STATE STREET.

Resilience
Exceptionalism &
Demographics

August 2023

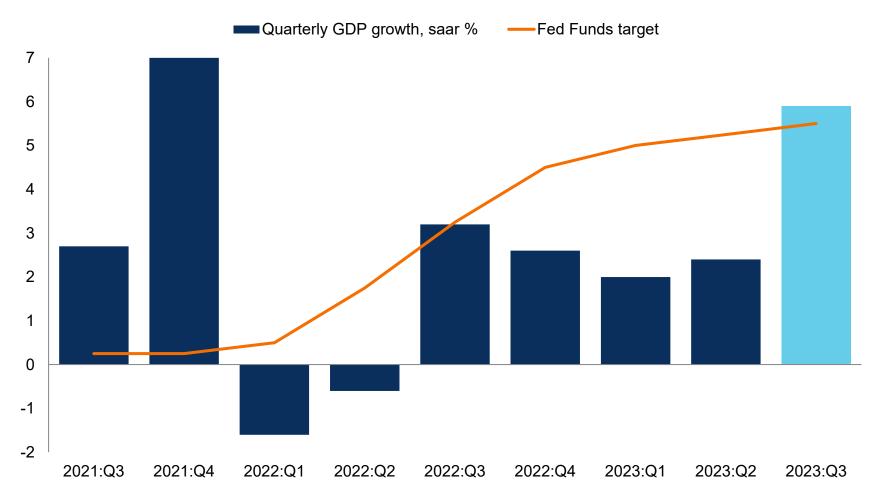
Lee Ferridge
Head of Multi-Asset Strategy, The Americas
Isferridge@statestreet.com

Resilience

It wasn't meant to be this way

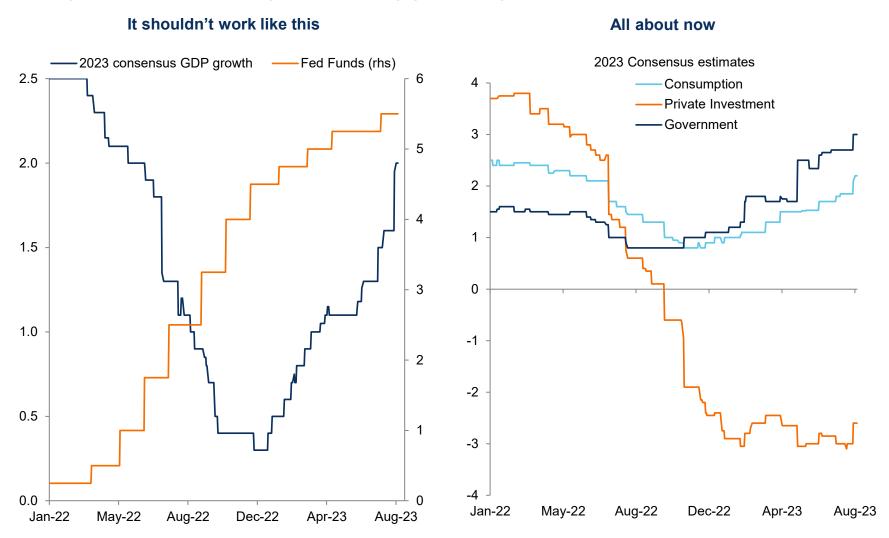
Growth is accelerating, not slowing

Not what the Fed ordered



Not your normal cycle

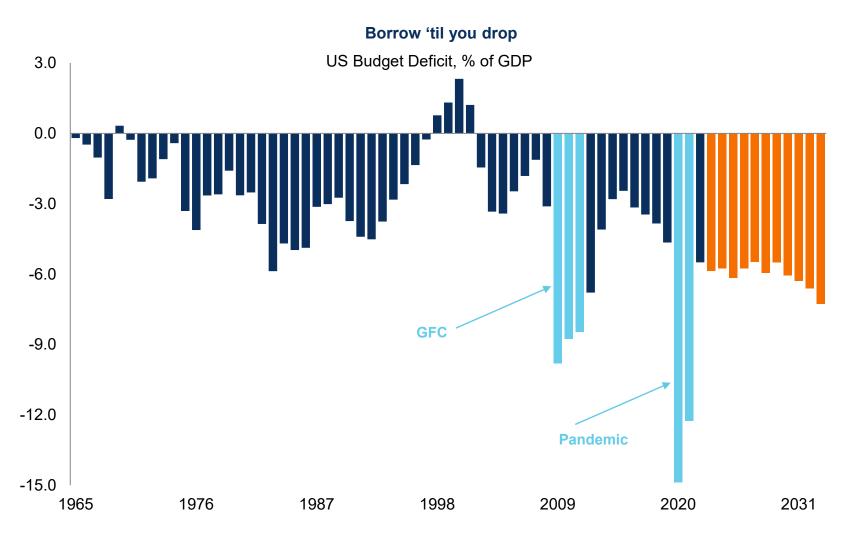
Average Joe and not average Joe leading growth higher



Source: State Street Global Markets, Liberty Street Economics, Bloomberg; data as of 8/22/23

Fiscal spending will stay supportive

Expected deficit remains significant

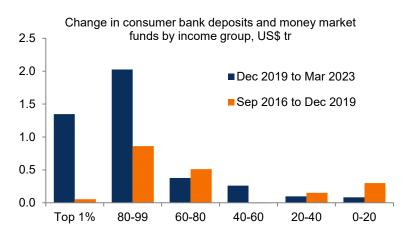


Source: State Street Global Markets, Congressional Budget Office; data as of 8/25/23

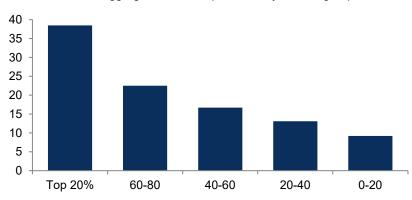
And the consumer still has cash

Pandemic savings are still being worked through

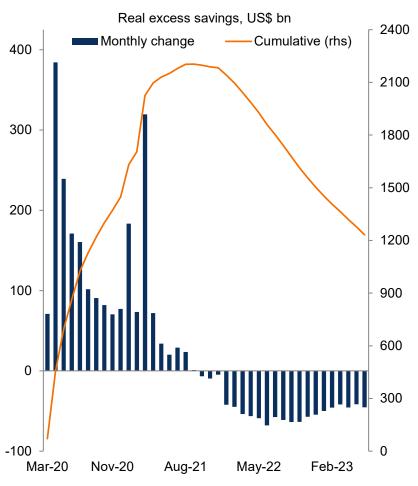
Balances are still up (some more than others)



Share of aggregate annual expenditure by income group, %



Running down, but still positive

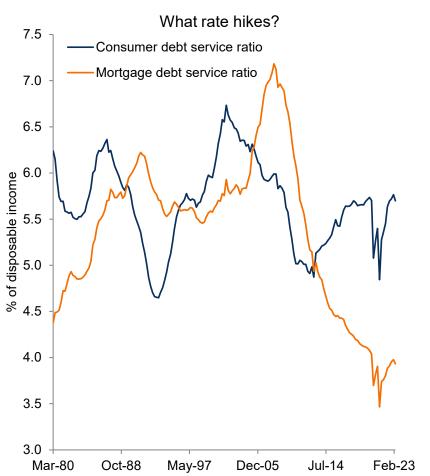


Source: State Street Global Markets, Federal Reserve, Bloomberg; data as of 8/25/23

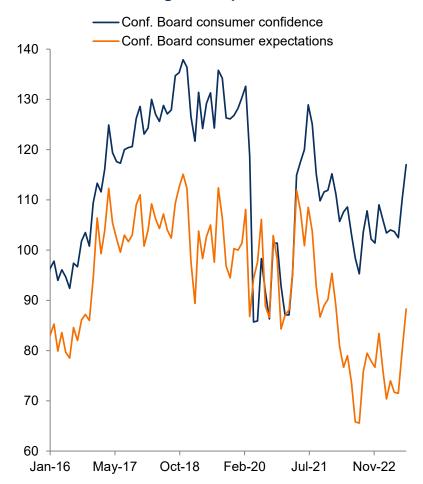
What rate hikes?

The US is a fixed rate world

Existing loan costs are largely unchanged



Feeling more optimistic

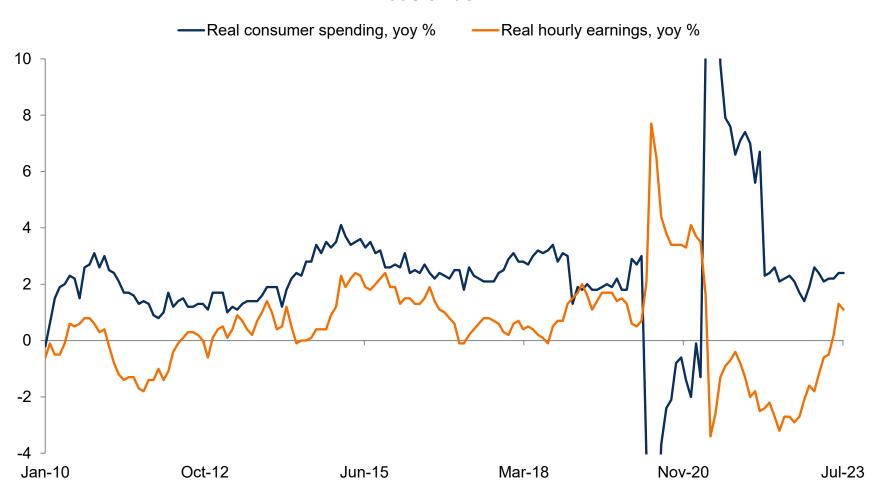


Source: State Street Global Markets, Federal Reserve, Bloomberg; data as of 8/25/23

Doing ok thanks!

Spending and earnings both rising in real terms

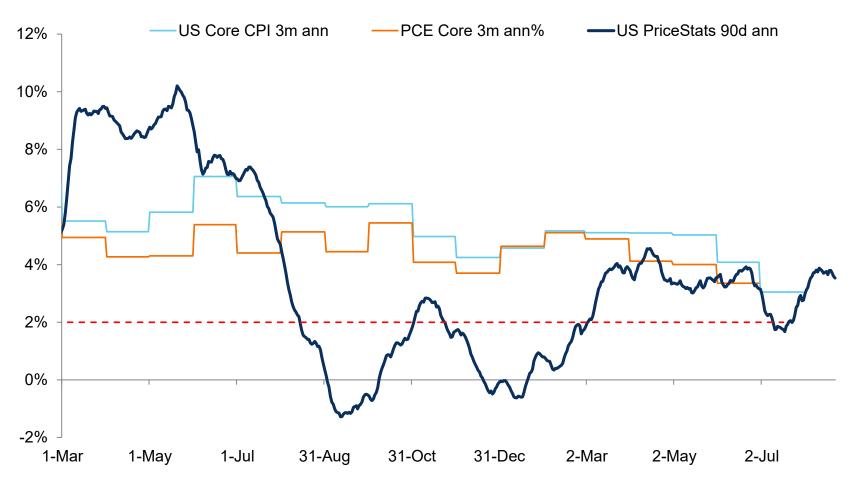
What slowdown?



The downside: price pressures proving resilient

Quarterly core trends are falling, but still too high

Still proving stubborn

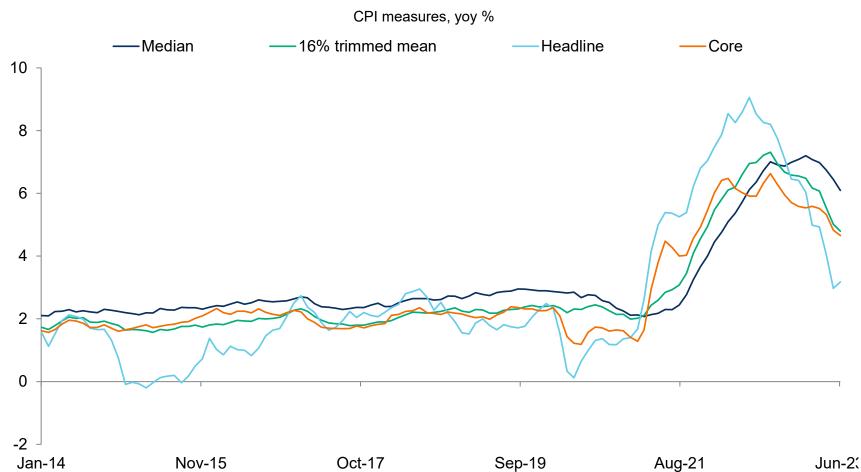




Concentration concerns

Median CPI still too high

Not enough for the Fed yet



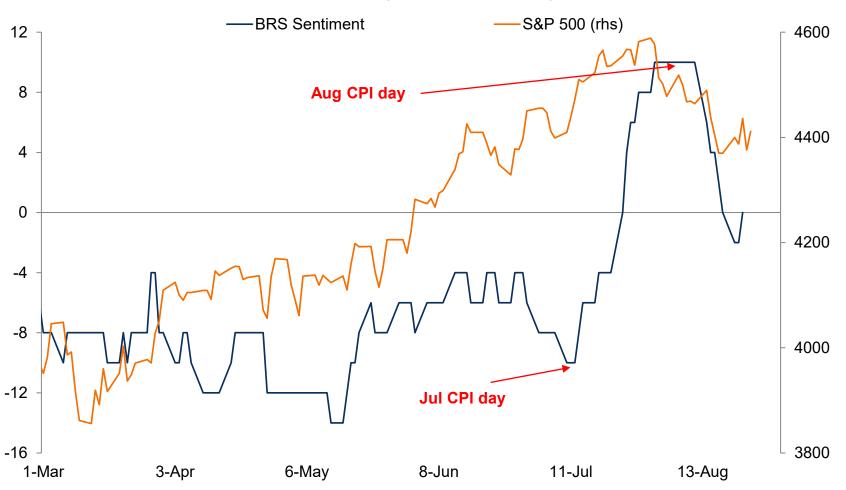
Source: State Street Global Markets, Bloomberg, PriceStats; data as of 8/25/23

STATE STREET.

So, inflation relief short-lived

Investors were convinced its over, but now unsure

Is that really the whole story?

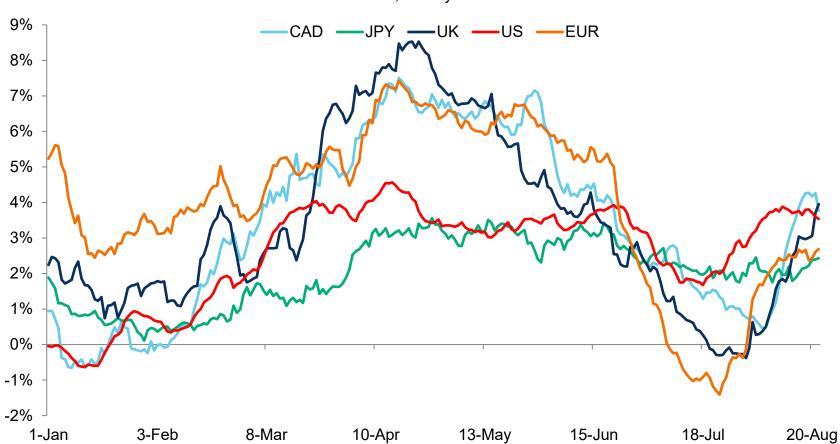


Commodity concerns

Starting to pick-up again

Too soon to sound the all clear

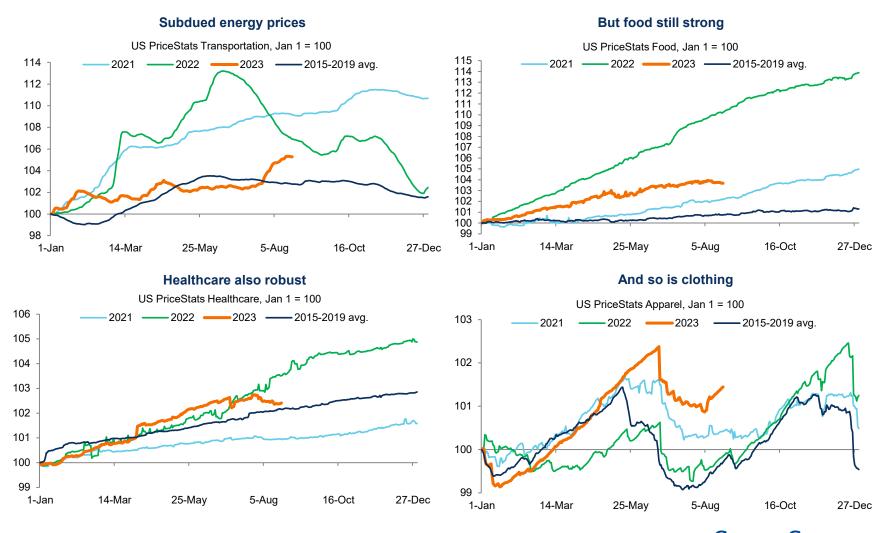
PriceStats, 90-day annualised



Source: State Street Global Markets, PriceStats; data as of 8/25/23

US a mixed bag underneath

Soft energy prices (until now), but pressures elsewhere



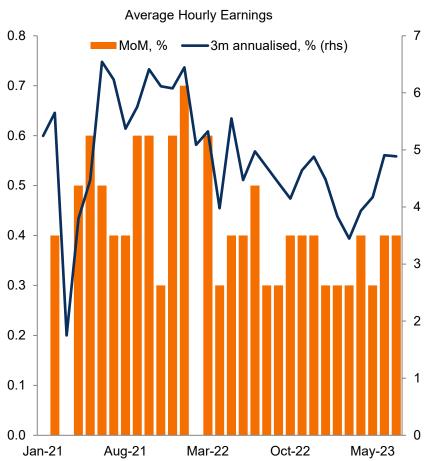
Source: State Street Global Markets, PriceStats; data as of 8/25/23

Demographics

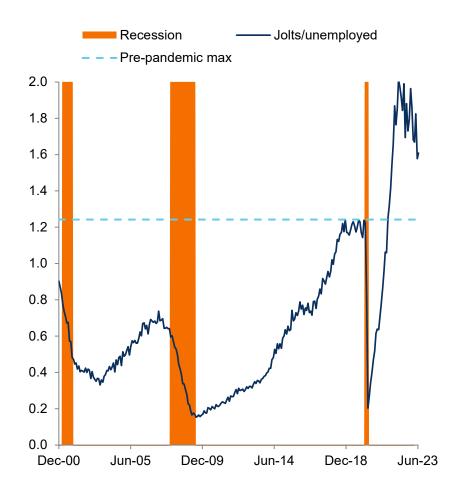
The Fed's biggest fear

Embedded

No clear slowing



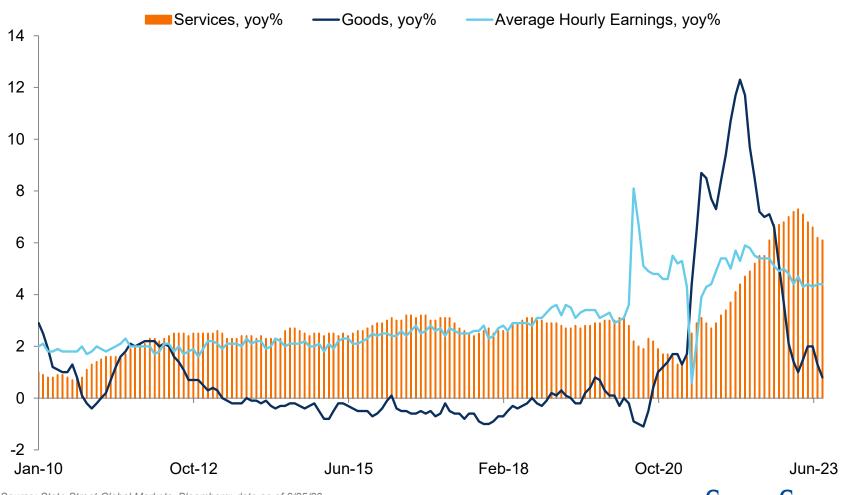
And workers still needed



The Fed's big problem

Transitory has been replaced by sticky

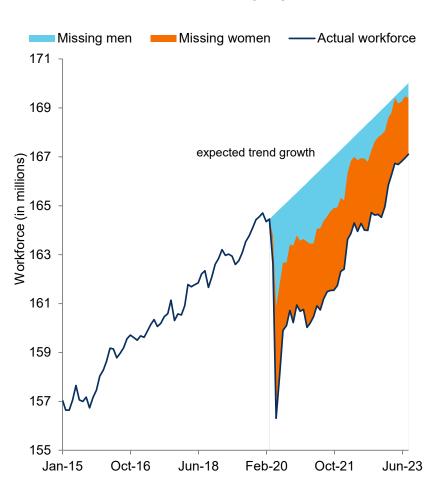
And it all comes back to wages



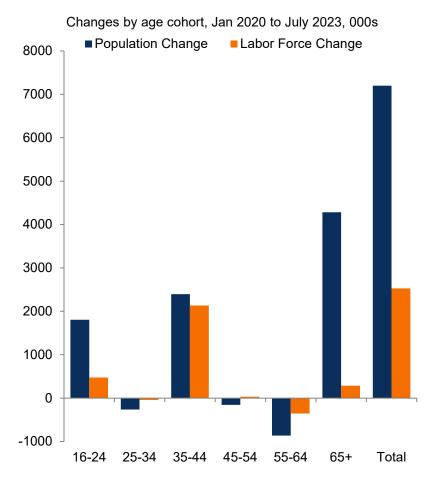
Labour market still tight

Retirements explain the lack of workers

Where are all the people?



All about retirements

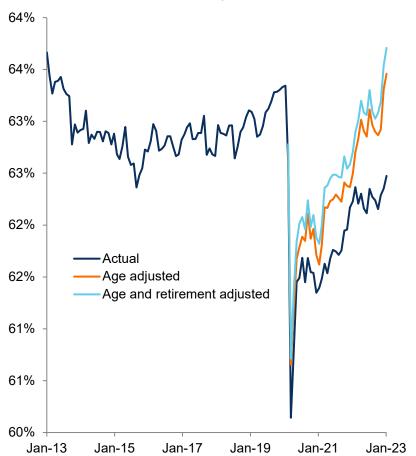


And it won't get better

Age, not fear, behind retirements

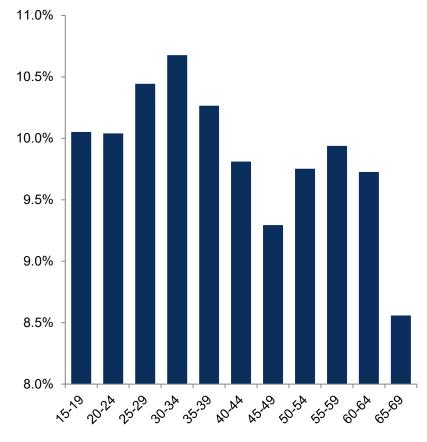
Just the normal retirement rate

Labour Force Participation Rate



Baby boomers still moving through

Share of working age population by cohort

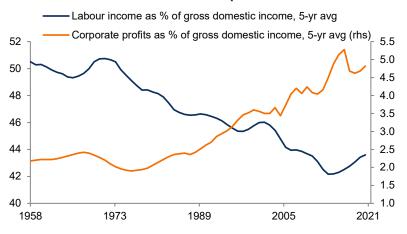


Source: State Street Global Markets, Liberty Street Economics, Bloomberg; data as of 8/25/23

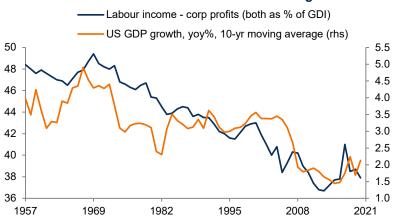
Why inflation was so low for so long?

It all comes back to the labour market

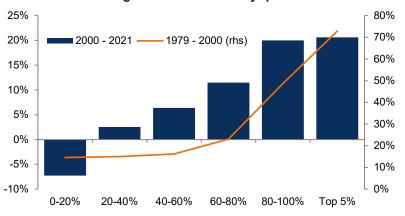
Labour's share of the spoils has fallen



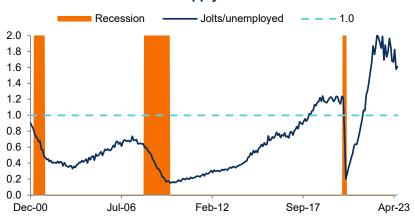
Which leads to less demand and slower growth



Change in real incomes by quintile



Over-supply of workers

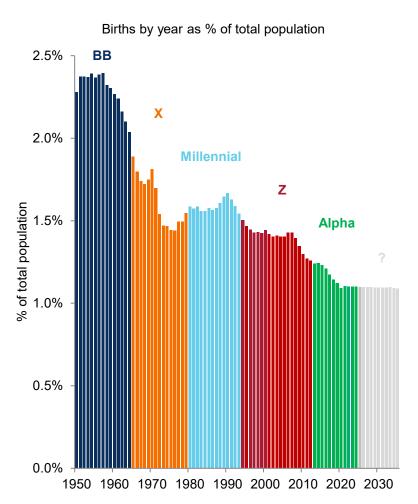


Source: State Street Global Markets, Bloomberg, US Census Bureau, St Louis Fed, data as of 8/25/23

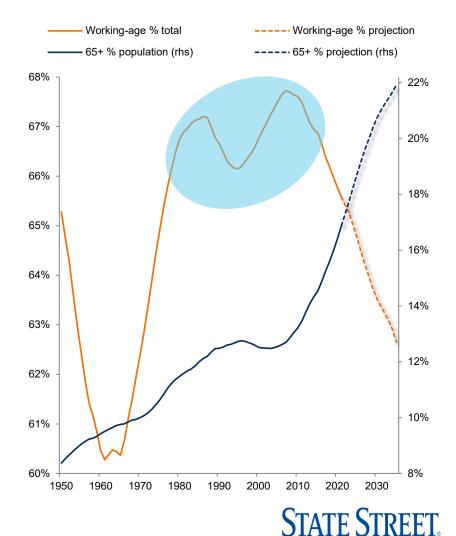
Why its now changing

Baby boomer generation is retiring

Putting it into context



Sharp trend turns



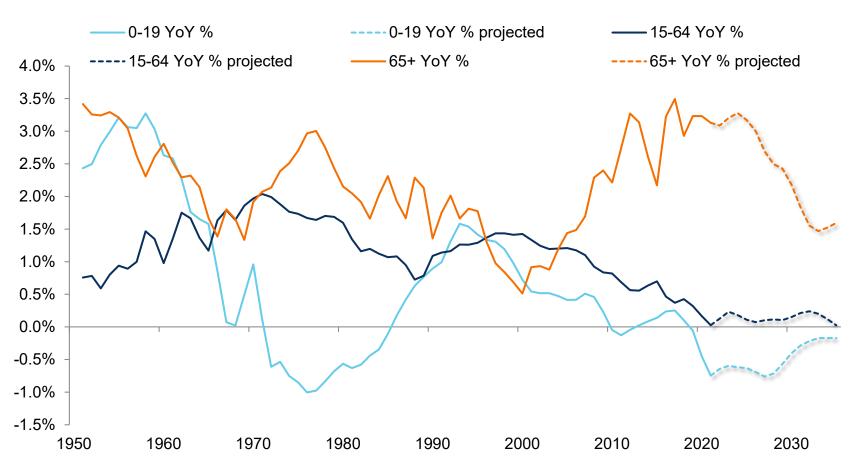
Source: State Street Global Markets, United Nations, Bloomberg; data as of 8/25/23

Its not going to get better

The easiest thing to predict

No labour force growth to come

Population growth trend by age cohort



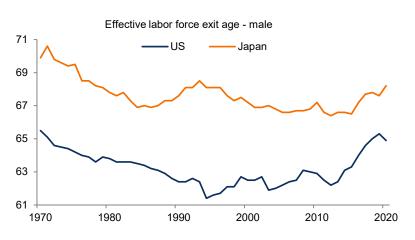
Source: State Street Global Markets, United Nations, Bloomberg; data as of 8/25/23

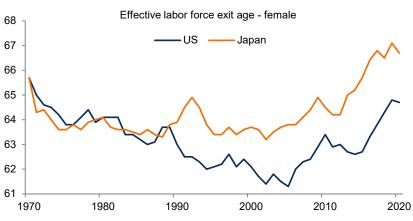
STATE STREET.

What did Japan do?

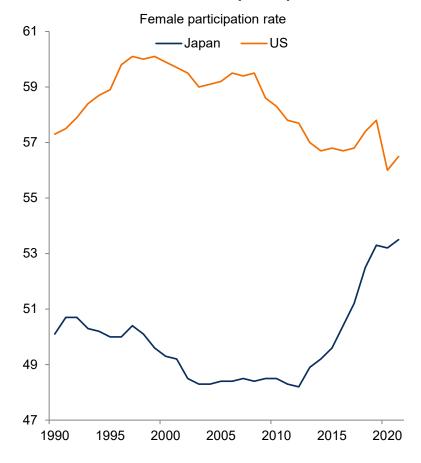
Increased female participation, working longer

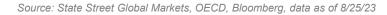
Working longer





Increased female participation

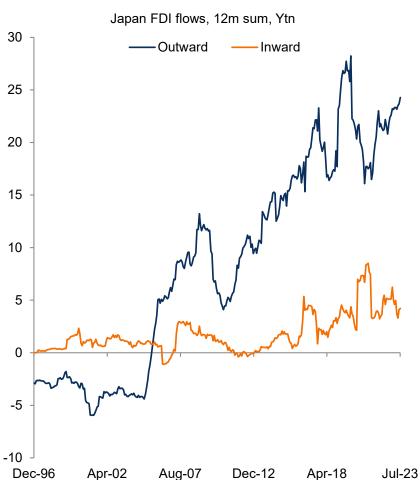




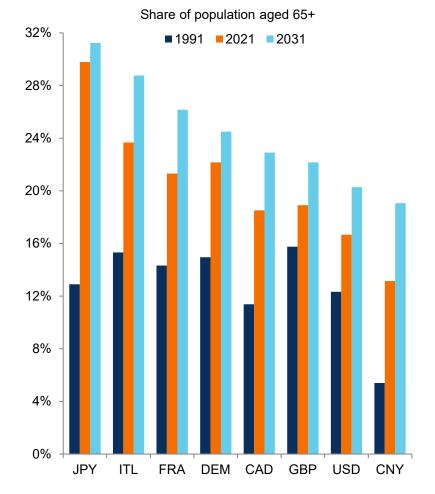
What did Japan do? Pt 2

Off-shoring, but that path is now closed

Huge investment overseas



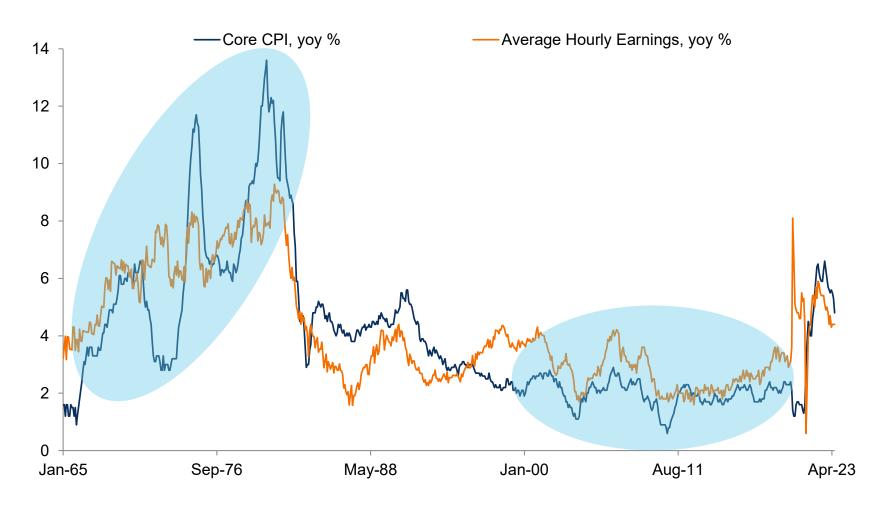
Now a global shortage of workers



Source: State Street Global Markets, United Nations, Bloomberg, data as of 8/25/23

A new inflation era?

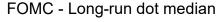
Not back to the 70s, but somewhere in between

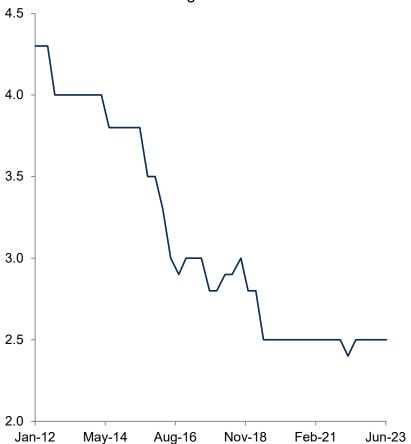


A new rate anchor

Expect neutral to move higher

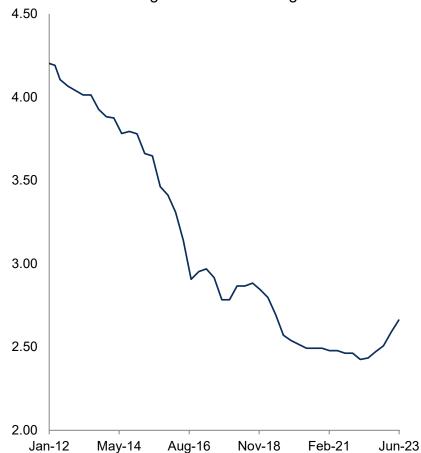
Has been falling consistently





But now turning a corner?

Longer Run Dots Average

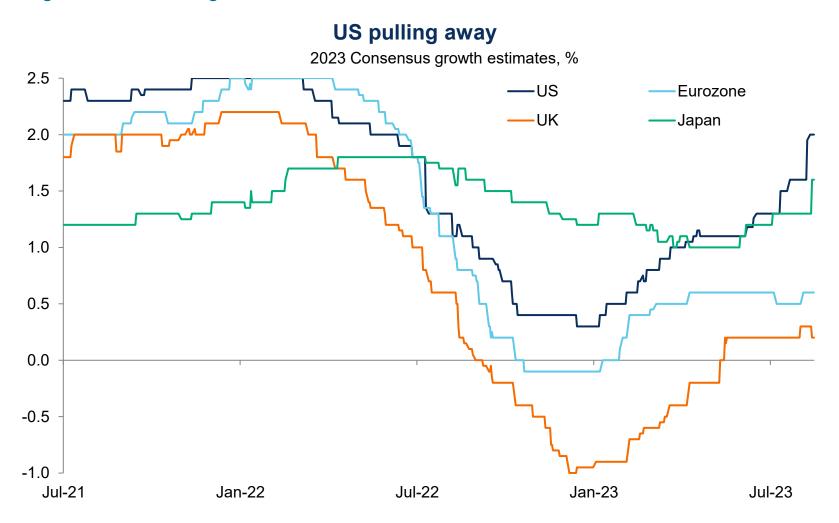


Source: State Street Global Markets, United Nations, Bloomberg, data as of 8/25/23

Exceptionalism

US separating from the G7

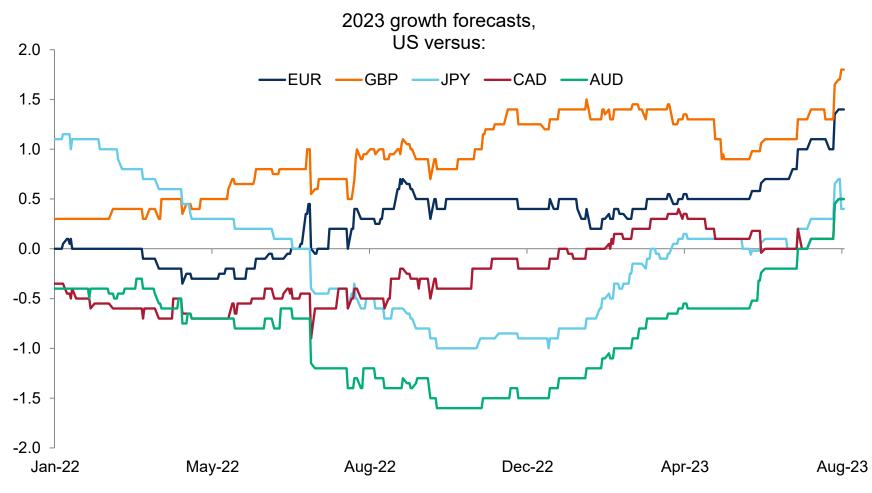
Divergence is becoming clearer



US pulling away

From slowest to fastest expected growth in 2023

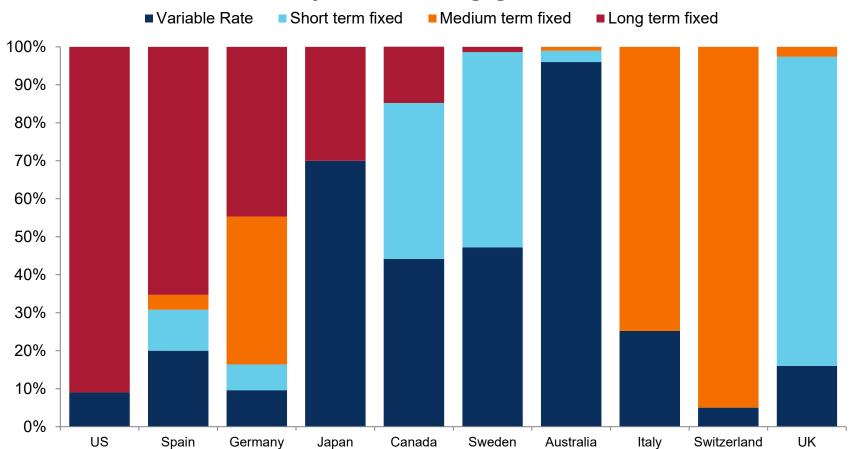
A big turnaround



The Fed's job is harder

Pandemic fiscal policy and the mortgage market explain the divergence

A very different mortgage market



Source: State Street Global Markets, EMF Quarterly Review, Q2 2022; data as of 8/25/23

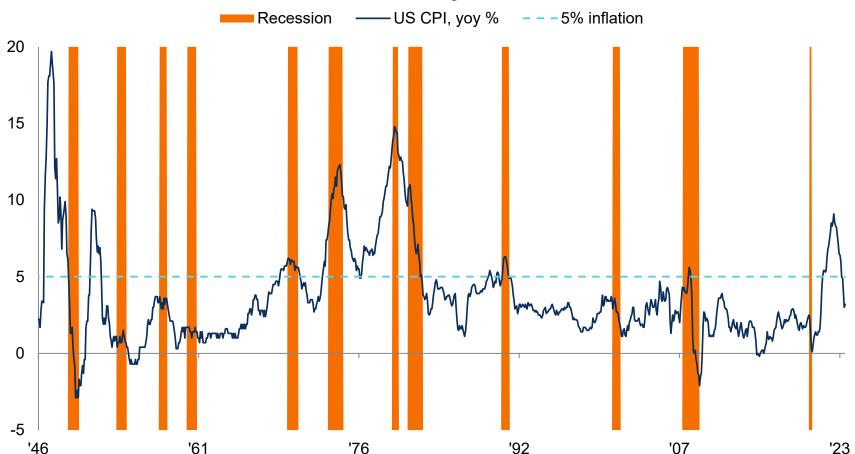


Something has to break

Goldilocks is still hopeful

But recession increasingly hard to avoid

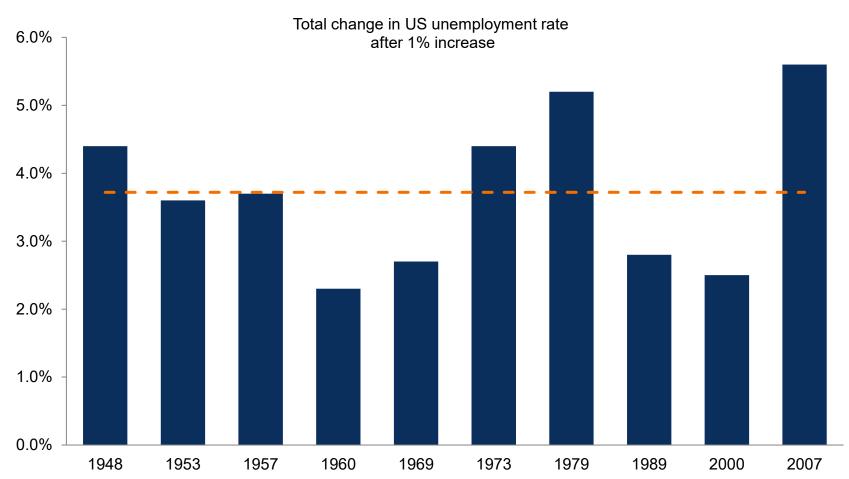
Is this time really different?



Soft landings are rare

The labour market is a slow-moving tanker

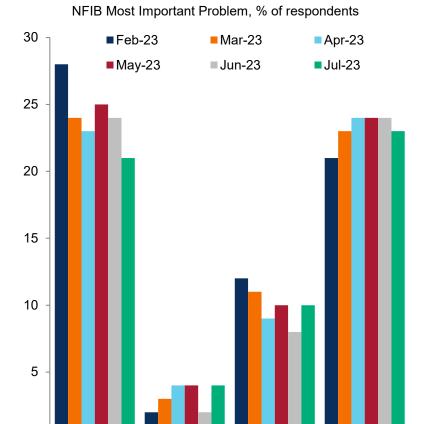
Is this time really different?



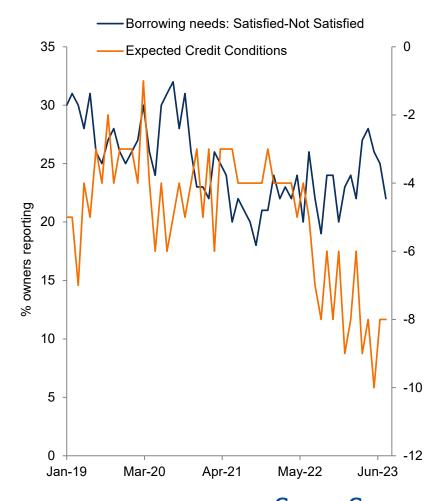
The key lending issue

No sign of small company financing stress yet

Inflation and workers still the biggest concerns



Financing fine for now



Source: State Street Global Markets, NFIB, Bloomberg; data as of 8/25/23

Financing &

Interest Rates

Labor Costs

Quality of

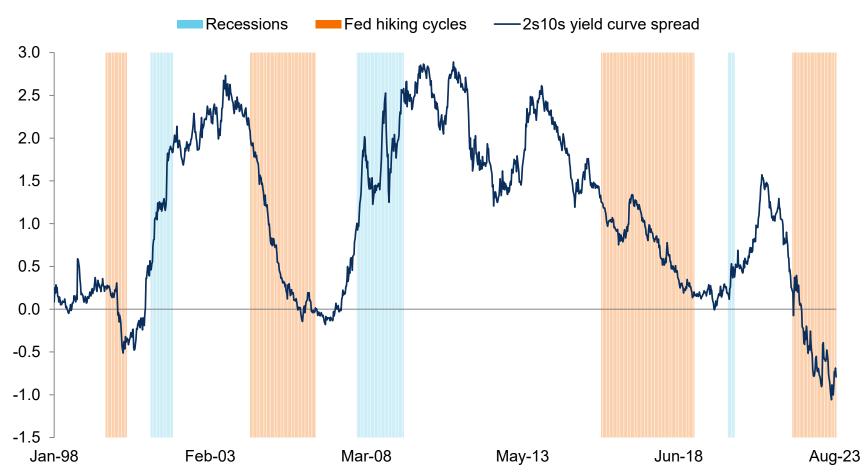
Labor

Inflation

Not wrong, just delayed

The bond market has not lost its predictive power

Is this time really different?

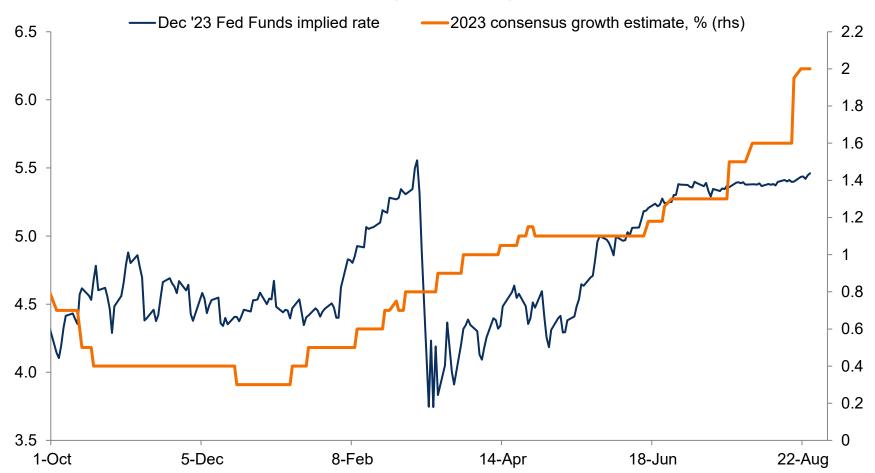


Relative mistakes

Fundamentals still matter

As banking fears faded, cut pricing had to be reduced. More to go

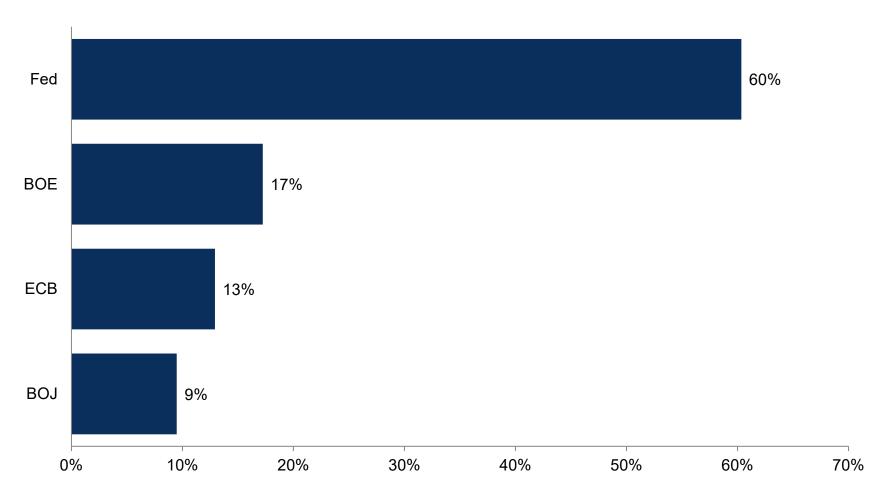
Something still has to give



And expected to be the first to cut

Poll of the week results July 11th 2023

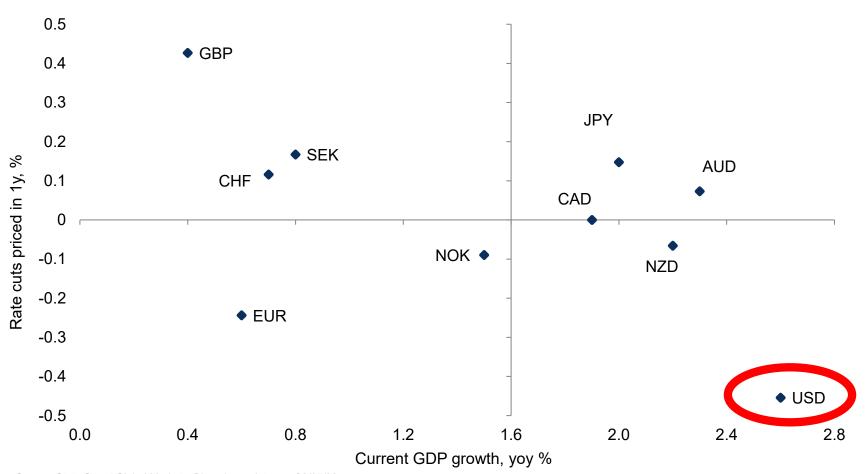
Which central bank will be the first to cut rates?



Something isn't right

Relative Fed expectations out of line with fundamentals

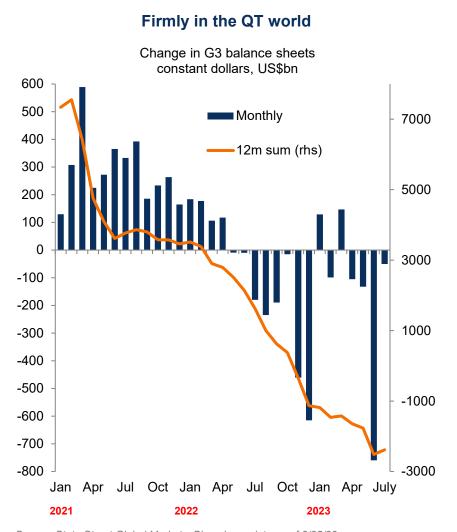
Spot the odd one out



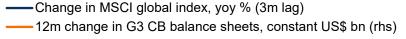
What it all means

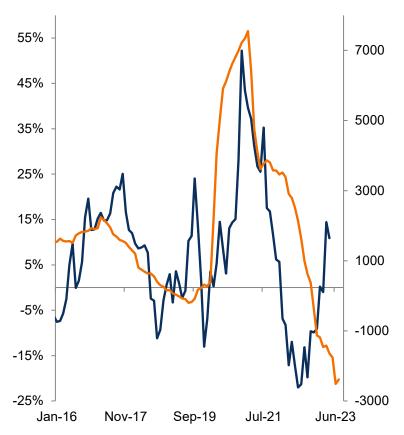
Stocks are not out of the woods

QT headwind cannot be ignored



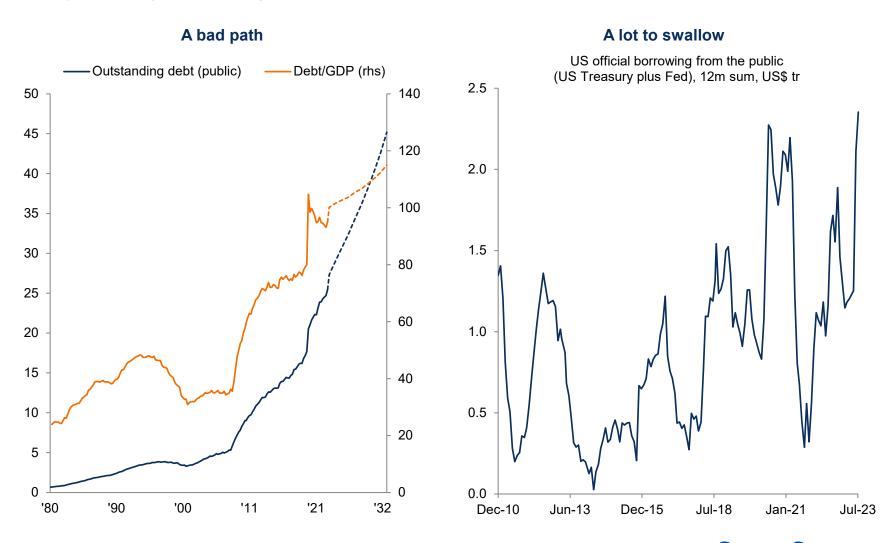
A headwind for stocks





Yields have further to go

Supply and "higher for longer" a bad combination

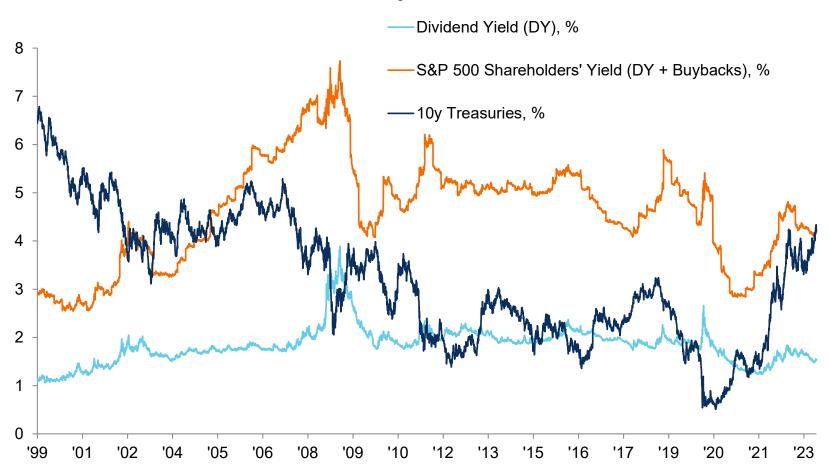


Source: State Street Global Markets, CBO, US Treasury, Bloomberg; data as of 8/25/23

There is an alternative

Higher yields = drag for stocks

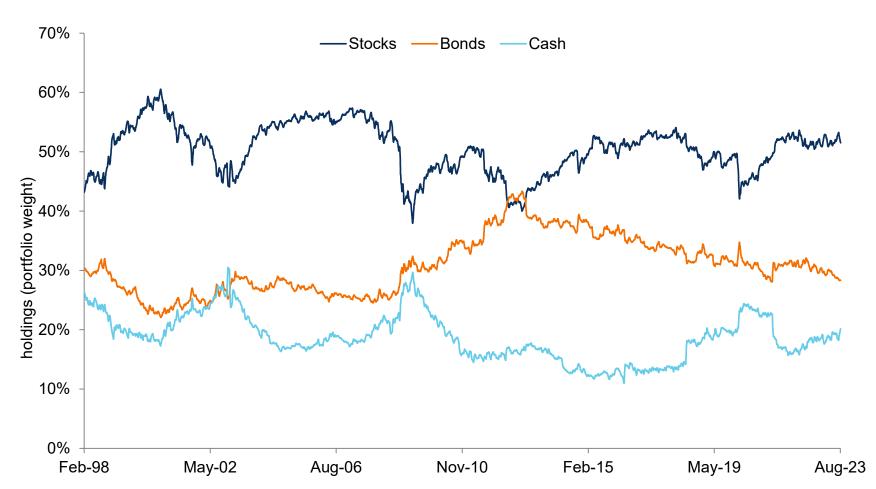
Investors finally have a choice to make



There is an alternative

Higher yields = time to rebuild FI positions?

Investors finally have a choice to make



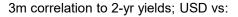
Dollar near term drivers

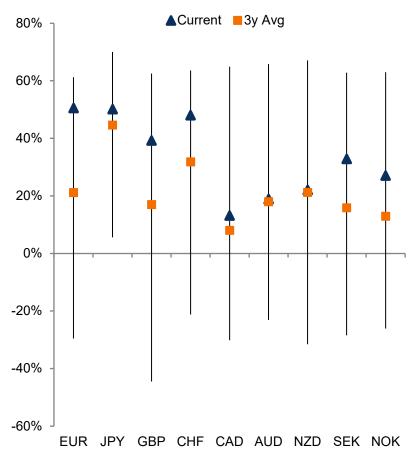
For now, look to rates rather than risk-on, risk-off

Rates more important in 2023

DXY 3m rolling correlation 8.0 -S&P 500 -US 2-yr yields 0.6 0.4 0.2 0.0 -0.2 -0.4 -0.6 8.0-Jul-20 Feb-21 Sep-21 Nov-22 Jul-23 Apr-22

Watch those rates

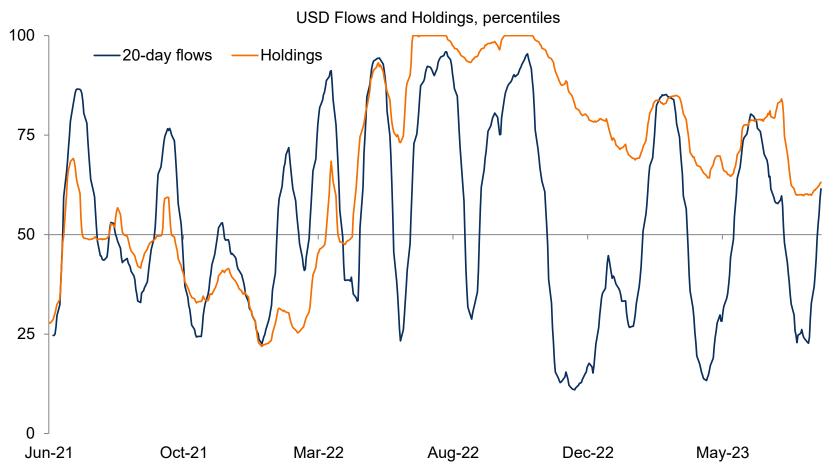




Still trying to pick a dollar top

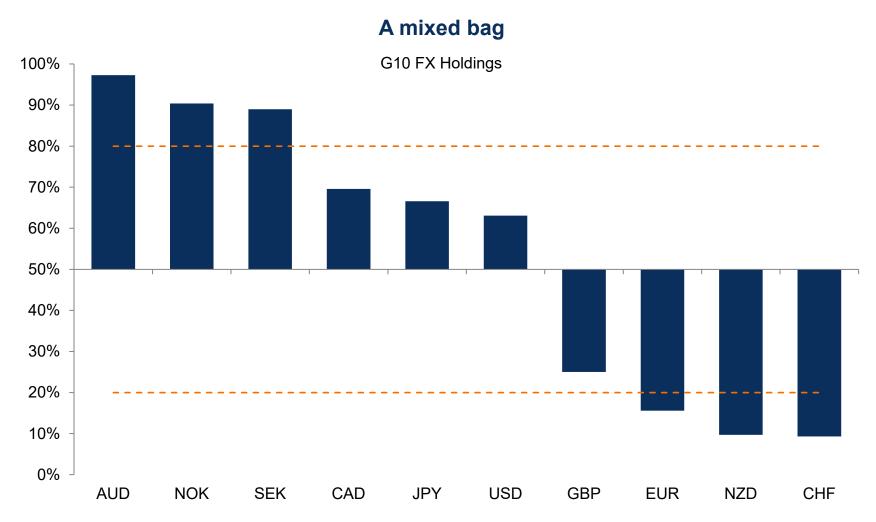
Its still too soon and overweight much reduced

Real money keep trying to sell the dollar



Trying to pick winners and losers

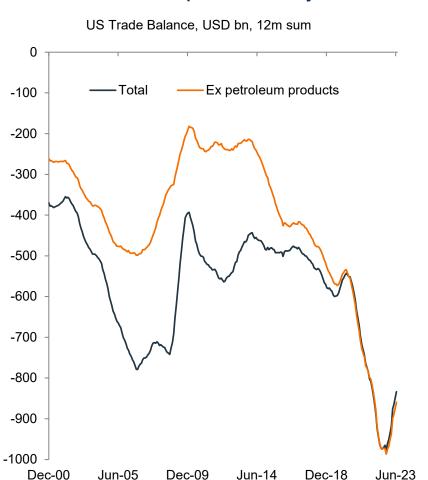
Holdings an important input



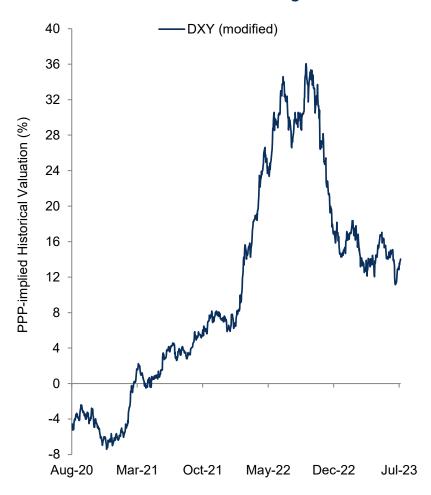
Major medium term dollar concerns

Deficits and valuation. But these are later concerns

It will be a problem one day

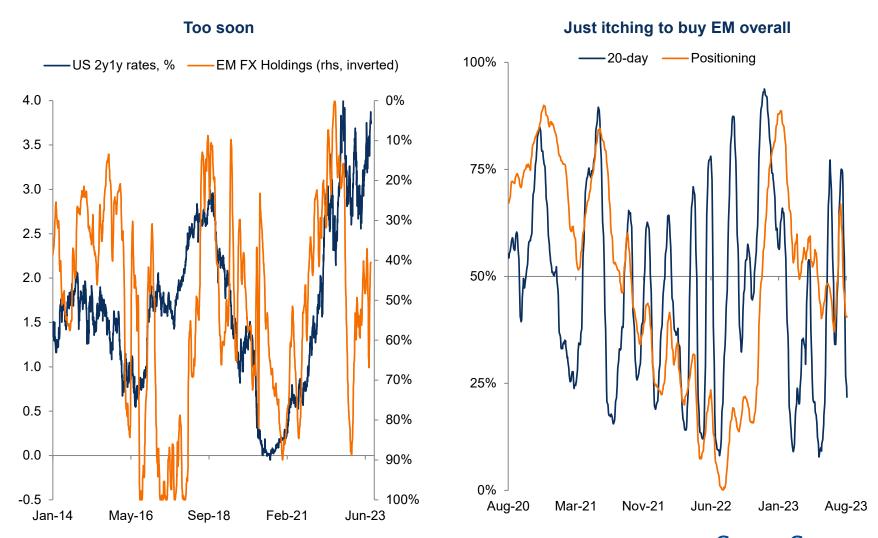


It won't fall in a straight line



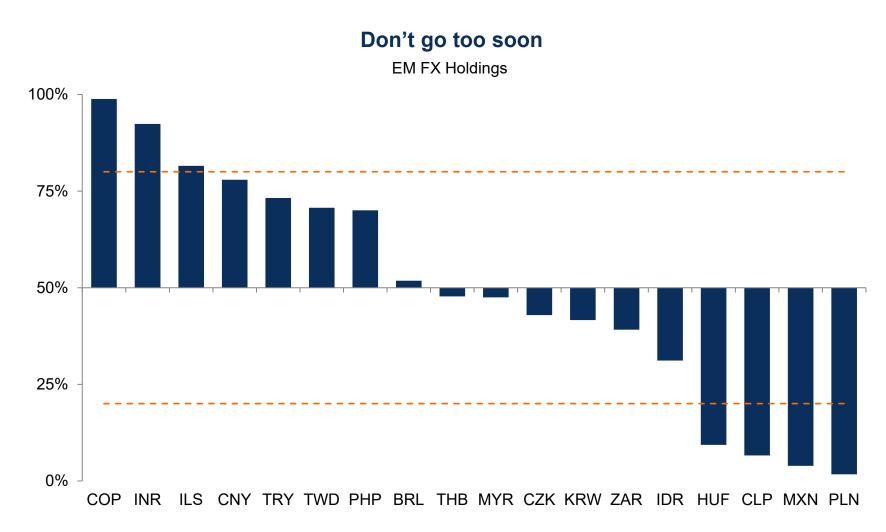
EM: Stand down

Will be a great trade again but maybe not over the next couple of months



A few EM underweights to choose from

Caveat emptor



Summary and conclusions

Resilience

- Inflation has peaked but will prove sticky
- The US consumer is still strong, bolstered by
 - Labour market
 - Excess savings
 - Fixed-rate borrowing
- Credit markets remain a wild card but risks likely over-played
- Recession will arrive in 2024

Exceptionalism

- The Fed may not be done hiking, will not cut aggressively in 2024
- Stocks face a difficult three to six months
- The dollar will surprise many in the next three months
- Long-term drags will eventually weigh on the currency

Demographics

- The labour market is facing a structural shortage of workers
- · The balance of power has shifted
- Higher wage growth will mean higher long-term rate outlook
- · Zero rates are behind us



Disclaimers and Important Risk Information [2023.01]

This communication is provided only to professional clients or eligible counterparties or their equivalent by State Street Bank and Trust Company or, where applicable and permissible, its bank and non-bank affiliates ("State Street"). State Street Bank and Trust Company is authorized and regulated by the Federal Reserve Board, registered with the Commodity Futures Trading Commission as a Swap Dealer, and is a member of the National Futures Association. State Street Bank International GmbH ("SSBI") is regulated by the European Central Bank ("ECB"), the German Federal Financial Supervisory Authority ("BaFin") and the Deutsche Bundesbank. Details about the extent of SSBI's regulation by the ECB, the BaFin and Deutsche Bundesbank are available from us on request. Products and services described herein may not be available in all jurisdictions or through all State Street entities. Activities described herein may be conducted from offshore. Information provided is of a general nature only and has not been reviewed by any regulatory authority.

This communication is intended for general marketing purposes, and the information contained herein has not been prepared in accordance with legal requirements designed to promote the independence of investment research. It is for clients to determine whether they are permitted to receive research of any nature. Market commentary provided by trading desks is not investment research. This communication is not intended to suggest or recommend any transaction, investment, or investment strategy, does not constitute investment research, nor does it purport to be comprehensive or intended to replace the exercise of an investor's own careful independent review and judgment regarding any investment decision.

This communication is not intended for retail clients, nor for distribution to, and may not be relied upon by, any person or entity in any jurisdiction or country where such distribution or use would be contrary to applicable law or regulation. This communication are any portion hereof may not be reprinted, sold or redistributed without the prior written consent of State Street. This communication and the information herein does not constitute investment, legal, or tax advice and is not a solicitation to buy or sell securities or any financial instrument nor is it intended to constitute a binding contractual arrangement or commitment by State Street of any kind. The information provided does not take into account any particular investment objectives, strategies, investment horizon or tax status.

The views expressed herein are the views of State Street as of the date specified and are subject to change, without notice, based on market and other conditions. The information provided herein has been obtained from sources believed to be reliable at the time of publication, nonetheless, we make no representations or assurances that the information is complete or accurate, and you should not place any reliance on said information. State Street hereby disclaims any warranty and all liability, whether arising in contract, tort or otherwise, for any losses, liabilities, damages, expenses or costs, either direct, indirect, indirect, consequential, special, or punitive, arising from or in connection with any use of this document and/or the information herein.

State Street may from time to time, as principal or agent, for its own account or for those of its clients, have positions in and/or actively trade in financial instruments or other products identical to or economically related to those discussed in this

communication. State Street may have a commercial relationship with issuers of financial instruments or other products dentical to or economically related to those discussed in this communication.

This communication may contain information deemed to be forward-looking statements. These statements are based on assumptions, analyses and expectations of State Street in light of its experience and perception of historical trends, current conditions, expected future developments and other factors it believes appropriate under the circumstances. All information is subject to change without notice.

Participating in trading any financial instrument, including but not limited to foreign exchange, equities, futures, fixed income or derivative instruments, or investments in non-liquid or emerging markets, or digital assets, or participating in securities lending, repurchase transactions or other collateral services present risks, which may include but are not limited to counterparty, collateral, investment loss, tax, and accounting risks. Where applicable, returns may increase or decrease as a result of currency fluctuations. Derivatives may be more volatile than the underlying instruments. Certain foreign exchange business, including spot and certain forward transactions, may not be regulated in all jurisdictions. Past performance is no guarantee of future results. Please contact your State Street representative for further information.

To learn how State Street looks after your personal data, visit: https://www.statestreet.com/utility/privacy-notice.html.

© 2023 State Street Corporation - All Rights Reserved

Foreign Exchange Sales & Trading Disclaimer Supplement [2023.01]

Abu Dhabi Global Market (ADGM): This communication may be provided by State Street Bank & Trust Company, ADGM Branch ("SSBT ADGM") on behalf of State Street Bank and Trust Company or its affiliates. SSBT ADGM is regulated by the ADGM Financial Services Regulatory Authority (FSRA). This document is intended for Professional Clients or Market Counterparties only as defined by the FSRA and no other person should act upon it. The information contained within this communication is not intended to lead to the conclusion of any contract of whatsoever nature within the territory of ADGM or the United Arab Emirates.

Australia: This communication is provided to wholesale clients by State Street Bank and Trust Company (Australian Business Number 70 062 819 630, Australian Financial Services License 239679).

<u>Brazil</u>: The products in this marketing material have not been and will not be registered with the Comissão de Valores Mobiliários - the Brazilian Securities and Exchange Commission ("CVM"), and any offer of such products is not directed to the general public within the Federative Republic of Brazil ("Brazil"). The information contained in this marketing material is not provided for the purpose of publicly soliciting investments from investors residing in Brazil and no information in this marketing material should be construed as a public offering or unauthorized distribution of the products within Brazil, pursuant to applicable Brazilian law and regulations.

<u>Israel</u>: State Street Bank and Trust Company is not licensed under Israel's Regulation of Investment Advice, Investment Marketing and Portfolio Management Law, 1995. This communication may only be distributed to or used by investors in Israel which are "eligible clients" as listed in the First Schedule to Israel's Regulation of Investment Advice, Investment Marketing and Portfolio Management Law 1995.

Japan: This communication is made available in Japan by State Street Bank and Trust Company, Tokyo Branch, which is regulated by the Financial Services Agency of Japan and is licensed under Article 47 of the Banking Act.

Oman: State Street Bank and Trust Company is not a bank or financial services provider registered to undertake business in Oman and is not regulated by the Central Bank of Oman or the Capital Market Authority.

Qatar: The information in this communication has not been reviewed or approved by the Qatar Financial Markets Authority or the Qatar Financial Centre Regulatory Authority, or any other relevant Qatari regulatory body.

Singapore: This communication is made available in Singapore by State Street Bank and Trust Company, Singapore Branch ("SSBTS"), which holds a wholesale bank license by the Monetary Authority of Singapore. In Singapore, this communication is only distributed to accredited, institutional investors as defined in the Singapore Financial Advisers Act 2001 ("FAA") and its regulations. Note that SSBTS is exempt from Sections 26, 27, 29 and 36 of the FAA. This advertisement has not been reviewed by the Monetary Authority of Singapore.

South Africa: State Street Bank and Trust Company is authorized in South Africa under the Financial Advisory and Intermediary Services Act, 2002 as a Category I Financial Services Provider; FSP No. 42671.

United Kingdom: State Street Bank and Trust Company is authorised and regulated by the Federal Reserve Board of the United States, authorised by the Prudential Regulation Authority ("PRA") and subject to regulation by the Financial Conduct Authority and limited regulation by the PRA. Details about the extent of our regulation by the PRA are available from us on request.

State Street Bank International GmbH is authorised and regulated by the European Central Bank and the BaFin, deemed authorised by the Prudential Regulation Authority, and subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details of the Temporary Permissions Regime, which allows EEA-based firms to operate in the UK for a limited period while seeking full authorisation, are available on the Financial Conduct Authority's website. People's Republic of China: This communication is made available in China by State Street Bank and Trust Company, Beijing Branch, which is regulated by China Banking and Insurance Regulatory Commission and State Administration of Foreign Exchange, and is licensed to carry out FX spot, forward and swap business.



Appendix

Our Research Advantage

Academic credentials

Innovative solutions to investment challenges from our academic partners and journal articles

Alternative data

Daily indicators distill insights from our unique information set

Actionable ideas

A track record of applying our indicators to the daily challenge of understanding the next move in markets

Across asset classes

Following 20+ years of development, our indicators and publications span asset classes, countries, sectors, factors and themes

Thought Leadership & Indicators

Award-winning¹ research articles and innovative proprietary indicators to inform your investment process

Macro Strategy

Incisive commentary on equity, fixed income, and currency markets for a differentiated view on market trends, risks, and opportunities



Our interactive research platform puts Global Markets Research at your fingertips

globalmarkets.statestreet.com/insights

¹See the Journal Articles slide for details

Academic Partners

State Street Associates® advances an innovative research agenda in partnership with renowned academics





Alberto Cavallo and Pilar Iglesias PriceStats®, inflation series





Gideon Ozik and Ronnie Sadka MediaStats, sentiment indicators



Ken FrootMacroeconomics and markets



George SerafeimESG and sustainability



Mark KritzmanRisk, prediction, asset allocation



Robin GreenwoodMarket froth, central banks, investor behavior



Josh LernerPrivate equity and entrepreneurship



Antoinette SchoarBlockchain and cryptocurrencies



Research Leadership Team

Our team of senior researchers lead our new ideas, research reports, product development, and client engagement



Alex Cheema-Fox Head of Investor Behavior Research, SSA



Megan Czasonis Head of Portfolio Management Research, SSA



Dwyfor Evans Head of APAC Macro Strategy



Lee FerridgeHead of North America
Macro Strategy



Timothy GrafHead of EMEA Macro
Strategy



Michael Guidi Head of Alternative Data Research, SSA



Will Kinlaw Global Head of Research



Judianne Livermore
Head of Research
Infrastructure



Michael Metcalfe Global Head of Macro Strategy



David TurkingtonGlobal Head of State Street
Associates (SSA)



Nan R. Zhang Head of Product Implementation and Alternative Investment Research, SSA

An Information Edge



Institutional Investor Behavior and Peer Benchmarking

Our behavioral indicators span multi-asset, equity, fixed income and currency markets. We have data for 23 developed and 21 emerging equity markets (16 developed and 13 emerging market for fixed income); 12 developed and 21 emerging market currencies; 11 sectors, 25 industry groups, up to 73 industries; across 6 macroeconomic styles, 6 fundamental styles, and 3 quantitative factors and include the following indicators:

- Buying/selling activity (Flow Indicators)
 - Active
 - Benchmark
- Positioning (*Holdings* Indicators)
 - Excess
 - Benchmark
- Consensus in trading (Flow Agreement Indicators)
- Profitability (Breakeven Indicators)
- Hedging activity (Hedge Ratio Indicators & Asset Class Weights)
- Trading volume (**Volume** Indicators)



Media (as captured by MediaStats)

Our media indicators deliver media-based measures for over 3,000 US companies, US sectors and industry aggregates, in addition to 44 global equity indices and 33 foreign currencies

- Tone of coverage (Sentiment Indicators)
- Volume of coverage (Intensity Indicators)
- · Dispersion of sentiment (Disagreement Indicators)
- Co-mentions of related companies (Linkages Indicators)
- Earnings prediction (*Earnings Predication Technology* Indicators) for ~350 US companies, incl. Brand. In-store, and Web components



Consumer Prices (as captured by PriceStats®)

Our PriceStats® indicators span inflation measurement in more than 20 individual and emerging market countries, US sectors and regional aggregates, in addition to PPP/real exchange rates for eight currencies versus the US Dollar

- Consumer Prices (Inflation Indicators) 11 developed and 11 emerging markets:
 - Regional aggregates: World, World Diffusion, World Food, World Fuel, Developed Markets, DM Food, DM Fuel, Emerging Markets, EM Food, EM Fuel, Eurozone, Eurozone Food, Eurozone Fuel
 - US Sectors: Equipment, Food, Health, Recreation and Culture, Transportation
- Relative Price Levels (*Purchasing Power Parity* Indicators) 8 currencies versus the US Dollar:
 - Real Exchange Rate
 - Relative Prices
 - Valuation (PPP Benchmark)
 - Valuation (Historical Benchmark)
 - Implied Nominal Exchange Rate (PPP Benchmark)
 - Implied Nominal Exchange Rate (Historical Benchmark)



Risk Management and Crowding

Our market risk indicators span multi-asset, equity, fixed income and currency markets globally and include the following measures:

- Unusualness of returns (*Turbulence* Indicators)
 - · Correlation breakdowns (Correlation Surprise Indicators)
 - Volatility changes (Volatility Surprise Indicators)
- Systemic risk (*Absorption Ratio* Indicators)
 - Asset importance and connectivity (Asset Centrality Indicators)



Macro Strategy

Combining our indicators with macro context to produce our #1 ranked¹ strategy research

PUBLICATIONS (selected)	Cross-Asset	Equities	\$ FX / Fixed Income
Alternative data intelligence	Inflation in Focus (monthly) Market Narratives in Focus (biweekly) Chart of the week (weekly)	Weekly World Flows (weekly) Country Chartbook (weekly) Sector Chartbook (weekly)	Investment Climate (weekly) FX Execution (weekly)
Actionable ideas	Asset Allocation Monthly (monthly) Mr. Risk (ad-hoc) What We Said This Week (weekly)	Global Equity Strategy (weekly, monthly) Equity Market Insight (ad-hoc)	DM/EM FX Strategy (weekly) Mind and Machine FX (monthly) FI/FX Market Insight (ad-hoc)
WATCH OR LISTEN (selected)	Street Speak (weekly) Three Thoughts (weekly)	Asset Allocation Webinar (monthly)	Market Huddle (biweekly) EM Research Week (weekly)

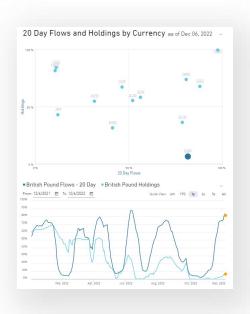
¹ As measured by the Euromoney FX survey Customer Satisfaction Rating 2022. The publication frequencies shown represent typical schedules.



Articles, Videos, more...

EMERGINO MARKETS WEEKLY Emerging Markets in 2023: 4 Themes in 15 Charts 20 hours ago THREE THOUGHTS The Grinch is Back A few days ago Media Coverage A market sign and ago EM NREATION IN FOCUS It's All Going Down!

Indicators



Custom Analysis

