADA AND SWITZERLAND.
*** WEIGHTED AVERAGE OF THE US DOLLAR DXY INDEX CONSTITUENTS.

CHART 55
The Dollar Is Quite Expensive

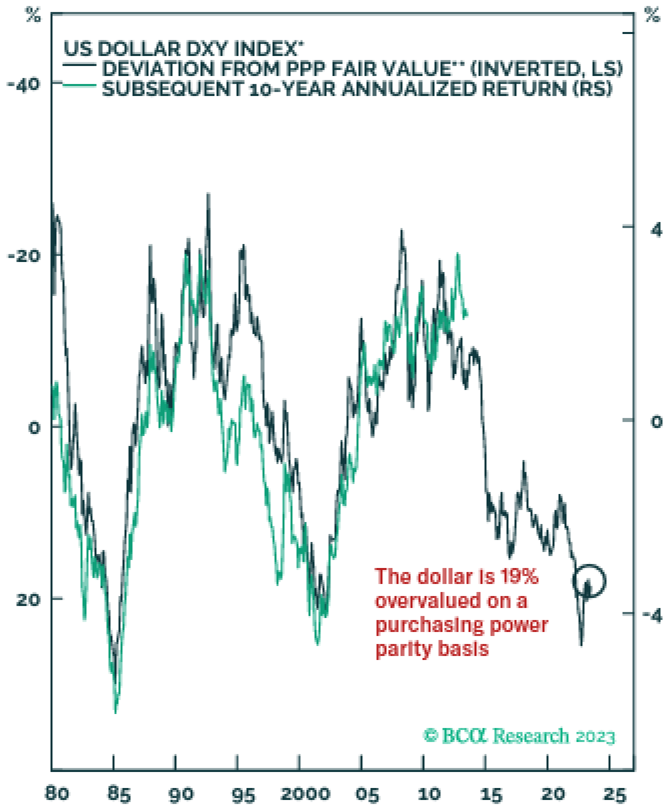


* BCA PURCHASING POWER PARITY MODEL BASED ON ADJUSTED CPI. PLEASE REFER TO THE FOREIGN EXCHANGE STRATEGY JANUARY 20, 2023 SPECIAL REPORT TITLED "CURRENCY VALUATION AND LONG-TERM RETURNS: PART 1," FOR FURTHER DETAILS.

E. Commodities

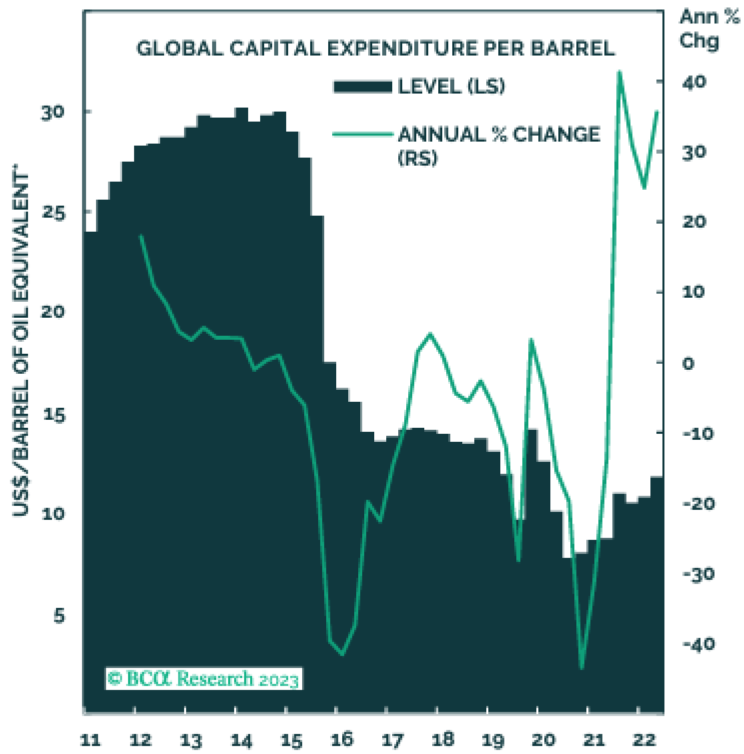
Upside for Oil and Industrial Metals in the Near Term but Pain Awaits in 2024

CHART 56
The Dollar Should Depreciate Over The Long Term



* SOURCE: ICE FUTURES US.
** BCA PURCHASING POWER PARITY MODEL BASED ON ADJUSTED CPI. PLEASE REFER TO THE FOREIGN EXCHANGE STRATEGY JANUARY 20, 2023 SPECIAL REPORT TITLED "CURRENCY VALUATION AND LONG-TERM RETURNS: PART 1," FOR FURTHER DETAILS.

CHART 60
Eight Years Of Underinvestment In The Energy Sector Have Taken Their Toll



* IN 2015 US DOLLARS.
SOURCE: US EIA.
NOTE: BASED ON PUBLIC FINANCIAL STATEMENTS FROM GLOBAL OIL AND NATURAL GAS COMPANIES. THE VALUE FOR Q4 2015 HAS BEEN INTERPOLATED.

If global growth surprises positively over the remainder of 2023, as we expect, oil and industrial metal prices should strengthen.

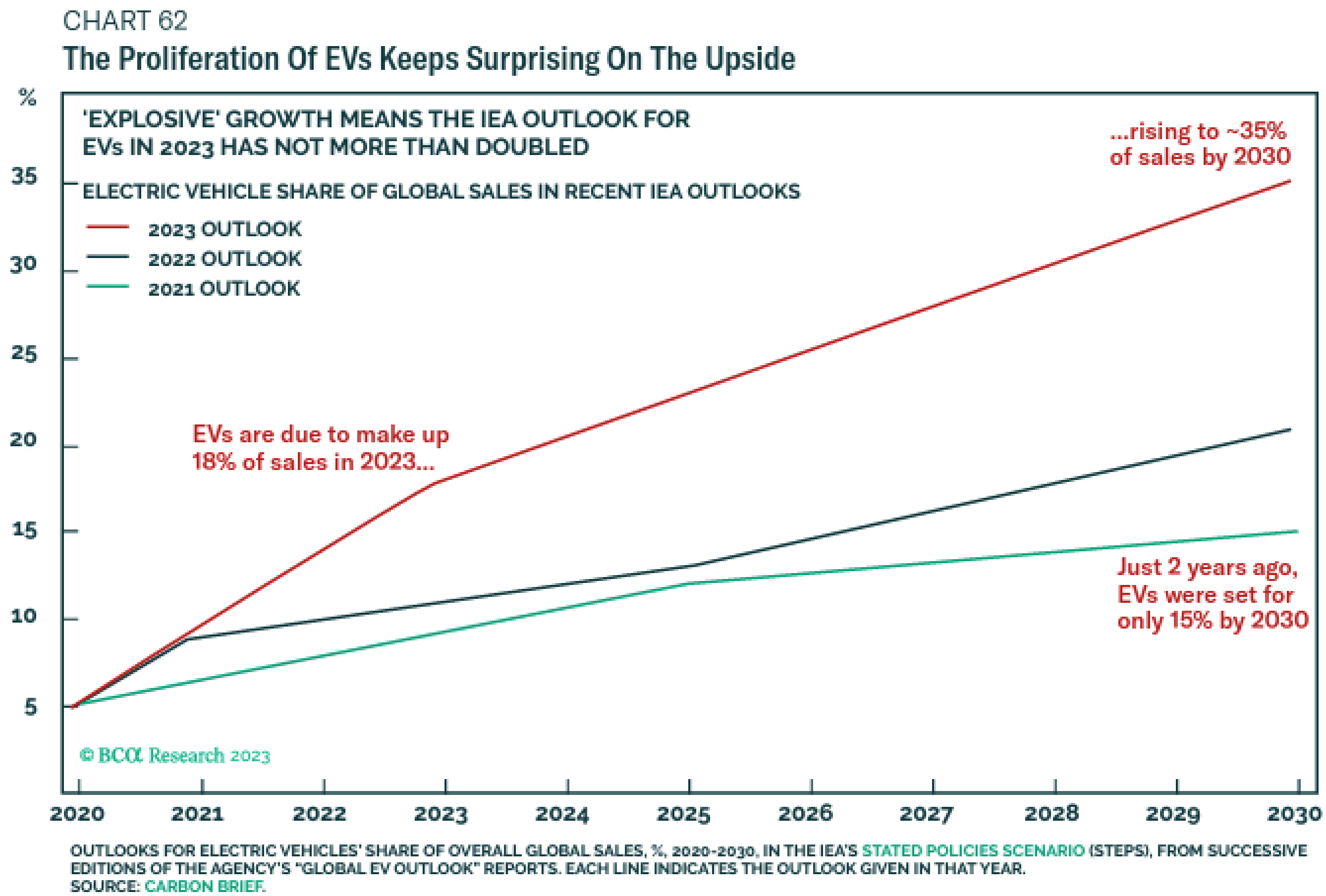
Tight supply conditions should further support prices. In the metals complex, capex has been weak. Metals inventories remain at exceptionally low levels. In many countries, political uncertainty continues to hamper investment.

Globally, capital spending per barrel of oil produced is down two-thirds from its peak (**Chart 60**). Most oil companies continue to prioritize returning cash to shareholders over new investment. ...

Commodities During the Next Recession and Beyond

The prospects for oil and metals will sour next year as the global economy slips into recession. Thus, as with equities and highyield credit, investors should prepare to turn more defensive on industrial commodities later this year.

Over a multi-year horizon, the outlook for metals is better than for oil. The transport sector currently accounts for about 60% of global petroleum demand. According to the IEA, 18% of auto sales in 2023 will be EVs. This number is set to rise to 35% in 2030, more than double what the IEA expected just two years ago (**Chart 62**). The shift towards electric vehicles will steadily erode the demand for oil.



On the flipside, the adoption of EVs will benefit industrial metals, as they are heavily used in both the production of electric vehicles and in the electricity distribution networks necessary to support them. BCA's

commodity strategists estimate that the global renewable-energy transition will require the supply of refined copper to double over the next 10 years, something current production plans are unlikely to achieve.

The biggest risk for metals centers on China, which accounts for over half of global demand for most industrial metals (Chart 63). China's housing sector absorbs 17% of global copper production. If the housing market resumes its slide in 2024, this will provide an important counterweight to rising demand for metals stemming from the transition to the green economy.

Outlook for Gold Prices

The price of gold has fallen by 3.4% since we downgraded it at the end of March. As **Chart 64** illustrates, real gold prices are still quite high relative to their long-term history. Gold prices are also higher than one would expect them to be based on the current level of real bond yields (**Chart 65**). If inflation continues to decline, this will weigh on gold prices. ...

Maintaining a Negative Outlook on Crypto Assets

Within days of ChatGPT's release, a cornucopia of useful applications appeared utilizing the new tool. Fifteen years after the introduction of Bitcoin, not a single major application has appeared that does not involve fraud or speculation. Despite rallying this year, our short BTC trade is up 100%. We are maintaining our BTC price target of $5,000. ...

CHART 64
Real Gold Prices Are Quite High Relative To Their Long-Term History

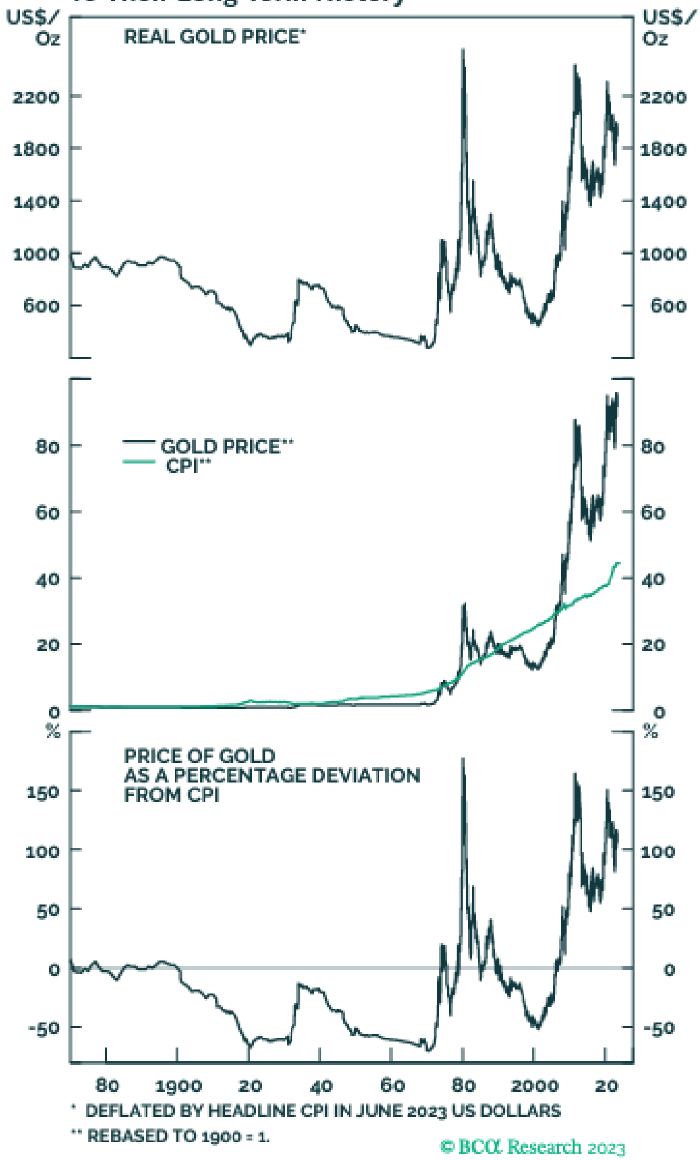
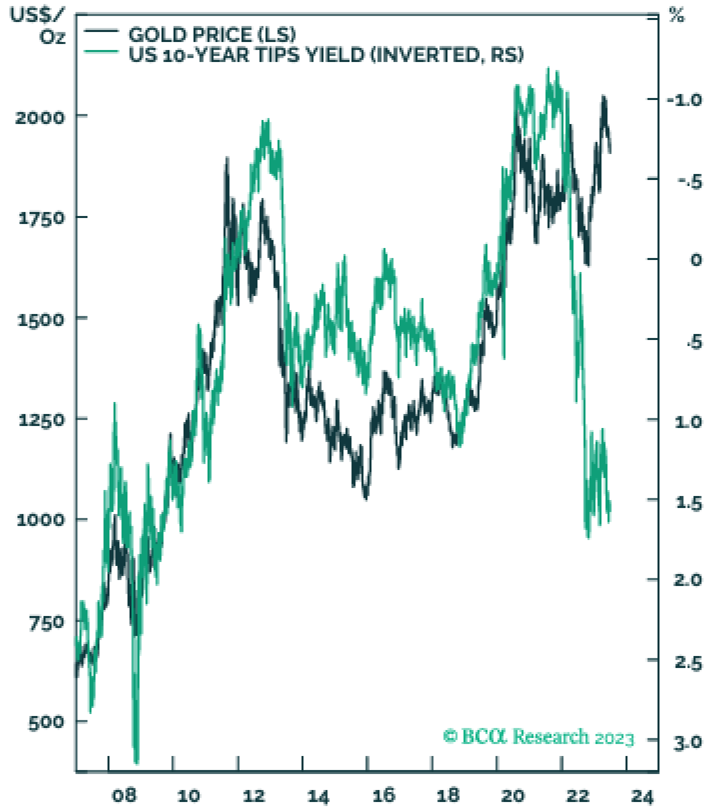


CHART 65
Gold Prices Are Quite High Relative To Real Yield



Five from Morningstar:

‘Huge’ Rebalancing at Momentum ETF Provides Market-Beating Clues

Changes in a major ‘winner-picking’ strategy from iShares offers these tips for stock-pickers, as Ryan Jackson shares the biggest and newest additions to the fund.

Ryan Jackson, **Ruth Saldanha** Jun 15, 2023

Ruth Saldanha: At the end of May, the Bronze-rated iShares MSCI USA Momentum Factor ETF (MTUM) (which is held by 9 of HCM's clients), was rebalanced. It is of value for investors to pay attention to what changed in the rebalance. This ETF maximizes exposure to the momentum factor, which is basically the idea that stocks that have been performing well over the short term will continue to do so for some time more. This factor has historically been tied to market-beating performance, which means that if investors keep an eye on what changed in this rebalance, specifically what stocks were added, then they might be able to spot market-beating trends as well. Ryan Jackson is a manager research analyst of passive strategies at Morningstar Research Services. ...

How Does This Winner-Picking Strategy Work?

Jackson: ... this strategy is really just plying a very traditional momentum investing approach. And like you said, when we think about momentum investing, it's as simple as betting on the stocks that have recently outperformed to continue to outperform in the mid to near future. It's a very simple strategy, and it's kind of a behavioral explanation for why it works based on the idea that we think investors are a little bit too slow to price in new information. We tend to underreact to material news about new equities. So, as a result of that, those stocks can capitalize on those that are performing well recently. Momentum approach—it's worked across different market-cap segments, across geographies, across decades, different time periods. So, all in all, the momentum factor is certainly one that's a little bit robust. It's a little bit costly to implement at times, requires quite a bit of trading. So, that can drag on the total returns. ...

Now, when we look at MTUM specifically, it's probably the most common way for U.S. investors to get exposure to momentum in the U.S. market. It's tracking an index called the MSCI USA Momentum SR Variant Index. The way this benchmark is constructed is it's assigning a momentum score to all large- and mid-cap U.S. equities, and that score is going to consider these stocks' trailing six- and 12-month risk-adjusted returns. So, it's using those two time periods to quantify recent performance. The 125 best-rated stocks on this momentum score are going to be added to the benchmark, and they're going to be weighted by a combination of that momentum score and their market capitalization. So, that's how you build the initial portfolio. And then, twice per year, in May and November, we're going to see this index completely rebalance ....

The Momentum Rebalance Shows a Pivot to Growth

Saldanha: So, let's talk a little bit about this rebalance. But before that, let's talk about what's going on with the MTUM ETF. Back in 2021, it had more of a growth tilt, and then in 2022, it became more of a value tilt. So, with this latest rebalance, what tilt is it looking at right now?

Jackson: Yeah, that's exactly right. So, a brief history on MTUM. It's had some seesawing over the past few years. Through the late 2010s, even into the 2020, through the pandemic, it was really all-in on growth stocks because those were the companies that have consistently led the market really uninterrupted for a nice long stretch there. But then, starting with a little value mini rally in late 2020, over the next few rebalances, we really saw the fund oscillate back and forth between value and growth as they took turns leading the U.S. market. We saw that most recently in May of last year, 2022, as the fund really piled into the energy, consumer staples, utilities, healthcare stocks, that did a lot better than most of their peers in last year's bear market.

So ... when MTUM rebalanced most recently, ... it's looking quite different once again. From a value/growth standpoint, it was in the middle of the Morningstar Style Box, leaning toward value a little bit. With this most recent rebalance, swung all the way back firmly into growth territory. Probably an even better way to think about the changes is to think about the sector updates. There are really some pronounced ones. You look at something like tech went from only 3% of the portfolio to 27% after the rebalance. Communication services from 2% to 10%, and the consumer discretionary stake went from 7% to 14%. So, those were the big increases. Naturally, that space needs to come from somewhere. So, we saw healthcare go from about 39% to 19% of the portfolio, energy dropping from 24% to 5%, and some more modest cuts for consumer staples and utility stocks. So, really a big shake-up from both the value/growth and a sector perspective for the fund.

Which Stocks Could Be Future Winners? And Which Stocks Were Dropped?

Saldanha: Could you tell us something about the stocks now? What are some major stocks that were included and some that were excluded?

Jackson: If you rack your brain and think over the past six months or so about the stocks you feel like you've heard them most about on the news, you can kind of get an idea for where MTUM started to drift because that's what it does. That's by design. So, talking about some of the biggest, newest additions: Nvidia (NVDA) is the headliner. That's been all the rage recently. It's just been shot out of a cannon. We saw some other semiconductor companies break through into the portfolio. Broadcom (AVGO), Advanced Micro Devices (AMD) both came in at over 2% of the new portfolio. Also, some familiar faces. We've got Microsoft (MSFT), Netflix (NFLX), Meta (META). These are all mega-cap tech firms that had actually logged previous stints in MTUM but took a little bit of hiatus, found themselves back in the portfolio after the May 2023 rebalance. And then, just some other newcomers that really earned their way in with strong runs here over the past six months or so, thinking stocks like Chipotle (CMG), General Electric (GE) are a couple more of those newcomers.

As far as those that lost their spot in the portfolio, you can pretty much work your way down the energy and healthcare sectors because the forces that booted a lot of those stocks were more at the sector level than individual. So, when you look at energy, you'll see ConocoPhillips (COP), Chevron (CVX) as a couple of big ones that got booted. UnitedHealth Group (UNH) and AbbVie (ABBV), some of those really strong 2022 performers that just couldn't really sustain that momentum, lost their spot as well.

The MTUM ETF Is Still a Solid Choice for Momentum Factor Investors

Saldanha: So, help us understand what this means for investors in this ETF? What is your outlook for the fund going ahead?

Jackson: This was a huge rebalance that we just saw in May of 2023. It was 67% of the portfolio turned over all in one fell swoop here. So, that's a big shake-up. And I think for investors it really just underscores the importance of knowing what you're getting. Folks that maybe didn't have a clear idea of how momentum works or what this strategy is doing would be shocked to go to bed one night with one fund and wake up the next morning with a completely different portfolio, but that's just how this thing works, even though over the past few rebalances, they have been more pronounced than usual. So, that's important to remember.

But when you look ahead here, I still think MTUM does a very solid job of tapping into the momentum factor, which over the long term has definitely proven its merit. So, that's certainly a good attribute to latch on to. Additionally, you're getting that momentum exposure at a really attractive price point. This ETF only charges 15 basis points per year, which is very, very competitive, hard to beat in the momentum market for sure. And when you look at the process overall, while it does have a couple of flaws, it's got some solid features as well. And I think the pros generally outweigh the cons when it comes down to them. So, that all kind of feeds into our Morningstar Medalist Rating of Bronze, reflects a little bit of conviction that this fund will outperform its category index on a risk-adjusted basis over the long term. ...

Consumer Sentiment Is Low—That's a Good Sign for Stocks

When the public is gloomy, equities usually thrive.

John Rekenthaler Jun 12, 2023

A Contrarian Indicator

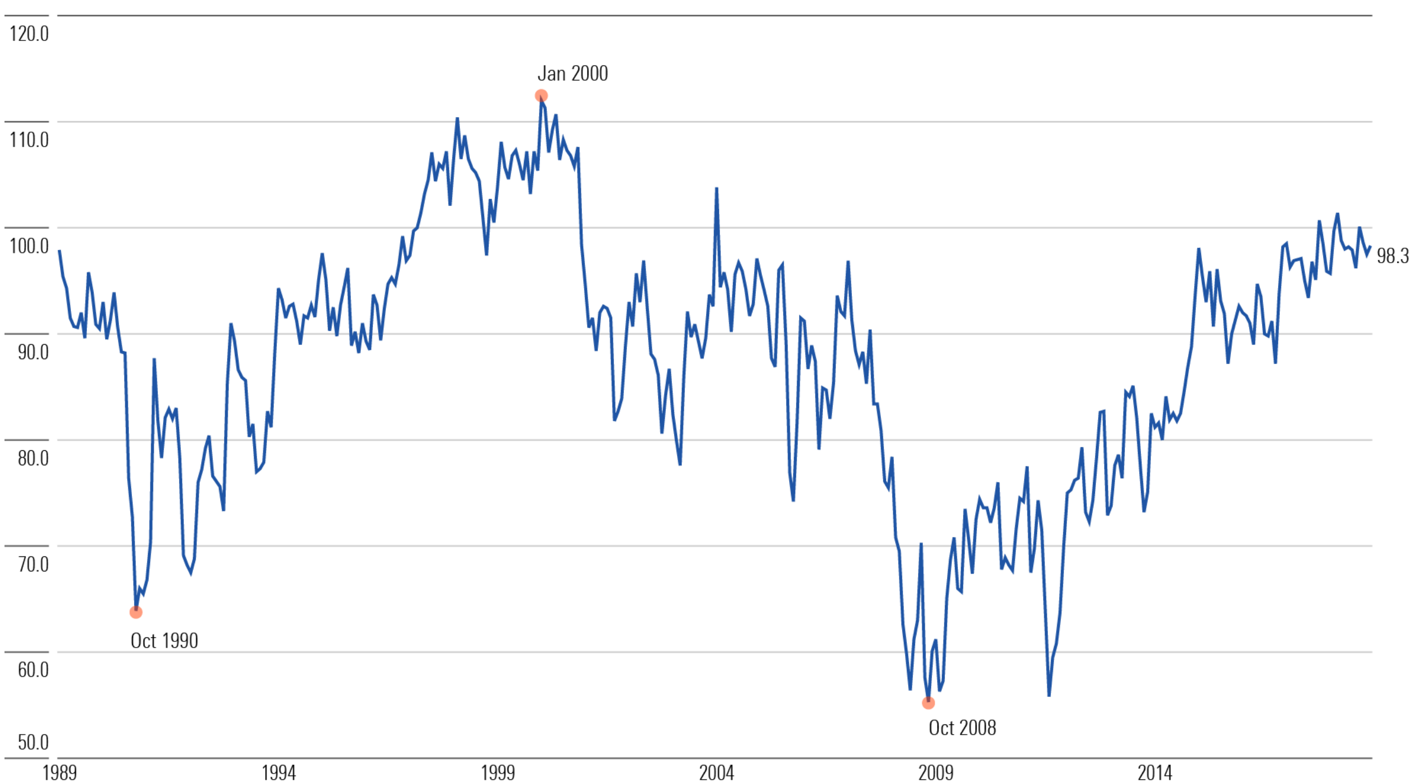
Many adages are patently false. For example, tennis fans sometimes cluck about the peril of winning a set by the highest possible score of 6-0. Fly too high, suffer Icarus' fate. To assess that conceit's accuracy, researchers at Tennis Channel searched for all the matches that the world's number-one women's player, Iga Światek, has ever lost during her professional career after posting such a score. None.

Nor, despite the lament among soccer fans, is a 2-0 lead the worst lead. It is demonstrably better than 1-0, although obviously worse than 3-0.

That said, the common claim that consumer confidence is inversely related to stock performance is correct. The chart below shows the monthly output for the University of Michigan's Index of Consumer Sentiment, which addresses the public's confidence in their financial futures, from the date of President George Herbert Walker Bush's inauguration through the next three decades, until December 2018.

Consumer Sentiment: 1989-2018

(University of Michigan Consumer Sentiment Index, January 1989-December 2018)



The Track Record

Consumer sentiment plummeted during President Bush's first two years, reaching its low point in October 1990. At that point, U.S. equities were down 15% on the year. Not entirely coincidentally, the very month that sentiment bottomed was also stocks' nadir. In November, equities promptly resumed what would become the longest bull market in American history.

Consumer sentiment followed suit, peaking as the new millennium commenced. Then the technology-stock crash began. Consumer sentiment jaggedly declined until October 2008. Technically, that date did not signal the stock market's floor—equity prices were slightly lower in March 2009—but it was mighty close. Suffice it to say that buying U.S. equities would have been an excellent idea.

Broadly speaking, the 30-year pattern matched what researchers had expected when entering the period. (By the late 1980s, the belief that consumer sentiment was a contrarian indicator had become widespread.) When people are deeply unhappy, stocks are likely to thrive, because the economic damage that bothers them has already occurred. A contented populace, on the other hand, is the investment equivalent of red sky at morning. Equity shareholders, take warning.

Why So Low?

With that precept in mind, let's see how consumer sentiment has since behaved. The next chart repeats its predecessor while adding the post-2018 period.

Including the Recent Past

(University of Michigan Consumer Sentiment Index, January 1989-April 2023)

The relationship between consumer sentiment and equity prices has continued. After maintaining its level for another year, sentiment crashed upon the advent of the novel coronavirus, staged a fleeting recovery, and then plunged again in summer 2021 when inflation arrived in earnest. Consumer sentiment now hovers near its 35-year low.

Indeed, sentiment appears to have overshot the economic news. Inflation has been painfully high, of course. But job growth has been strong, and corporate bankruptcies few. Anecdotally, the public seems to be grumpier than the situation would warrant. I tested that notion by calculating the "Misery Index," which measures the extent of economic suffering by summing 1) the unemployment rate and 2) the trailing 12-month change in the Consumer Price Index.

Misery Index

(Unemployment Rate + Trailing 12-Month Change in CPI, January 1989-April 2023)

The brief but severe pandemic-driven recession sent the index to its highest level since the early 1980s. Then, as employment picked up, inflation surfaced. But over the past several months, the index has subsided, as price increases have moderated while employment remains robust. At 7.4%, its April 2023 total was below the post-1989 median of 8.1%. As judged by the Misery Index, consumer sentiment today is below what one would reasonably expect.

Down in the Dumps

That leads to another question: Have Americans become more pessimistic? The previous two exhibits suggest that consumer sentiment has declined over time, even as the economic news has been similar. The first third of the evaluated period brought the technology-stock crash, the second third the global financial crisis, and the final third pandemic/inflation shocks. Those once-per-decade woes seem akin. Yet the level of consumer sentiment has gradually declined.

I also put numbers to that proposition, by:

1) Calculating the median figures for the Consumer Sentiment Index and Misery Index from January 1989 through April 2023.

2) Rescaling the monthly index values, so that each index's median = 100.

3) Summing the two rescaled monthly amounts, then subtracting 200.

The result is the Adjusted Sentiment Index, a statistic of my invention.

An example will illustrate the point. In January 1989, the rescaled Misery Index was 120. The Misery Index was 20% above its median level. The public should therefore have been commensurately discouraged. However, that month's Consumer Sentiment score was 10% above its median, at 110. The Adjusted Sentiment Index was thus 230 minus 200 = 30. The positive result indicates that people were relatively optimistic, given the prevailing economic conditions.

The Adjusted Sentiment Index for April 2023, in contrast, was a puny negative 37. Only during the global financial crisis has that figure ever been lower.

Public Discontent is Growing

(Consumer Sentiment Adjusted for the MIsery Index, January 1989 - April 2023)

The Silver Lining

The public's unhappiness is difficult to comprehend. Two months ago, I discussed a similar finding from a University of Chicago National Opinion Research Center survey, in which 78% of respondents stated that they were not confident that their children's financial lives would exceed their own. If that prediction proves correct, that would be a remarkable setback, as across the entire wealth spectrum every American generation has been wealthier than the one that preceded it.

This time, of course, could be different, but an argument of such improbability is worth considering only when advanced by a highly credible source. Yet as we have seen, the public's financial judgment has been the direct opposite of "highly credible." With their economic sentiment, the people have reliably and consistently been on the wrong side of future events.

Glum times are not much fun. If given the option, I would not choose that Americans be deeply pessimistic. There is, however, a silver lining for equity investors, in that such moods have typically presaged strong stock market gains.

The Inflation Hedge That Cost Investors 17% of Their Purchasing Power

The average dollar invested in TIPS funds has lost money over the past decade.

Jeffrey Ptak Jun 12, 2023

In December 2020, inflation-protected securities funds were sitting pretty. The average fund had gained nearly 10% over the past year as Treasury Inflation-Protected Securities' real yields went progressively lower. Investors noticed, shoveling $22 billion into TIPS funds that year. When inflation burst onto the scene the following year, it turbocharged demand, with investors pouring another $75 billion into TIPS funds in 2021.

Most of those investors flocked to TIPS funds seeking an inflation hedge. But they got more than they bargained for, with TIPS selling off sharply in 2022 as real yields reversed direction. All told, the average inflation-protected securities fund fell 9.5% in 2022. Taken together with the 7.5% inflation rate that year, investors in TIPS funds saw a 17% loss of purchasing power in 2022.

True, TIPS investors are eventually made whole for whatever inflation they endure, so the 7.5% lost to inflation in 2022 was temporary in theory. But that's only the case if investors hang onto the bonds long enough to get the principal adjustments that are made to offset inflation. Have investors in TIPS funds hung on? Some have, but hardly all. Indeed, TIPS funds have seen $33 billion in net outflows since 2021.

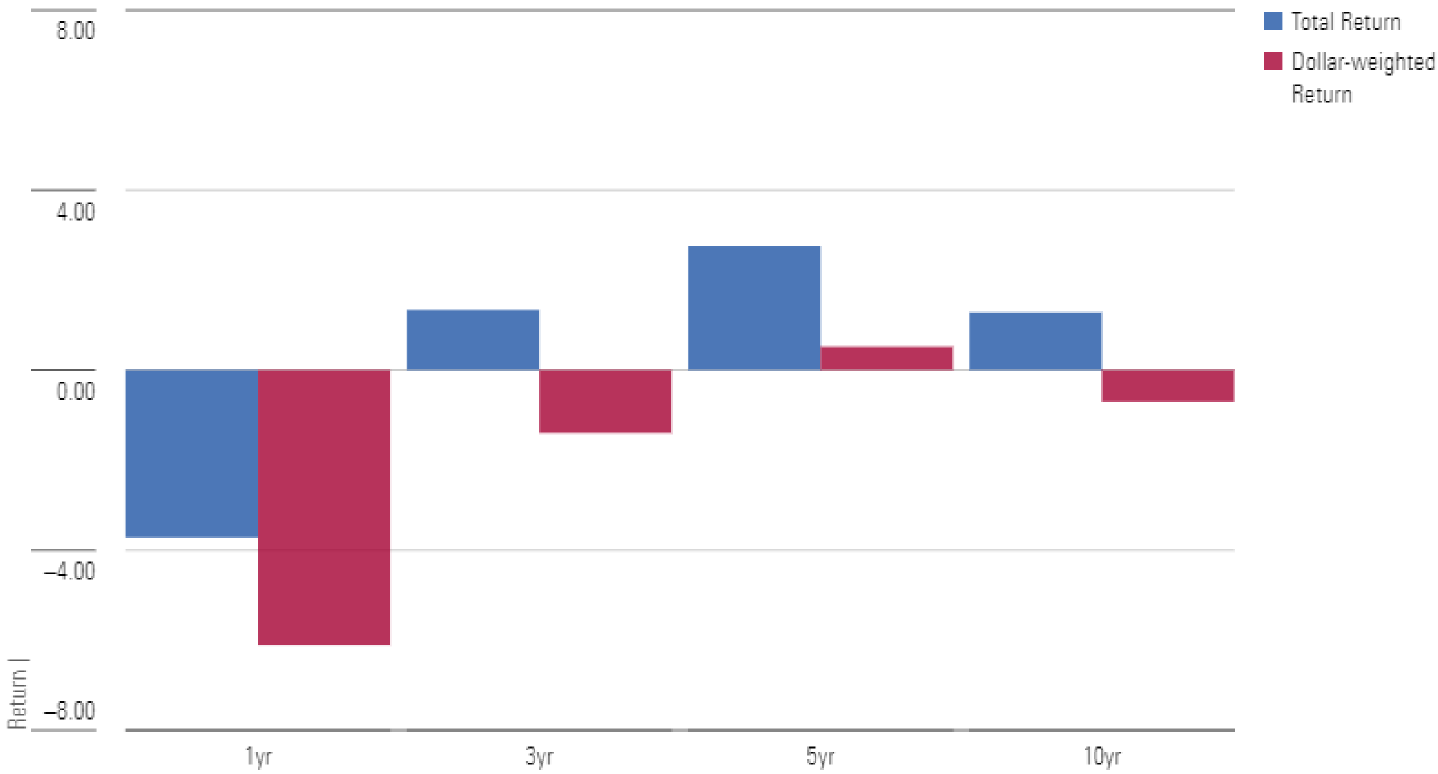
Estimating TIPS Fund Investors' Returns

Given this, we wondered how much TIPS fund investors have earned in dollar-weighted terms in recent years. To that end, we compiled all inflation-protected securities funds for which we had complete net assets and flow data over the 10 years ended April 30, 2023. There were 44 of these funds which held around $187 billion in net assets, in aggregate, as of April 30, 2023.

We found the average dollar invested in TIPS funds lagged the total return of the average TIPS fund by at least 2% per year over all trailing periods ended April 30, 2023, as shown below.

TIPS Funds: Trailing Total Returns vs. Dollar-weighted Returns (as of 4/30/23)

The average dollar invested in TIPS funds has underperformed the average TIPS fund by at least 200 basis points per year over all trailing periods ended 4/30/23



Notably, the average dollar lost 1.4% per year over the past three years, a period that spans the recent spate of inflows and outflows. Inflation ran at 5.8% per year over those three years, so that means the average dollar lost about 7.2% of its purchasing power annually. To put that in perspective, if in April 2020 an investor had bought an individual TIPS bond and held it to maturity on April 30, 2023, she'd have lost less than half a percentage point of purchasing power per year.

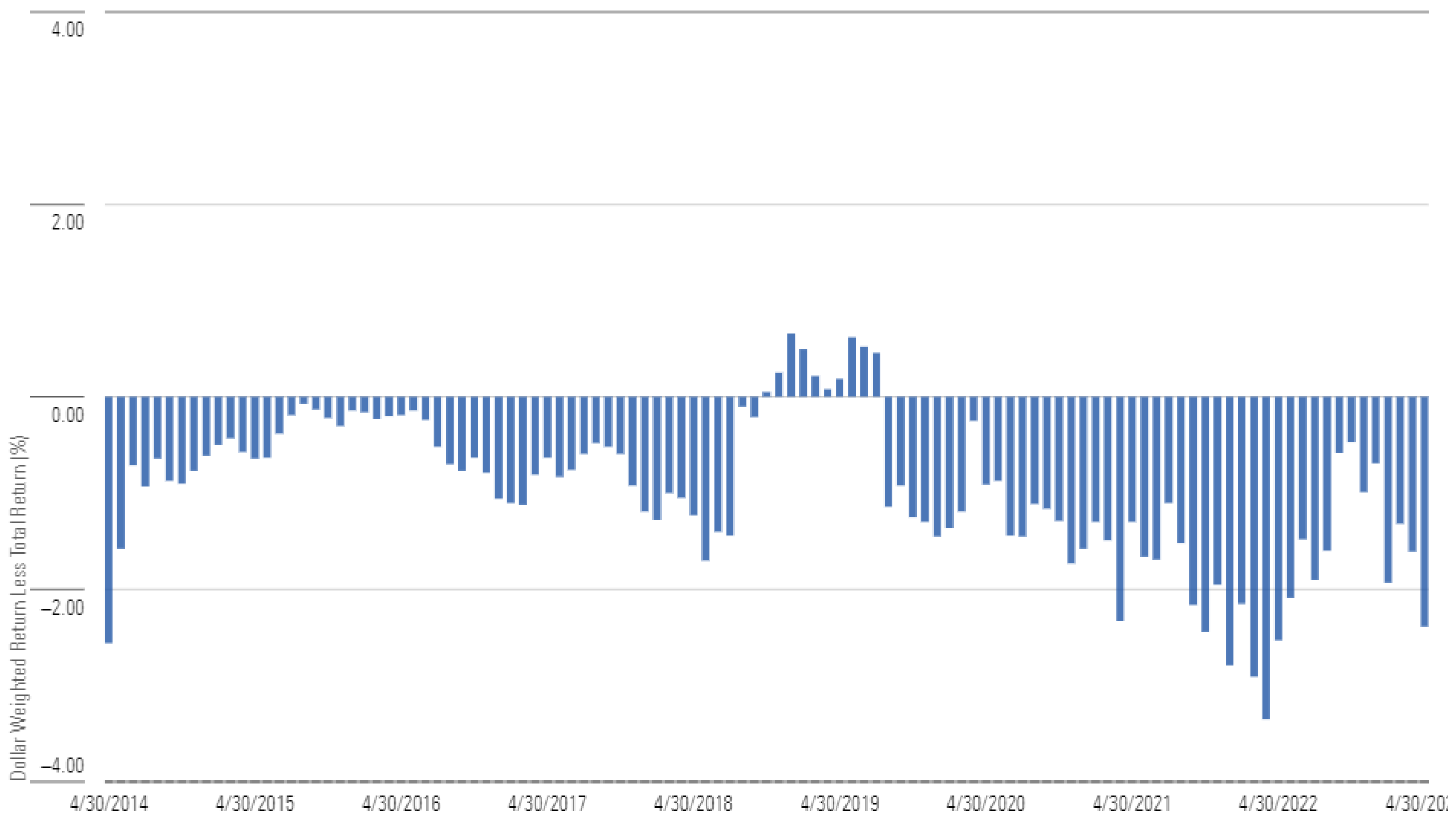
A Chronic Problem

Is the chasing behavior we've seen from TIPS fund investors recently a new phenomenon? It doesn't appear so. When we compared these 44 funds' rolling one-year average total returns to their subsequent rolling 12-month organic growth rates, we found they were highly correlated. In other words, the better TIPS funds' recent performance, the stronger the demand, and vice versa. ...

This has been persistently costly to TIPS fund investors over the past decade. When we calculated the 44 funds' rolling one-year dollar-weighted returns and compared them to their rolling 12-month average total returns, we found a chronic gap. The average dollar lagged the average fund's returns by about 1% over the rolling periods we examined and the gap was nearly always negative.

TIPS Funds: Rolling 12-mo. Gap Between Average Dollar-weighted Return and Average Fund's Total Return

The average dollar invested in TIPS funds almost always earned a lower return than the average TIPS fund over the 10 years ended 4/30/23. The average shortfall was around one percentage point.



Takeaways

While TIPS funds can (in theory) serve a useful purpose, the data we analyzed suggests that investors have struggled to use them successfully in practice. They've chased returns, allocating more to TIPS funds after they've gained and fleeing when they falter. Thus, they have little to show for their efforts: By our estimates, the average dollar invested in TIPS funds lost 0.70% per year over the 10 years ended April 30, 2023. ...

Thematic Investing: Just Say No

Seventy-five years of failure is quite enough.

John Rekenthaler Jun 8, 2023

Been There, Done That

I have not previously written about thematic investing. My mistake. I should have cautioned against such funds three years ago because warnings should be issued during upswings. But the truth is, at that time I paid them little attention.

I ignored thematic investing because I did not expect the marketplace to bite. Theme funds are repackaged sector funds. True, supporters of thematic investing claim that their funds are different and better. For example, Schwab states, "In contrast to sector investing, [thematic investing] includes investments that span many sectors, such as the Workplace Diversity Leaders theme ... bringing together a variety of companies from tech, retail, gaming, hospitality, and more."

Perhaps in that case, but most theme funds are more narrowly constructed, as Schwab's next sentence confesses. "Thematic investing lets you align your investments with personal interests and values, including themes like space economy, genomics, cybersecurity, and many others." The truth comes out. Theoretically, theme funds might "span" several sectors, but in practice, most occupy the relatively small portion that is devoted to futuristic technologies.

That is very old wine, sold in new bottles. As Morningstar's Ben Johnson reminds us, futurist funds are septuagenarians. The Television Fund (!) debuted in 1948. The next decade brought Atomic Development Fund; Science and Nuclear Fund; Nucleonics, Chemistry & Electronics Shares; and the Missiles-Rockets-Jets & Automation Fund. They were followed by the infamous Steadman Oceanographic & Growth Fund. (Inspired by Jacques Cousteau, apparently.)

Rejecting Bogle

That you have not heard of such funds, save perhaps for Steadman, suggests all one needs to know about high-concept sector funds: They fizzle. Those from our grandparents' generation did, as did those from our parents' time. So will the current incarnation. Over time, the sectors—sorry, "themes"—change, but the story does not. Buying the current headlines was, is, and always will be a mug's game. As somebody once said, "If the bozos know about it, it won't work anymore."

I thought investors would have learned that lesson by now. In the past, fund buyers were doomed to repeat history because of a lack of information. They lacked the data to disprove tempting narratives. That no longer holds. Also, thematic investing contradicts the currently dominant practice of indexing. Theme funds charge a premium to hold risky portfolios with the promise that today's extra cost will become tomorrow's extra profits. Jack Bogle directly preached against such hopes.

A Sales Boom

My analysis underestimated the public's appetite for gambling. Although muted during bear markets, this inclination continues to emerge during bull markets, the triumph of Jack Bogle's gospel notwithstanding. And when optimism—and the prices of United States stocks—surged in summer 2020, so did the coffers of theme funds. By early 2021, the market share of thematic investing, as measured by its percentage of U.S. equity-fund assets (both open-end and exchange-traded funds) had nearly tripled.

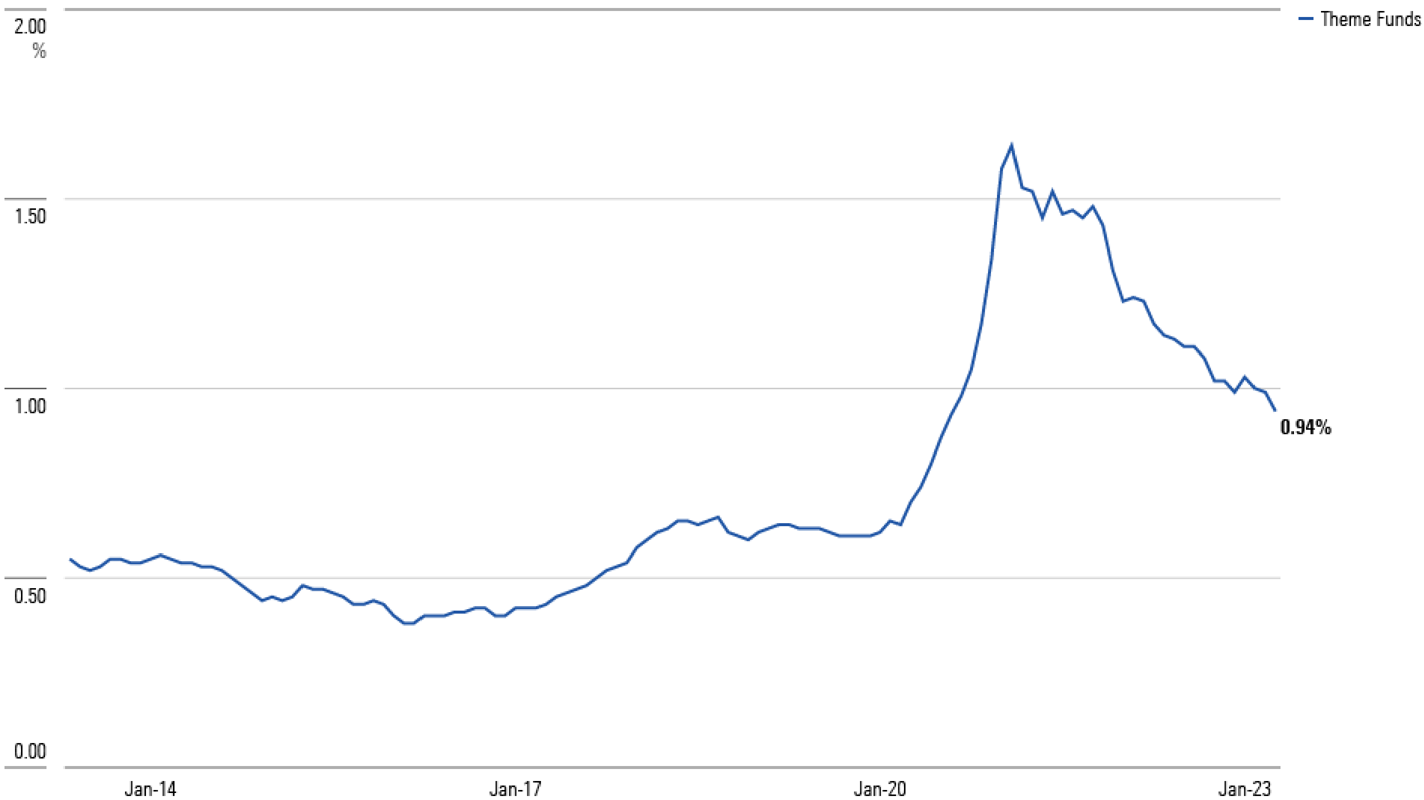
To be sure, at a peak share of 1.64%, thematic investing was a minor segment of the fund industry. It never mounted a serious challenge to the trillions of dollars parked in conventional equity funds. However, thematic investing did record significant sales. For the six months ending February 2021, theme funds received a net $64 billion. That's good money even by Vanguard's standards.

ARK's Influence

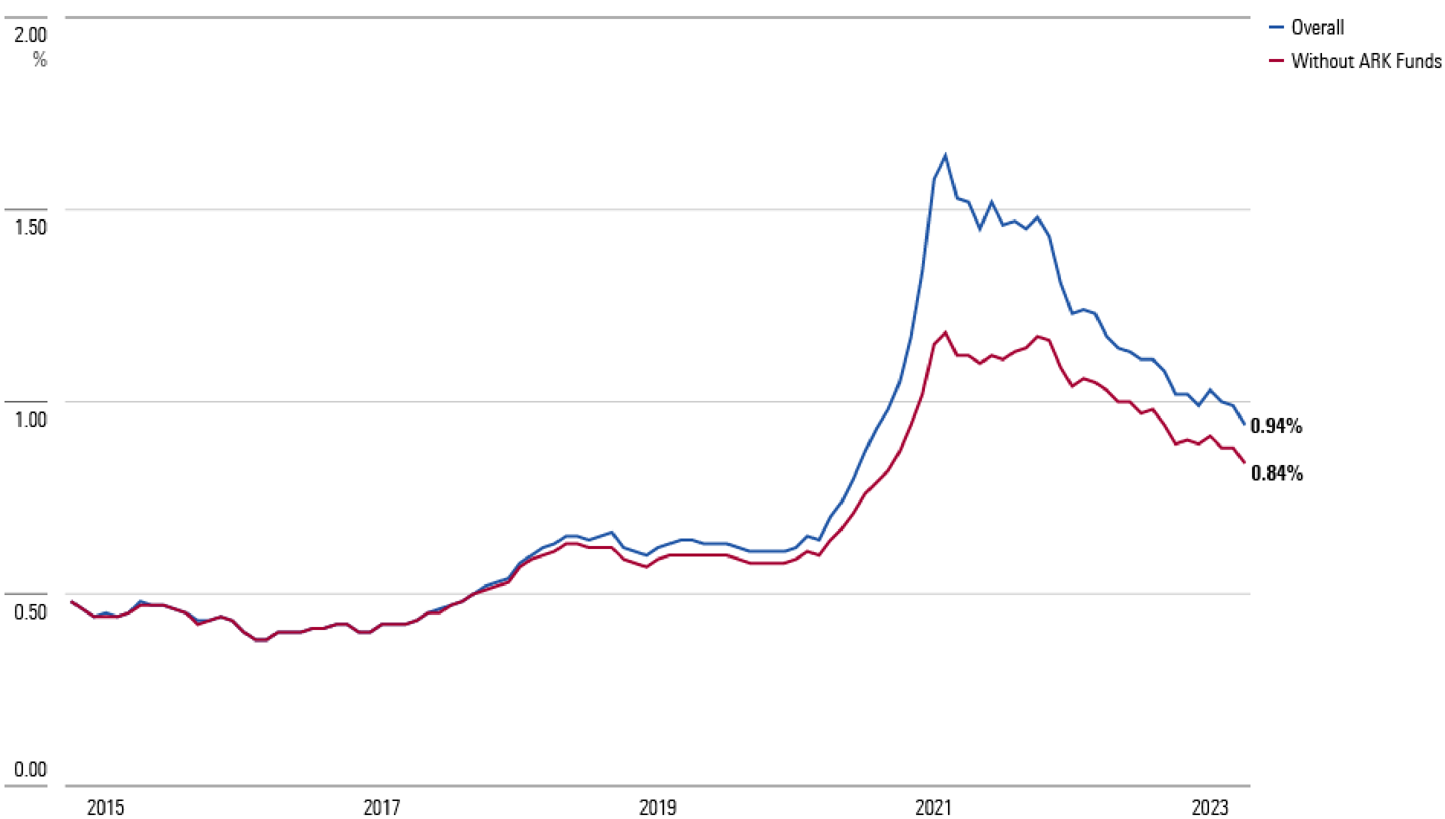
These figures raise the question: How much of the sales increase was attributable to ARK Funds? During that very time, Cathie Wood's almost comically thematic investments—Innovation, Genomic Revolution, Next Generation Internet, and so forth—were *the* talk of the fund world. Perhaps the apparent popularity of theme funds merely reflects the rise (and subsequent fall) of the ARK Fund family.

It should be easy enough to test that proposition: Rerun the previous study while omitting the ARK products.

Market Share Nearly Tripled (Percentage of U.S. Equity-Fund Assets)



Without ARK Funds (Percentage of U.S. Equity Fund Assets)



By this measure, the market share for thematic investing doubled rather than tripled. That is, the ARK funds were responsible for half the sales increase, while other thematic investors generated the other half. Although less dramatic, the pattern excluding the ARK funds still stands: Theme funds were briefly the rage.

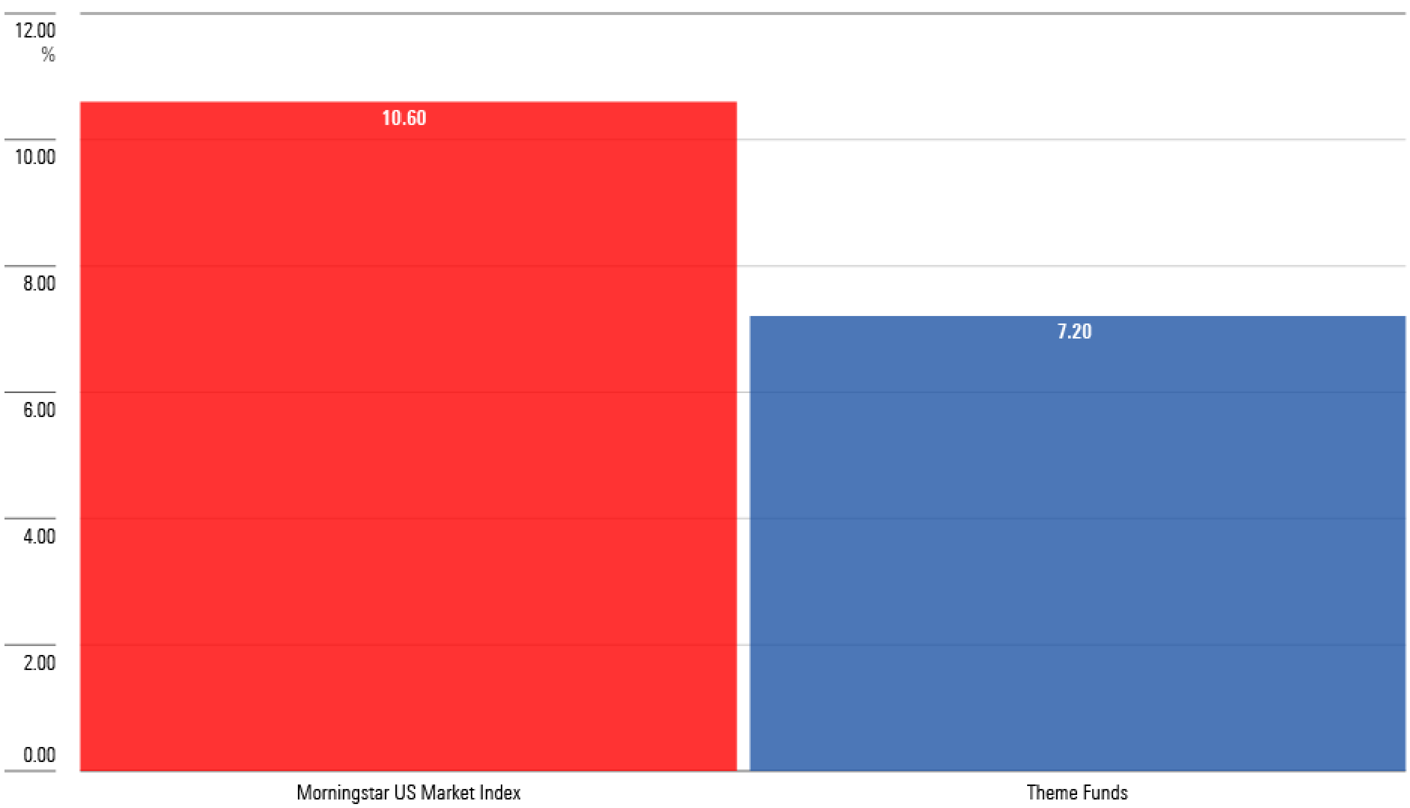
Performance Problems

Then came 2022, which convincingly demonstrated that most thematic investors were not, in fact, as well diversified as implied by Schwab's description. On average, theme funds dropped 30.1% on the year, more than 10 percentage points worse than the 10.4% loss suffered by the Morningstar US Market Index. Their returns also trailed those of the average small-growth fund. Consequently, since April 2022 theme funds have suffered net monthly redemptions.

Of course, one should not condemn funds for a single bad year any more than praise them for a single good year. A longer perspective is required. Unfortunately for theme funds, the longer perspective is also unkind. Below are the annualized total returns for thematic investors since 2017 (when enough theme funds existed to merit computing an average) compared with the stock market average.

Unacceptable Performance

(Annualized Total Return %, January 2017-April 2023)



To call those results disappointing would be an understatement. Miserable is more like it. Not only have thematic investors sharply lagged the overall marketplace, returning a cumulative 63% as opposed to the index's 103%, but their successes have been fleeting. Last year was no anomaly. In 2018, 2019, 2021, 2022, and again so far this year, theme funds trailed the market average. Higher risk + lower aggregate returns + fewer bright spots = investment failure.

On a dollar-weighted basis, the results have been worse yet. Morningstar's Amy Arnott has delivered the sad news that because most ARK Innovation ETF ARKK shareholders bought near the top, the aggregate return for the company's flagship fund has been deeply negative. Quite literally, since that ETF was founded, it has lost more money for its shareholders than it has made. The same principle applies to the rest of thematic investing, albeit on a lesser scale.

Conclusion

Thematic investing appeals to the worst investor instinct: The desire, based on the combination of avarice and undue self-confidence, to outdo one's neighbor while knowing no more than one's neighbor. (That artificial intelligence is the next technological revolution, or whatever.) I had thought that indexing's overwhelming popularity had eliminated such tendencies. Not so.

Let this be a belated reminder to us all that the odds remain firmly against such endeavors.

Follow-ups

From Morningstar on June 17th:

Morningstar's Mind the Gap study shows why investors can be their own worst enemy. Our annual study of investor returns finds investors earned about 9.3% per year on the average dollar they invested in funds and ETFs over 10 years. This is about 1.7 percentage points less than the total returns the fund investments generated over the same period.

The shortfall is based on poor timing decisions by investors. Over the 10-year period the impact of poor investor behaviour is stark. Instead of a $10,000 investment growing to $28,394 the average investor only managed $24,333. Over longer time periods this difference grows.

Behavioural economics concludes that human decision making is often irrational despite the best intentions by investors. ...

Since HCM's inception we have shared numerous articles, and studies on Factor based investing. This latest comes from Verdad on June 26th:

Sources of Return

Value and profitability offer complementary exposures.

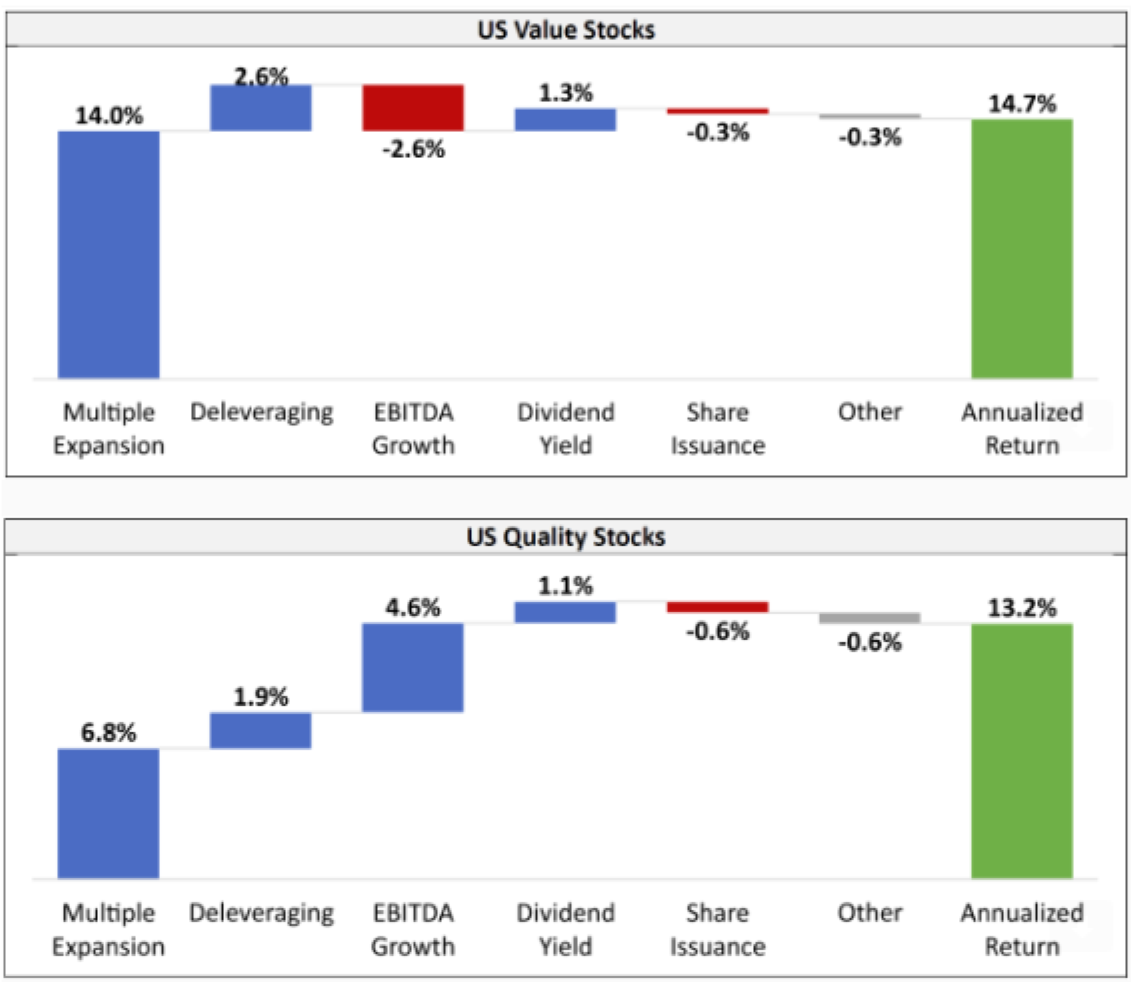
By: Brian Chingono

In his seminal paper on the profitability factor, Robert Novy-Marx (2013) makes two important arguments about value and quality. Defining quality as high profitability in terms of Gross Profit/Assets, Novy-Marx first points out that "profitability is another dimension of value." In this statement, Novy-Marx means that value and quality are philosophically and economically related because they both aim to purchase future streams of income at a discount today. While quality strategies purchase highly profitable firms at average prices, value strategies purchase average profitability firms at low prices. These two approaches are philosophically similar as they seek to benefit from multiple expansion over time as valuation discounts close in tandem with improved fundamentals.

The second major point in Novy-Marx's paper is the paradoxical finding that while value and quality share a similar trading philosophy, "[highly] profitable firms are extremely dissimilar from value firms." This dissimilarity is evidenced by a number of characteristics, from the spread in valuation ratios between quality and value to the low correlation of quality and value factor returns, at only 0.1 since 1963, according to Ken French data.

Below, we show that the dissimilarity between quality and value also extends to earnings growth. Whereas an annually rebalanced value strategy tends to have negative earnings growth over a one-year horizon, a quality strategy tends to have positive earnings growth over the same horizon. That is because value strategies rebalance into the cheapest stocks in the market, and these heavily discounted opportunities tend to be firms whose operations are in the process of stabilizing. On the other hand, quality strategies rebalance into highly profitable firms that are growing at an unremarkable pace of around 5% per year, which is broadly in line with long-term nominal GDP growth and is close to the market median growth rate.

Figure 1: US Return Attributions for Value and Quality (1998–2021)



Source: S&P Capital IQ. The "Other" category accounts for aggregate rounding errors from the components. Equal-weight portfolios are formed with minimum market caps of $50 million.

We believe these charts provide a tidy synthesis of Novy-Marx's two central points. Since value and quality strategies share a similar philosophy of buying companies at a discount to where they should be trading, they both benefit from multiple expansion. The magnitude of multiple expansion tends to be twice as large among value strategies at around 14%, versus 7% in quality, because the value firms are purchased at much lower valuations. Over the 23 years between 1998 and 2021, the cheapest 20% of US firms traded at a median valuation of 5.6x EV/EBITDA, whereas the most profitable 20% of US firms traded at a median valuation of 10x EV/EBITDA. These two portfolios are compared against the median characteristics across the US market in the table below. Relative to the market, quality works by purchasing double the amount of profitability in terms of Gross Profits/Assets and Operating Profit/Assets at roughly the same valuation multiples as the market. And value works by purchasing roughly the same level of profitability as the market at nearly half the valuation.

Figure 2: US Median Portfolio Characteristics (1998–2021)

	Quality		Valuation	
	GP/Assets	OP/Assets	EV/EBITDA	Price/Book
Quality	62%	18%	10.0x	3.03x
Value	32%	13%	5.6x	1.49x
Market	**28%**	**9%**	**11.9x**	**2.31x**

Source: S&P Capital IQ. Equal-weight portfolios are formed with minimum market caps of $50 million.

While sharing a common trading philosophy, we believe the characteristic differences between value and quality mean that they are complementary in a portfolio because they work in different ways and at different times. Both strategies can offer a return premium to the market, with the equal-weight value portfolio outperforming the market by 3 percentage points per year since 1998 and the equal-weight quality portfolio outpacing the market by 2 percentage points per year over the same horizon, according to data from S&P Capital IQ. Therefore, we believe that value and quality are key ingredients in building a portfolio that targets long-term outperformance relative to the market.