

iFlow

WEEK AHEAD

February 18, 2024

Punch Bowls

“At the punch-bowl’s brink, the thirsty think, what they say in Japan: first the man takes a drink, then the drink takes a drink, then the drink takes the man.” - Edward Rowland

“The job of the Federal Reserve is to take away the punch bowl just when the party is getting good.” - William McChesney Martin

Summary:

The central question for the week ahead is whether the risk-on party can continue as the 4Q earnings reports near the end and with last week’s modest beat again seen as insufficient to justify larger rallies, as AI investments move markets in tech and as the end of Mardi Gras and the Chinese New Year celebrations leave many searching for more optimism to sustain what many see as a quieter week ahead with US Presidents day holiday and the lack of big economic data to rewind rate cuts hopes in the US - with March pricing in just 10% cut changes and June just 80% for 25bps easing. The February unwind of Fed easing in 2024 has been dramatic but without much cost to equities. The last week delivered higher than expected US inflation, lower than expected growth from retail sales to housing starts. The US consumer mood was better but inflation expectations rose. Fed speakers were consistent in suggesting patience on rates and more data were needed before rate cuts. The APAC markets were mostly closed for the Lunar New Year holidays but the Japan 4Q GDP was a surprise with confirmation of a technical recession while in Europe, the focus was on ECB mixed comments about rate cuts, the sharp bounce up in the German ZEW and the confirmation of UK recession left many wondering about central bank policy driving a recovery globally.

Key Themes:

- **4Q earnings vs. outlooks.** The S&P500 fell the most since June on Tuesday, closed up at a new record Thursday, and ended the week lower Friday - the first weekly decline in 5 weeks, since the start of the year. Markets are caught with mixed results with 79% of the index reporting earnings 3.9% over estimates - below the 5-year and 10-year average. The overall growth in EPS is 3.2% up from 2.8% last week and 1.5% at the start of 4Q reporting. Seven of the eleven sectors are reporting year-over-year earnings growth, led by the Communication Services, Consumer Discretionary, Utilities, and Information Technology sectors. On the other hand, four sectors are reporting a year-over-year decline in earnings: Energy, Materials, Health Care, and Financials.
- **Stagflation fears return.** There is a fear that the US sticky inflation will leave rates higher globally and prevent sufficient recovery from the 4Q slump. The January CPI rose 0.3% m/m, 3.1% y/y - more than the 2.9% y/y expected and with core up 0.4% m/m,+3.9% y/y same as December. Markets are trying to regain confidence in the growth over inflation mix globally, but the move up in US bond yields hit leveraged plays everywhere. EU commission cut the 2024 growth outlook to 0.8% from 1.2% and 2025 growth outlooks to 1.5% from 1.6%.
- **Bar-bell approach to portfolios with EM.** The MSCI EM equity index rose for the week - up 2%. The emerging markets have been attractive to some investors but there is a wide divergence of outcomes and expectations for 2024. The EM markets have disappointed investors for years with this year's confidence linked to expectations of a FOMC policy pivot and to a weaker USD expectation.
- **Russia re-focus.** The Russia war on the Ukraine has its second anniversary on Feb 24th and the Ukraine loss of Avidiivka in the East on Friday last week provides a modest morale boost to Russian troops. The ongoing lack of US House support for Ukraine and the revelations of a new satellite nuclear weapon deployed but not operational in space adds to global fears of escalation. The German security conference this weekend and the the death of Putin's main opponent Navalny in a Siberian prison added to a larger to the news cycle focus.
- **China recovery hopes vs. sustainability.** Early data showed a pickup in consumer spending over the Lunar New Year, China's most important holiday. More than 61 million rail trips were made in the first six days of the national holiday, a 61% increase over 2023 according to Bloomberg. Travel by road and airplane also improved, while hotel sales on Chinese e-commerce platforms increased more than 60%, according to state media. However, box office receipts fell according to Mayan Entertainment - an online movie ticket platform. The ability for the China markets to stabilize matters significantly to

expectations for more stimulus from Beijing with further cuts in MLF/LPR the key focus on the week.

What are we watching:

1. The central bank focus will remain key – FOMC minutes along with PBOC, BOK, BI, CBRT decisions.
2. The economic data is lighter but key CPI from Canada, Sweden and South Africa, along with German Ifo and US jobless claims, existing home sales
3. 4Q earnings are nearly done but still nearly 10% reporting with focus on NVIDIA, Walmart, Home Depot, UK, EU banks
4. US issuance will be long on bills and less on coupons with focus on 20Y bonds and 30Y TIPS
5. EU issuance is a net positive E18.5bn following the -E8.4bn last week with gross issuance down E24.7bn from E37.8bn last week.

• Monday, February 19 - US Presidents' Day Holiday

- **Central Banks:** PBOC 1Y MLF rate and rollover
- **Economic Data:** Sweden CPI, Canada CPI
- **4Q Earnings:** CSAN, Simec, RIG, RayzeBio, Apogee
- **EU Issuance:** Slovakia issues E2bn of 3-9-10-25Y SlovGBs

• Tuesday, February 20 –

- **Central Banks:** China PBOC 1Y and 5Y LPR decision
- **Economic Data:** Canada CPI
- **4Q Earnings:** HSBC, WalMart, Home Depot, Barclays, Medtronic
- **US Issuance:** Treasury sells \$79bn 3M bills and \$70bn 6M, \$46bn 12M and \$80bn in 42-day CMB
- **EU Issuance:** Germany sells E4.5bn of 10Y Bunds, Finland sells E0.75bn of 5-10Y RFGB

• Wednesday, February 21 –

- **Central Banks:** BI rate decision, FOMC minutes from January
- **Economic Data:** South Africa CPI
- **4Q Earnings:** NVIDIA, Rio Tinto, Suncor, Exelon
- **US Issuance:** Treasury sells \$28bn in 2Y FRN and \$16bn in 20-year bonds,
- **EU Issuance:** Germany sells another E4.5bn of 10Y Bunds

• Thursday, February 22 –

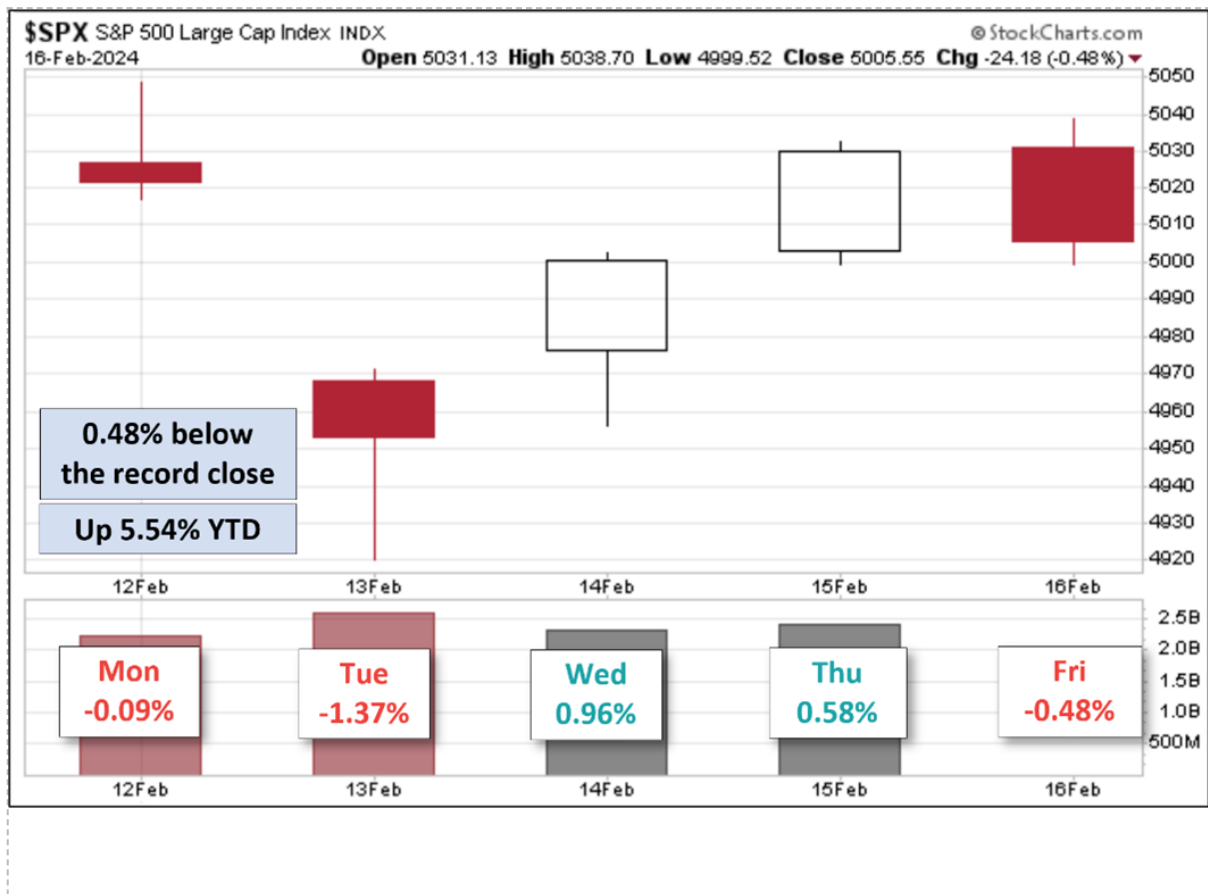
- **Central Banks:** Bank of Korea rate decision, Turkey CBRT rate decision, Fed Speakers Bowman, Harker, Cook, Waller

- **Economic Data:** Global PMI flash reports – Australia, Japan, Germany, France, EU, UK and US, US weekly jobless claims and existing home sales
- **4Q Earnings:** Intuit, Lloyds Bank, Vale, Pioneer, ENI, PCG
- **US Issuance:** Treasury sells \$9bn in 30-year TIPS
- **EU Issuance:** Belgium sells 1Y and 3Y E2bn
- **Friday, February 23 –**
 - **Economic Data:** German IFO
 - **4Q Earnings:** Berkshire Hathaway, Warner Bros. Lamar, Icahn, AngloGold
 - **EU Issuance:** Italy sells E3bn of 2Y and 9Y BTPs

What changed last week:

- **In Equities,** the US S&P 500 slid on Friday, snapping the index's five-week win streak. The index is currently up 5.54% year to date and has set a new record closing high eleven times so far this year. The NASDAQ fell 1.34% on the week leading the losers while Brazil's Bovespa fell 0.94% and Spain's IBEX fell 0.1%. The biggest gains were in UK FTSE up 1.84%, HK Hang Seng up 1.6% and the Nikkei up 4.41% on the week – JPY 150 breach and BOJ accommodation talk key.

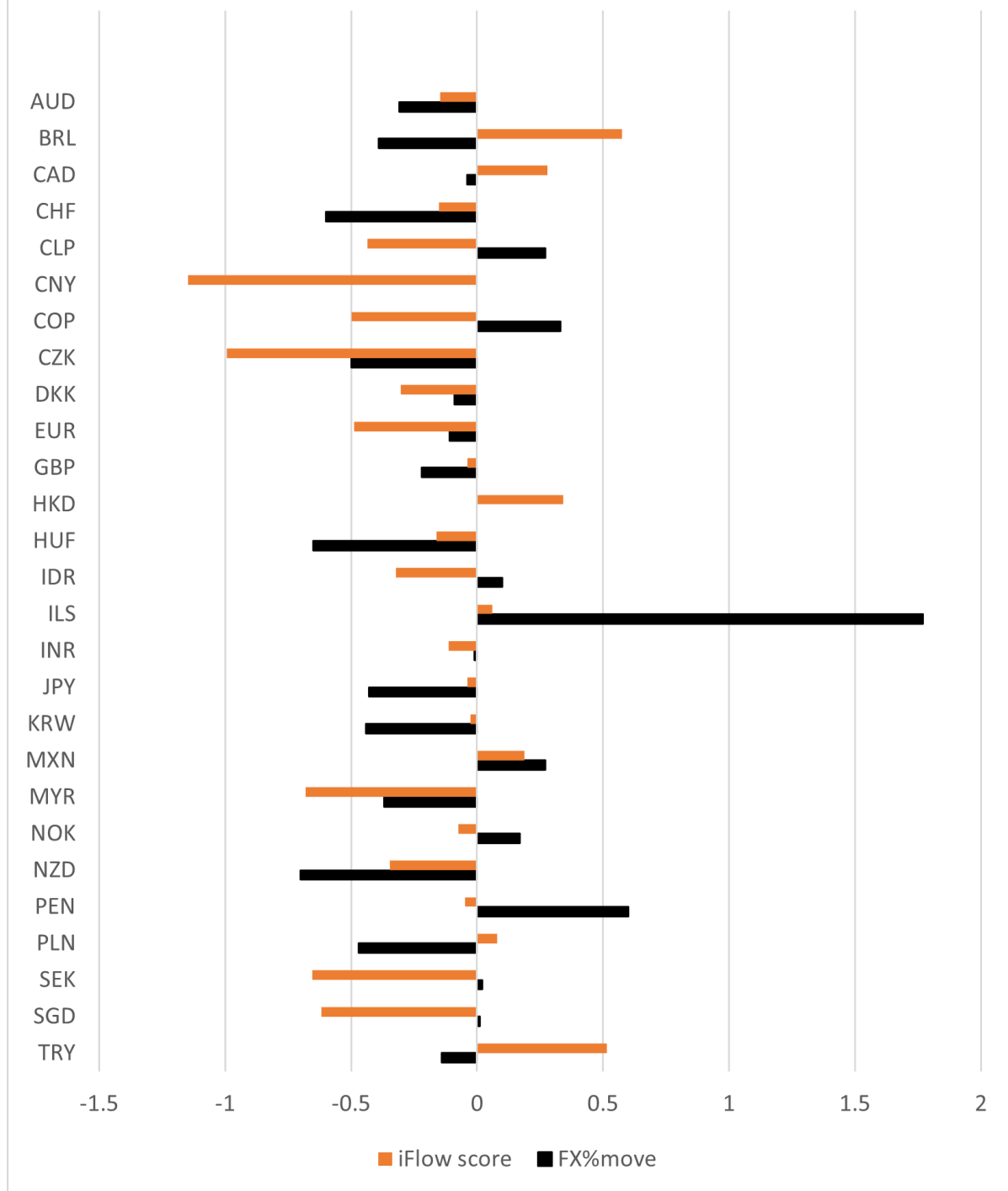
US equity markets set new record highs and closed lower on week



- **In FX**, the USD rallied 0.15% on the week to 104.28 on the narrow index with ILS, PEN, ZAR the leaders but LATAM overall doing well except BRL. The biggest losers were NZD, HUF, PLN, CZK and CHF. There was a divergence in iFlow most notable in BRL, COP, and TRY.

FX markets and iFlow small divergences

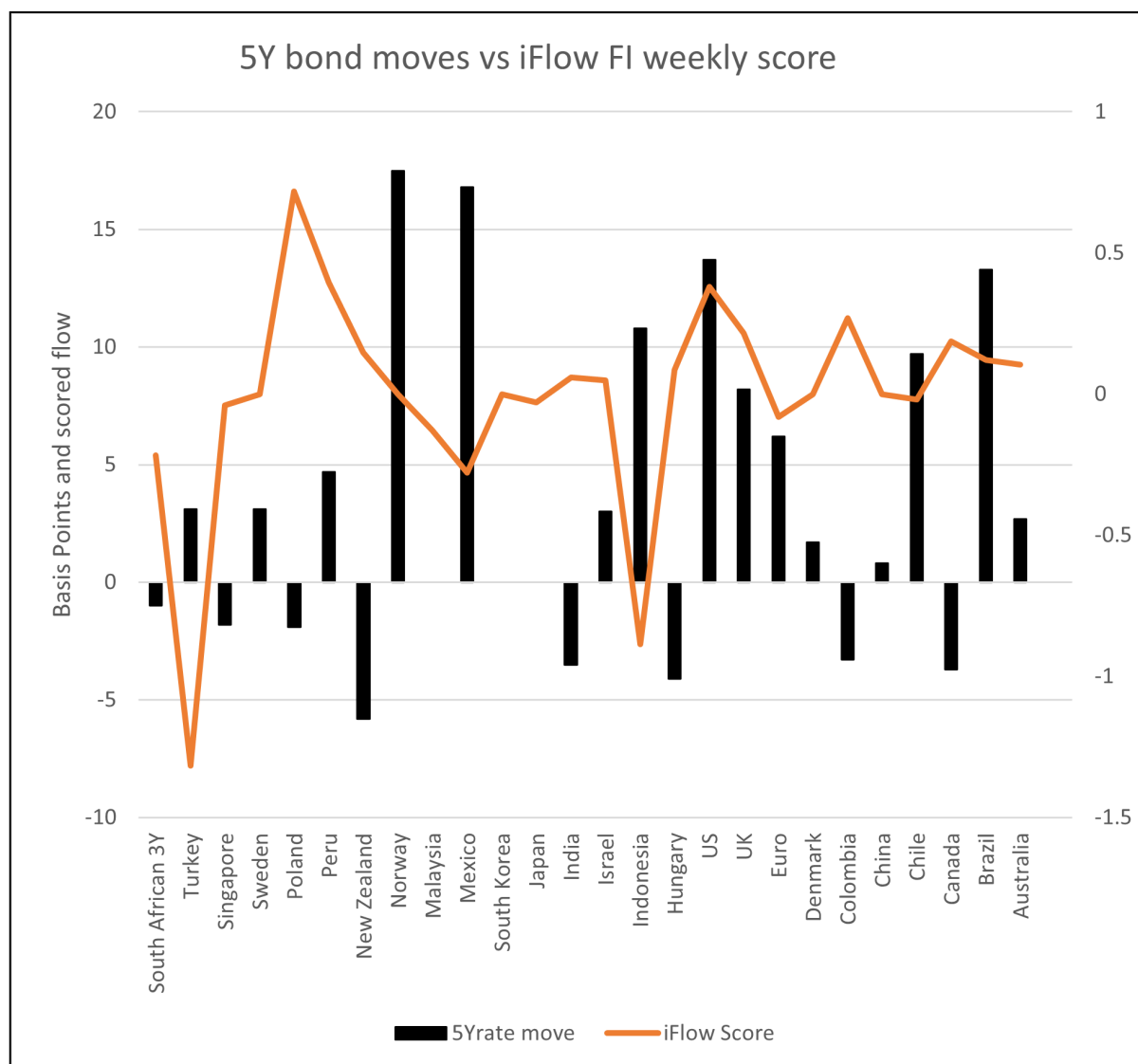
FX weekly moves and iFlow Score Feb 9-Feb 15



Source: Bloomberg, iFlow, BNY Mellon

- In Fixed Income**, the US markets cut back FOMC rate cut expectations by over 80bps with 10% expectation for easing in March, 80% for June and just 80bps for the entire 2024 year down from 150bps just 3 weeks ago. The US curve bear flattened with 2/10Y -36bps. Rates globally moved higher. Globally, moves in Norway, Singapore and Germany tracked the US moves while Switzerland, New Zealand, and Canada had lower rates. iFlow saw notable divergence from markets in Turkey and Indonesia.

US Bond	High	Low	Current	% from Low	2w Change
30Y	5.35	0.99	4.44	3.45	0.11
20Y	5.44	0.87	4.56	3.69	0.11
10Y	5.26	0.52	4.28	3.76	0.16
5Y	5.18	0.19	4.27	4.08	0.22
2Y	5.22	0.09	4.64	4.55	0.25
3M	5.63	0	5.37	5.37	0.15
FFR	5.41	0.04	5.32	5.28	0.00



Source: Bloomberg, iFlow, BNY Mellon

News Agenda and Weekly Themes – FOMC Minutes, Global Flash PMIs, German IFO, China PBOC

Next week, investors' attention will turn to the FOMC minutes release, with traders scrutinizing any insights on when the Federal Reserve will start cutting interest rates.

Simultaneously, the flash S&P Global US PMIs will offer an assessment of this month's economic performance. Beyond the US, attention will extend to flash PMIs for the Eurozone, Germany, France, UK, Japan and India. The Ifo Business Climate indicator in Germany, Indonesia, Korea and Turkey's interest rate decisions, and Canada's inflation rate will also be in the spotlight.

1. Global recovery – flash PMIs to confirm better 1Q? Emerging markets outside China, notably India and the Middle East, are strong and the U.S. PMI likely remains in expansionary territory after reaching six-month highs in January. While in contraction territory, the January euro zone PMI hit six-month highs and the bloc avoided a recession late last year, the latest GDP data suggests. German Q4 GDP data and the Ifo sentiment index are out Friday. Note, German business morale brightened last month.

Global flash PMIs are likely key for growth hopes in 1Q

Global business activity on recovery path

Composite Flash Purchasing Managers' Index (PMI) across major economies. **Expansion** > 50 > **Contraction**

Last 12 months	Feb. 2023	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan. 2024
Australia	49	48	52	51.2	51	48	47	50	47	46	47	48
Euro zone	52	54	54	53.3	50	49	47	47	47	47	47	48
France	52	54	54	51.4	47	47	47	44	45	45	44	44
Germany	51	53	54	53.9	51	49	45	46	46	48	47	47
UK	53	52	54	53.9	53	51	48	47	49	50	52	53
U.S.	50	53	54	54.5	53	52	50	50	51	51	51	52
Japan	51	53	53	54.3	52	52	53	52	50	50	50	51

Source: Refinitiv Datastream | Reuters, Feb.15, 2024 | By Vineet Sachdev

Source: Bloomberg, BNY Mellon

2. China and the return from holidays – Markets in China return from the week-long Lunar New Year holiday on Monday, and investors are looking out for what Beijing does next to shore up its battered stock market. Ahead of the holidays, authorities scrambled to pull out all the stops to stem losses in mainland shares that had cratered to five-year lows which included appointing a new head of the country's market regulator, nicknamed the "broker butcher" for his tough stance on containing risks. The week also brings a decision from the People's Bank of China on its benchmark lending rates, though persistent headwinds for the yuan could limit the scope for any monetary easing. Home prices, meanwhile, land on Friday, which will show just how deep is the downturn in the beleaguered property sector.

China shares have become a key barometer for Beijing

China's cratering stock markets

Investors are keenly awaiting what Chinese authorities will do next to shore up the country's battered stocks after the extended Lunar New Year break.



Note: Data through Feb. 8, 2024.

Source: LSEG Datastream | Reuters, Feb. 15, 2024 | By Kripa Jayaram

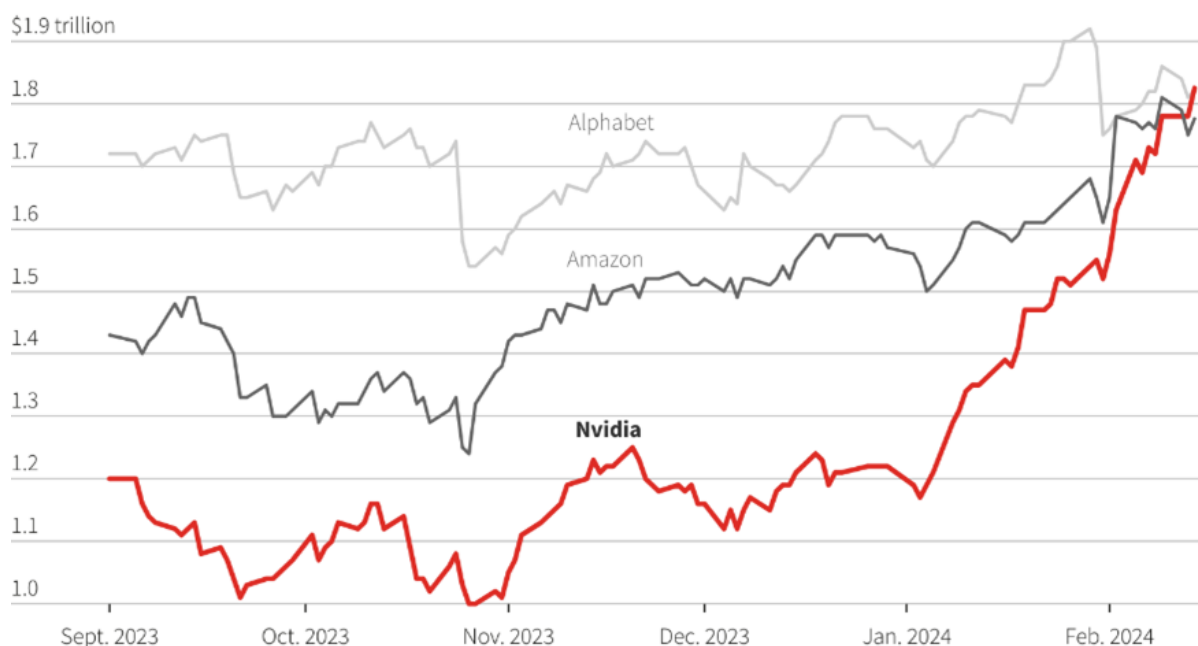
Source: Reuters, BNY Mellon

3. US AI vs. everything else. While stunning gains of the so-called Magnificent Seven have been the story of the U.S. stock market over the past year, one of those megacap tech and growth stocks has been the main character: Nvidia (NVDA.O), opens new tab, and it reports quarterly results on Feb. 21. Now the third most valuable company on Wall Street after Apple and Microsoft, Nvidia has also become a bellwether for the artificial intelligence industry. Other AI-focused stocks have surged this year, including Super Micro Computer Inc, which is up 182% year-to-date, and Arm Holdings , up nearly 71%. After its stock more than tripled in 2023, the chipmaker at the center of the excitement over AI has seen its shares soar another roughly 50% so far this year. Such mammoth stock gains stand to raise the bar for its results, which the company reports after the U.S. market closes on Wednesday. And any disappointment potentially has a broad market fallout given Nvidia's growing heft in major indexes and importance to the outlook for AI's financial promise.

AI dominance in 2024 has bubble qualities

Nvidia surpasses Alphabet after overtaking Amazon

The company's market value has risen over 80% since hitting \$1 trillion in June, buoyed by optimism over AI. Nvidia's data centers, which produce graphic processing units for AI, account for over half of the firm's revenues.



Note: Latest share price data as of market closing of Feb. 14.

Source: LSEG Datastream | Reuters, Feb. 14, 2024

Source: Reuters, BNY Mellon

Economic Data and Events Calendar:

Central Bank Decisions

- **Indonesia BI (Wed, Feb 21)** – We see Bank Indonesia maintaining the status quo at 6.0% and continuing to focus on FX stabilisation. Also of note is the potential shift away from triple intervention strategy (in spot, DNDF and government bonds), which was re-enacted since October 2023 when BI surprised the market with a +25bp rate hike. Markets expect Bank Indonesia to cut as soon as Q3 before reaching 5.25% at the end of 2024. We don't see BI being in a rush into such steps considering the highly uncertain inflation profile. A strong IDR environment is needed, in our opinion, to generate a shift from their current neutral stance. Key metrics to watch are GDP 4.7-5.5%, current account -0.1%/-0.9%, inflation 2.5% and credit growth 10-12%.
- **Korea BoK (Thu. Feb 22)** – We expect BoK to maintain the status quo at 3.5%. All eyes will be on the latest macro forecast, where we see the risk of upside adjustment to inflation and growth expectations. BoK turned neutral in January 2024 by removing “regarding the need to raise the base rate further” in the forward-looking paragraph. However, they will likely “maintain a restrictive policy for a sufficiently long period of time” to prevent excessive pricing of

policy reversal. To-date, economists' consensus is for BoK rates to reach 2.85% by the end of 2024, while market is slightly less dovish to pricing for a status quo in the coming twelve months.

- **Turkey TCMB (Thu, Feb 22)** – For now, the unexpected change in the central bank's leadership has not generated expectations of changes to current policy continuity, even though TCMB is now expected to pause rate hikes. Nonetheless, keeping one-week repo rate at 45% after nearly 40pp in rate hikes may still not be sufficient to anchor inflation expectations as by this measure real rates are still deeply negative – inflation continues to run at mid-to high single digits on a monthly basis (January CPI was 6.7%/m/m). The market will also expect administrative and regulatory-based tightening steps as complementary measures are needed if TCMB wishes to shift away from rates-based measures to combat inflation. Communication from new Governor Karahan will be closely followed and we expect strong assertions of policy credibility and continuity.

Key data/releases

Date	GMT	EST	Country	Event	Period	Cons.	Prior
02/18/24	23:50	18:50	JN	Core Machine Orders MoM	Dec	2.70%	-4.90%
02/19/24	07:00	02:00	SW	CPI MoM	Jan	-0.40%	0.70%
02/19/24	07:00	02:00	SW	CPI YoY	Jan	5.10%	4.40%
02/19/24	07:00	02:00	SW	CPI Level	Jan	411.85	413.34
02/20/24	09:00	04:00	PD	Sold Industrial Output YoY	Jan	3.10%	-3.90%
02/20/24	09:00	04:00	PD	PPI YoY	Jan	-8.30%	-6.40%
02/20/24	13:30	08:30	CA	CPI NSA MoM	Jan	0.40%	-0.30%
02/20/24	13:30	08:30	CA	CPI YoY	Jan	3.20%	3.40%
02/21/24	07:20	02:20	ID	BI-Rate	Feb-21	6.00%	6.00%
02/21/24	08:00	03:00	SA	CPI YoY	Jan	5.40%	5.10%
02/21/24	12:00	07:00	US	MBA Mortgage Applications	Feb-16	--	-2.30%
02/21/24	21:45	16:45	NZ	Trade Balance NZD	Jan	--	-323m
02/22/24	00:30	19:30*	JN	Jibun Bank Japan PMI Mfg	Feb P	--	48
02/22/24			SK	BOK Base Rate	Feb-22	3.50%	3.50%
02/22/24	08:30	03:30	GE	HCOB Germany Manufacturing PMI	Feb P	46	45.5
02/22/24	09:00	04:00	EC	HCOB Eurozone Manufacturing PMI	Feb P	47	46.6
02/22/24	09:30	04:30	UK	S&P Global UK Manufacturing PMI	Feb P	47.5	47
02/22/24	10:00	05:00	EC	CPI YoY	Jan F	2.80%	2.80%
02/22/24	10:00	05:00	EC	CPI MoM	Jan F	-0.40%	-0.40%
02/22/24	11:00	06:00	TU	One-Week Repo Rate	Feb-22	45.00%	45.00%
02/22/24	13:30	08:30	US	Initial Jobless Claims	Feb-17	218k	212k
02/22/24	14:45	09:45	US	S&P Global US Manufacturing PMI	Feb P	50.5	50.7
02/22/24	15:00	10:00	US	Existing Home Sales	Jan	3.97m	3.78m
02/23/24	09:00	04:00	GE	IFO Business Climate	Feb	85.5	85.2

Key events

Date	GMT	EST	Country	Event
02/20/24	00:30	19:30*	AU	RBA Minutes of Feb. Policy Meeting
02/20/24	08:45	03:45	SW	Riksbank's Floden speaks at MSCI event in Stockholm
02/20/24	10:00	05:00	EC	ECB Publishes Euro-Area Indicator of Negotiated Wage Rates
02/20/24	10:15	05:15	UK	BOE Governor Andrew Bailey in House of Commons
02/20/24	11:00	06:00	SW	Riksbank's Breman speaks at Stockholm Chamber of Commerce event
02/20/24	16:55	11:55	SW	Riksbank's Thedeen speaks at Swedbank event in Stockholm
02/21/24	13:00	08:00	US	Fed's Bostic Gives Welcoming Remarks
02/21/24	14:00	09:00	UK	BOE's Dhingra speaks
02/21/24	19:00	14:00	US	FOMC Meeting Minutes
02/22/24	06:30	01:30	UK	BOE's Megan Green speaks
02/22/24	09:00	04:00	NO	Norges Bank 1Q Expectations Survey
02/22/24	12:30	07:30	EC	ECB Publishes Account of January Meeting
02/22/24	15:00	10:00	MX	Central Bank Monetary Policy Minutes
02/22/24	15:00	10:00	US	Fed's Jefferson to Give Speech, Q&A
02/22/24	18:00	13:00	US	Fed's Bowman Speaks to Exchequer Club in Washington
02/22/24	19:00	14:00	US	Fed's Harker Speaks on Economic Outlook
02/22/24	22:00	17:00	US	Fed's Cook Speaks at Macrofinance Conference
02/22/24	22:00	17:00	US	Fed's Kashkari Participates in Panel Discussion on Outlook
02/23/24	00:35	19:35*	US	Fed's Waller Speaks on Economic Outlook
02/23/24	07:30	02:30	UK	BOE's Megan Greene speaks
02/23/24	08:30	03:30	SZ	SNB's Schlegel Speaks on Payment Methods in Zurich
02/23/24	09:00	04:00	NO	Norges Bank Deputy Governor Longva Receives Watch Report
02/23/24	09:20	04:20	EC	ECB's Schnabel in Milan
02/23/24	10:00	05:00	EC	Bundesbank's Nagel Speaks at Presentation of 2023 Results
02/23/24	13:00	08:00	EC	ECB's Schnabel Speaks

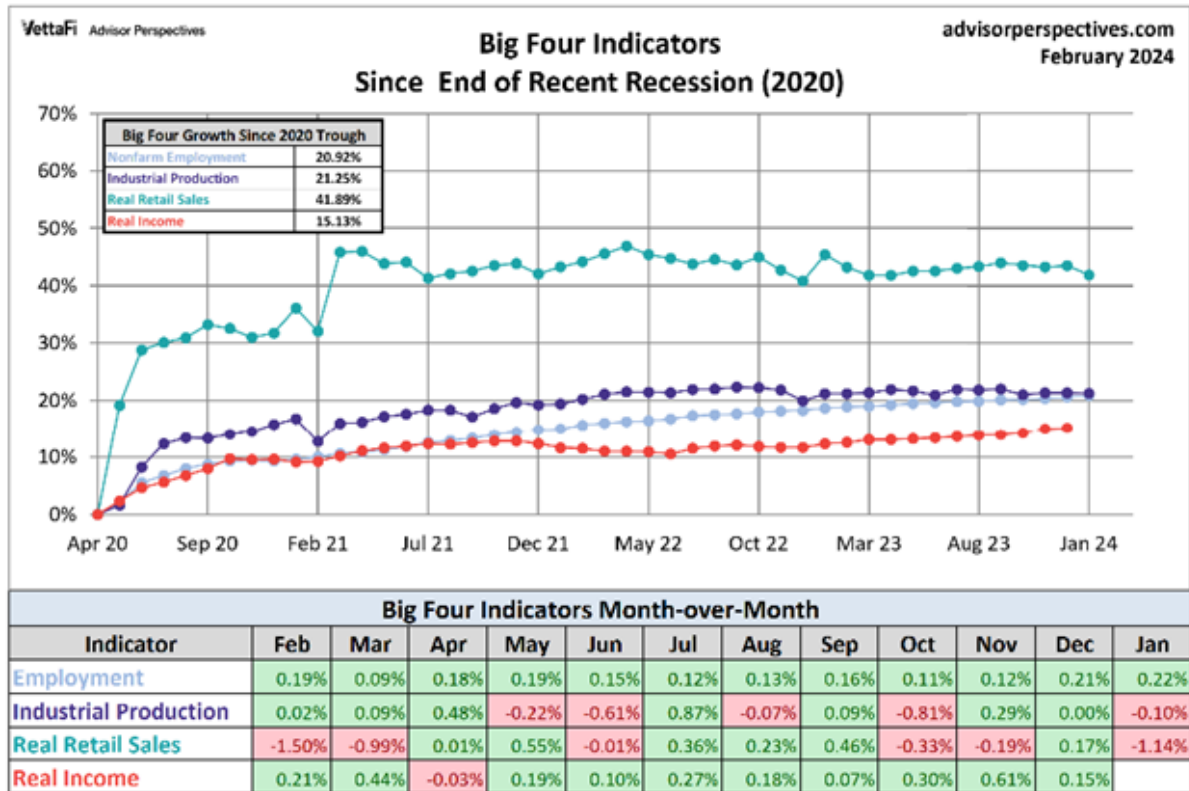
Conclusions: Is the difference between soft-landing and hard-landing in the timing of FOMC easing?

The markets have swung between good news being good and bad in 2024. The FOMC policy pivot remains in play for the year but the sticky inflation data of this last week put into question for some whether there was any urgency in the Fed cutting ahead, nor logic. The risk of higher for longer rates returns to casting some doubt about future growth into 2025. There is risk in the US economy being weaker than the current market prices. There is a disconnect between “economic surprise” indexes and the actual big four data points that the economic community and FOMC use to game the state of the US growth. The NowCast tools have potentially overshot 1Q with the 4% talk back to 2.5% and likely moving lower post the weaker US retail sales and US housing starts. There is noise also in the US exports and US inventories as the global disruptions from the Red Sea are likely to matter in the later part of the quarter. As the markets try and figure out what matters in the week ahead, the biggest risk remains around jobs and the weekly claims which were again troubling last week given the sharp gain in continuing claims at odds with the headline drop in initial claims. The focus on Real Income from PCE later in the month should be keen and given the higher CPI, real incomes for consumers is likely lower – making this the first time since the quick pandemic recession that 3 of the 4 indicators are negative.

Bottom Line: The last week was a breakout for fixed income risks again. The move of the market in February to reflect the FOMC warnings on higher for longer leaves

little room for error in stocks and trouble for those betting against the dollar. The current market could see some further volatility bleed from bonds to FX markets given the threats of intervention from Japan, the return of China and the ongoing confusion in geopolitics given the rise of Russian ambitions in Europe and the risk of further escalation in the Middle East.

US growth expectations are uneven in 1Q



Indicator	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Employment	0.19%	0.09%	0.18%	0.19%	0.15%	0.12%	0.13%	0.16%	0.11%	0.12%	0.21%	0.22%
Industrial Production	0.02%	0.09%	0.48%	-0.22%	-0.61%	0.87%	-0.07%	0.09%	-0.81%	0.29%	0.00%	-0.10%
Real Retail Sales	-1.50%	-0.99%	0.01%	0.55%	-0.01%	0.36%	0.23%	0.46%	-0.33%	-0.19%	0.17%	-1.14%
Real Income	0.21%	0.44%	-0.03%	0.19%	0.10%	0.27%	0.18%	0.07%	0.30%	0.61%	0.15%	

Employment is released the first week of the month, Income the last week, Industrial Production and Sales mid-month.

Source: Advisor Perspectives, BNY Mellon

Please direct questions or comments to: iFlow@BNYMellon.com



Bob Savage
 HEAD OF MARKETS STRATEGY
 AND INSIGHTS

CONTACT BOB



bnymellon.com

BNY Mellon is the corporate brand of The Bank of New York Mellon Corporation and may be used as a generic term to reference the corporation as a whole and/or its various subsidiaries generally. This material and any products and services may be issued or provided under various brand names in various countries by duly authorized and regulated subsidiaries, affiliates, and joint ventures of BNY Mellon, which may include any of the following. The Bank of New York Mellon, at 225 Liberty St, NY, NY USA, 10286, a banking corporation organized pursuant to the laws of the State of New York, and operating in England through its branch at One Canada Square, London E14 5AL, UK, registered in England and Wales with numbers FC005522 and BR000818. The Bank of New York Mellon is supervised and regulated by the New York State Department of Financial Services and the US Federal Reserve and authorized by the Prudential Regulation Authority. The Bank of New York Mellon, London Branch is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request. The Bank of New York Mellon SA/NV, a Belgian public limited liability company, with company number 0806.743.159, whose registered office is at 46 Rue Montoyerstraat, B-1000 Brussels, Belgium, authorized and regulated as a significant credit institution by the European Central Bank (ECB), under the prudential supervision of the National Bank of Belgium (NBB) and under the supervision of the Belgian Financial Services and Markets Authority (FSMA) for conduct of business rules, and a subsidiary of The Bank of New York Mellon. The Bank of New York Mellon SA/NV operates in England through its branch at 160 Queen Victoria Street, London EC4V 4LA, UK, registered in England and Wales with numbers FC029379 and BR014361. The Bank of New York Mellon SA/NV (London Branch) is authorized by the ECB and subject to limited regulation by the Financial Conduct Authority and the Prudential Regulation Authority. Details about the extent of our regulation by the Financial Conduct Authority and Prudential Regulation Authority are available from us on request. The Bank of New York Mellon SA/NV operating in Ireland through its branch at 4th Floor Hanover Building, Windmill Lane, Dublin 2, Ireland trading as The Bank of New York Mellon SA/NV, Dublin Branch, is authorised by the ECB and is registered with the Companies Registration Office in Ireland No. 907126 & with VAT No. IE 9578054E. The Bank of New York Mellon, Singapore Branch, subject to regulation by the Monetary Authority of Singapore. The Bank of New York Mellon, Hong Kong Branch, subject to regulation by the Hong Kong Monetary Authority and the Securities & Futures Commission of Hong Kong. If this material is distributed in Japan, it is distributed by The Bank of New York Mellon Securities Company Japan Ltd, as intermediary for The Bank of New York Mellon. If this material is distributed in, or from, the Dubai International Financial Centre ("DIFC"), it is communicated by The Bank of New York Mellon, DIFC Branch, regulated by the DFSA and located at DIFC, The Exchange Building 5 North, Level 6, Room 601, P.O. Box 506723, Dubai, UAE, on behalf of The Bank of New York Mellon, which is a wholly-owned subsidiary of The Bank of New York Mellon Corporation. This material is intended for Professional Clients only and no other person should act upon it. Not all products and services are offered in all countries.

The information contained in this material is intended for use by wholesale/professional clients or the equivalent only and is not intended for use by retail clients. If distributed in the UK, this material is a financial promotion.

This material, which may be considered advertising, is for general information purposes only and is not intended to provide legal, tax, accounting, investment, financial or other professional advice on any matter. This material does not constitute a recommendation by BNY Mellon of any kind. Use of our products and services is subject to various regulations and regulatory oversight. You should discuss this material with appropriate advisors in the context of your circumstances before acting in any manner on this material or agreeing to use any of the referenced products or services and make your own independent assessment (based on such advice) as to whether the referenced products or services are appropriate or suitable for you. This material may not be comprehensive or up to date and there is no undertaking as to the accuracy, timeliness, completeness or fitness for a particular purpose of information given. BNY Mellon will not be responsible for updating any information contained within this material and opinions and information contained herein are subject to change without notice. BNY Mellon assumes no direct or consequential liability for any errors in or reliance upon this material.

This material may not be distributed or used for the purpose of providing any referenced products or services or making any offers or solicitations in any jurisdiction or in any circumstances in which such products, services, offers or solicitations are unlawful or not authorized, or where there would be, by virtue of such distribution, new or additional registration requirements.

The terms of any products or services provided by BNY Mellon to a client, including without limitation any administrative, valuation, trade execution or other services shall be solely determined by the definitive agreement relating to such products or services. Any products or services provided by BNY Mellon shall not be deemed to have been provided as fiduciary or adviser except as expressly provided in such definitive agreement. BNY Mellon may enter into a foreign exchange transaction, derivative transaction or collateral arrangement as a counterparty to a client, and its rights as counterparty or secured party under the applicable transactional agreement or collateral arrangement shall take precedence over any obligation it may have as fiduciary or adviser or as service provider under any other agreement.

Pursuant to Title VII of The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and the applicable rules thereunder, The Bank of New York Mellon is provisionally registered as a swap dealer with the Commodity Futures Trading Commission ("CFTC") and is a swap dealer member of the National Futures Association (NFA ID 0420990).

BNY Mellon (including its broker-dealer affiliates) may have long or short positions in any currency, derivative or instrument discussed herein. BNY Mellon has included data in this material from information generally available to the public from sources believed to be reliable. Any price or other data used for illustrative purposes may not reflect actual current conditions. No representations or warranties are made, and BNY Mellon assumes no liability, as to the suitability of any products and services described herein for any particular purpose or the accuracy or completeness of any information or data contained in this material. Price and other data are subject to change at any time without notice.

Rates: neither BNY Mellon nor any other third party provider shall be liable for any errors in or delays in providing or making available the data (including rates, WM/Reuters Intra-Day Spot Rates and WM/Reuters Intra-Day Forward Rates) contained within this service or for any actions taken in reliance on the same, except to the extent that the same is directly caused by its or its employees' negligence. The WM/Reuters Intra-Day Spot Rates and WM/Reuters Intra-Day Forward Rates are provided by The World Markets Company plc ("WM") in conjunction with Reuters. WM shall not be liable for any errors in or delays in providing or making available the data contained within this service or for any actions taken in reliance on the same, except to the extent that the same is directly caused by its or its employees' negligence.

The products and services described herein may contain or include certain "forecast" statements that may reflect possible future events based on current expectations. Forecast statements are neither historical facts nor assurances of future performance. Forecast statements typically include, and are not limited to, words such as "anticipate", "believe", "estimate", "expect", "future", "intend", "likely", "may", "plan", "project", "should", "will", or other similar terminology and should NOT be relied upon as accurate indications of future performance or events. Because forecast statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict. iFlow® is a registered trademark of The Bank of New York Mellon Corporation under the laws of the United States of America and other countries.

This document is intended for private circulation. Persons accessing, or reading, this material are required to inform themselves about and to observe any restrictions that apply to the distribution of this information in their jurisdiction.

Currency Administration is provided under and subject to the terms of a definitive agreement between BNY Mellon and the client. BNY Mellon exercises no investment discretion thereunder, but acts solely pursuant to the instructions in such agreement or otherwise provided by the client. Unless provided by definitive agreement, BNY Mellon is not an agent or fiduciary thereunder, and acts solely as principal in connection with related foreign exchange transactions.

All references to dollars are in US dollars unless specified otherwise.

This material may not be reproduced or disseminated in any form without the prior written permission of BNY Mellon. Trademarks, logos and other intellectual property marks belong to their respective owners.

The Bank of New York Mellon, member FDIC.

© 2020 The Bank of New York Mellon Corporation. All rights reserved.