Market Digest – April 2023

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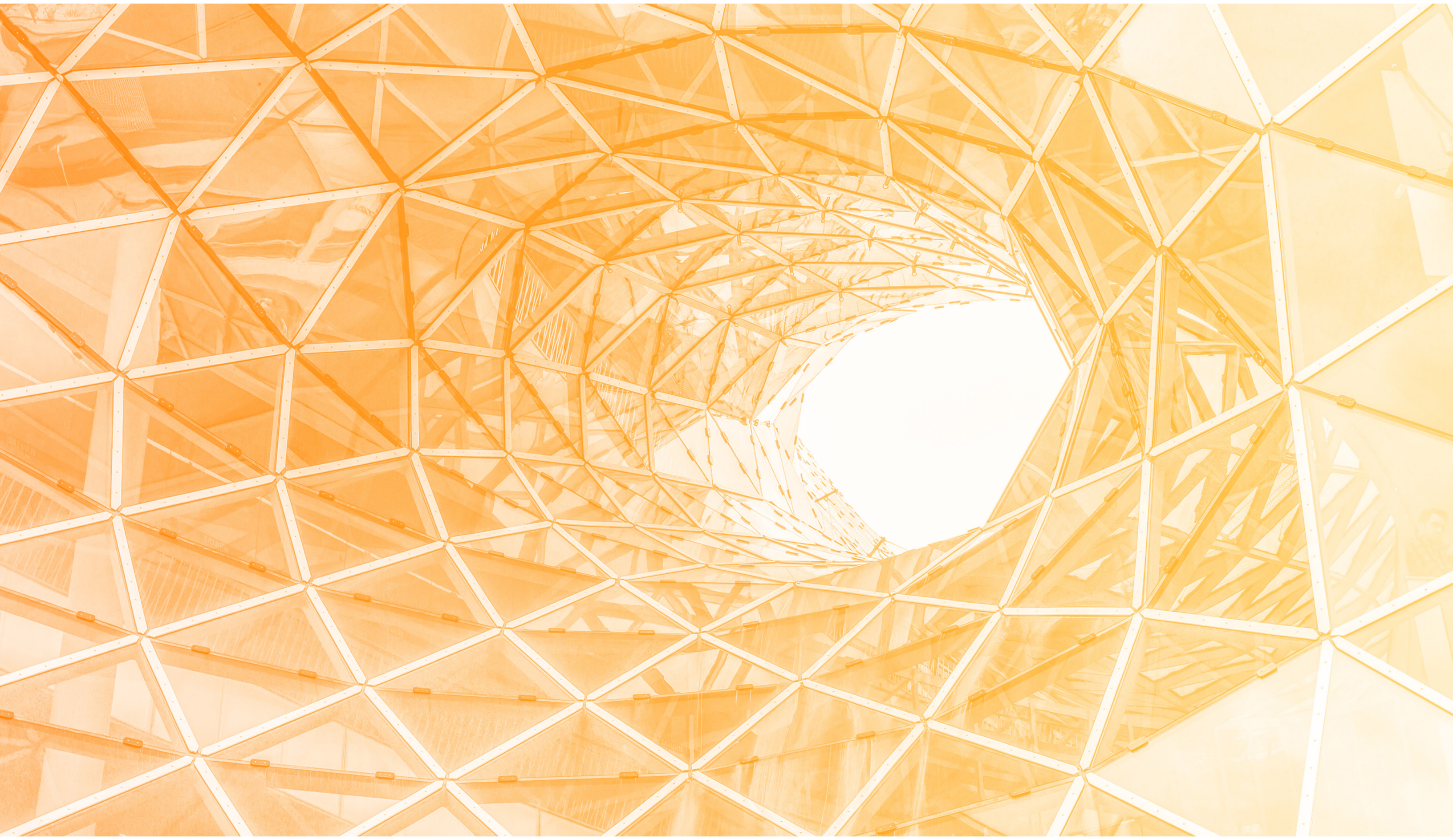

Positioning for slower growth

Table of contents

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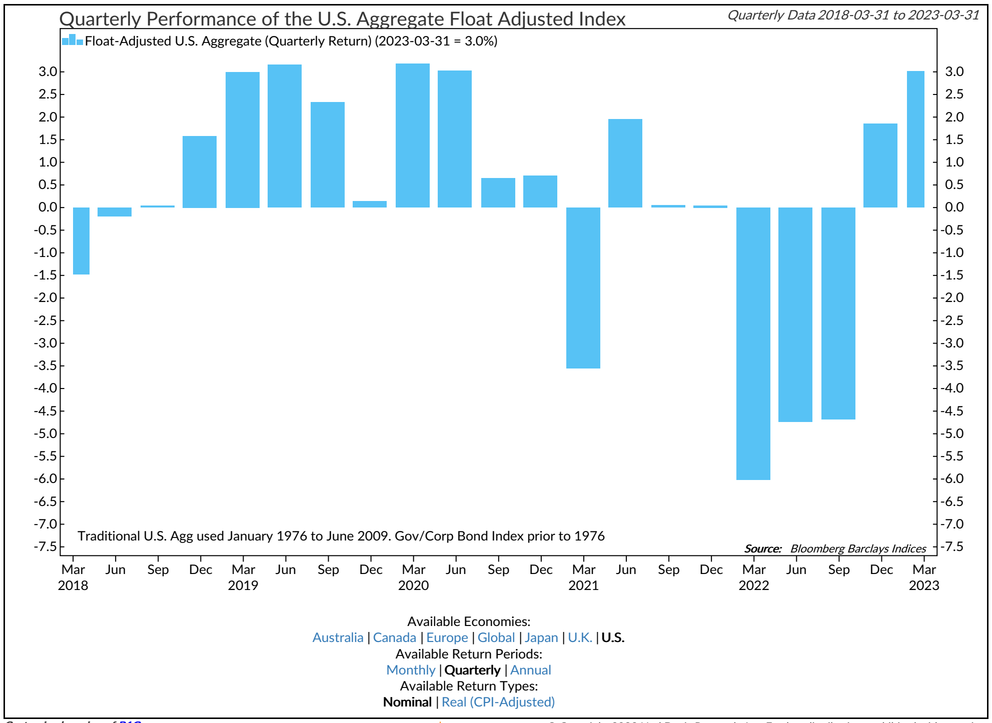
APRIL 17, 2023

Executive Summary

Q1 was remarkably resilient, despite economist consensus that a recession was imminent, narratives switching to "higher-for-longer" Fed policy, and the second and third largest bank failures in U.S. history. Bonds continued their Q4 rally, marking a two-quarter gain of 4.9% that was the best since Q2 2020 (chart right). If a recession does not start until late-2023 or 2024, there could possibly be a window for the stock market to rally after a May rate hike.

Best two-quarter performance since the pandemic



Customized version of B1G

Below are our latest thoughts about the outlook for the economy and markets:

Global Economy. The global economy continued to accelerate in March, according to the latest global PMIs, marking a historically positive development for global equities.

Global Asset Allocation. We shifted to overweight U.S. and Europe ex. U.K.; marketweight Japan; underweight Emerging Markets, Pacific ex. Japan, and Canada.

US Economy. There is little doubt that there will be some fallout from March's banking crisis. We expect credit conditions to tighten in the coming months.

Fixed Income. We increased bond exposure to 110% of benchmark duration from 105%. Yields in the U.S. bond market are on the cusp of breaking down across most of the curve. Weak data can do the trick.

U.S. Stock Market. Many themes of 2022, including cash over stock and bonds, Value over Growth, and Energy over Technology, reversed in Q1. We shifted tactical recommendations to favor large over small and moved neutral on Growth versus Value.

U.S. Sectors. The sector model made four position changes in March. Technology was upgraded to overweight and Real Estate was upgraded to marketweight, while Financials and Industrials were downgraded to marketweight and underweight, respectively.

Thematic Opportunities. Energy has broken down vs. Tech. Tech is up nearly 12%, was the best performing sector in March, and posted its best monthly return in more than a year.

Europe Equities. The recent correction in European equities is consistent with a period of consolidation within an upward trending market.

NDR Hotline. The bear market mostly ended in the middle of 2022, with the trend evidence slowly improving, but some indicators have not verified. Consumer confidence indices have moved higher but have yet to indicate extreme optimism.

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ALEJANDRA GRINDAL CHIEF ECONOMIST
PATRICK AYERS INTERNATIONAL ECONOMIC ANALYST

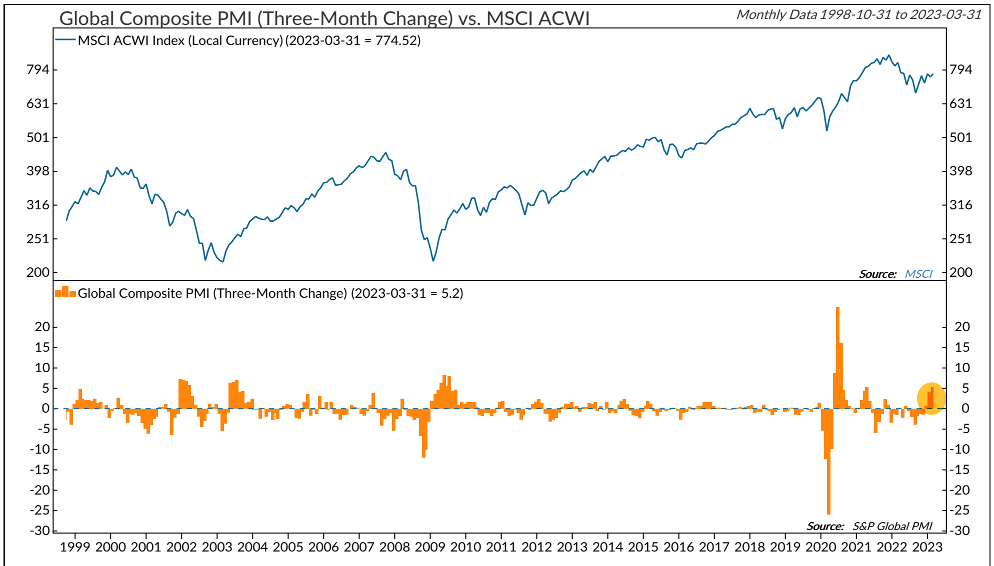
APRIL 17, 2023

Global economy continues to grow, but some cracks are emerging

Key Takeaways

- The global economy continued to accelerate in March, according to the latest global PMIs, a historically positive development for global equities.
- But the manufacturing sector and overall output expectations weakened, suggesting cracks under the surface.
- The recovery will likely fade as the year progresses, as Chinese demand comes back to earth, and other parts of the world adjust to tighter credit conditions.

Faster global growth associated with favorable equity performance



MSCI ACWI Performance
Full History: 1998-10-31 to 2023-03-31

Change of PMI	% Gain/ Annum	% of Time
Above 0.0	7.31	47.70
Below 0.0	1.45	52.30

Buy/Hold = 4.20% Gain/Annum

IE251A

The global economy continued to accelerate through March, according to the latest global PMIs. The global composite PMI jumped 1.3 points to 53.4, the highest level in nine months. This marks the fourth straight increase in the PMI and the second straight month of expansion. As shown in the chart above, when the global economy has been accelerating, it's historically been associated with outperformance in global equities.

Cracks emerging?

The headline number, however, masks some cracks under the surface. Services sector growth remained broad and healthy, leading the entire recovery. But the manufacturing PMI slipped back into contraction territory, while breadth in the sector weakened significantly. Moreover, the composite future output index ticked down for the first time in five months. While it remains elevated, it suggests that global growth may peak in the first half of the year. We remain aware of the downside risks. History suggests that the past year's tight monetary policy will continue to limit upside in the global economy in the coming months.

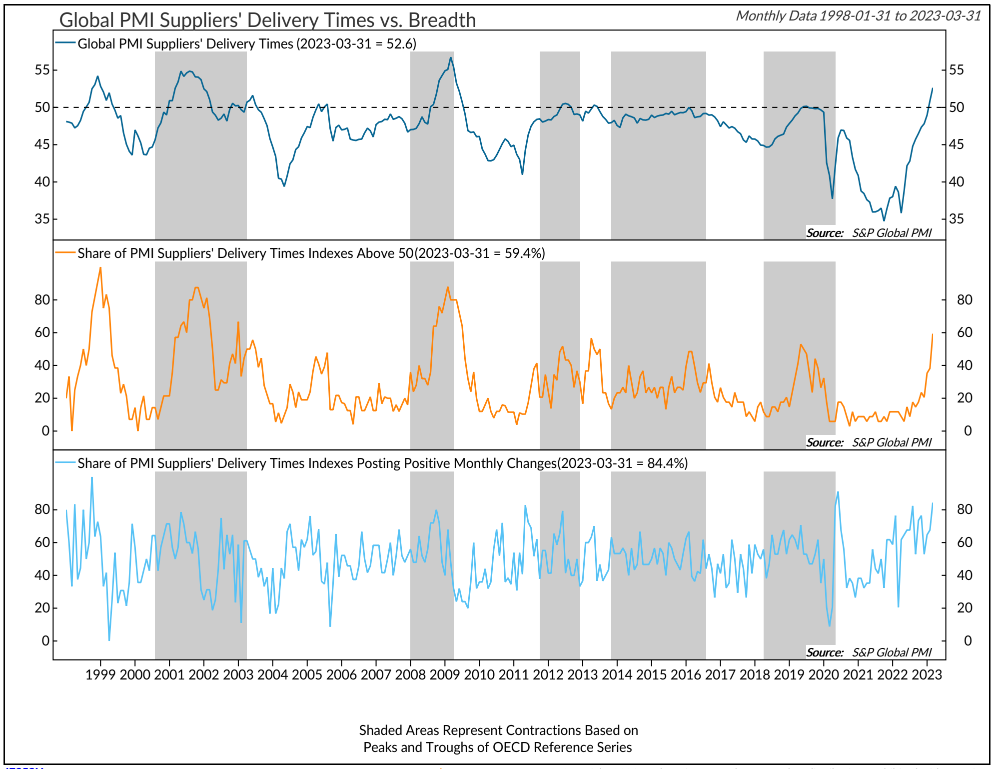
Last month's banking crisis provides another overhang to our outlook as it will likely be associated with much tighter credit conditions in the foreseeable future. Furthermore, stubbornly high inflation continues to grow, but some cracks are emerging especially in the services sector may keep central banks tighter for longer, increasing the risk of recession possibly in late 2023 or early 2024.

A scenario where the global economy recovers temporarily before decelerating again is becoming increasingly likely. We've seen situations like this in the past, including the global recessions in the early 1980s and 1990s. These interim growth accelerations can last six to 12 months and are historically associated with equity market strength in the short-term.

Manufacturing struggles

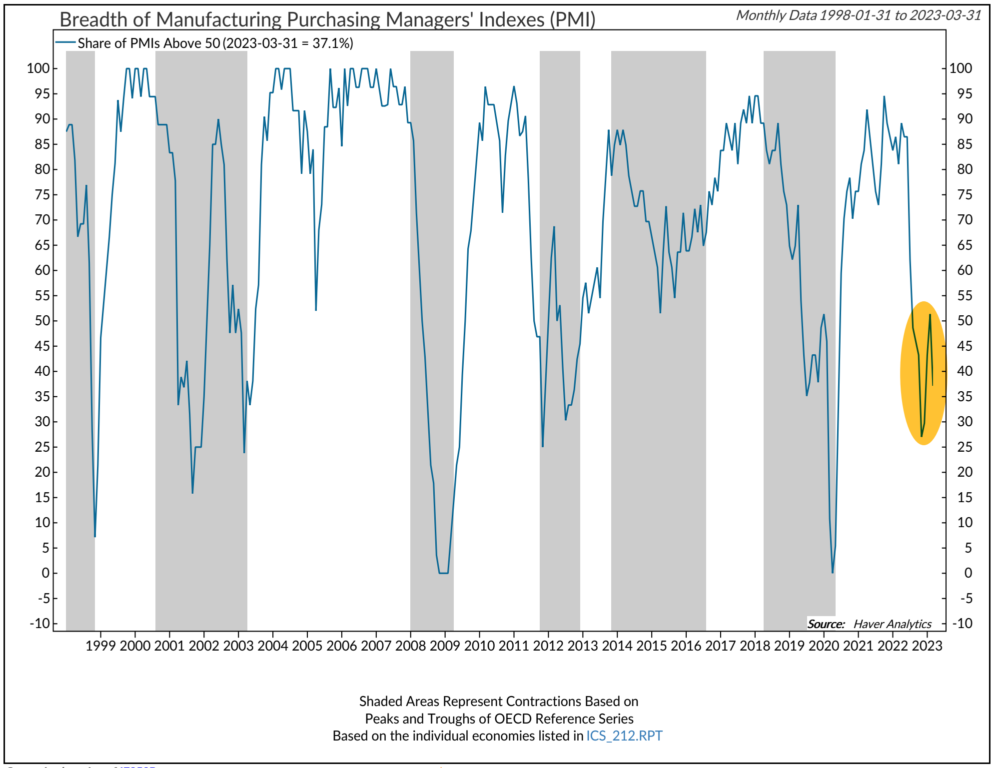
The global manufacturing PMI took a minor setback in March, edging down 0.4 points to 49.6 after stagnating in the prior month. Manufacturing has struggled to recover, having contracted throughout most of the second half of 2022. Some component indexes were constructive. Output grew for a second month, at around the same pace as the prior month, following six months of contraction. New orders contracted at the slowest pace in nine months. But export orders shrank at a faster speed, and employment nearly ground to a halt. Supplier delivery times contracted at the fastest pace since May 2009 (chart right), as nearly 60% of economies, also the most since 2009, reported shrinking lead times. This contributed negatively to the overall reading last month and was its biggest source of downside, reflecting weakening demand conditions.

Supplier delivery times have shortened significantly



IE252H

Manufacturing breadth falls



Customized version of IE250B

But it also means that the supplier delivery woes of the past are likely behind us and is supportive of continued goods disinflation. The global bullwhip, which assesses new orders relative inventories, inched down to zero after registering its first positive reading in a year in February. Even so, it remains well above the lows of last year, which indicated excessive inventories relative to demand, and above levels historically consistent with global recession.

Breadth deteriorates

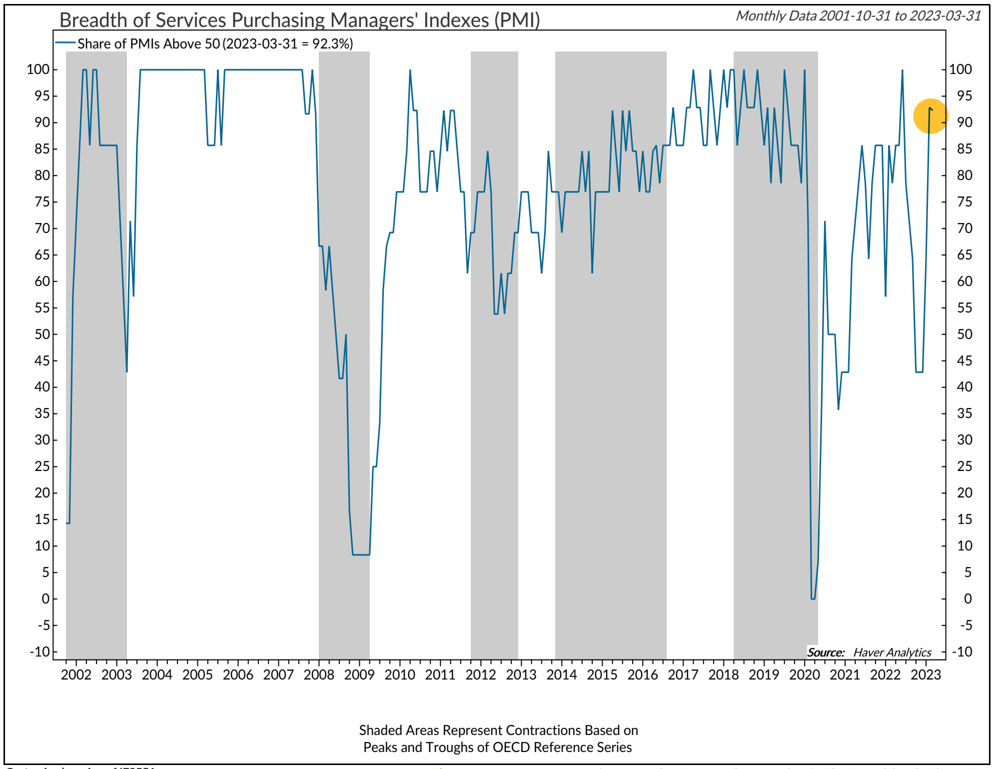
Despite the global manufacturing aggregate being little changed in March, our measures of breadth deteriorated notably. The share of economies with manufacturing PMIs in expansion territory dipped to 37% from a slim majority of 51% in the prior month (chart left). This puts the indicator dangerously close to the 33% threshold historically associated with global recession.

Moreover, nearly two-thirds of the PMIs fell on a monthly basis, the largest share in three months.

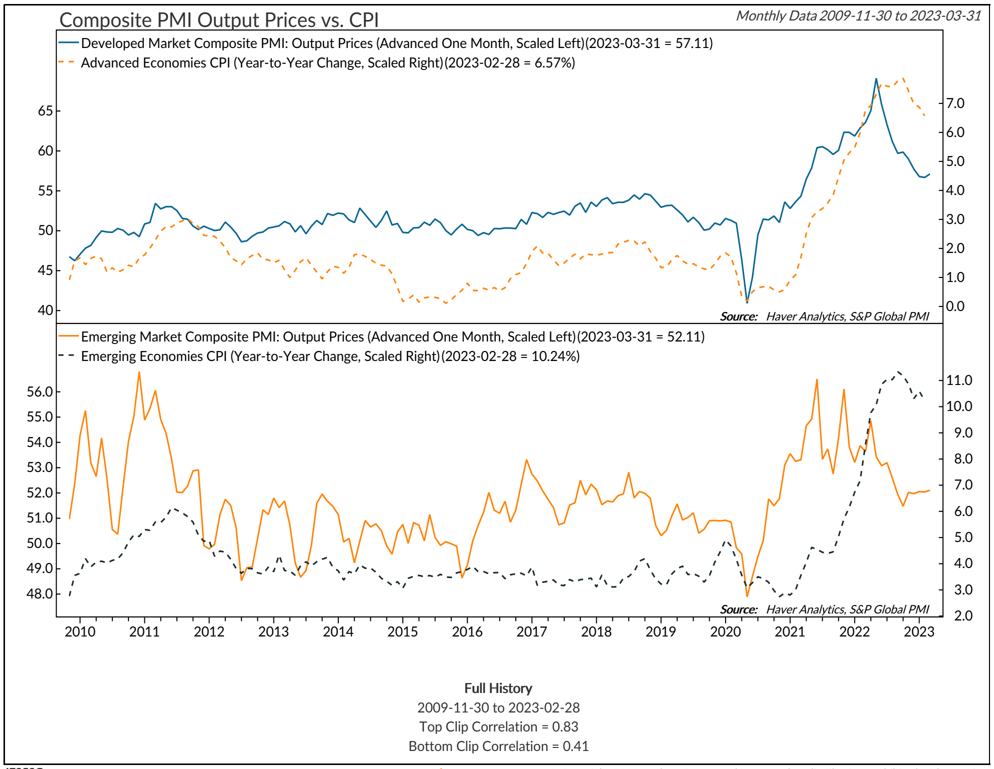
Services leads recovery

Conversely, the global services PMI climbed 1.8 points to 54.4 in March, indicating the fastest growth since December 2021. Other indexes were just as favorable. New business activity grew by the most in over a year, helped by the first expansion in export orders in ten months. The growth rate in backlogs and employment also accelerated. Breadth remained incredibly strong, as the share of economies with expanding services sectors held at 92% (chart right). This indicates that while China continues to be a notable source of upside to global services given its recent recovery from zero COVID, most of the rest of the world is also in good shape.

But services breadth remains strong



Prices have eased, but remain elevated



Prices edge lower

Global price pressures continued to edge lower, as the global composite input and output price indexes fell to their lowest since late 2020/early 2021. Even so, both held well above pre-COVID levels, complicating the jobs of central bankers. Prices in the manufacturing sector are back to pre-COVID levels. While the price indexes are down from their 2022 peaks, they're still significantly above pre-pandemic levels. Although price pressures have fallen globally, they continue to be greater in developed economies compared to emerging market economies (chart left).

Above excerpted from: "Global economy continues to grow, but some cracks are emerging" by Alejandra Grindal, April 6, 2023

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TIM HAYES, CMT CHIEF GLOBAL INVESTMENT STRATEGIST

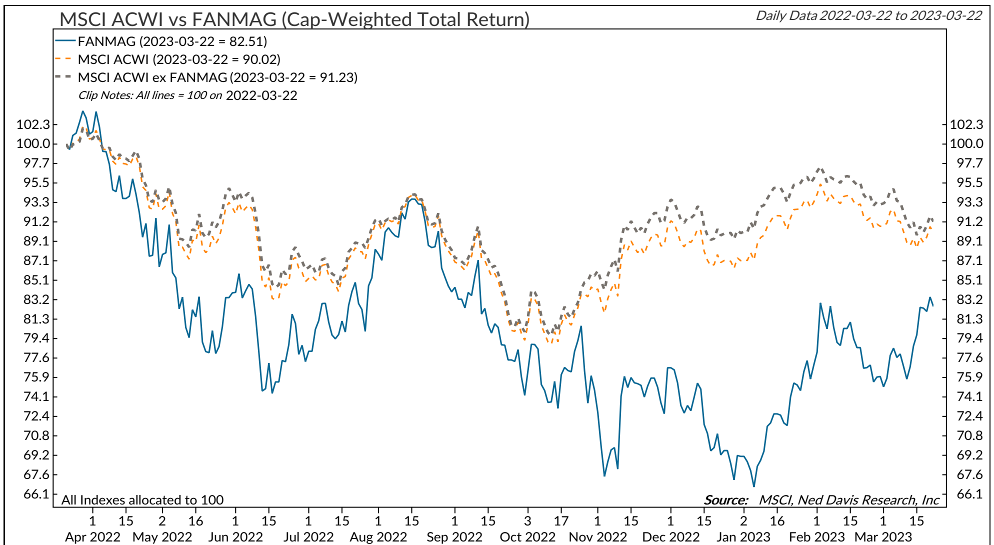
APRIL 17, 2023

The sector impact on the U.S. and other regional indices

Key Takeaways

- We shifted to overweight U.S. and Europe ex. U.K.; marketweight Japan; underweight Emerging Markets, Pacific ex. Japan, and Canada.
- The 2023 recovery of the megacap FANMAG stocks has helped Information Technology become the strongest sector this year.
- Global equities will be tested in the month ahead, likely a precursor of market conditions to come.

Heavyweights helping U.S. outperform



Ticker	Name
META	Meta Platforms
AMZN	Amazon.com
NFLX	Netflix
MSFT	Microsoft
AAPL	Apple
GOOGL	Alphabet

Index (Cap-Weighted)	Gain/Annum % 2022-03-22 to 2023-03-22	YTD % 2022-12-30 to 2023-03-22
FANMAG	-17.49	19.42
MSCI ACWI	-9.98	3.35
MSCI ACWI ex FANMAG	-8.77	1.37

Customized version of I2915

When the year's first quarter was getting started, we asked whether the stock market heavyweights were down for the count or would start to recover. From its high in December 2021, the composite of U.S. FANMAG stocks had dropped by 40% to its low on January 5, weighing down U.S. benchmarks and in turn the broader ACWI (above).

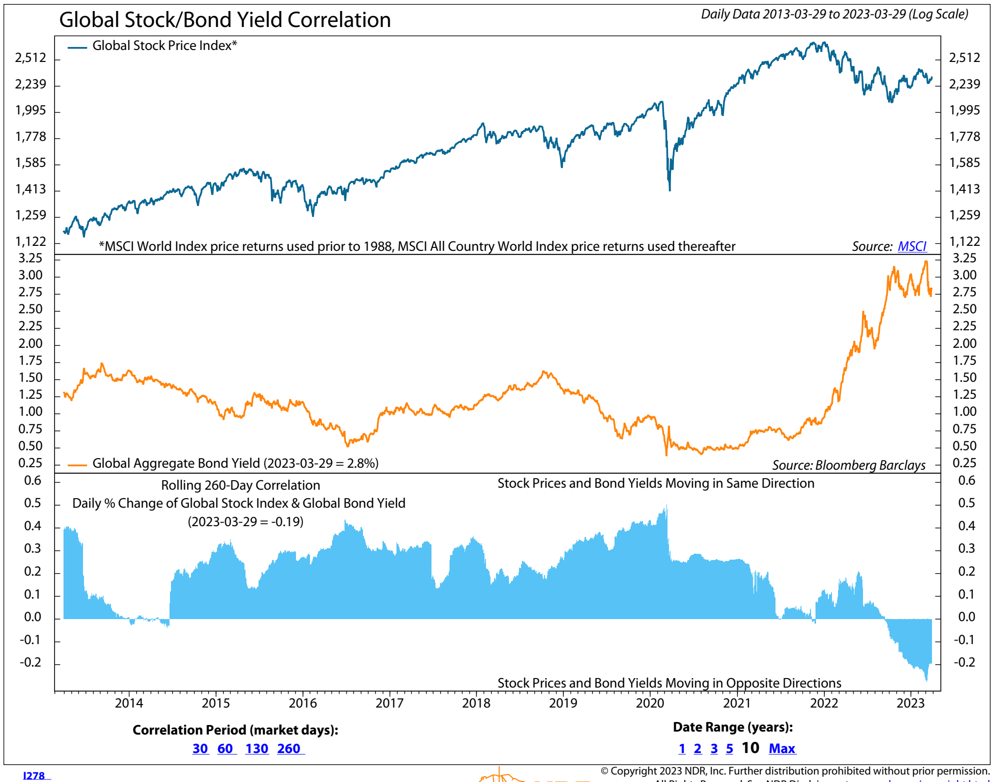
Since then, the composite's performance has been far better, with the opposite influence. The FANMAG composite climbed 24%. And the ACWI sectors that include the FANMAG stocks have been the best performers -- Information Technology, Communication Services and Consumer Discretionary.

The relative strength of the FANMAGs and their sectors has helped the U.S. Index shift from underperformer to outperformer, which upgraded the U.S. from underweight to marketweight on February 9. That brought the allocation in line with the benchmark weight of 61%. And in response to the continuing relative strength improvement and the current readings of our Global Regional Equity Model, we upgraded again to overweight, raising the U.S. allocation to 64%. Also responding to the relative strength trends and model readings, we added 2% to our Europe ex. U.K. allocation, now overweight at 16%, while adding 3% to Japan, now marketweight at 6%. To fund these allocation increases, we cut the Emerging Markets allocation by 3%, dropping the exposure from marketweight to underweight at 8%. And we reduced the Pacific ex. Japan allocation by 4%, from overweight to an underweight allocation of 2%. We also trimmed the Canada allocation by 1%, sending it from marketweight to underweight at 2%.

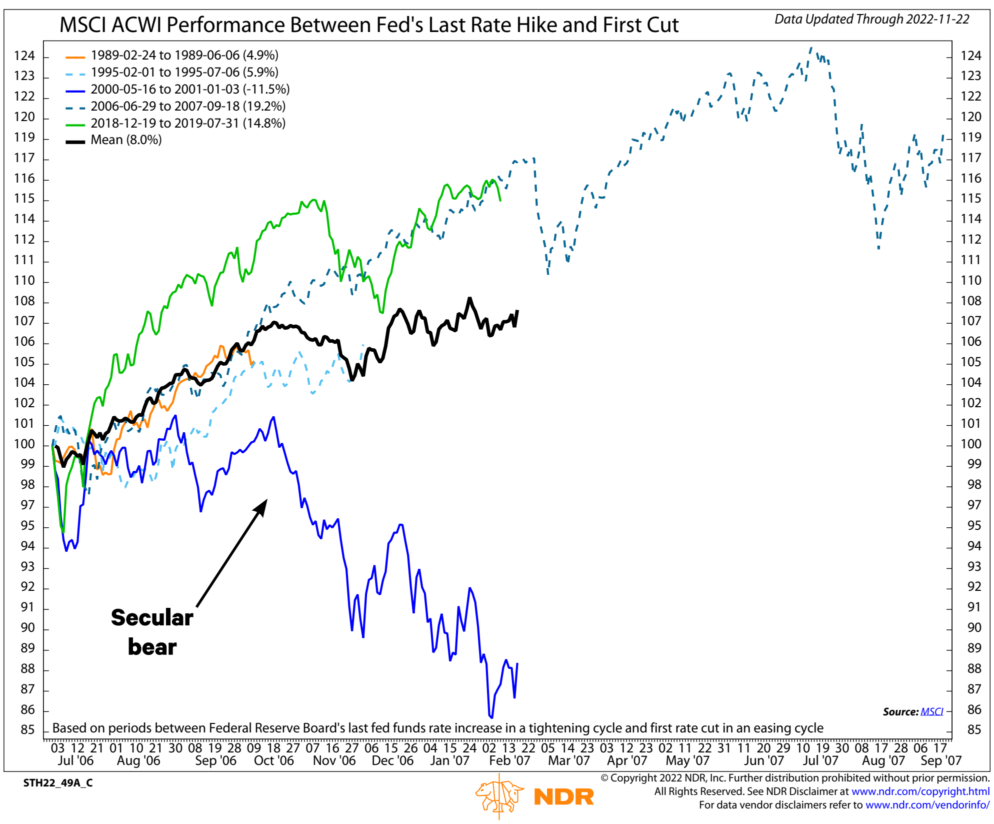
Above excerpted from: "The sector impact on the U.S. and other regional indices" by Tim Hayes, March 23, 2023.

Will stocks and bond yields maintain their inverse correlation, and what are the implications? It's been more than 10 years since we've seen such an inverse 260-day correlation between the ACWI and the global aggregate bond yield (chart right). If the correlation persists, a continuing bond yield decline would most likely be accompanied by rising stock prices, with the stock and bond yield trends reflecting expectations for an economic soft landing. If bond yields would reverse course and trend higher, stocks would most likely decline, with both trends driven by rising inflation expectations. And if bond yields would drop in tandem with stocks, then a positive correlation could be expected, and the trends would reflect recession expectations. Another possibility is that the correlation would turn positive with inflation under control and real economic growth proving to be sustainable.

Stocks tend to rise when bonds yields fall



ACWI has tended to rise after last Fed rate hike



How will the markets be affected by central bank policy changes? It is now widely expected that the Fed will raise the funds rate by another quarter point in May, bringing an end to its tightening policy. After the final increase of the previous five tightening cycles, the ACWI trended higher until the subsequent first cut in four of the cases, with a mean rally of 8% lasting about seven months (chart left).

The exception followed the onset of the secular bear in 2000. Equity investors appeared to demand a more aggressive return of Fed easing, selling off ahead of the severe recession of 2000 to 2003.

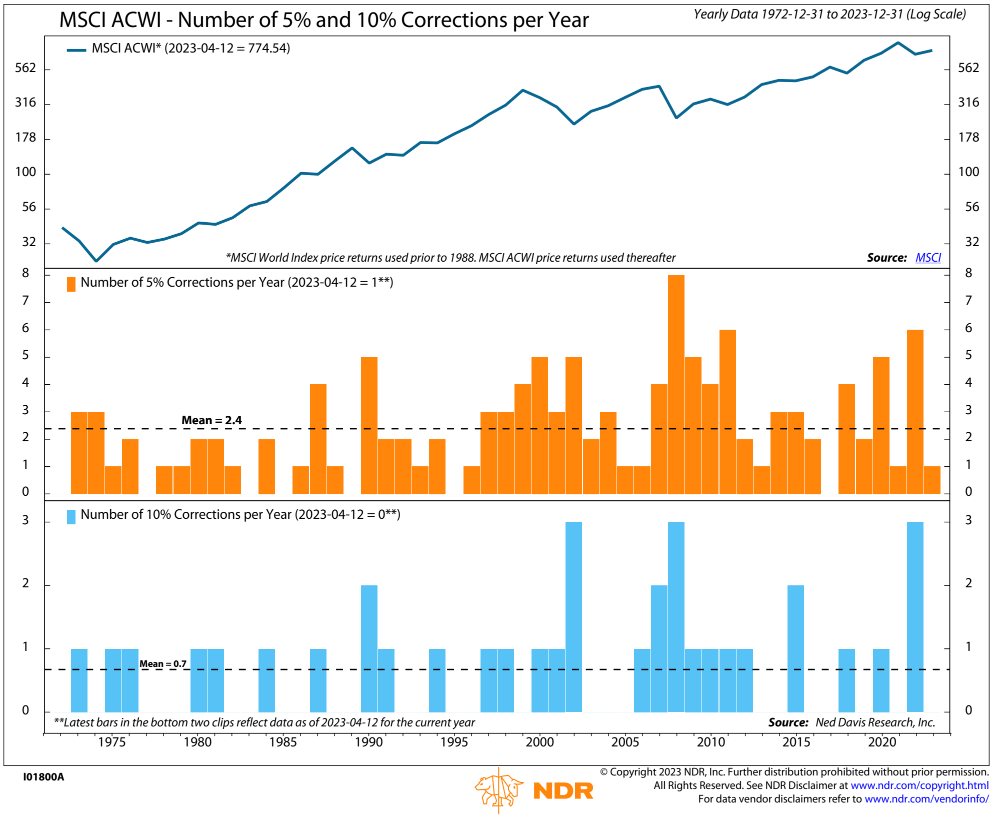
Above excerpted from: "Questions for Q2" by Tim Hayes, March 30, 2023

We are getting positioned for a continuing cyclical bull market with higher highs and higher lows, as we have seen since the cyclical bear market bottom in October.

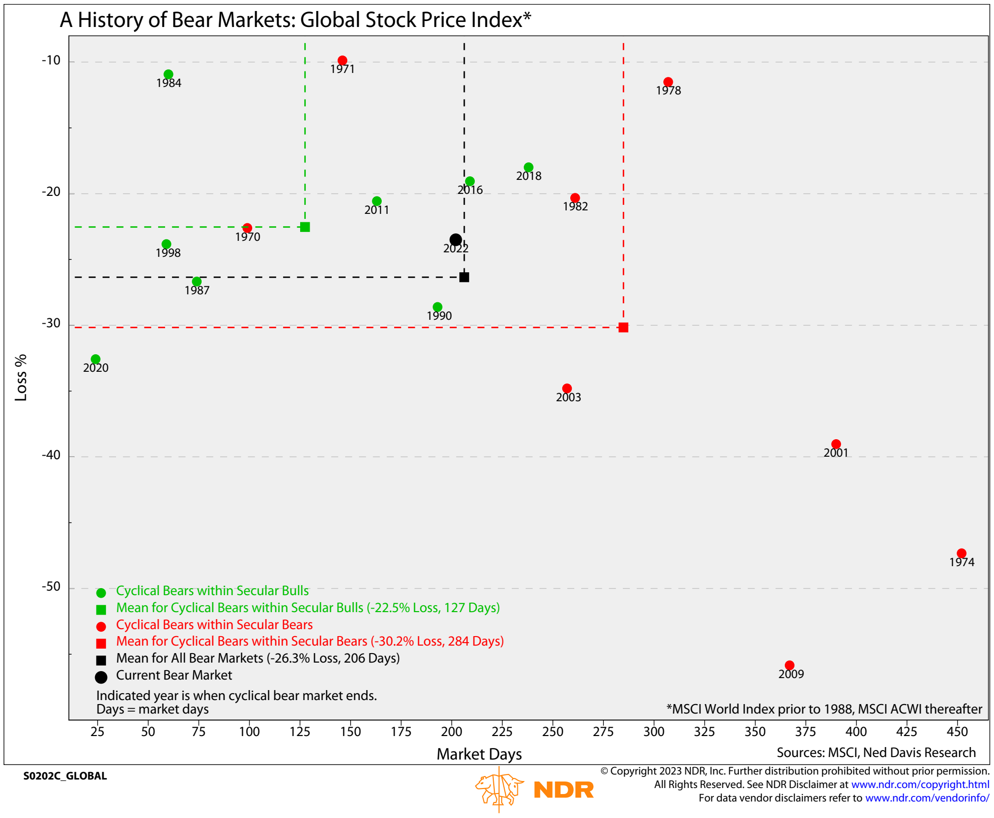
Typical of the increased volatility within a cyclical bear market, 2022 included six global equity reversals of at least 5%, more than double the norm of since 1972 (right, middle clip). And there were three 10% reversals, more than three times the norm (bottom clip).

The S&P 500 also had three 10% reversals as well as eight 5% swings, likewise three times and double the respective norms based on data starting in 1928.

More normal correction tendency



2022 drop consistent with mean cyclical bear within secular bull



Within secular bulls, the cyclical bear declines have tended to be relatively limited and short, while the cyclical bull gains have tended tend to be relatively big and long. Evident when comparing the 2022 bear to the green dots identifying the end of previous cyclical bears in the global benchmark, the chart at left indicates that the 2022 bear market was longer than most other cyclical bears within secular bulls, but in line with the mean decline.

As indicated by the red dots, the cyclical bears within secular bears have tended to be a lot worse.

Above excerpted from: "A global bull market in the making" by Tim Hayes, April 13, 2023

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VENETA DIMITROVA, SENIOR U.S. ECONOMIST
JOSEPH F. KALISH CHIEF GLOBAL MACRO STRATEGIST

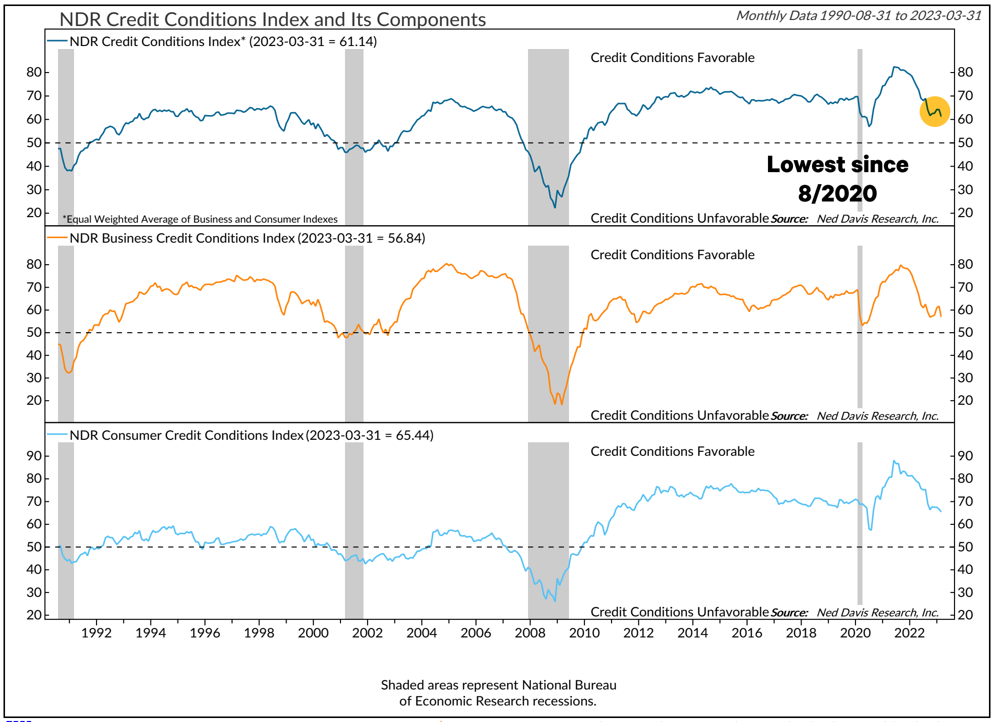
APRIL 17, 2023

The importance of small banks to credit conditions

Key Takeaways

- The NDR Credit Conditions Index fell in March, but it is still far from recession territory.
- If small bank loan growth falls below that at large banks, it may signal an approaching recession.
- Employment trends decline in March, pointing to slower payrolls and economic growth over the near-term.

Credit Conditions Index still above recession threshold



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Tightening credit conditions

While the swift and coordinated response by the Fed, the Treasury, and the FDIC to the bank failures last month seemingly arrested the banking crisis, there is little doubt that there will be fallout from it for the real economy.

We expect credit conditions to tighten in the coming months, as banks shore up loans in response to fleeting deposits, anticipated stricter regulation and supervision, and higher deposit fees.

The NDR Credit Conditions Index (CCI), which measures the cost and availability of credit to both businesses and households, fell 3.1 points in March to 61.1 (chart above), its lowest level since August 2020, but still well above the threshold of 50 which is associated with recession. It takes time for tighter credit conditions to hit the real economy. The impact from this crisis will depend on the extent and duration of credit tightening, as Fed Chair Powell noted at his last press conference.

We continue to maintain that the risk of recession in the next 12 months remains elevated, with 60% qualitative odds of one starting in late 2023/early 2024. But since banks were already raising their loan standards prior to the bank crisis, recent events may speed up the process and pull forward the start of recession.

Small vs. Large banks

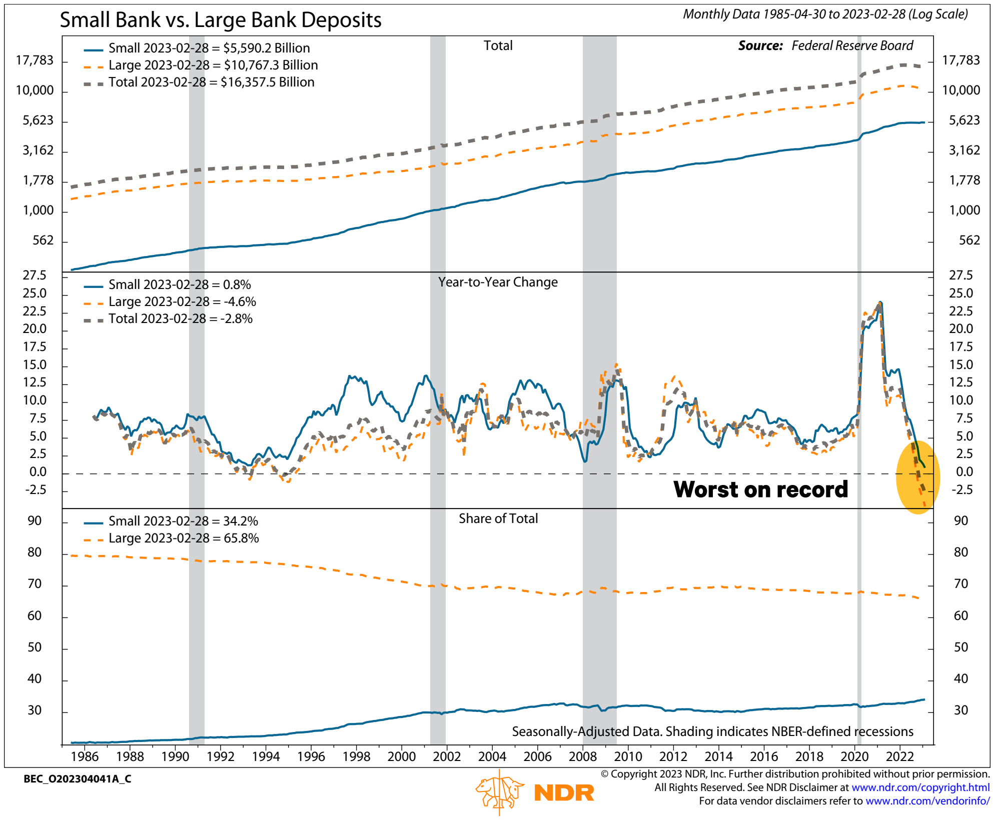
The events last month brought into focus the importance of small and regional banks to the credit cycle and the economy. Their share of total deposits and loans has grown over time, as has the concentration by loan type, including commercial real estate loans and consumer loans.

Thus, a decline in small bank lending could stifle investment and weigh on consumer spending.

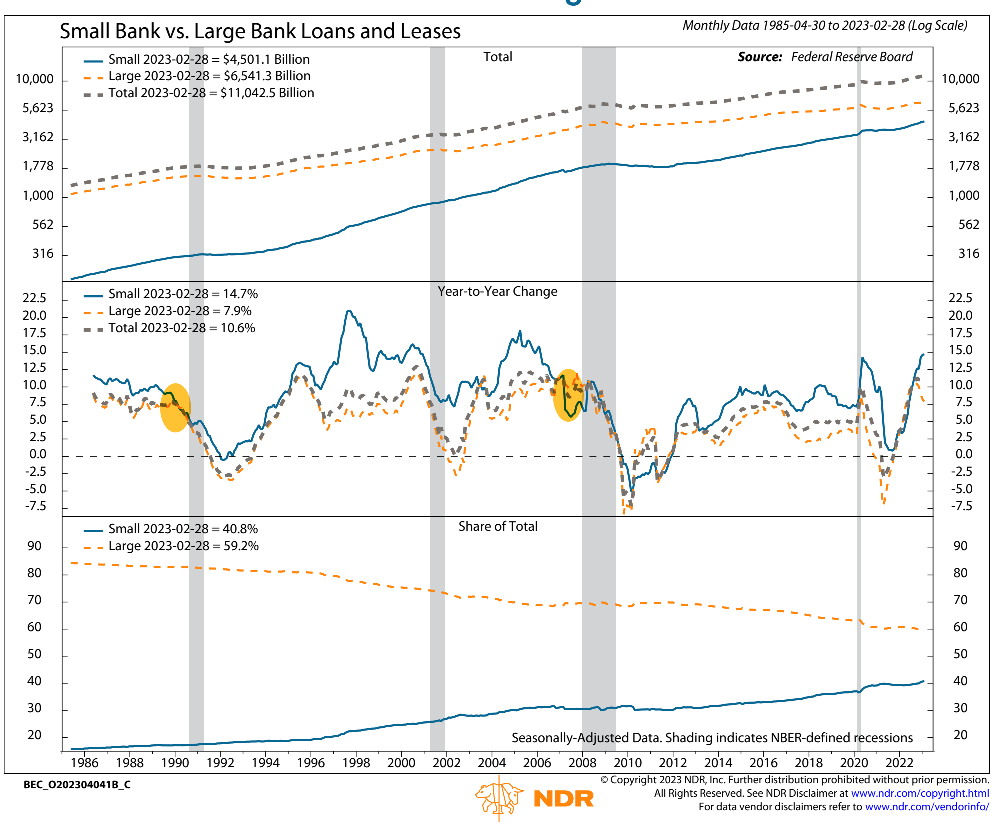
Large banks, which the Fed designates as the top 25 banks by asset size with the current cutoff at about $85 billion, still account for nearly two-thirds of all deposits. But the deposit share of small banks has been growing over time, posting a record 34.2% in February (chart right).

Prior to the bank runs last month, large bank deposits were already declining from a year ago, largely reflecting consumers drawing on excess savings, due in part to higher inflation, or moving deposits to higher yielding accounts, such as money market funds. Small bank deposits were still growing, but barely, at 0.8% y/y, the slowest pace since data started in 1985. With deposits disappearing, fractional reserve banking suggests loan growth should dwindle as well.

Bank deposits declining prior to recent crisis



Watch for decline in small bank loan growth



Indeed, loan growth at large banks has rolled over this year, although at 7.9% y/y it is still running faster than the 4.9% gain per annum historically. Loan growth at small banks was 14.7% y/y in February, the most since early 2006, and above its historical average (chart left). Small bank loan growth typically exceeds that at large banks by an average of 3.7 percentage points.

The current differential of 6.8 points is nearly double that. But note that it had turned negative ahead of the 1990-91 recession and ahead of and during the Great Recession, the first of which was associated with the aftermath of the Savings & Loan crisis in the 1980s, while the latter was associated with the Great Financial Crisis.

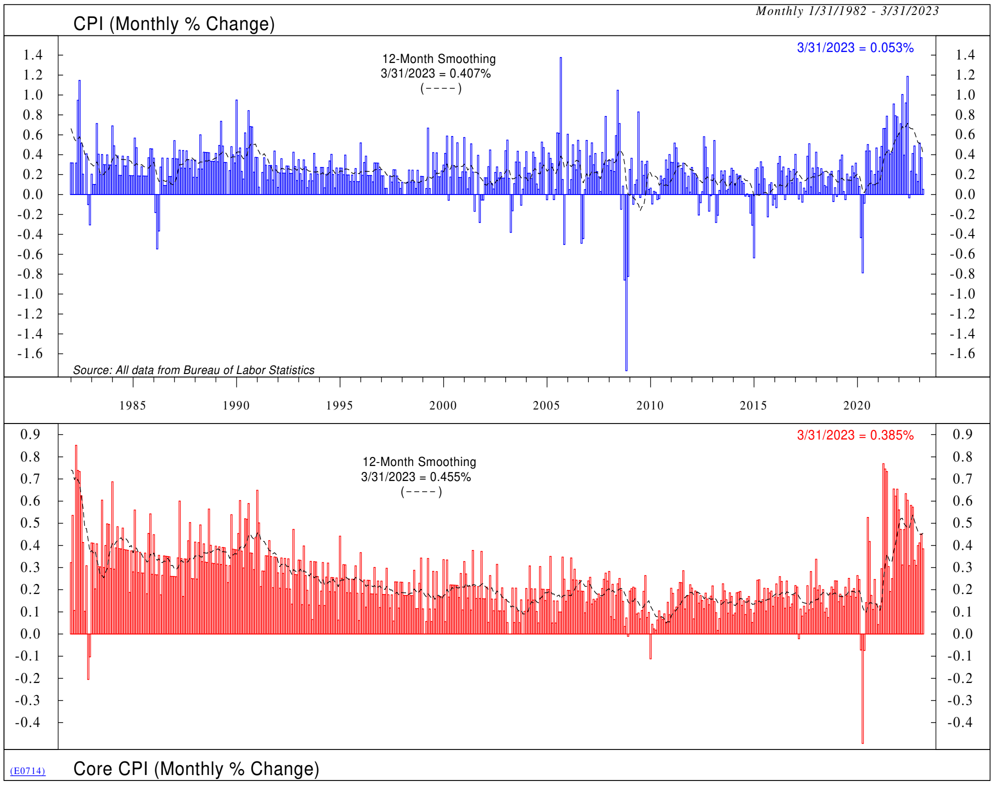
Above excerpted from: "The importance of small banks to credit conditions" by Veneta Dimitrova, April 4, 2023

Core inflation remains sticky

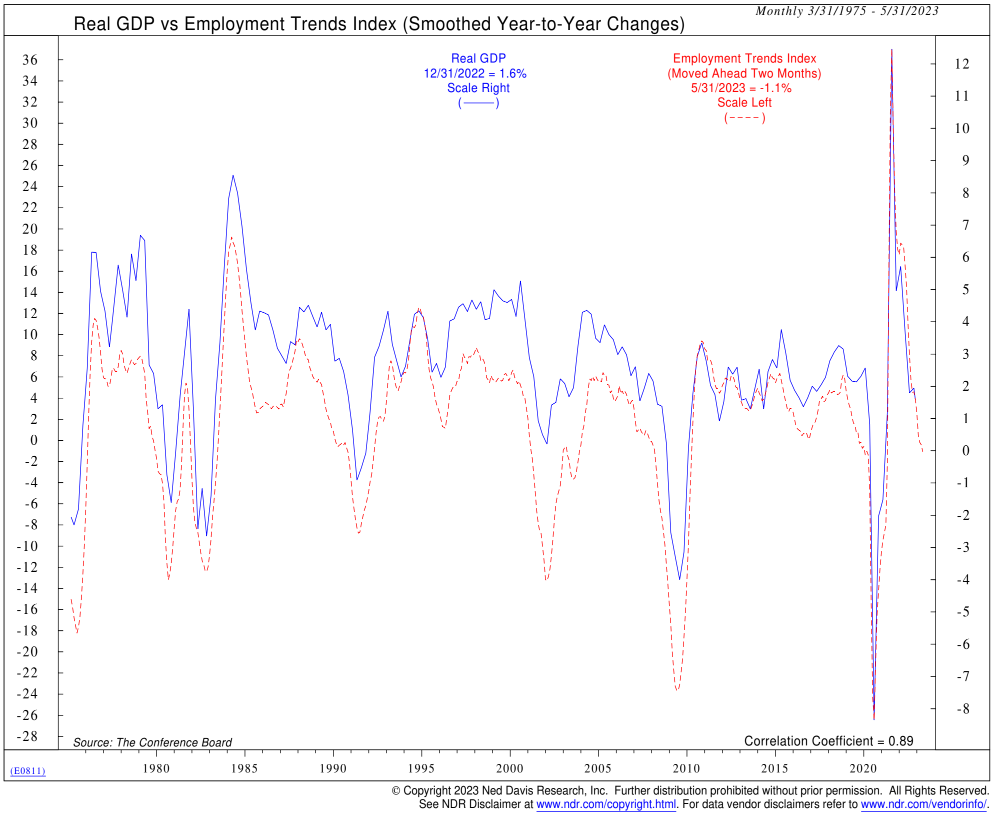
Slower overall consumer price growth, but sticky core pressures (chart right), confirm that the path down to the Fed's 2.0% inflation target will be bumpy. Core goods inflation reaccelerated, but shelter showed early signs of easing, and services ex-energy and shelter, or super-core inflation, moderated somewhat. Progress on core price growth, combined with the recent challenges in banking, give the Fed a green light to end the tightening cycle. We expect the Fed to pause after one more 25 basis point rate hike in May, to assess the cumulative impact of policy tightening on inflation, the economy, and financial stability.

Above excerpted from: "CPI inflation eases, but the core remains sticky" by Veneta Dimitrova, April 12, 2023

CPI inflation eases, but the core remains sticky



Weaker employment trends should lead to slower growth



Employment trends weaken

The Employment Trends Index (ETI) fell 0.4% in March (chart left), its second consecutive decline, as labor market conditions softened in Q1. Five of its eight components made negative contributions last month, led by a pickup in the share of part-time workers for economic reasons.

The ETI is down 2.4% from its peak level a year ago, pointing to slower payrolls and economic growth over the near-term, but not yet a recession. Further deterioration in the y/y momentum would be consistent with a rising risk of recession.

Above excerpted from: "Employment trends weaken" by Veneta Dimitrova, April 10, 2023

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JOSEPH F. KALISH CHIEF GLOBAL MACRO STRATEGIST

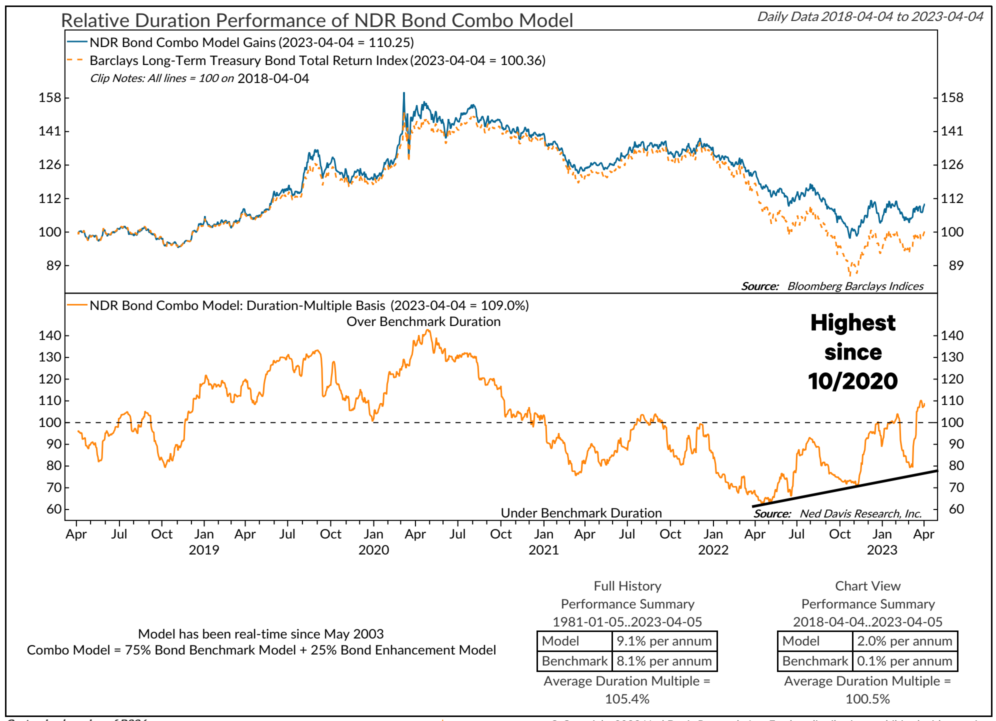
APRIL 17, 2023

Increased bond exposure and U.S. allocation

Key Takeaways

- We increased bond exposure to 110% of benchmark duration from 105%.
- Yields in the U.S. bond market are on the cusp of breaking down across most of the curve. Weak data can do the trick.
- Volatility reigned supreme in March, as four bank failures led to rapid changes in the expectations for monetary policy.

Model has been trending higher in recent weeks



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We increased our bond exposure by 5% to 110% of benchmark duration from 105% (U.S. aggregate of 6.3 years), very much in tune with the 109% reading from our Combo model, (chart above). Tens have tested our 3.35% support level on a closing basis several times.

Twos and fives have also been flirting with support. But if the data don't cooperate, this could be a false breakdown.

So, we took a bit of a chance, especially before the April payrolls report. Weak ISM manufacturing and services data, fewer job openings, and weaker ADP data have pushed yields lower.

One of these days, we will see unemployment claims tick up above 200,000 on a trend basis, and payrolls will disappoint to the downside, after a series of beats in 9 of the past 11 months. And the two shortfalls were marginal.

Our forecast is for nonfarm payrolls to increase just 160,000, below the Bloomberg consensus of 240,000, with the unemployment rate unchanged at 3.6%.

If we get softer labor market data and recession odds increase, then bond momentum should soar. Bond sentiment is not at levels consistent with recession, so there is lots of room for improvement in market positioning.

But it's not a slam-dunk. Other developed bond markets have not confirmed. Except for the long end, yields are tentatively breaking support.

If we head for recession, yields should eventually break down.

Above excerpted from: "Increasing bond exposure and U.S. allocation" by Joe Kalish, April 6, 2023

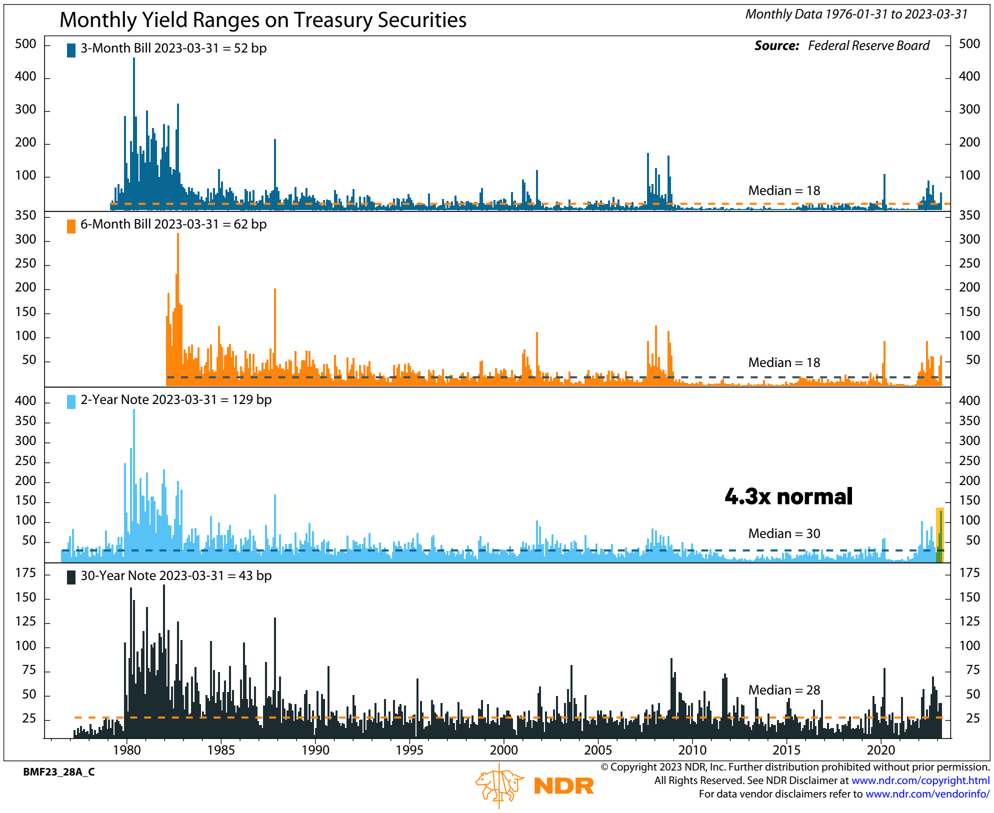
March was an extraordinary month for fixed income! The Float Adjusted U.S. Aggregate returned 2.6%, more than 1.5 deviations above the monthly mean since 1976, but less than the gains in November and January. Even so, there's a lot more to the story.

Volatility reigns supreme

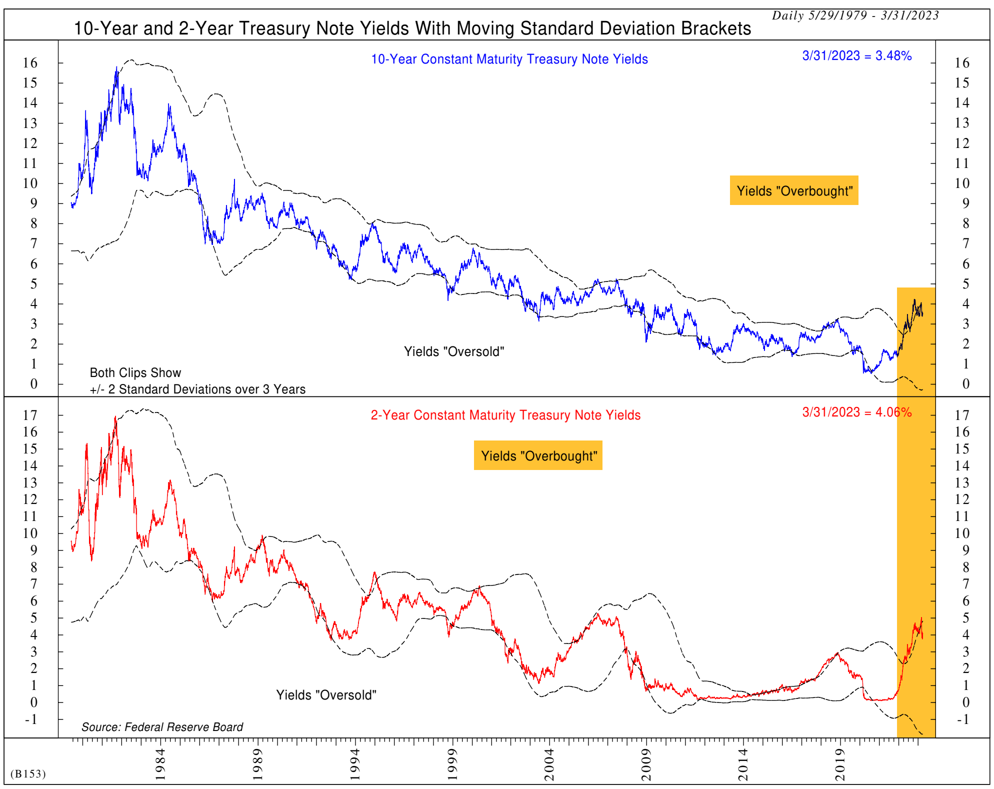
The monthly yield range on a closing basis for the 2-year Treasury was 129 basis points–more than four times its normal range, as changes in policy rate expectations swung wildly.

As shown on the chart at right, it was the most since the stock market crashed in October 1987 when the high 2-year yield was 9.23%.

Widest 2-year range since 1987 crash



Widest bands since 1987-88



For the past year, 2-year and 10-year Treasury yields had been tracking the upper volatility bands over a three-year range (chart left). The spread between the bands for the 2-year was the widest since August 1987, while the spread for the 10-year was the most since May 1988.

Trading liquidity deteriorated for government securities and high yield but improved for investment grade corporates.

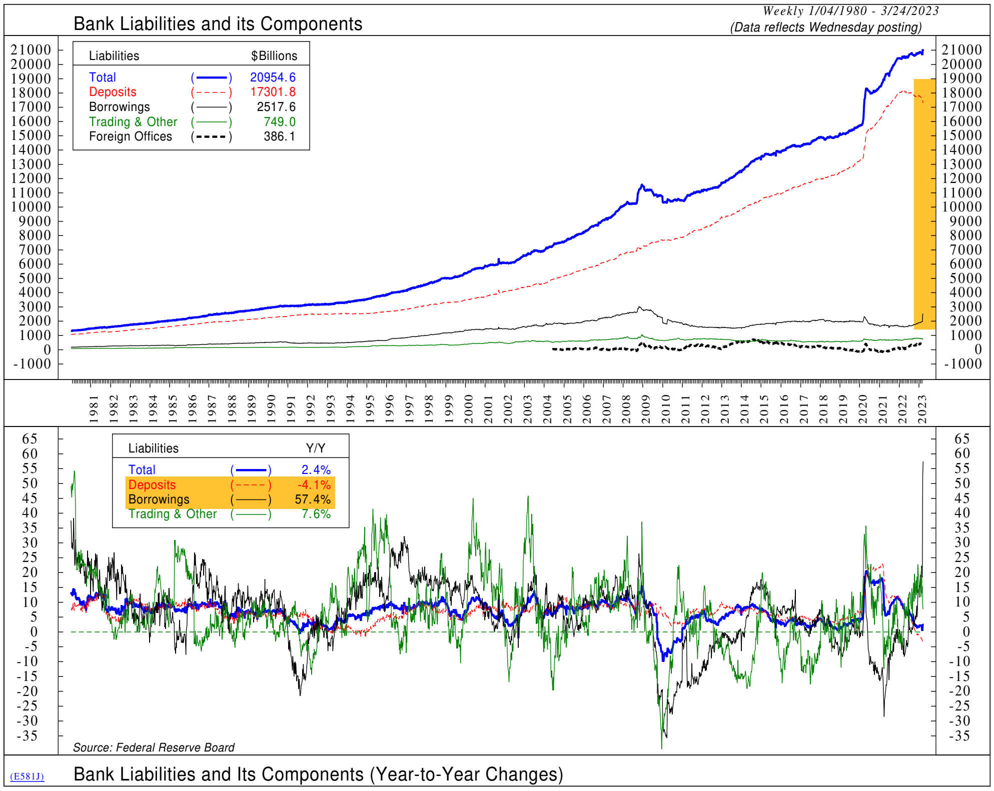
Banking backstop liquidity usage remained high but did not get worse. That alone was a sign of stabilization and helped risk assets rally. A reduction in liquidity usage should support additional rally.

Banking deposit and credit flows

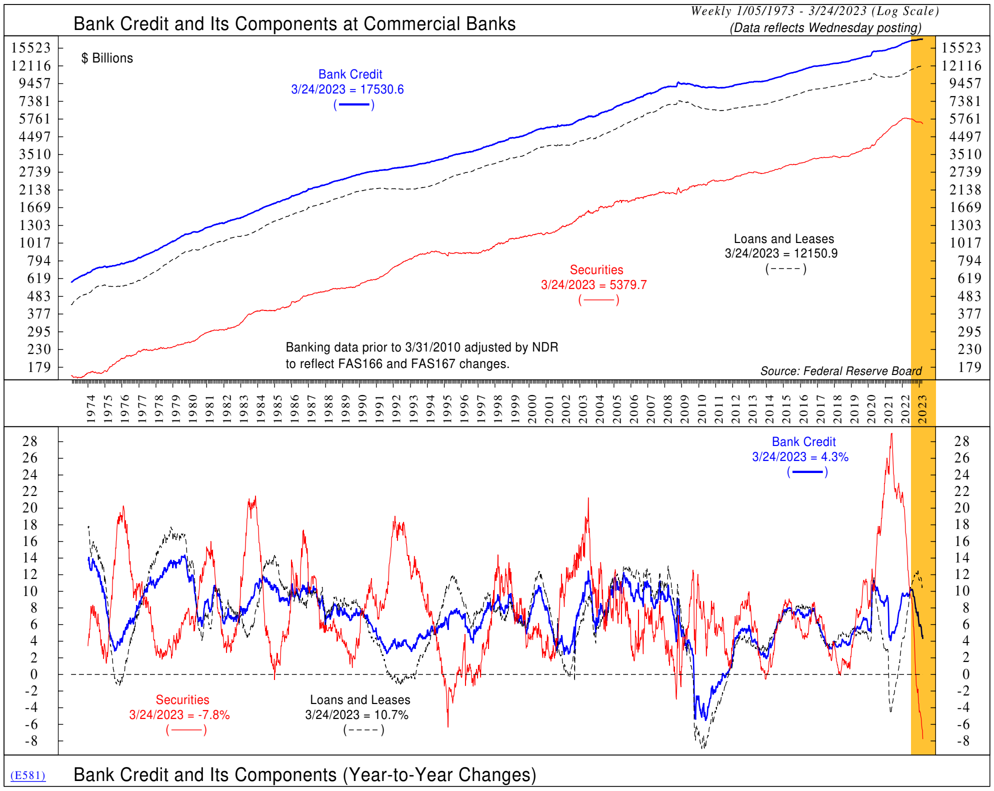
The bleeding of deposits accelerated from March 8 to March 22, declining 1.7% on a consolidated basis (chart right). Domestic institutions lost 1.3%, with the top 25 banks shedding 0.2% and the smaller banks draining a whopping 3.4%. The inflow into the big banks in the first week was more than reversed in the following week. Smaller banks saw a 0.1% gain in the last week of March.

Borrowings rose 54% with large institutions adding 42%, while small banks saw an increase of 72%. Unlike the large banks, which increased their borrowings in each of the last two weeks of March, smaller banks reduced their borrowing by 3% in the last week of the month.

Deposits have left the banking system, while borrowings rose



Loan growth slows, while securities are sold



Securities declined by 1.3% on a consolidated basis and fell by 2.7% at the smaller banks.

Loans increased modestly across major categories except for a 1.1% drop in business loans at large banks (chart left). Not much of an economic impact is evident yet.

Above excerpted from: "Volatility, liquidity, and banking" by Joe Kalish, April 3, 2023

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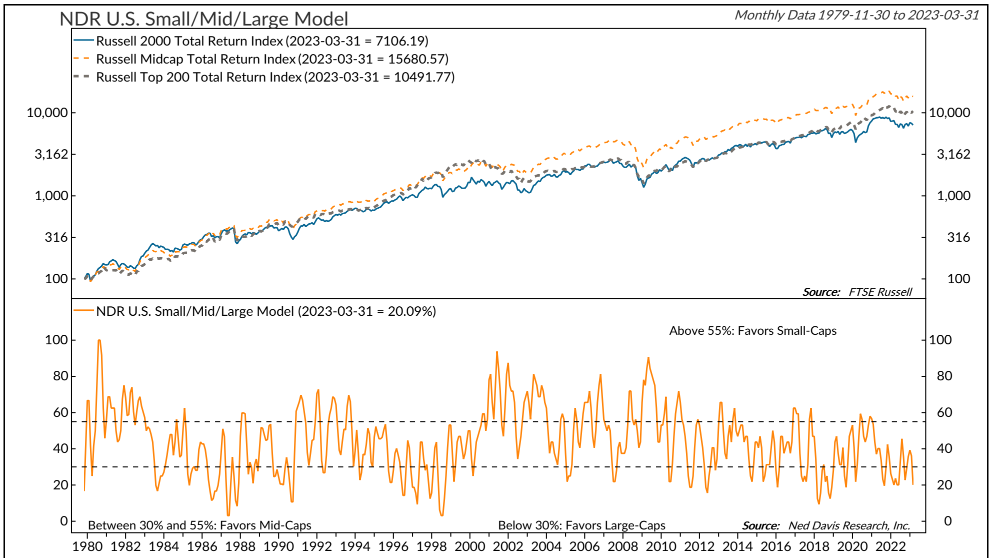
APRIL 17, 2023

Shifted cap and style calls

Key Takeaways

- We shifted tactical recommendations to favor large over small and moved neutral on Growth versus Value.
- When analyzing market breadth, distinguishing between relative and absolute is paramount. It's normal to have mega-caps drive a market rally.
- Many themes of 2022, including cash over stock and bonds, Value over Growth, and Energy over Technology, reversed in Q1.

Cap model favors large-caps



Russell Total Return GPAs (1979-11-30 - 2023-03-31)					
When Mode Favors:	Russell 2000	Russell Midcap	Russell Top 200	Russell 3000	% of Time
Small-Caps	16.30	12.67	6.37	8.57	25.87
Mid-Caps	11.67	14.03	12.35	12.80	49.28
Large-Caps	1.98	8.82	14.65	11.87	24.84

AA701

Model confirmation

Towards the end of March, the rotation from small-caps to large-caps and from Value to Growth had taken both relative strength lines to key support/resistance levels, so we were hesitant to make recommendation changes at that time.

However, our monthly model updates brought the weight of the evidence further in favor of Large-caps and Growth. So, to better align with our models, we shifted to favoring Large-caps over Small-caps and moved neutral on Growth versus Value.

Our flagship Small/Mid/Large-Cap Model favors Large-caps by the most since June (chart above). The short-term, intermediate-term, and long-term trend models favor the Russell 1000 over the Russell 2000.

Our flagship Growth/Value Model favors Growth for the first time since August 2020. Our separate intermediate-term trend models for Large-cap Growth/Value and Small-cap Growth/Value favor Growth. However, the long-term trend model still favors Value.

We will reassess any breakouts or mean reversions for potential rotations back into Small-caps or Value.

Debunking 2023 narratives

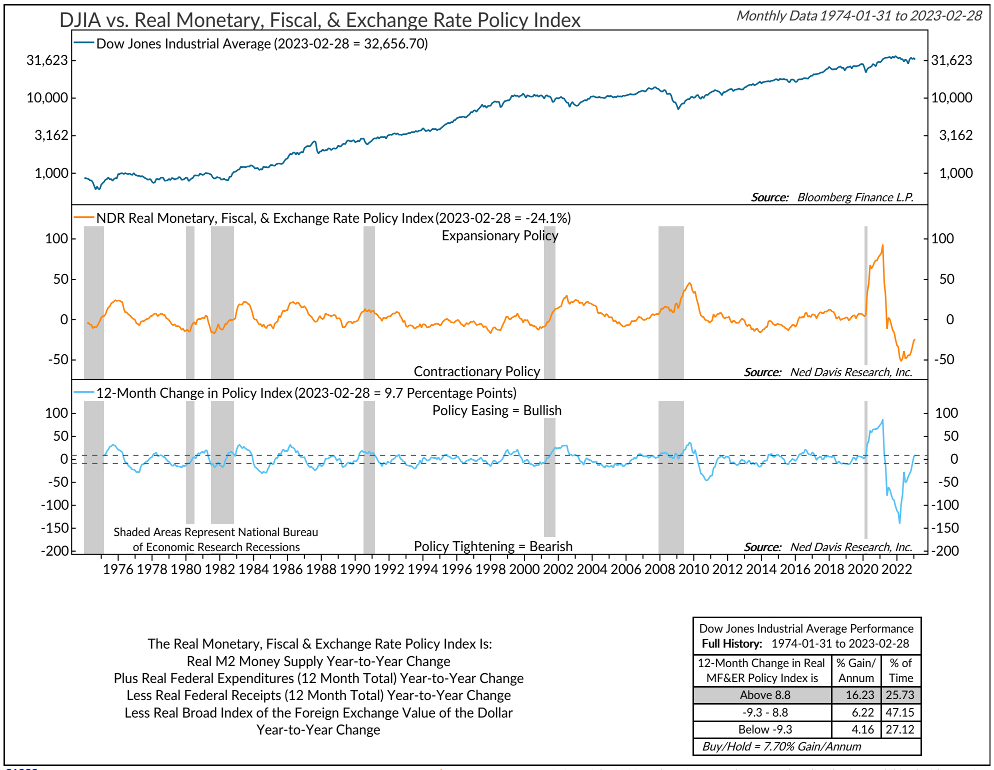
Narrative #1: the market is narrow. When measuring market breadth, the distinction between relative and absolute is paramount. If a handful of stocks are rallying and everything else is falling, it is a warning sign of a top. If mega-caps are leading a broad rally, it is much less of a concern. The past few weeks have been the latter. As of March 31, 93.6% of stocks were above their 10-day moving averages.

That does not happen if investors are only buying a handful of stocks. Over the past year, we have emphasized that changing market structure has led to a shift in thinking from "trust the thrust" to "trust but verify."

Narrative #2: government policy is restrictive. The Fed tightening cycle that started a year ago is the fastest in at least 40 years. Add Powell's hawkish comments, and the recipe was set for a bear market. What was less appreciated was the fiscal tightening in 2022. In early 2022, the economy was enduring the biggest year/year decrease in federal spending while also absorbing the biggest year/year increase in tax revenue since at least the 1960s. Fast forward one year, and the situation has reversed. The biggest reason is that the cost-of-living adjustment for social security, the largest line item in the Federal budget, is the largest in 40 years. The net result is that the NDR Real Monetary, Fiscal, and Exchange Rate Policy Index indicator is bullish for the first time since April 2021 (chart right).

Above excerpted from: "Debunking 2023 narratives" by Ed Clissold, April 5, 2023

Gov't policy most accommodative in two years

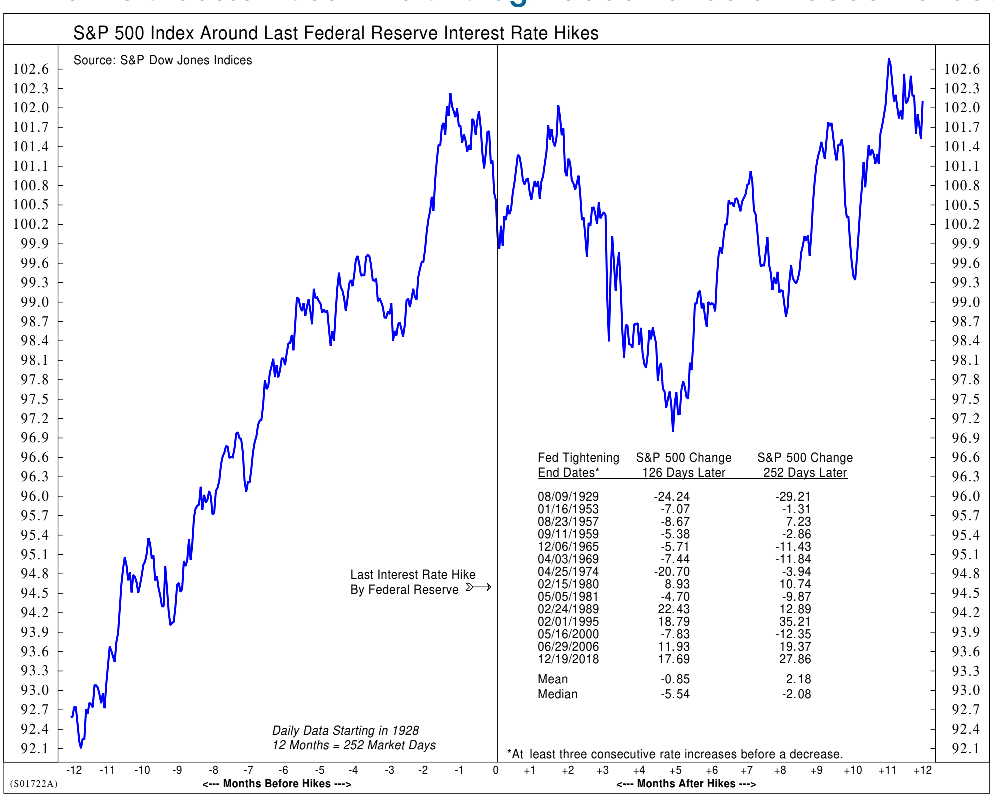


Dow Jones Industrial Average Performance
Full History: 1974-01-31 to 2023-02-28

12-Month Change in Real MF&ER Policy Index is	% Gain/ Annum	% of Time
Above 8.8	16.23	25.73
-9.3 - 8.8	6.22	47.15
Below -9.3	4.16	27.12

Buy/Hold = 7.70% Gain/Annum

Which is a better last-hike analog: 1950s-1970s or 1980s-2010s?



Fed Tightening End Dates*	S&P 500 Change 126 Days Later	S&P 500 Change 252 Days Later
08/09/1929	-24.24	-29.21
01/16/1953	-7.07	-1.31
08/23/1957	-8.67	7.23
09/11/1959	-5.38	-2.86
12/06/1965	-5.71	-11.43
04/03/1969	-7.44	-11.84
04/25/1974	-20.70	-3.94
02/15/1980	8.93	10.74
05/05/1981	-4.70	-9.87
02/24/1989	22.43	12.89
02/01/1995	18.79	35.21
05/16/2000	-7.83	-12.35
06/29/2006	11.93	19.37
12/19/2018	17.69	27.86
Mean	-0.85	2.18
Median	-5.54	-2.08

*At least three consecutive rate increases before a decrease.

How far the Fed pushes the economy has had a clear impact on the S&P 500's performance in the months after the last hike.

The S&P 500 has fallen a median of 5.5% in the six months after the last hike Ultimately, the recession call matters. If our macro team is correct, and a recession does not start until late-2023 or 2024, there could be a window for the stock market to rally after a May rate hike.

Above excerpted from: "Market reactions to final Fed rate hikes" by Ed Clissold, April 12, 2023

Q1 reversal

The S&P 500 gained 7.5% on a total return basis in Q1, beating the Bloomberg Aggregate by 454 basis points and long-term Treasurys by 133 bp (table right). The S&P 500 beat the Aggregate each month of the quarter. After placing last in 2022, the Nasdaq Composite was the top asset benchmark in Q1, soaring 16.8%.

After the Energy sector posted its best relative performance versus the S&P 500 on record in 2022, it was the worst performer in Q1. More broadly, Growth posted its best quarter since Q2 2020 versus Value.

Last year's winners, commodities and commodity-related equities, saw their fortunes reversed in Q1. The S&P GSCI was the only asset class to post a significant decline in Q1.

Nasdaq led equity rally in Q1

ASSET CLASS BENCHMARK PERFORMANCE

2023 Q1	2023 January	2023 February	2023 March
NASDAQ 16.77	NASDAQ 10.68	Dollar 2.85	Gold 7.67
Gold 8.30	EM 6.54	EAFE 0.62	NASDAQ 6.69
S&P 500 TR 7.50	T-Bonds 6.41	T-Bills 0.39	T-Bonds 4.74
EAFE 7.49	EAFE 6.30	NASDAQ -1.11	S&P 500 TR 3.67
S&P 500 7.03	S&P 500 TR 6.28	S&P 500 TR -2.44	S&P 500 3.51
T-Bonds 6.17	S&P 500 6.18	Bond Agg -2.59	Bond Agg 2.54
EM 3.78	Gold 6.08	S&P 500 -2.61	EM 2.16
Bond Agg 2.96	Bond Agg 3.08	S&P GSCI -3.99	DJIA 1.89
T-Bills 1.17	DJIA 2.83	DJIA -4.19	EAFE 0.50
DJIA 0.38	T-Bills 0.38	EM -4.65	T-Bills 0.39
Dollar -0.90	S&P GSCI -0.66	T-Bonds -4.74	S&P GSCI -1.35
S&P GSCI -5.91	Dollar -1.39	Gold -5.19	Dollar -2.28

All data in local currency and price only unless specified as total return (TR). Sources: MSCI,Barclays, Commodity Systems, Inc. (CSI) www.csidata.com, IDC, Ned Davis Research, Inc., S&P Dow Jones Indices.

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↓ previous year + ↑ Q1 = + for rest of year

S&P 500 Index Performance After Previous Year Down and Q1 Up

Year	Previous Year (%)	Q1 (%)	Q2 - Q4 (%)
1954	-6.6	8.6	33.6
1958	-14.3	5.3	31.1
1961	-3.0	12.0	10.0
1963	-11.8	5.5	12.7
1967	-13.1	12.3	7.0
1975	-29.7	21.6	8.2
1991	-6.6	13.6	11.2
1995	-1.5	9.0	23.0
2012	0.0	12.0	1.3
2016	-0.7	0.8	8.7
2019	-6.2	13.1	14.0
2023	-19.4	7.0	??
Mean	**-8.5**	**10.3**	**14.6**
Median	**-6.6**	**12.0**	**11.2**
% Positive	**0.0**	**100.0**	**100.0**
All Periods Mean	**8.7**	**2.1**	**6.5**

2023 returns not included in summary statistics. Source: S&P Dow Jones Indices.

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Message for the rest of year

What does Q1's rebound in stocks mean for the remainder of 2023? The ultimate answer lies in the fallout from the regional banking crisis, Fed policy, and inflation's trajectory, but history's message is positive.

In the 11 previous cases when the S&P 500 fell the previous year and rallied in Q1, the index was up every time by a median of 11.2% for the last nine months of the year (table left).

Above excerpted from: "Reversal of 2022 in Q1" by Ed Clissold, April 3, 2023

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ROB ANDERSON, CFA U.S. SECTOR STRATEGIST
THANH NGUYEN, CFA SENIOR QUANTITATIVE ANALYST

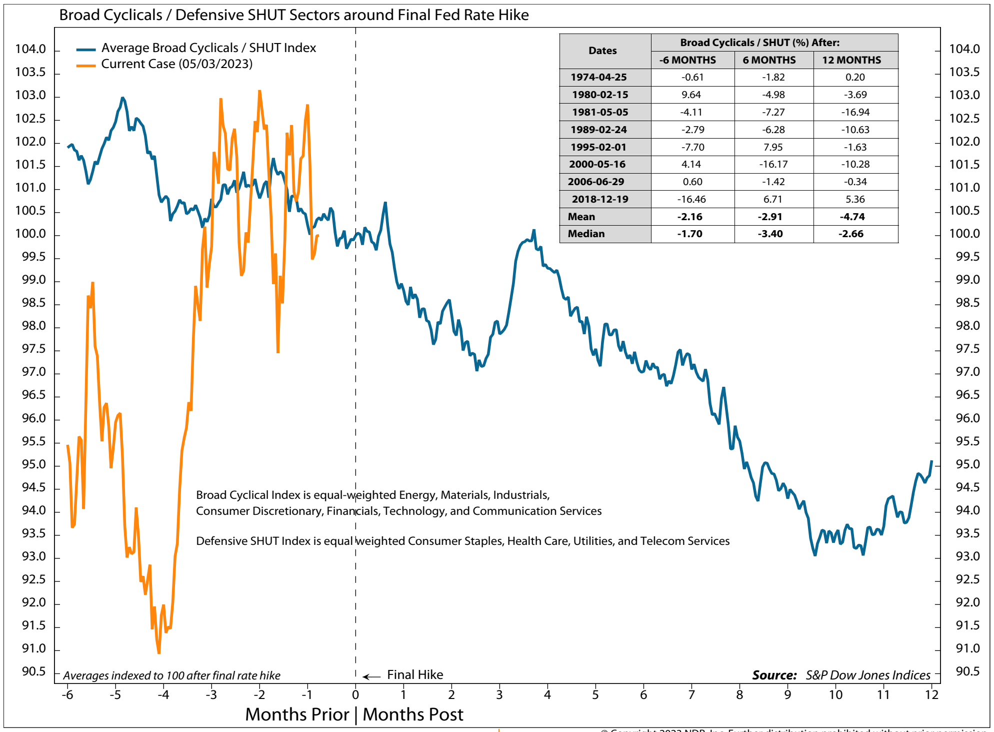
APRIL 17, 2023

Big tech led market higher in March

Key Takeaways

- Technology and Communication Services led during the month, each rising more than 10%.
- Leadership has tended to be more defensive than cyclical around the end of tightening cycles.
- Financials, dragged down by the 34% decline of the Regional Banks sub-industry, was the biggest loser, falling almost 8% during the month.

Leadership more defensive post final rate hike



Dates	Broad Cyclicals / SHUT (%) After:		
	-6 MONTHS	6 MONTHS	12 MONTHS
1974-04-25	-0.61	-1.82	0.20
1980-02-15	9.64	-4.98	-3.69
1981-05-05	-4.11	-7.27	-16.94
1989-02-24	-2.79	-6.28	-10.63
1995-02-01	-7.70	7.95	-1.63
2000-05-16	4.14	-16.17	-10.28
2006-06-29	0.60	-1.42	-0.34
2018-12-19	-16.46	6.71	5.36
Mean	**-2.16**	**-2.91**	**-4.74**
Median	**-1.70**	**-3.40**	**-2.66**

IF23_14A_C

Following the releases of the employment and inflation reports for March, Fed Funds futures are now pricing in a nearly 70% chance of another 25 basis point rate hike at the FOMC meeting in May. That is up from about 50% prior to the releases.

The May hike is widely expected to be the final in what was the Fed's most aggressive tightening cycle on record. Our macro team agrees that the Fed is likely to pause after the May hike.

The message for stocks following the end of tightening cycles has been mixed. In the 14 cases since 1928, the S&P 500 has fallen a median of 5.5% in the six months after the final rate hike, but the range of returns has been wide (-24.2% to 22.4%) and the track record inconsistent (five cases up vs. nine cases down).

Whether or not the final hike is bullish or bearish has often depended on the resiliency of the economy. In 10 of the 14 cases, the tightening cycle left the economy vulnerable, and a recession began within 12 months after the final rate hike. Sector leadership has tended to be more defensive over cyclical around the end of tightening cycles. Our Broad Cyclical Sectors Index has peaked about five months prior to the end of the tightening cycle versus our defensive SHUT Index, on average (chart above).

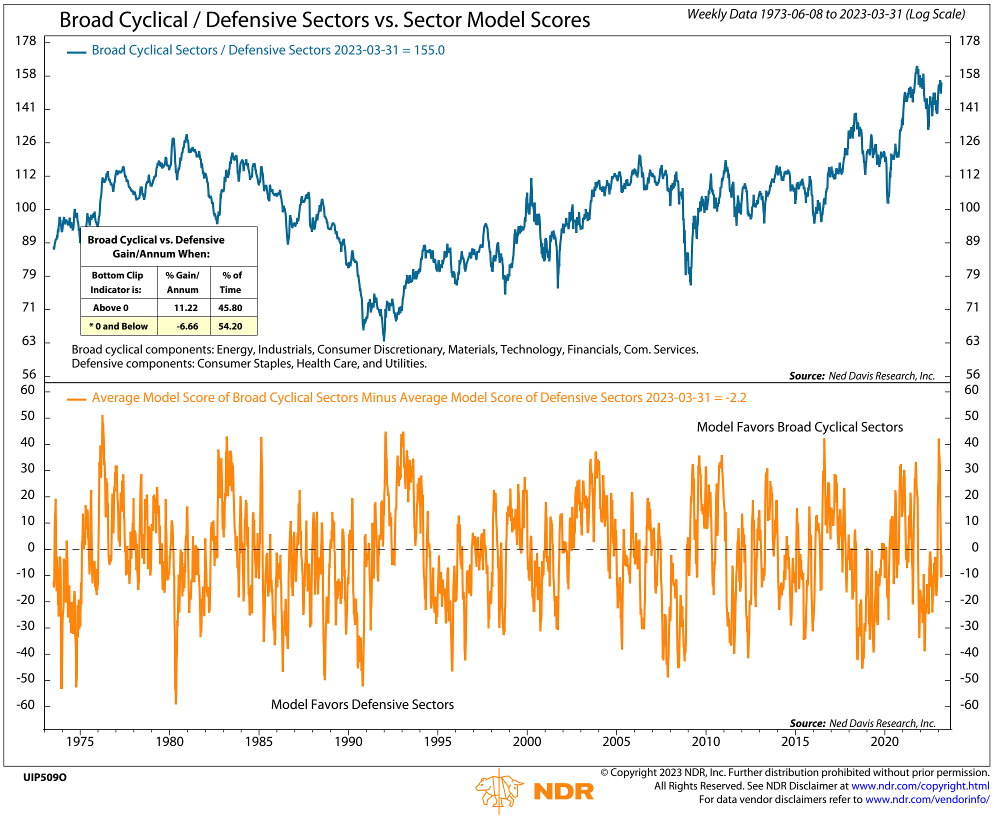
Defensive sector strength has persisted close to 11 months after the final rate hike. The track record has been fairly consistent, with defensive sectors outperforming cyclical sectors six months later in seven of the nine cases since 1972, when our sector data begins. The two exceptions were the 1995 soft landing and the 2018 Powell pivot cases.

Above excerpted from: "Sector leadership around final Fed rate hikes" by Rob Anderson, April 13, 2023.

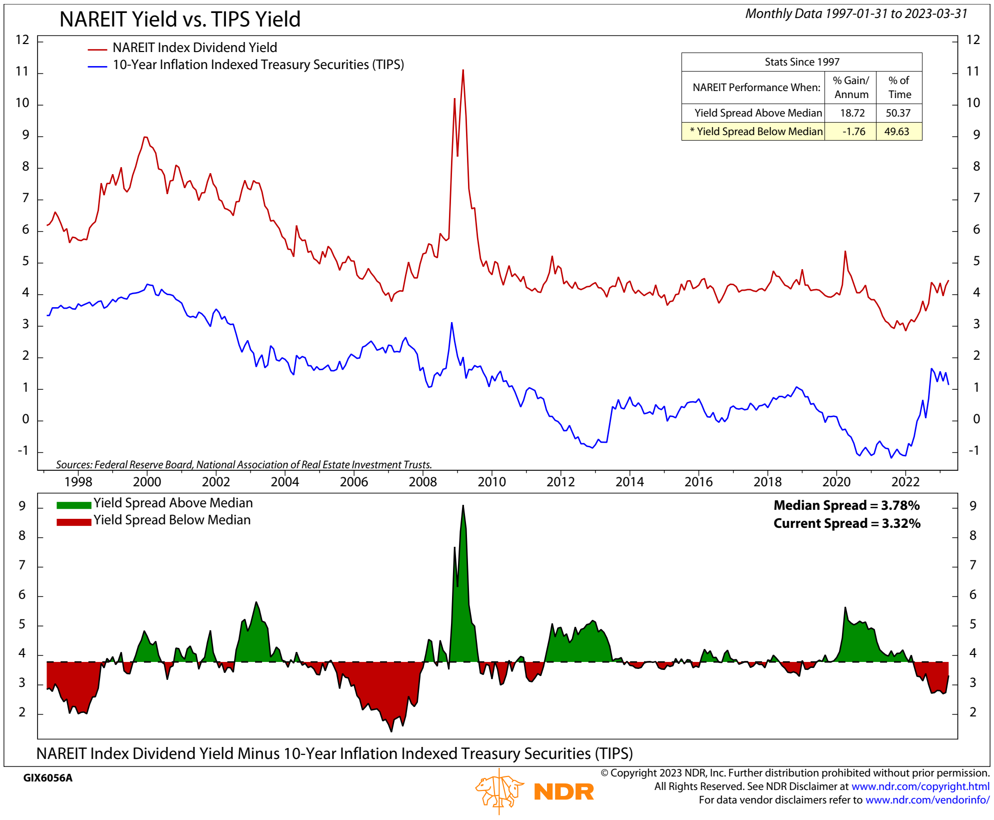
Model update

The sector model made four position changes in March. Technology was upgraded to overweight and Real Estate was upgraded to marketweight, while Financials and Industrials were downgraded to marketweight and underweight, respectively. Overall, the model has positioned more neutral on cyclical vs. defensive sectors, after favoring cyclical sectors by a wide margin earlier in the year (chart right). Within cyclical sectors, it now prefers Growth over Value, after favoring Value for most of the last two years. Like the sector model, we are positioned close to benchmark weights and will adjust our allocation based on how the indicators break going forward.

Sector model turned more neutral on cyclical vs. defensive



Yield spread is unfavorable for REITs



Deteriorating financial conditions and tighter lending standards for banks mean that REITs, and their tenants, could find it more difficult to obtain funding, while at the same time, the economy continues to trend towards a likely recession.

The sector finished March down 2.1%, second worst behind only Financials. We downgraded the sector to underweight on March 16.

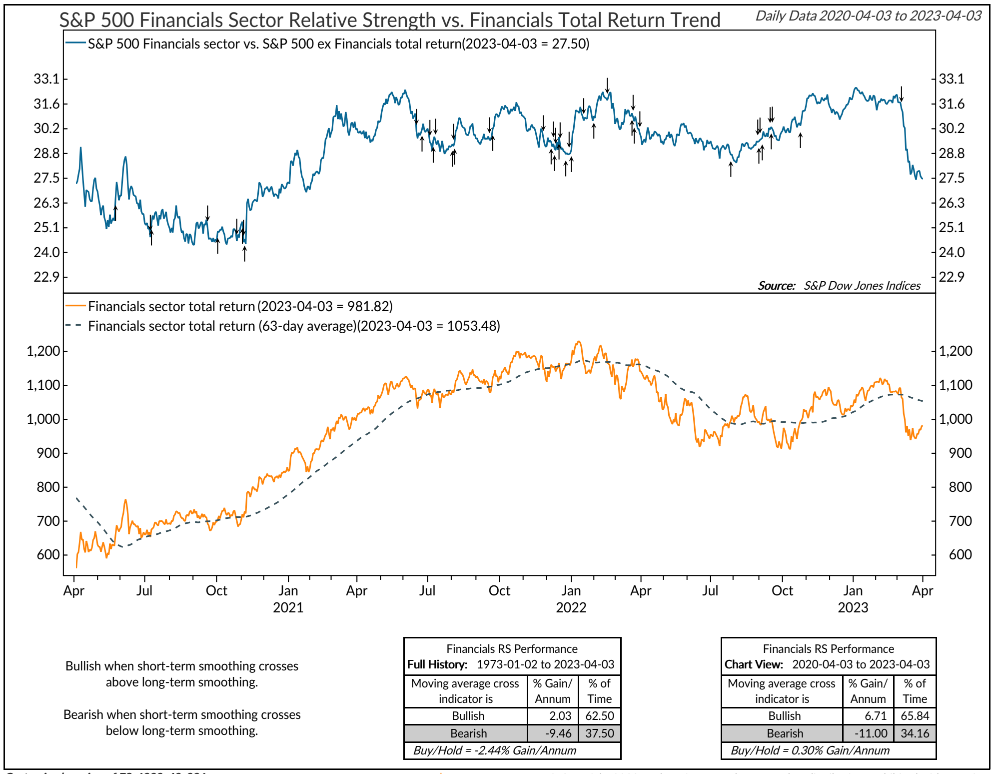
While yields have moved off their cycle highs, they remain elevated, leaving many dividend stocks less compelling for income-seeking investors (chart left).

The failure of Silicon Valley Bank has turned investors' attention to the quality of financial institutions' balance sheets, and the potential risk that unrealized losses on investment securities pose to the financial system.

While the decisions to create the Bank Term Funding Program and to protect customer deposits above the $250,000 FDIC threshold helped to alleviate some concerns, investors remain cautious.

While most selling has been concentrated within Regional Banks, underperformance has been sector wide. Financials finished March down 7.9% (chart right), worst among all sectors.

Financials' technical indicators deteriorated in March



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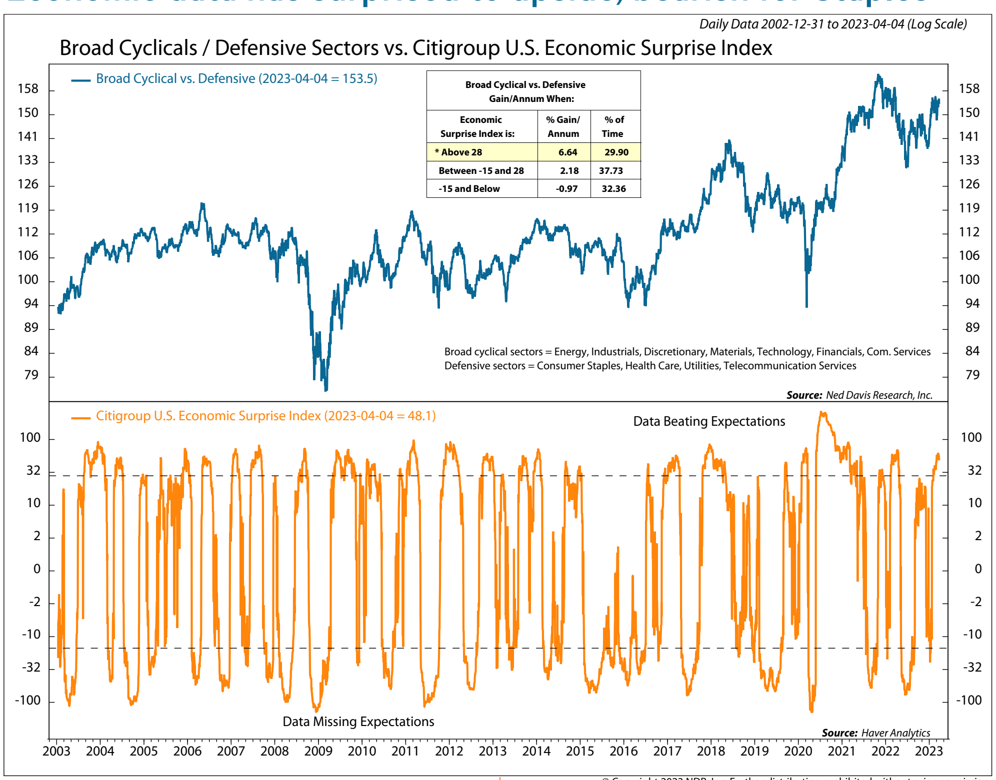
Economic data has surprised to upside, bearish for Staples



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Defensive sectors like Consumer Staples have held up well in the aftermath of the regional bank failures. The sector finished March as a market performer, gaining 3.8% vs. 3.5% for the S&P 500. Defensive sectors could re-establish themselves as market leaders if more economic indicators flash recession warnings (chart left). Historically, no bear market has ever bottomed prior to the start of the recession. The implication is that if the Fed is unable to orchestrate a soft landing, a retest of the October lows will be likely, and Staples has a consistent track record of outperformance around recessions.

Above excerpted from: "Big tech led market higher in March" by Rob Anderson, April 5, 2023

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PAT TSCHOSIK, CFA, CMT, SENIOR PORTFOLIO STRATEGIST
MATT BAUER, CFA, ETF STRATEGIST

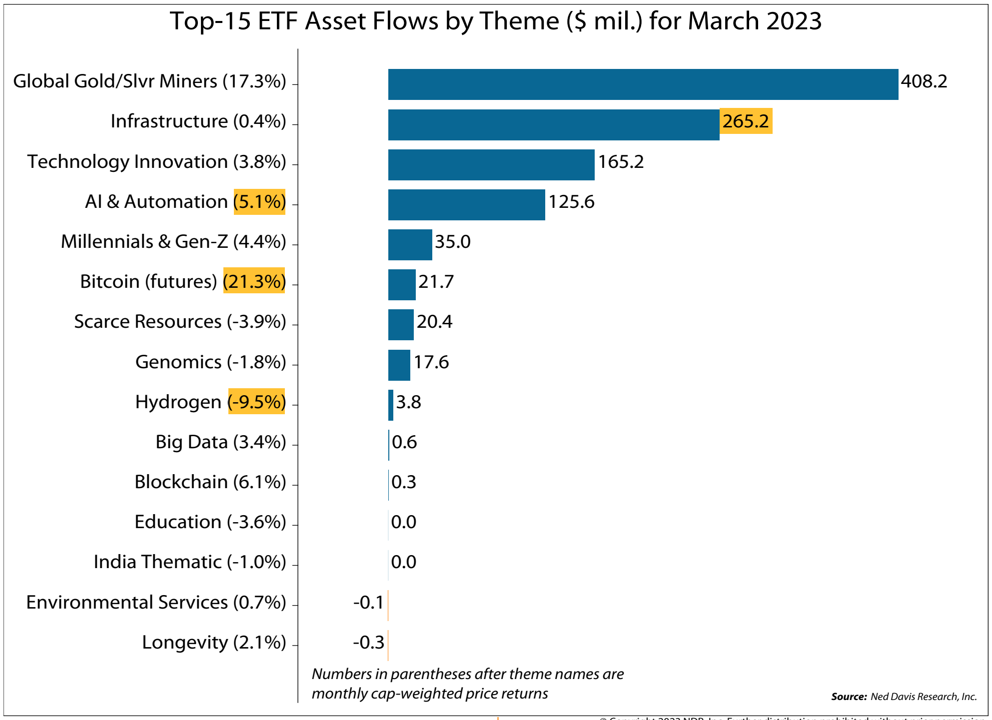
APRIL 17, 2023

Thematic update April 2023

Key Takeaways

- Thematic outperformance was narrow as only 29% of themes we follow outperformed the S&P 500.
- 8 of 15 outperforming themes were Technology-related—not surprising given the market is being mainly led by Nasdaq 100 stocks.
- The weakness in late-cycle Industrials and Energy is concerning, because it is typical of what we would see transitioning from late cycle to early cycle.

Weak monthly flows highlight pessimism remains



TO_FLOWS_MTH

Thematic outperformance was narrow as only 29% (15 of 51) of themes outperformed the S&P 500. This is the weakest month of outperformance since October 2022 (25%). Eight of the 15 outperforming themes were Technology-related, which is not surprising given the market is being narrowly led by Nasdaq 100 stocks.

Technology

Technology themes had the best average return (3.6%) in March. The largest gains were seen in Metaverse (11.4%), Social Media (+8.4%), and Internet (+8.1%). A group of stocks that includes Nvidia, AMD, Meta Platforms, and Roblox were all up more than 19% in March and were key drivers. AI & Automation (+5.1%) also outperformed and had the fourth-largest inflow. We upgraded the theme to overweight.

Demographics

Demographic themes showed the next-best performance with an average 1.7% return in March. The standout for the group, and all themes, was Bitcoin futures (+21.3%).

Investors continue to look for alternatives to stocks and bonds deemed unsafe and Bitcoin and gold are meeting that need. Video Games (+11.4%) was driven by Activision (ATVI, +12.2%), which rallied on news that Microsoft's acquisition of the company is looking more likely.

Global Shock

Global Shock themes (+0.7%) were the laggards again this month. Energy has been weak in general, clean energy included. Hydrogen (-9.5%), and Uranium & Nuclear (-4.6%) were the worst performers among all themes, after Cannabis (-15.1%).

Infrastructure (+0.4%) also underperformed, though the group had the second-largest positive flow in March. It is disturbing that our recommended investment is down more than 8% since March 2.

Coverage update

Big Tech-related themes dominated performance for our Thematic stock baskets in March (table right). AI Semiconductors, Tech Titans, and Cloud all beat the S&P 500 by more than 15 percentage points in March. Only eight Thematic stock baskets beat the index in March, and First Time Homebuyers was the only non-Tech basket in that group. The Gene Therapy group was hit hard in March (-18%), driven by setbacks from Bluebird (BLUE, -39%) and Sangamo (SGMO, -42%).

Tech ruled in Q1 as well. In Q1, AI Software was up a stunning 101%, while Tech Titans were up 37%. AI and 5G Semiconductor returns were powered by Nvidia's stunning 90% return in Q1.

Big returns for Big Tech in March

Thematic Stock Portfolio		Mar'23	Q1'23
NDR AI Semiconductors		16.9	35.3
NDR Titans of Technology Group		16.1	37.4
NDR Cloud Infrastructure Group	**Tech themes**	11.8	14.0
NDR Video Game Group		9.1	7.5
NDR 5G Semiconductor IOT		9.0	19.2
NDR First Time Homebuyer		8.5	20.1
NDR Cyber Security Software Group		7.6	23.9
NDR 5G Semiconductor Infrastructure		7.5	18.8
NDR Cyber Security Infrastructure Group		6.2	1.8
NDR EV Charging Group		3.4	51.8
NDR Employment Solutions Group		-2.8	7.2
NDR Select Managed Care Group		-3.0	-13.7
NDR Energy Breakout Group		-3.5	-1.0
NDR COVID-impacted Leisure Group		-3.9	16.0
NDR Canadian Listed Lithium Producers		-4.8	21.6
NDR AI Software		-5.2	101.3
NDR EV Group		-6.5	12.1
NDR COVID Travel Related		-9.0	8.9
NDR Gene Therapy Group		-17.9	-15.4
NDR Developmental EV Group		-30.6	-21.7

As of 03/31/2023. Returns are hypothetical equal-weighted stock portfolio returns excluding transaction fees and not associated with any recommendations. Only top and bottom 10 portfolios by monthly return are shown due to space limitations. All portfolio returns are available to subscribers on www.ndr.com (TO_RECS.RPT) or available by request.

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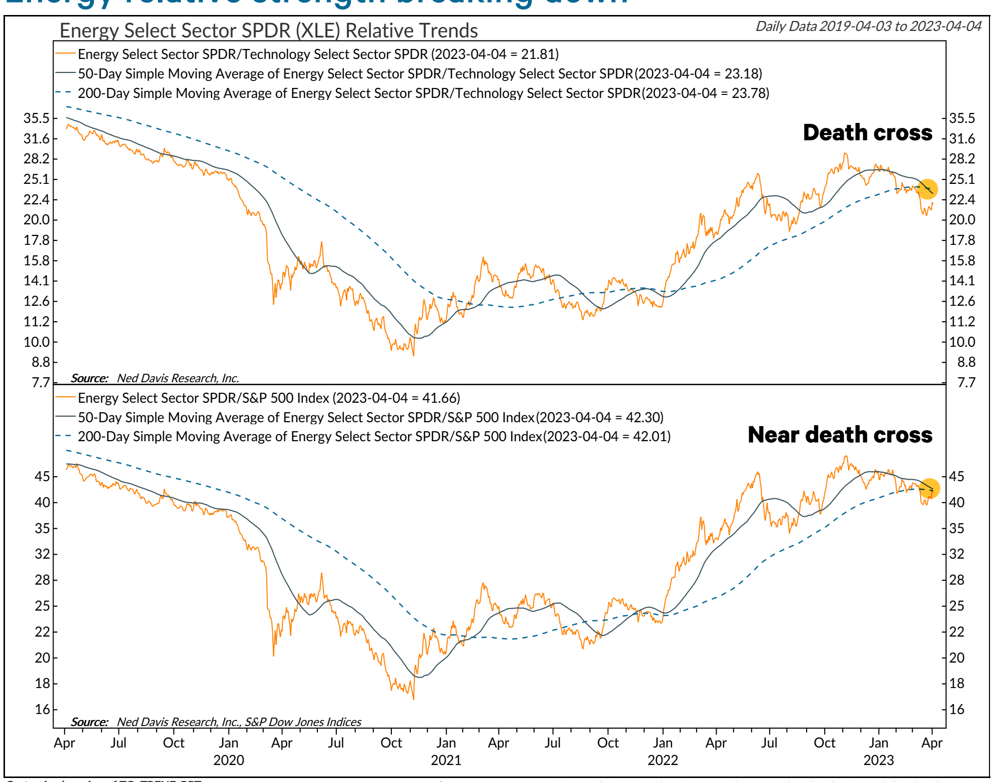
Energy relative strength breaking down



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Energy hanging by a thread

The chart to the left is informative on two fronts: it acts as a proxy for our physical vs. digital theme (top-clip) and visualizes our recommendation vs. the broader market (bottom-clip).

The S&P 500 Energy Sector has broken down vs. the S&P 500 Technology Sector, as Tech, up nearly 12% and the best performing sector in March, posted its best monthly return in more than a year. This reversed our 2023 outlook that physical themes would perform better than digital themes in the first half of the year. While we did expect "the most oversold themes to rebound at the beginning of a bull market," we must admit Tech's strong outperformance caught us by surprise.

Above excerpted from: "Thematic update April 2023" by Pat Tschosik, March 5, 2023

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NED DAVIS RESEARCH

MARK PHILLIPS, CFA EUROPEAN EQUITY STRATEGIST

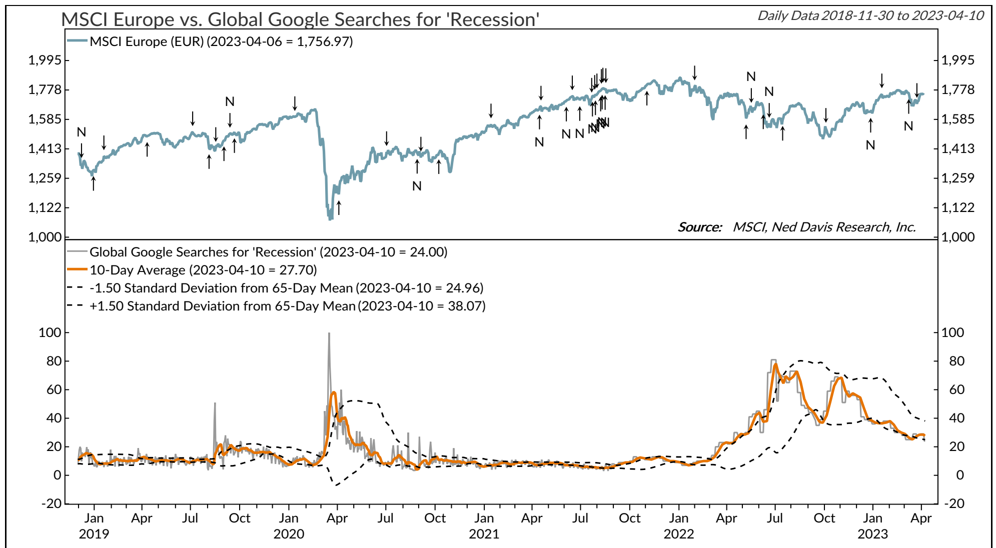
APRIL 17, 2023

A healthy correction

Key Takeaways

- Worries over banking sector contagion in March have relieved excesses in investor optimism.
- The recent correction in European equities is consistent with a period of consolidation within an upward trending market.
- Longer-term survey sentiment suggests European investors still have a wall of worry to climb.

Recession narrative returning?



Sell when indicator reverses above lower bracket.

Buy when indicator reverses below upper bracket. Otherwise neutral.

Chart arrows and performance statistics account for reporting lags.

MSCI Europe (EUR) Price Return 2004-05-27 to 2023-04-06		
Signal on	% Gain/ Annum	% of Time
Buy	10.99	40.58
Neutral	-2.82	11.83
* Sell	-1.45	47.59

MSCI Europe (EUR) Price Return 2018-11-30 to 2023-04-06		
Signal on	% Gain/ Annum	% of Time
Buy	21.70	39.48
Neutral	4.69	10.77
* Sell	-6.26	49.75

Customized version of EUR_GT

Excessive optimism relieved

Much of the investment narrative last month centered on the market turmoil and contagion fears that followed the U.S. bank failures. And now in April, we see an attenuation of the recession narrative. The chart above showing an uptick in Google searches on "Recession", after falling steadily from mid-October to early March. The evolution of market narratives can also be seen in the context of changing investor sentiment.

In Europe, there had been an excessive surge in risk appetite helped by improving investor sentiment as the MSCI Europe index rose 21% from the September low to the high in February. But during February, our European sentiment composite was flagging excessive optimism.

Viewed this way, investors had simply become too complacent, and the market had become vulnerable to negative news flow. Therefore, given the bullish technical indicators, the March drawdown can be viewed as a normal consolidation within a longer-term uptrend.

Below we review our European sentiment indicators to provide more detail on the drivers of our sentiment composite and the implications for European equities.

Excessive risk-appetite recedes

Two key rules of research at NDR are "Don't fight the tape" and "Beware of the crowd at extremes." In the first instance, we watch for positive trends in risk appetite to provide bullish signals for European equities.

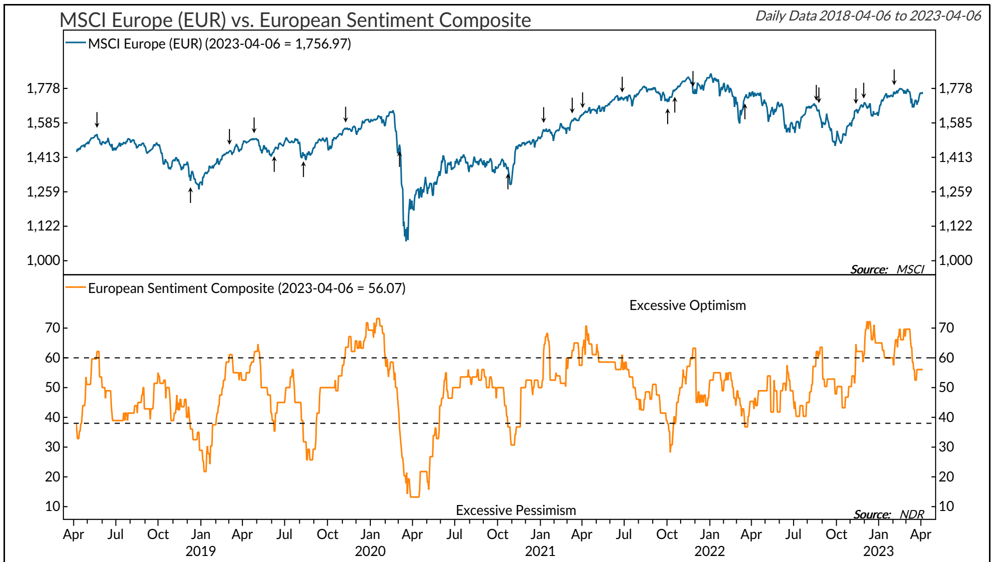
But at the same time, we are mindful that when these trends become extreme, there is a higher likelihood of a reversal. This is what we saw in March—a correction after a period of extreme optimism.

Our European sentiment composite (chart right) is designed to flag extremes in investor sentiment and consists of a market-based and survey-based component. The market-based component identifies extreme moves in market indicators to signal moments of excessive optimism and excessive pessimism.

Market indicators include NDR's Risk-On/Risk-Off Index, the VSTOXX, and relative performance of Cyclical versus Defensive sectors.

As we noted last month, Cyclical sectors had become excessively overbought relative to Defensive sectors. The banking worries in March then served as a catalyst for a rotation out of Cyclical sectors into Defensive sectors.

Sentiment moves back into the neutral zone



Buy signal when indicator below lower bracket.

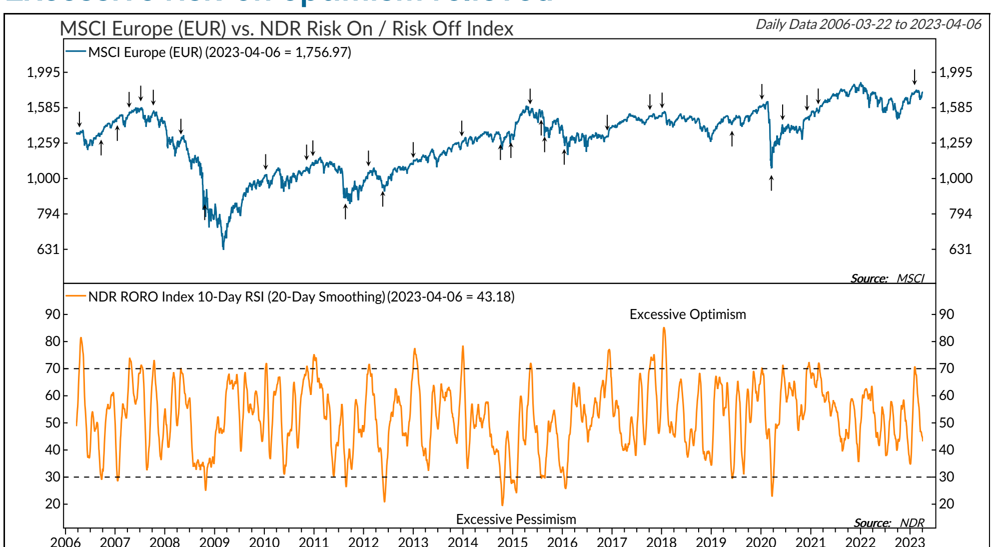
Sell signal when indicator above upper bracket.

MSCI Europe (EUR) Next Period Mean Return (2018-04-06 - 2023-04-05)				
Signal	1-Month	3-Months	6-Months	% Time
Buy	4.74	9.07	9.66	13.11
Neutral	-0.44	0.51	1.21	69.63
Sell	0.61	-2.92	-2.73	17.25
All	0.43	1.20	1.97	100.00

Statistics allow a lag of 1 market day.

Customized version of EUR_SENT.RPT

Excessive risk-on optimism relieved



Buy signal when indicator below lower bracket.

Sell signal when indicator above upper bracket.

MSCI Europe (EUR) Next Period Mean Return (2006-03-22 - 2023-04-05)				
Signal	1-Month	3-Months	6-Months	% Time
Buy	3.26	7.64	10.54	3.17
Neutral	0.23	0.60	1.25	91.16
Sell	-0.94	-0.20	0.84	5.67
All	0.26	0.78	1.53	100.00

Statistics allow a lag of 1 market day.

Customized version of EUR_SENT.RPT

More generally, a broad range of risky assets had become overbought relative to defensive assets, setting European equities up for a short-term pull back.

Since then, the Risk-On/Risk-Off RSI has fallen back considerably, suggesting that much of the excessive short-term optimism has been relieved (chart left).

Above excerpted from: "A healthy correction" by Mark Phillips, April 11, 2023

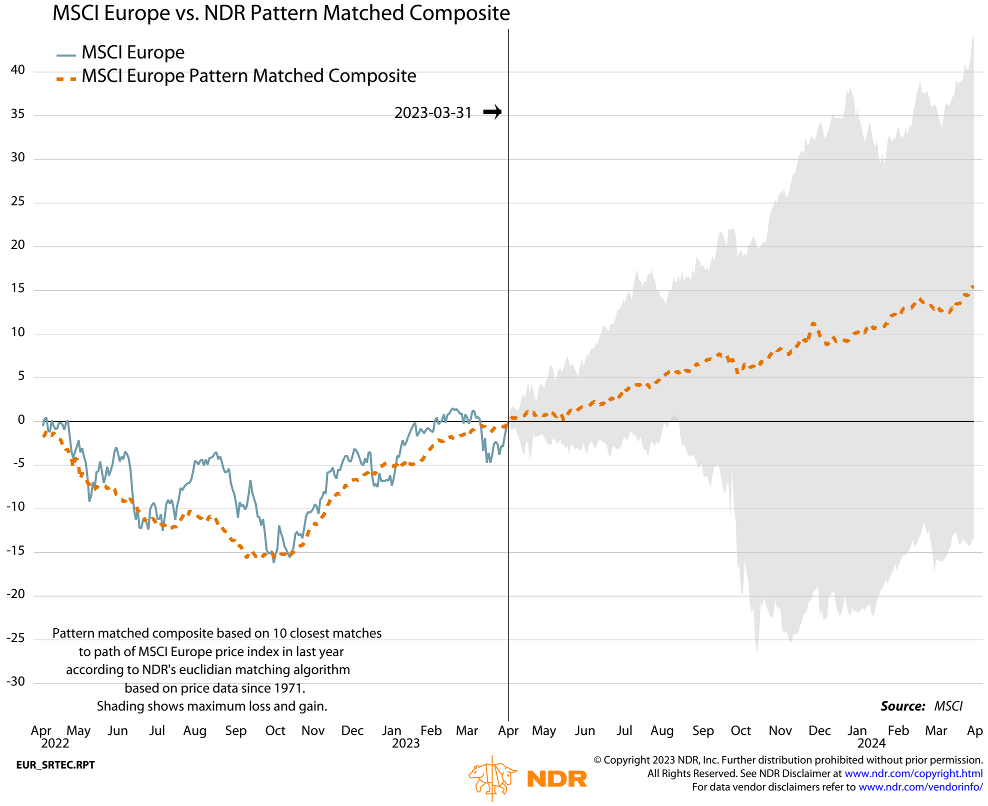
Upward trend intact

From a broad market perspective, investors have already put worries over the banking sector behind them, with the MSCI Europe staging a 5% recovery since its low in mid-March.

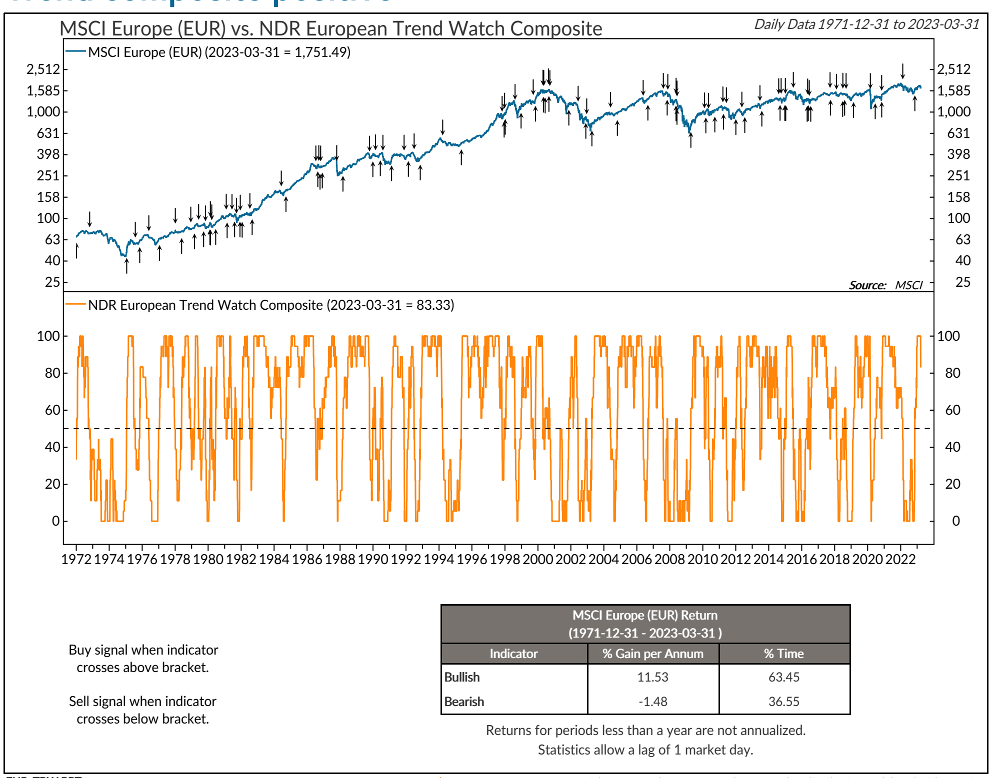
Over the first quarter, the MSCI Europe produced a healthy 7.9% price return, significantly higher than the median Q1 return of 4.5% over the last 53 years.

Our pattern matching algorithm shows that the overall trend of the European equity market still looks like a bull market and is likely to trend higher in Q2 (chart right).

Still looks like a bull market



Trend composite positive



MSCI Europe (EUR) Return (1971-12-31 - 2023-03-31)		
Indicator	% Gain per Annum	% Time
Bullish	11.53	63.45
Bearish	-1.48	36.55

Returns for periods less than a year are not annualized.
Statistics allow a lag of 1 market day.

EUR_TRW.RPT

Broad trends still bullish

Indeed, broad market technical indicators suggest more reason to be bullish than bearish. The European trend composite provides an overall measure of market momentum and trend. In simple terms, when the composite is above 50, it is bullish. It is bearish when it is below 50.

The recent dip in equities has seen a loss of some shorter-term momentum, taking the composite from a maximum reading of 100 to 83 on March 22. But overall momentum and trend remain strong, suggesting a positive tactical outlook for equities (chart left).

Above excerpted from: "What the market is saying about risk" by Mark Phillips, April 4, 2023

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NED DAVIS SENIOR INVESTMENT STRATEGIST
TIM HAYES, CMT CHIEF GLOBAL INVESTMENT STRATEGIST

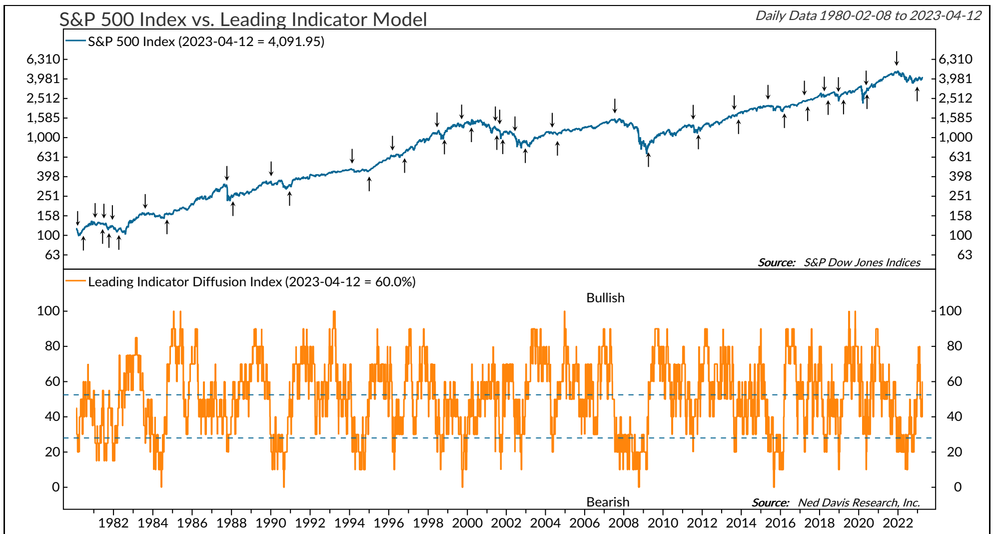
APRIL 17, 2023

Leaning overweight but some offsets in the indicator evidence

Key Takeaways

- The bear market mostly ended in the middle of 2022, with the trend evidence slowly improving, but some indicators have not verified.
- On the offsetting side, long-term trend, valuations, and rising debt service could weigh on gains in 2H.
- Consumer confidence indices have moved higher but have yet to indicate extreme optimism.

Still looks like a bull market



Buy signal (100% long S&P 500) when model rises above 52.5%

Sell signal (100% short S&P 500) when model falls below 28%.

S&P 500 Index Performance
Chart View: 1980-02-08 to 2023-04-12

Leading Indicator Diffusion Index	% Gain/ Annum	% of Time
Above 52.5	16.90	44.28
28.0 - 52.5	9.93	43.69
Below 28.0	-21.05	12.03

Buy/Hold = 8.56% Gain/Annum

Strategy Performance
Long/Short: 1980-03-06 to 2023-04-12

Signals	% Gain/ Annum	% Profitable	% Gain/ Trade	Trades/ Annum	% of Time
All	12.9	68.8	13.5	1.1	100.0
Buy	16.0	79.2	23.8	0.6	72.7
Sell	5.3	58.3	3.2	0.6	27.3
Buy/Hold	8.8	--	--	--	--

Last Signal: Buy (2022-12-27 = 3829.25)

DAVIS76K

Bullish evidence

The NDR Leading Indicator Model (chart above) continued on its 12/27/2022 buy signal. I like this pure trend-following model that uses 10 major indicators that tend to lead or turn coincident with the stock market.

The buy signal in December confirmed NDR's move to overweight stocks around that time, and it reversed the 12/08/2021 sell signal. But we have other models, like the Fab Five, that have not confirmed, showing some lingering conflicts among longer-term indicator evidence.

One of the reasons I have respected the Leading Indicator buy signal is that it came after a long period of excessive pessimism with the intermediate-term NDR Crowd Sentiment Poll, showing extreme pessimism at 40.8% bulls on 6/17/2022 and just 37.6% bulls on 9/30/2022. This was the area of maximum downside momentum of the bear market. Our NDR Inflation Timing Model gave a "sell signal" for inflation in the summer of 2022, and long-term interest rates have also fallen sharply. I think all of this is an impressive bullish case and explains why most stocks made their lows in mid-2022.

Bearish offsets

But the market has not done that much on the upside thus far.

I believe there are several offsets that have held down the bullish forces like the fear of recession, an actual recession in earnings, the fact the Fed is still talking hawkish, banking problems, etc. Stock market valuation and high levels of debt warn me of risks.

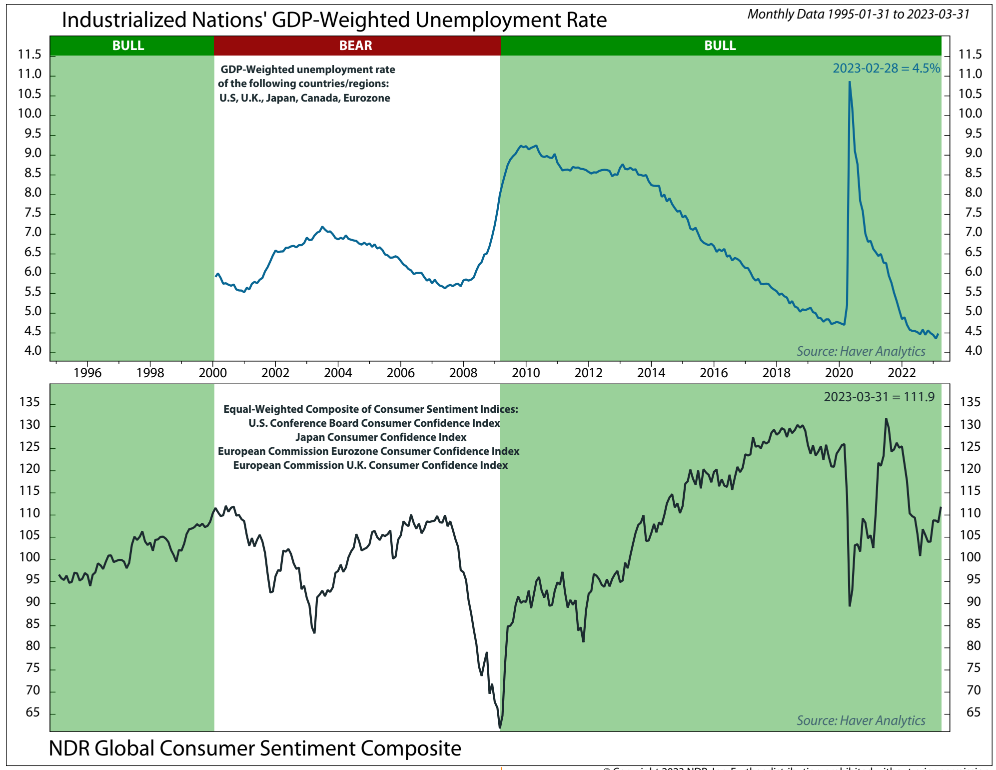
Above excerpted from: "Leaning overweight but some offsets in the indicator evidence" by Ned Davis, April 10, 2023

Room for optimism

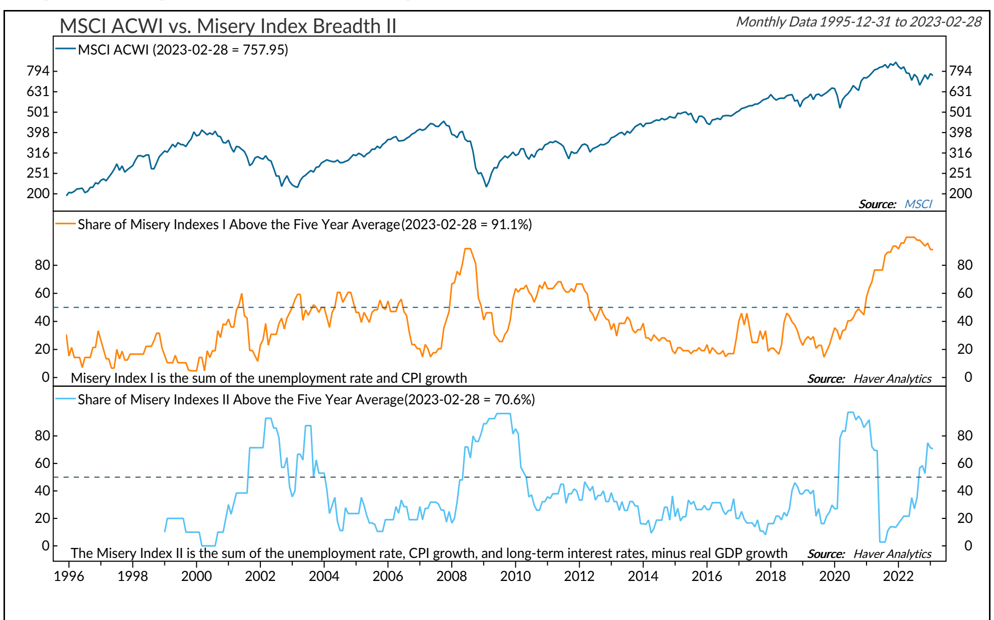
As consumer confidence has reversed higher, new lows have been reached by a GDP-weighted unemployment rate based on data from the U.S., Japan, U.K., Eurozone and Canada (chart right). Except for the aberration produced by the global pandemic, shutdowns and recession in 2020, the weighted unemployment rate has trended lower since 2009, the year in which the secular bull got started.

During most of the secular bull that has followed, confidence has increased as unemployment has fallen. That's the opposite of the trends during the secular bear of 2000 to 2009, when confidence trended lower and unemployment higher.

Weighted unemployment rate down, confidence composite higher



Improved picture of Misery Index breadth



MSCI ACWI Performance
Full History: 1995-12-31 to 2023-02-28

Breadth Indicators are	% Gain/ Annum	% of Time
Both in Upper Modes	-5.37	9.31
Mixed	5.96	34.98
Both in Lower Modes	3.69	55.71

Buy/Hold = 5.12% Gain/Annum

IE730B

A more negative picture is provided by misery indices. Misery indices include the original approach of combining unemployment rates and consumer inflation rates, as well as indices that add long-term interest rates to the total, and then subtract real GDP growth. For the U.S., both indices are above their five-year averages, as are the misery indices for most of the other countries we follow. The chart at left indicates that when that has been the case historically, the ACWI's annualized returns have been negative. But the picture is improving. The percentage based on the original index has receded from 100% in July to 91%, the lowest percentage since October 2021 (middle clip).

Above excerpted from: "More confident, less miserable" by Tim Hayes, April 5, 2023

Glossary of terms

Asset Allocation: Ned Davis Research, Inc. constrains the recommended equity weighting (which can theoretically range from zero to 100%) to be limited to a minimum of 40% stocks and a maximum of 70% stocks. Due to the constraint on equity weighting, the combination of bonds and cash can be weighted no greater than 60% and no less than 30% in NDR's recommendations. The benchmark for bond allocation is 35% and for cash is 10%.

Benchmark Duration: The most commonly used measure of bond risk, quantifies the effect of changes in interest rates on the price of a bond or bond portfolio. The longer the duration, the more sensitive the bond or portfolio should be to changes in interest rates. Point of reference for a measurement.

Beta: A number describing the relation of an investment return with that of the financial market as a whole. Numbers greater than one suggest an investment will increase more than the broad market when it is rising, and have greater declines when the market is falling.

Breadth: A technical term used to demonstrate how broadly a market is moving.

Capital Market: Is a market for securities (debt or equity), where business enterprises (companies) and governments can raise long-term funds.

Commercial Mortgage-Backed Securities (CMBS): A type of mortgage-backed security backed by commercial mortgages rather than residential mortgages. When compared to a residential mortgage-backed security, a CMBS provides a lower degree of prepayment risk because commercial mortgages are most often set for a fixed term.

Core Inflation: Is a measure of inflation which excludes certain items that face volatile price movements, notably: food and energy.

Cyclical Bear: Cyclical swings in the market can last from several months to a few years, and are designed to be in line with the primary trend. A cyclical bear market is a cyclical swing when the market is in a downtrend.

Cyclical Bull: Cyclical swings in the market can last from several months to a few years, and are designed to be in line with the primary trend. A cyclical bull market is a cyclical swing when the market is in an uptrend.

Deflation: Is a slight decrease in the general price level of goods and services. Deflation occurs when the annual inflation rate falls but stays above 0%.

Demographics: Studies of population based on factors such as age, race, sex, economic status, level of education, income level, and employment.

Echo Bull/Bear: An echo bear market is a shallower correction which occurs in the equity market that does not coincide with an economic recession. An echo bull market is one that follows and echo bear market.

European Central Bank (ECB): Is the institution of the European Union (EU) which administers the monetary policy of the EU Eurozone member states. It is thus one of the world's most important central banks. The bank was established by the Treaty of Amsterdam in 1998, and is headquartered in Frankfurt, Germany.

Eurozone/European Union: Is an economic and monetary union (EMU) of the European Union (EU) member states which have adopted the euro currency as their sole legal tender. It currently consists of Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia, and Spain.

Glossary of terms

Federal Open Market Committee (FOMC): A component of the Federal Reserve System, is charged under United States law with overseeing the nation's open market operations. It is the Federal Reserve committee that makes key decisions about interest rates and the growth of the United States money supply.

Gross Domestic Product (GDP): The total output of goods and services produced in a given country during a given period.

Lagging Indicator: An economic factor that changes after the economy has already begun to follow a particular pattern or trend; used to confirm long-term trends.

Leading Indicator: An economic factor that changes before the economy starts to follow a particular pattern or trend; used to predict changes in the economy.

Median P/E: Numeric value separating the higher half of a sample, a population, or a probability distribution, from the lower half. This is the middle price-to-earnings ratio of a series.

Mortgage-Backed Securities (MBS): A type of asset-backed security that is secured by a mortgage or collection of mortgages. These securities must also be grouped in one of the top two ratings as determined by an accredited credit rating agency.

MSCI Emerging Market Index: An index developed by Morgan Stanley Capital International, Inc. (MSCI) as an equity benchmark for emerging market stock performance. It is a capitalization-weighted index that aims to capture 85% of publicly available total market capitalization. Component companies are adjusted for available float.

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NDR HOUSE VIEWS (Updated April 6, 2023)

For global asset allocation, NDR recommends an overweight allocation to stocks and underweight allocations to bonds and cash. Our recommendations are in-line with our Global Balanced Account Model.

Equity Allocation

U.S. | Our U.S. asset allocation recommendation is 60% stocks (5% overweight), 35% bonds (marketweight), and 5% cash (5% underweight). On an absolute, basis we are marketweight the S&P 500. Macro and earnings concerns are offset by extreme pessimism and technical improvements. We favor large-caps over small-caps and are neutral on Growth versus Value.

INTERNATIONAL | We are overweight United States and Europe ex. U.K., marketweight Japan, and underweight on all other regions.

Macro

ECONOMY | The global economy is in a sustained slowdown due to waning monetary and fiscal support, stubbornly high inflation, and rising geopolitical risk. While the slowdown remains moderate, the risk of severe recession increases in 2023. Global inflation pressures are easing but will remain historically elevated in the foreseeable future.

FIXED INCOME | We raised our bond exposure to 110% of benchmark duration. We are neutral on the yield curve. We are overweight Treasurys and MBS and underweight high yield, ABS and TIPS. We are marketweight everything else.

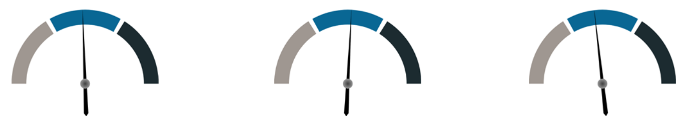
GOLD | We are currently bullish.

DOLLAR | We are bearish due to worsening momentum and model readings.

Economic Summary

April 17, 2023

Near term activity: ● Accelerating ● Neutral ● Decelerating



Global Economy (2.4%) | U.S. Economy (-0.5% – 0.5%) | U.S. Inflation (3.0% – 3.5%)

Economic gauges reflect changes in near-term economic activity. Numbers in parenthesis refer to NDR 2023 forecasts.

Global Asset Allocation

● Overweight ● Marketweight ● Underweight

- Stocks (65%)
- Bonds (30%) | Cash (5%)

Benchmark: Stocks (55%), Bonds (35%), Cash (10%)

Equities — Regional Relative Allocation

- United States (64%) | Europe ex. U.K. (16%)
- Japan (6%)
- Emerging Markets (8%) | U.K. (2%) | Pacific ex Japan (2%) | Canada (2%)

Benchmark – U.S. (61.3%), Europe ex. U.K. (12%), Emerging Markets (11.1%), Japan (5.4%), U.K. (3.8%), Pacific ex. Japan (3.1%), Canada (3.1%)

Global Bond Allocation

- U.S. (60%)
- Europe (25%) | U.K. (5%)
- Japan (10%)

Benchmark: U.S. (55%), Europe (26%), Japan (14%), U.K. (5%)

U.S. Allocation

- Stocks (60%) | Large-Cap
- Bonds (35%) | Mid-Cap | Growth | Value
- Cash (5%) | Small-Cap

Benchmark: Stocks (55%), Bonds (35%), Cash (10%)

Sectors

- Technology (30%)
- Real Estate (1%)

Benchmark: Technology (26.7%), Health Care (14.5%), Financials (10.8%), Communication Services (8.5%), Consumer Discretionary (11.3%), Consumer Staples (7.4%), Industrials (8.1%), Energy (4.6%), Utilities (2.9%), Real Estate (2.7%), Materials (2.6%)

U.S. Bonds — 110% of Benchmark Duration

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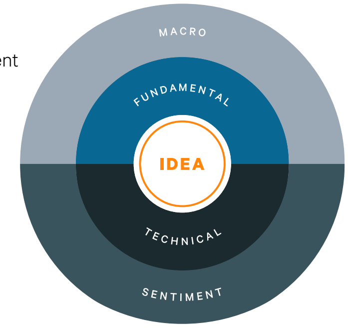

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