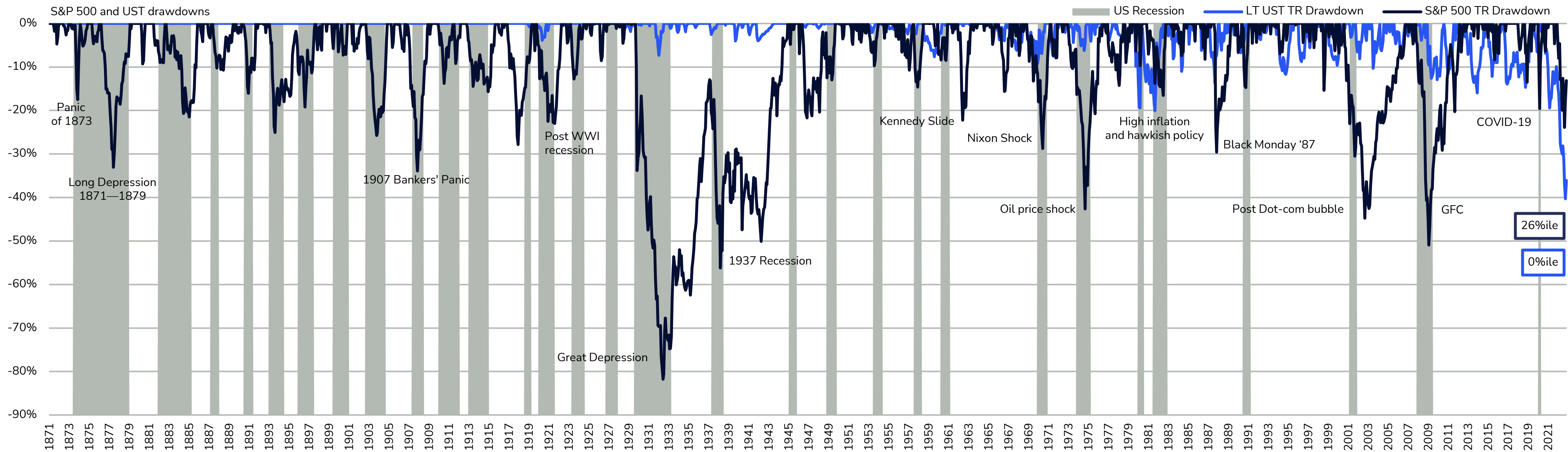
Outlook 2023

24 January 2023

SIGNET

Overview

1. Only 26% of drawdowns in S&P 500 have been worse, while UST experienced the worst drawdown ever (well, at least for the last 151 years).



2. Good bye, 2022, or better — farewell.

- The year of 2022 brought one of the largest drawdowns in equities (7th largest) in a post-WWII history. However we have seen such movements previously, but long ago — tracking back to 1870s we notice that only 26% of drawdowns in broad market US indices (like S&P 500) have been worse than the current. September 2022 marked the slide of 24% from recent heights.
- Traditional risk free assets like government bonds offered no place to hide either. After initiation of tightening policy by major world central banks government bonds experienced the most significant drawdown over the last 150 years. Long-term US Treasuries dropped by 40% since highs of mid-summer 2020.
- Post-COVID market euphoria fueled by abundant liquidity from central banks is gone. And it has been replaced by anxiety over inflation, growth perspectives and global security.

3. Get your popcorn ready for 2023.

- Inflation was the buzzword for financial markets in 2022. Now that inflation risks seem to be fading, we believe that investors will focus on economic growth. If it is positive or around zero, this will support financial markets most likely. Recession will trigger sell-off in risky assets.
- The big question — will global economic deceleration turn into full scale recession?
- The relatively good shape of corporate sector, undemanding valuations of major markets and gradual inflation rollover — these factors point to the fact that we may see mid-cycle economic slowdown, not hard landing.
- However rate hikes and liquidity withdrawal by major central banks along with dampened consumer confidence and corporate margins under pressure indicate that we may not have seen the bottom yet.
- Our key message for 2023 — do not play the hero. Financials markets do not provide a reason for significant capital appreciation. Investing will be mostly about capital preservation. Investors should rely upon current income from coupons, interest payments and dividends as their main sources of income.

Chart source. Robert Shiller, Bloomberg, proprietary calculations.

Summary

Outlook 2023
Summary

Theme / Asset Class	View	How to play
Economic growth	Global economic deceleration, positive growth on a brink of recession	Favour bonds over equities
Inflation	Further deceleration to low single digit levels in 2H23	Choose nominal bonds over linkers
Central banks	Reduction in liquidity, interest rates will reach plateau in 2H23	Avoid still expensively priced assets, low quality and loss making companies, ventures
	Potential reduction in key base rates by 4Q23	Favour government and investment grade bonds. High duration for risk takers
Equities	Sluggish earnings growth, margin reduction	We like defensive businesses with stable margins. Prefer Value over Growth
	Flat valuations. Rising risk premiums may be offset by lower rates	Avoid expensively priced equities. Prefer High Quality over Low Quality
	Higher average level of volatility	Better buyers of protection on low volatility. Minimum Volatility over Momentum
	DM vs EM: higher economic growth in EM is offset by much higher risks	Favour DM over EM
	No big reason for significant capital appreciation	Seek dividend payers and prefs. Fast in on large drawdowns, fast out on recoveries
Fixed income	Goldilocks for bonds? — low growth, decelerating inflation, attractive yields	We are positive on fixed income
	Government bonds	UST provide reasonable return for both risk averse investors and risk takers
	Fading inflation	We like nominal bonds over inflation linkers
	Quality matters in downturns	Prefer investment grade over high yield
	Key interest rates have not reached peak levels yet	Favour low duration. Risk takers may be well rewarded for taking high duration
Money markets	Keeping cash does not penalize investors anymore	We like MM from risk and (once in a while) reward perspective amid uncertainty
Commodities	Inflation deceleration	Neutral to negative on energy and agricultural prices
	China re-opening and anticipation of lower base rates	We are neutral to positive on gold and base metals
Alternatives	High interest rates dump mortgage supported demand	We are negative on real estate
	End of zero interest rate policy will slash demand for alternatives	Negative on private equity and venture capital
Currencies	Eurozone and the UK lag behind the US rate cycle	We expect modest decline in USD. Neutral to positive on EUR. Neutral to negative on GBP
	DM commodity FX offer attractive yields and have lagged recently	Constructive view on AUD, NZD, CAD, NOK
Themes	Cloud technology. The most promising innovation in tech space	
	Security. Turnaround in approach to physical safety. Defense spendings to grow	
	Health care. Stable and cash generative	
	Virtual life. Focus to shift from growth to efficiency	
	Financial edge. Beneficiaries of higher interest rates	
	Clean energy. No reliance on a single supplier, diversification is needed	
	Infrastructure. e-Commerce drives warehousing	

Outlook 2023
Consensus views of Signet Asset Management team

Risk exposure, equities by region and sector

Underweight **Neutral** **Overweight**

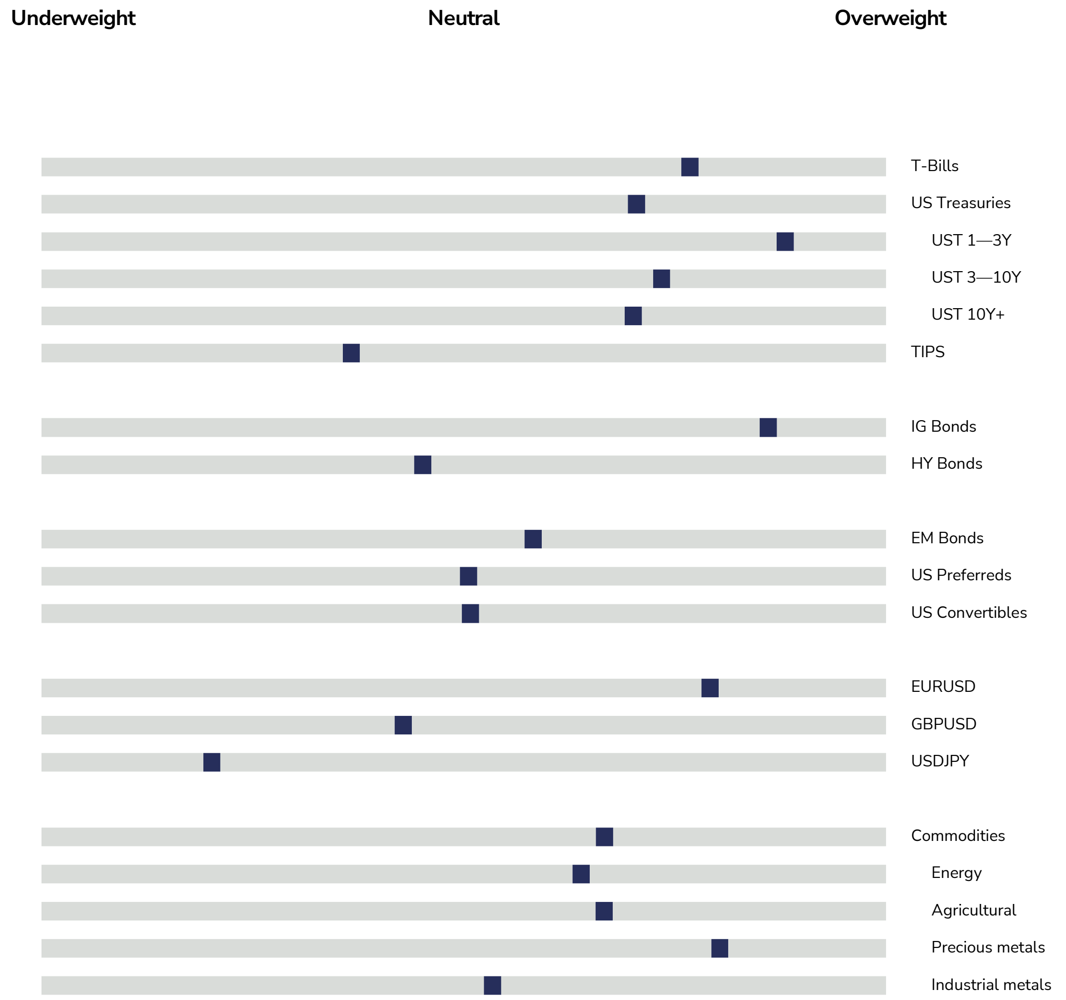
Risk exposure

Global equities
Developed markets
US
Europe
Japan
Other DM
Emerging markets
EMEA
LatAm
Asia
Other EM

Communications
Discretionary
Staples
Energy
Financials
Health care
Industrials
Materials
Real estate
Technology
Utilities

Growth
Value
Quality
Size
Dividend
Min Volatility

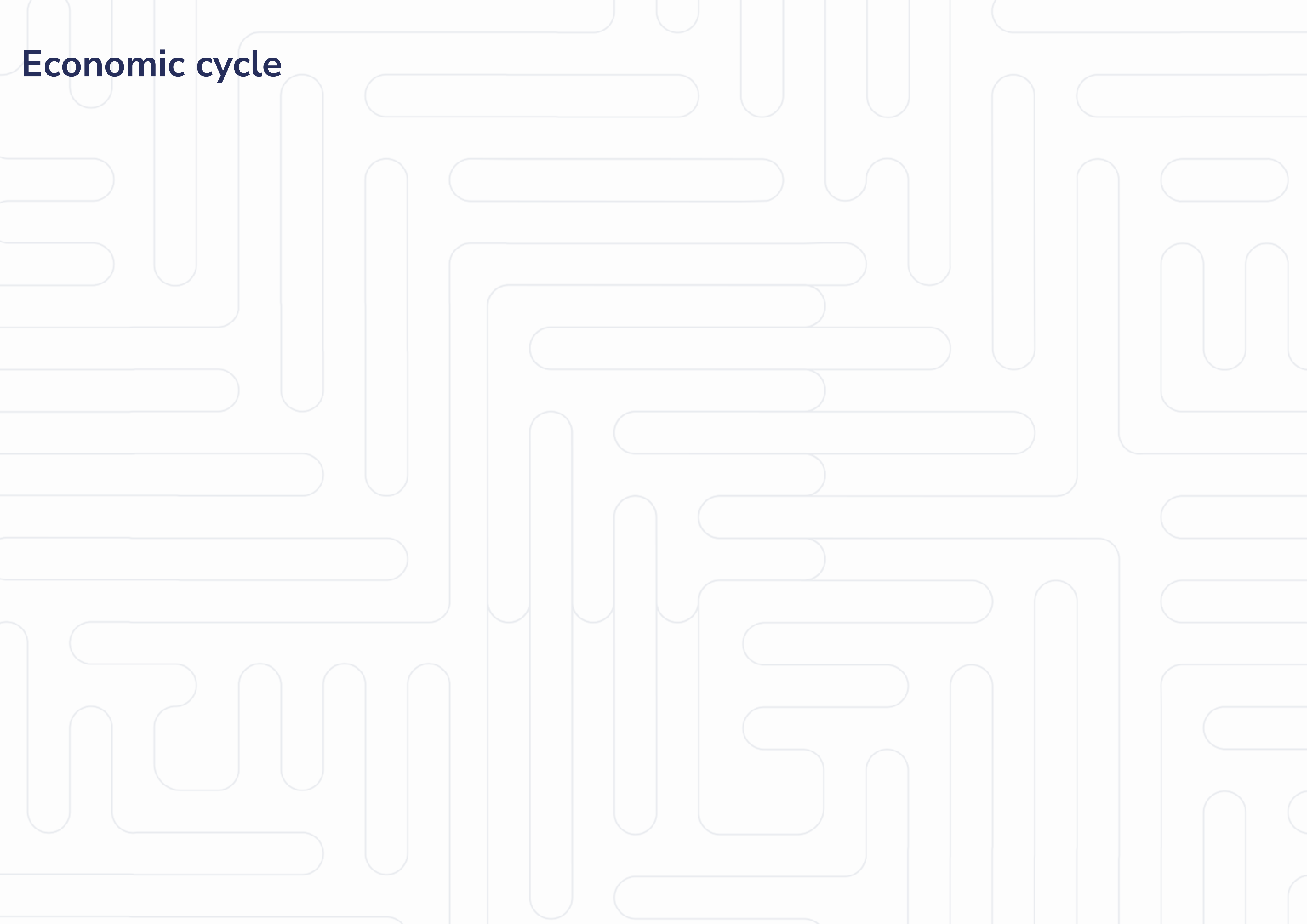
Fixed income, currencies, commodities



Outlook 2023
Model asset allocation portfolios

			Low risk			Medium risk			High risk
	Benchmark	*Adjustment*	*Portfolio*	*Benchmark*	*Adjustment*	*Portfolio*	*Benchmark*	*Adjustment*	*Portfolio*
Global equities	15.0%	-1.5%	13.5%	45.0%	-3.7%	41.3%	60.0%	-3.1%	56.9%
Developed markets									29.2%
US			4.9%			15.8%			12.5%
Europe			4.6%			14.5%			10.8%
Japan			4.0%			10.9%			6.0%
Emerging markets									27.7%
EMEA									6.5%
LatAm									8.9%
Asia									12.4%
T-Bills	25.0%	1.4%	26.4%	5.0%	0.7%	5.7%	5.0%	0.8%	5.8%
US Treasuries	60.0%	0.1%	60.1%	45.0%	3.4%	48.4%	25.0%	2.8%	27.8%
UST 1—3Y			23.0%			18.9%			10.1%
UST 3—10Y			18.9%			15.1%			9.0%
UST 10Y+			18.3%			14.4%			8.6%
Commodities				5.0%	-0.4%	4.6%	10.0%	-0.5%	9.5%
Energy						1.1%			2.3%
Agricultural						1.2%			2.5%
Precious metals						1.4%			2.9%
Industrial metals						0.9%			1.8%

- Adjustments are made based upon consensus views of Signet Asset Management team.



Economic cycle

Economic cycle in OECD and in the US
Recession blade runner

1. In 2Q22 global economic indicators turned negative, US followed in 3Q22. Will this turn into full scale recession?

Leading indicators and cycle periods

Neg Dec | Neg Acc | Pos Acc | Pos Dec | US LEI % YoY | OECD LEI % YoY

20% 15% 10% 5% 0% -5% -10% -15% -20%

'59 '60 '61 '62 '63 '64 '65 '66 '67 '68 '69 '70 '71 '72 '73 '74 '75 '76 '77 '78 '79 '80 '81 '82 '83 '84 '85 '86 '87 '88 '89 '90 '91 '92 '93 '94 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13 '14 '15 '16 '17 '18 '19 '20 '21 '22

2. Cycles are inevitable but predictable.

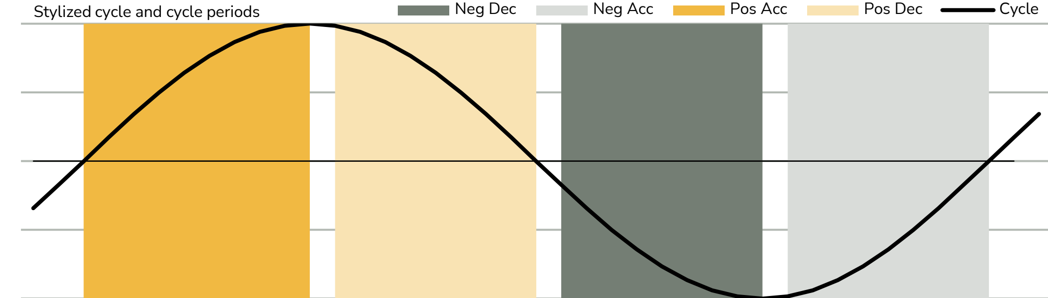
We expect downward movement in 1H22, but potential re-acceleration in 2H22.

- The global economy — and the US economy as the world's largest with ~25% share (by nominal GDP — IMF, October 2022) — has recovered from post-COVID shock and started decelerating in 2021. By mid-2022 leading indicators in OECD countries started to show negative growth (% YoY), which may be a harbinger of recession in 2023 (**fig. 1**).
- Though changes in phases of an economic cycle are as inevitable as changes in seasons, we do not see a reason for a substantial and prolonged economy and financial market downturns in 2023 based on the information we have in late 2022. On top of that we may see re-acceleration of economic growth in late 2023.
- Current phase of economic cycle is negative deceleration. It implies that economic indicators are negative in % YoY terms and this decline deteriorates over time. The last time we saw this in the US was in spring 2020 after COVID-19 outbreak. Previously — in 2007—2009 as a part of Great Financial Crisis and 2001—2002 after dot-com bubble.
- Average **Neg Dec** phase lasts 9 months, and November 2022 marked the 5th consecutive month of the downturn (**fig. 2 overleaf**). We may be half way through this period.
- Based on dynamics of economic cycle over last 63 years we may conclude that the US leading indicators will be in contraction mode by the end in 2Q22 with 70% probability. However there is 65% probability of reacceleration by the end of 2023 (**fig. 3—4 overleaf**).

Chart source. The Conference Board, OECD. Note: cycle stages are calculated based on US data (US LEI).

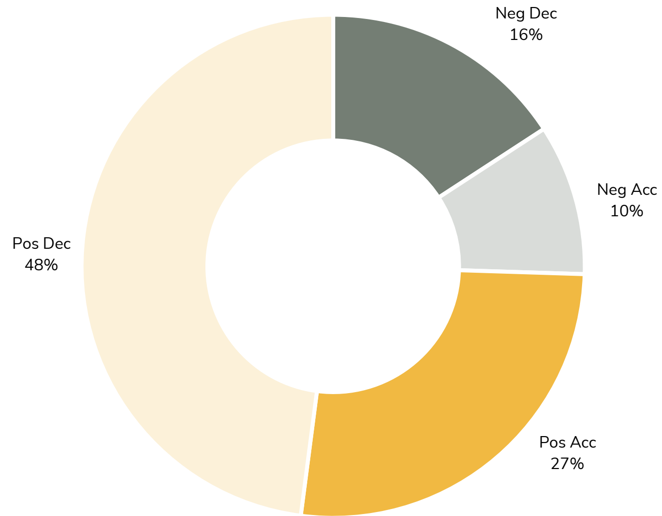
NB. Phases of an economic cycle.

- Neg Dec — Negative Deceleration (contraction) — economic indicators are **negative** in % YoY terms and this decline **deteriorates** over time.
- Neg Acc — Negative Acceleration (recovery) — economic indicators are **negative** in % YoY terms, but this decline **improves** over time.
- Pos Acc — Positive Acceleration (expansion) — economic indicators are **positive** in % YoY terms and this increase **improves** over time.
- Pos Dec — Positive Deceleration (slowdown) — economic indicators are **positive** in % YoY terms, but this increase **deteriorates** over time.

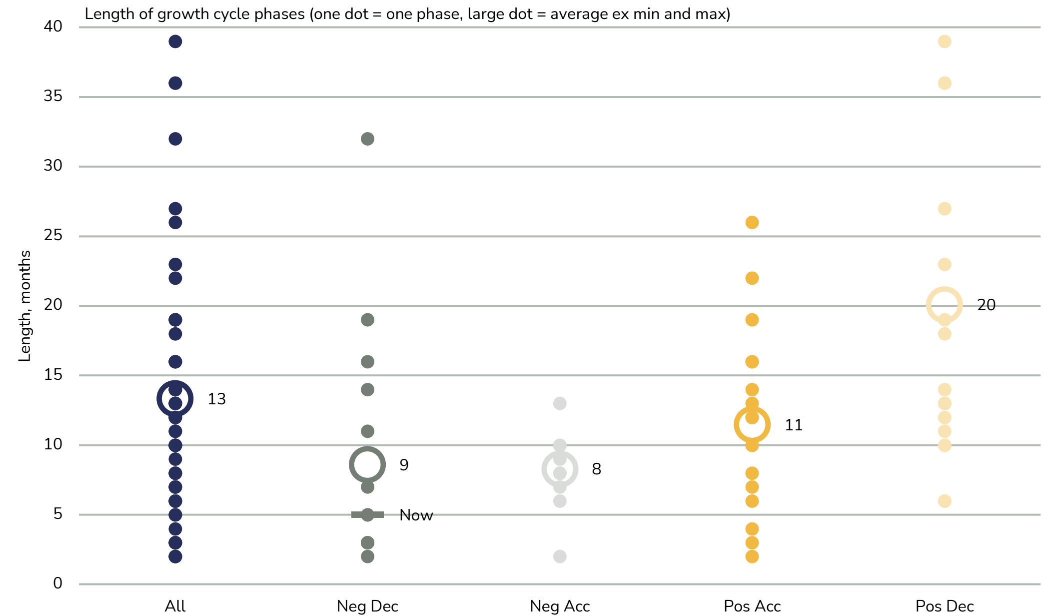


Economic cycle in the US
Good news: downturn is relatively short and we may be half way through it

1. Typical cycle length is 2 years. Negative deceleration lasts only 9 months...



2. ...And we have been in this mode 5 months already...



3. ...Which means: around 2Q23 economy will be still in decline...

*Empiric probability of switching cycle phase in **6M** after being 4—6M in negative deceleration*

		To			
		Neg Dec	Neg Acc	Pos Acc	Pos Dec
From	Neg Dec	70%	30%	0%	0%
	Neg Acc	0%	21%	79%	0%
	Pos Acc	0%	0%	67%	33%
	Pos Dec	10%	0%	12%	78%

High chances to remain in deceleration mode by end on 2Q23

4. ...But may well accelerate by the end of 2023.

*Empiric probability of switching cycle phase in **1Y** after being 4—6M in negative deceleration*

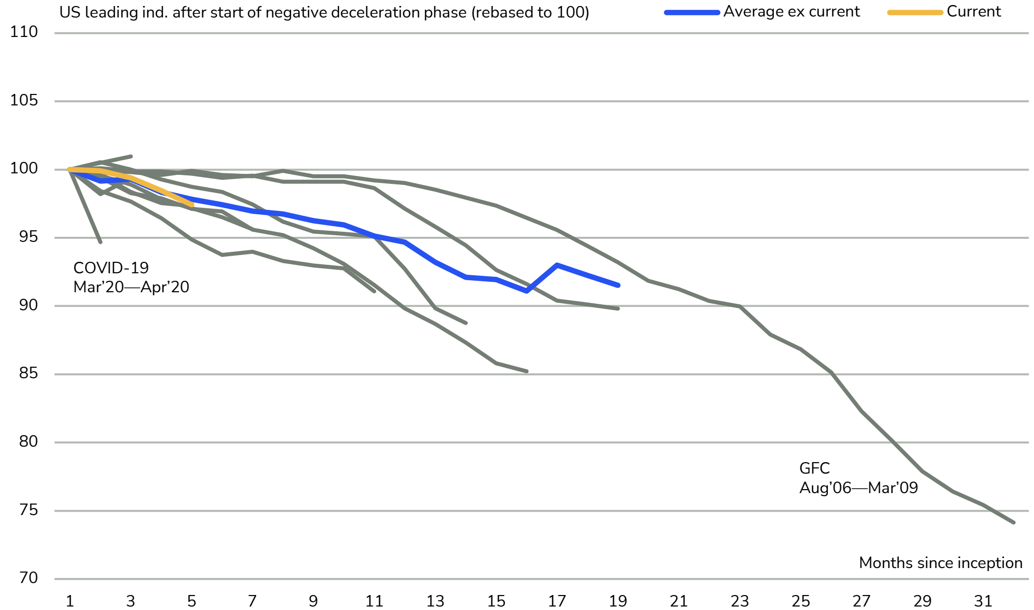
		To			
		Neg Dec	Neg Acc	Pos Acc	Pos Dec
From	Neg Dec	35%	50%	15%	0%
	Neg Acc	13%	0%	38%	50%
	Pos Acc	0%	0%	33%	67%
	Pos Dec	20%	6%	27%	47%

But we may see re-acceleration by the end of 2023

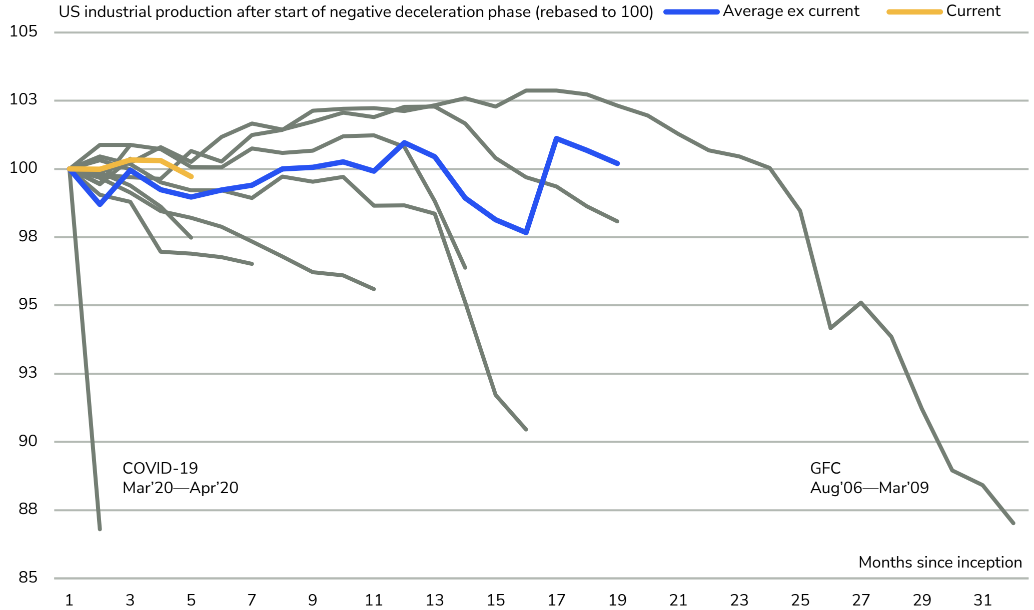
Charts and tables source. Proprietary calculations based on The Conference Board data.

Economic cycle in the US
What usually happens to key indicators in this phase?

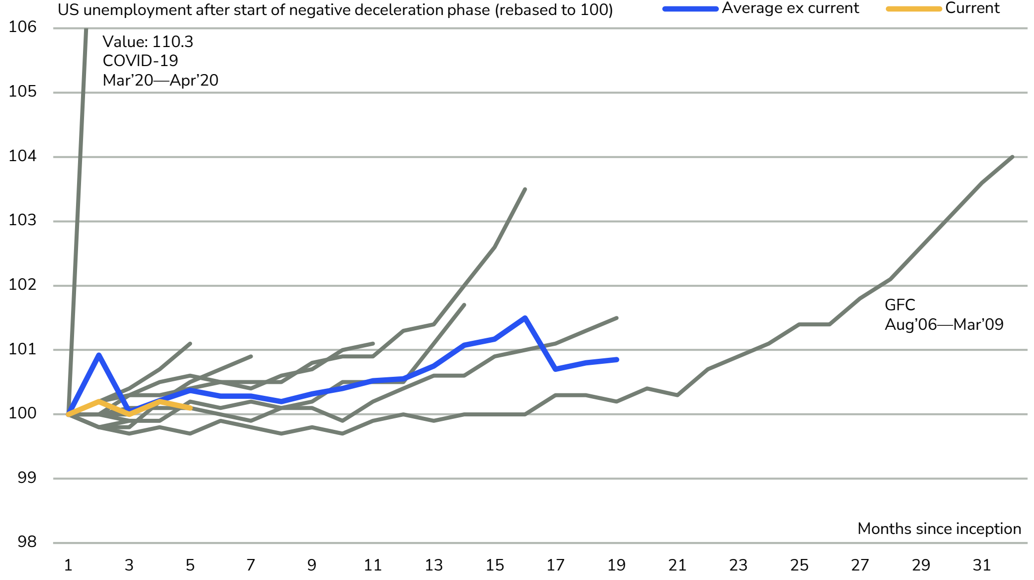
1. This cycle is like an average one. Leading indicators declining gradually...



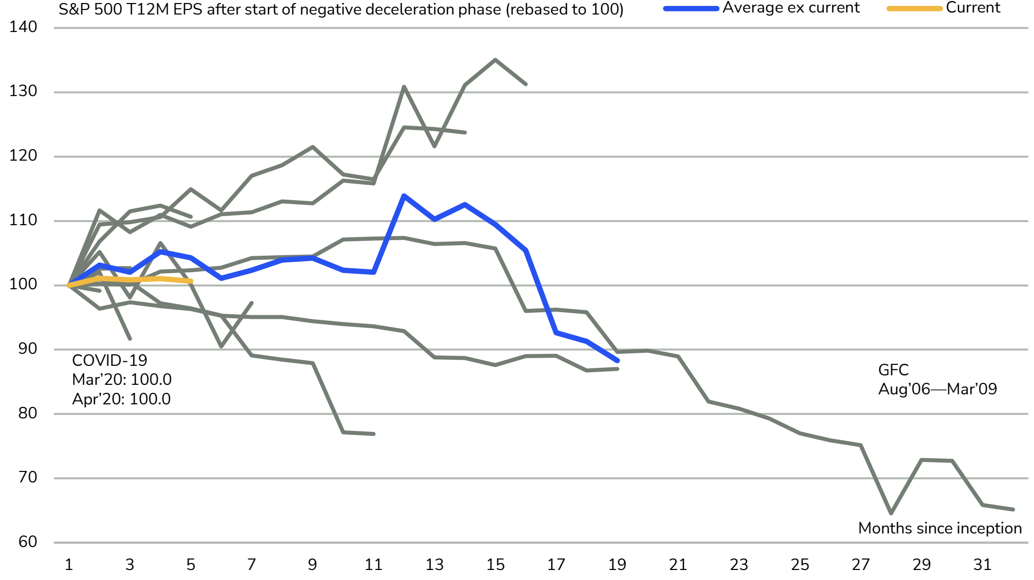
2. ...While industrial production goes sideways...



3. ...Unemployment is creeping up, but not dramatically...



4. ...And EPS is quite steady — almost equal chances of rise and fall.



Charts source. Proprietary calculations based on data from The Conference Board, Federal Reserve, US Bureau of Labor Statistics, Bloomberg.

Macro

US economy
Post-post-COVID world

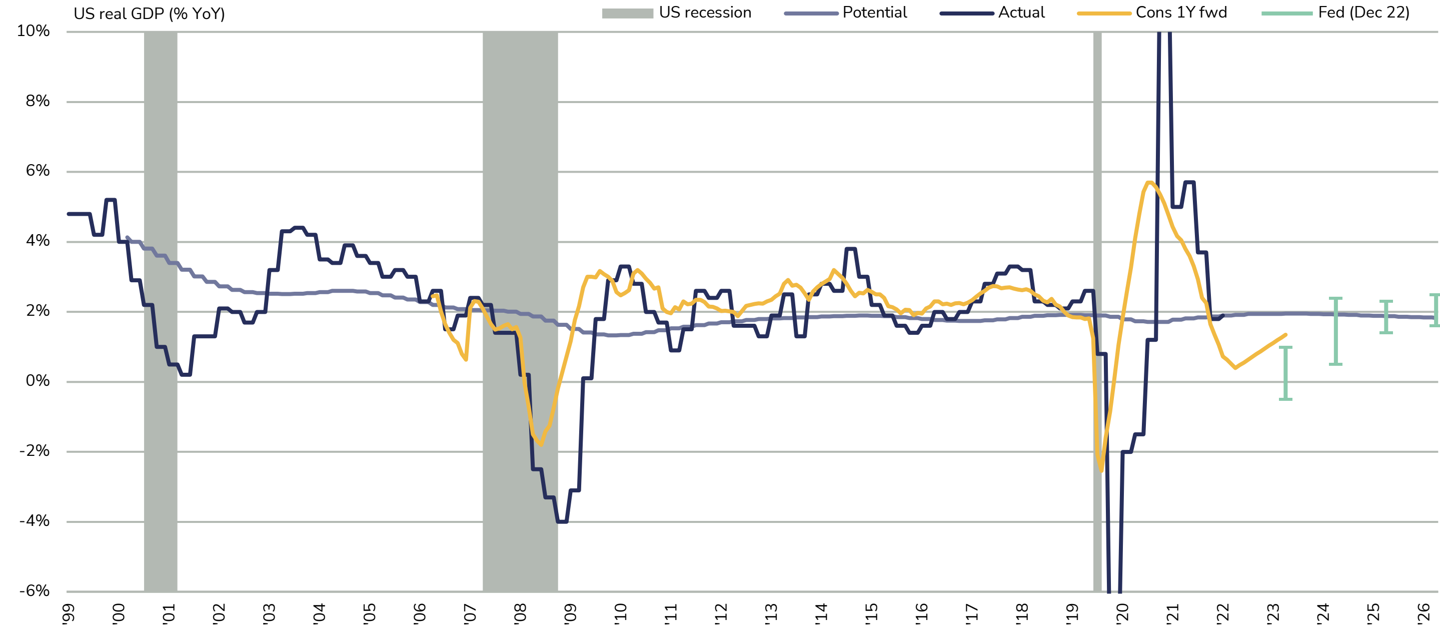
Aftermath of policy response.

Slightly positive real US growth in 2023 is our base case.

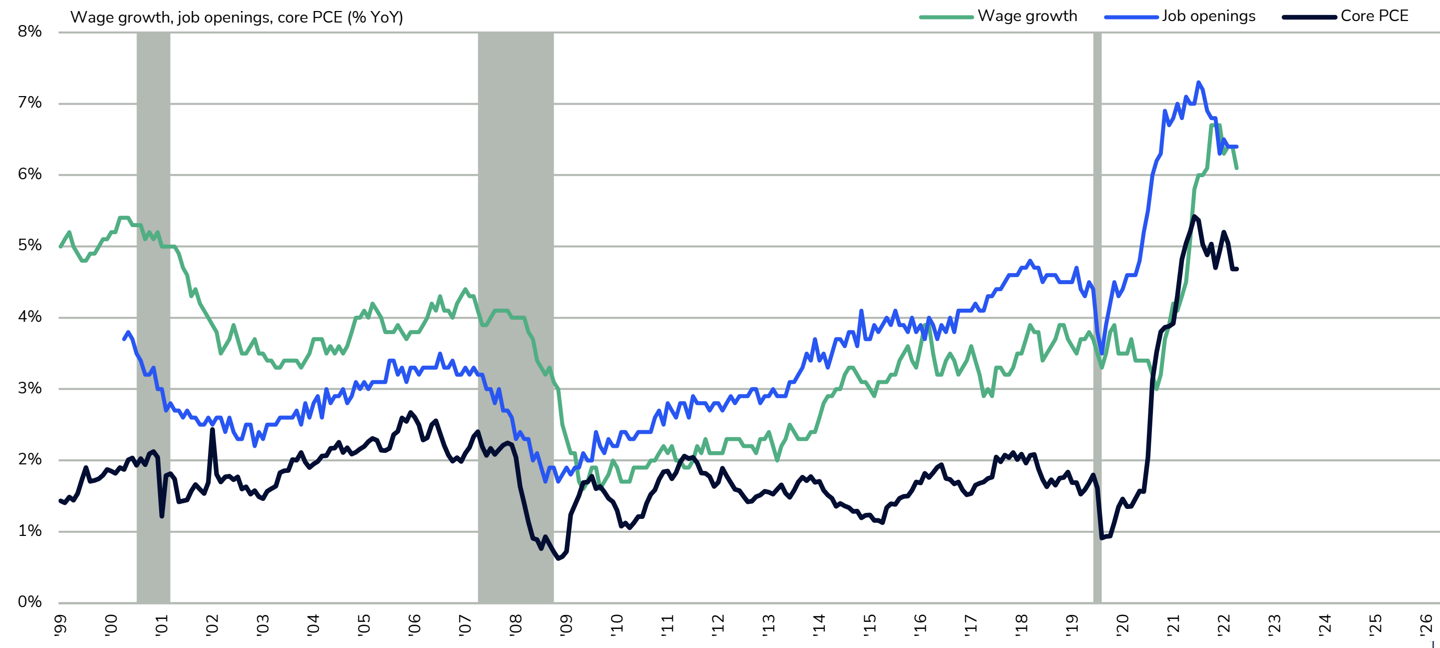
- The current macroeconomic situation is determined to a large extent by the consequences of the quite controversial response of developed world governments to the COVID-19 outbreak.
- Lockdowns of 1H20 resulted in a sudden stop of the global economy making hundreds of millions of people and thousands of companies rely upon government payouts and subsidies. Those were financed by central banks recklessly expanding monetary stimulus.
- Broken supply chains, elevated delivery time coupled with zero interest rate policy ignited an inflation spiral, which was fueled in 4Q21—1Q22 by spikes in energy prices.
- The central banks had to respond by contracting balance sheets and increasing key rates. The Fed was one of the first and definitely the most important actor in this play.
- Speaking of the post-post-COVID world in general, more flexible and endurant US economy has avoided many of the problems of 2022 compared to European peers. By the end of 4Q22 US GDP exceeded pre-COVID levels by 18.5% in nominal terms and 3.0% in real terms — that's substantially higher than the Eurozone economy which grew by 10.8% in nominal terms and is *down* by 3.9% in real terms.
- The US possesses rich energy resources and has gained a share of the global energy market (e.g. 19% of global LNG market in 2022 vs 17% in 2021) by selling surpluses to the Old World. And most likely US companies will be the major beneficiaries of the new warfare modernization cycle and reassessment of global security concepts.
- The Bloomberg consensus forecast of US GDP real growth in 2023 is 1.4% (snapshot as of late Dec'22), while the Fed makes it between -0.5% and 1%. Anyway this is below the rate of potential growth of 1.9% (**fig. 1**).
- If this scenario — real growth above zero, but below potential level — comes true, this most likely will cool the job market (being in the middle of structural changes). This in turn will put weight on wage growth. And this in its own turn will put downward pressure on inflation (**fig. 2**).

Charts source. (1) Bloomberg, Federal Reserve. (2) US Bureau of Labor Statistics, US Bureau of Economic Analysis.

1. Real GDP growth will stay below potential level in '23 and '24…



2. …This will cool the job market and wages, which in turn will bring down core inflation.



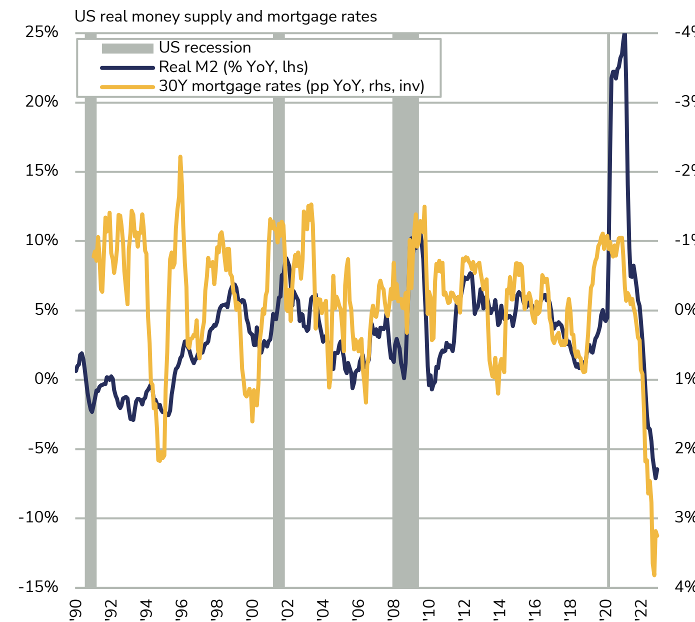
Economic activity in the US
I get knocked down, but I get up again

Housing is again in the spotlight.

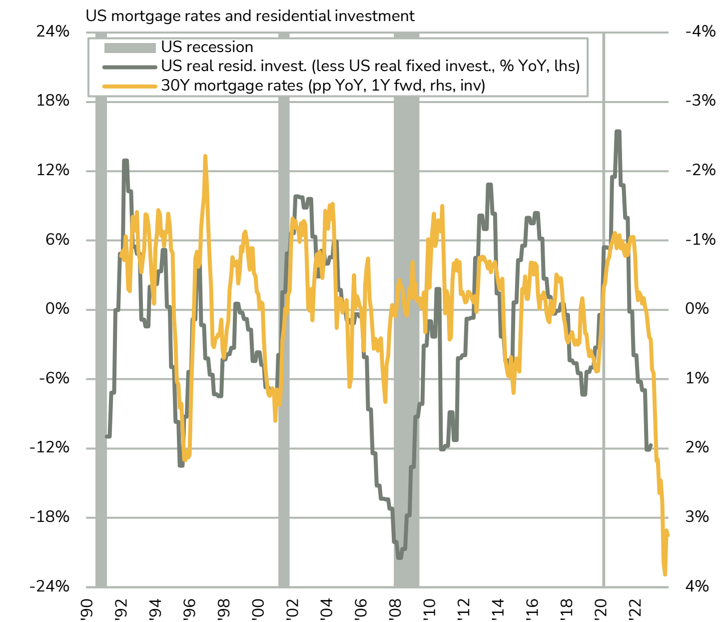
Higher rates curb housing demand, which is bad for manufacturing. However services hold strong.

- One of the major consequences of extended monetary stimulus from the Fed were rock bottom mortgage rates (**fig. 1**). This stimulated demand for housing and spurred prices. US 30Y mortgage rates fell to historical lows of less than 3% in November 2020. This was a major driver of house prices that skyrocketed 19.6% p.a. since then to June 2022 (S&P/CaseShiller real estate index peak) compared to CAGR of 6.5% in post-GFC Feb'12—Nov'20.
- Increase in residential investment was a natural response to elevated demand (**fig. 2**). When monetary tightening unfolded in late 2021, this reversed the trends — mortgage rates reached 7.0% in Oct—Nov'22 and housing demand fell by 12% YoY.
- Being a large contributor to GDP (4.2% 3Q22), the US residential sector is a major customer to various industries. A weak housing sector normally implies sub-par activity levels in manufacturing (**fig. 3**).
- Dec'22 levels of manufacturing activity (ISM = 48.4) are associated with mid-cycle slowdowns, seen in 2012 and 2016 for example. However recessions of 2000—2002 and 2008—2009 marked lower levels of 35—40.
- Though US the manufacturing sector is on the brink of a bigger downturn, services are holding quite well (ISM Non-Manufacturing Nov'22 = 56.5, Dec'22 = 49.6, yet to see if it's cold weather or something worse). Given the substantial and growing share of services in GDP (44% 3Q22 vs 32% 1979), this supports an overall growing short term potential of the US economy (**fig. 4**). It is worth highlighting that serious recessions (2000—2002, 2008—2009) are associated with shrinking services sector as a less volatile backbone of the economy compared to more volatile manufacturing production.

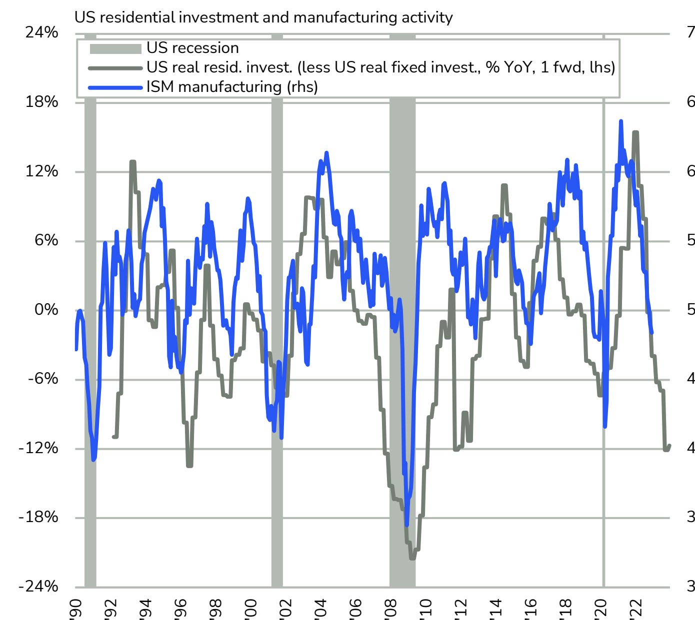
1. Soft monetary policy = low mortgage rates...



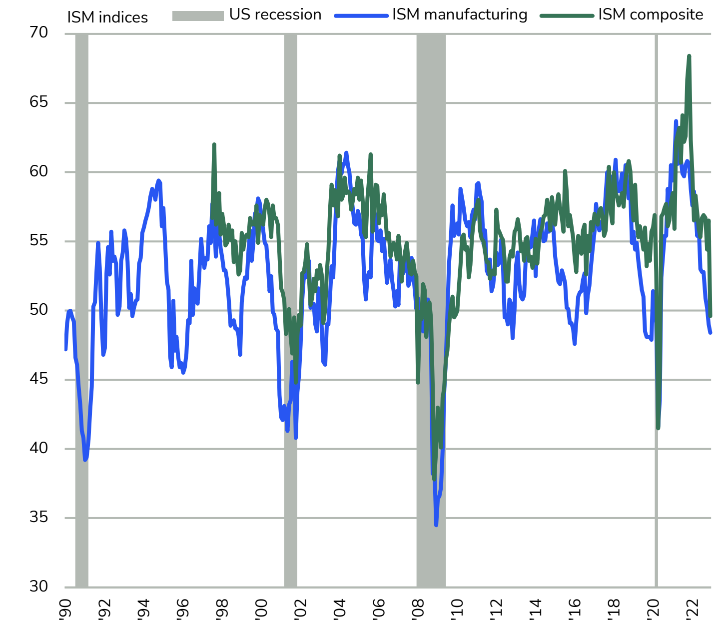
2. ...Which stimulate high demand for housing.



3. Reverse: housing drags down manufacturing.



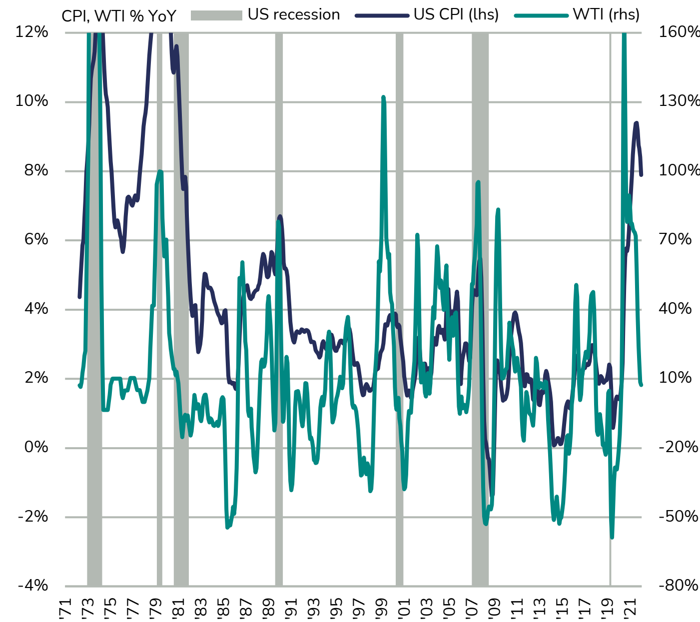
4. Services drive the US economy.



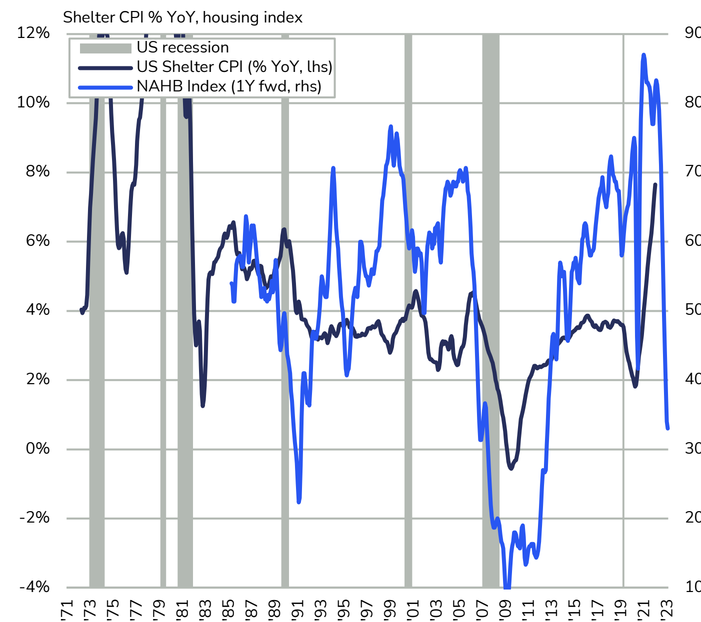
Charts source. (1) Federal Reserve, US Bureau of Labor Statistics, US Mortgage Bankers Association. (2) US Mortgage Bankers Association, US Bureau of Economic Analysis. (3) US Bureau of Economic Analysis, Institute for Supply Management. (4) Institute for Supply Management.

Prices in the US economy
Hold on a second

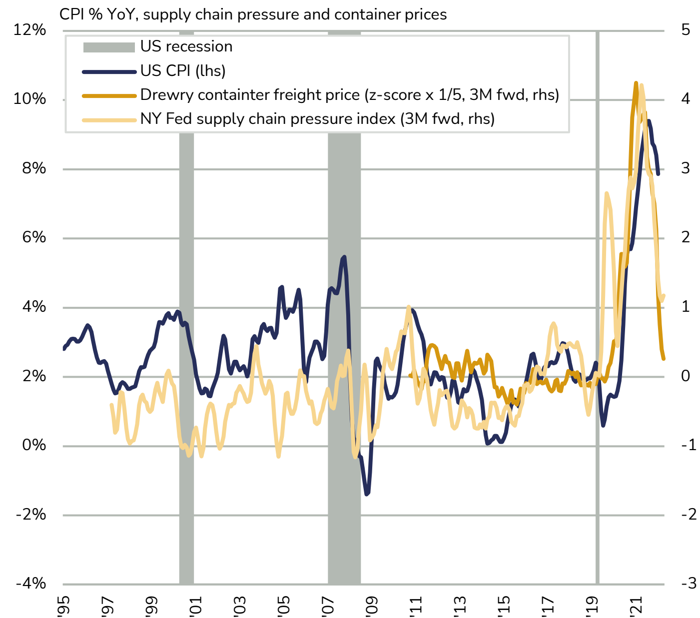
1. Low oil prices will cool down inflation...



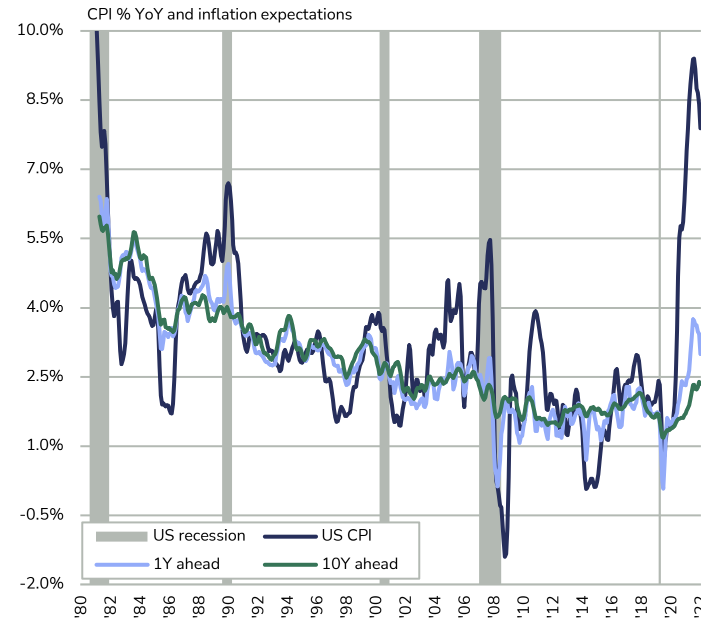
2. ...As well as subdued housing activity.



3. Supply chain is no longer under pressure.



4. Frontloaded inflation expectations.



Inflation fears are likely in the past.

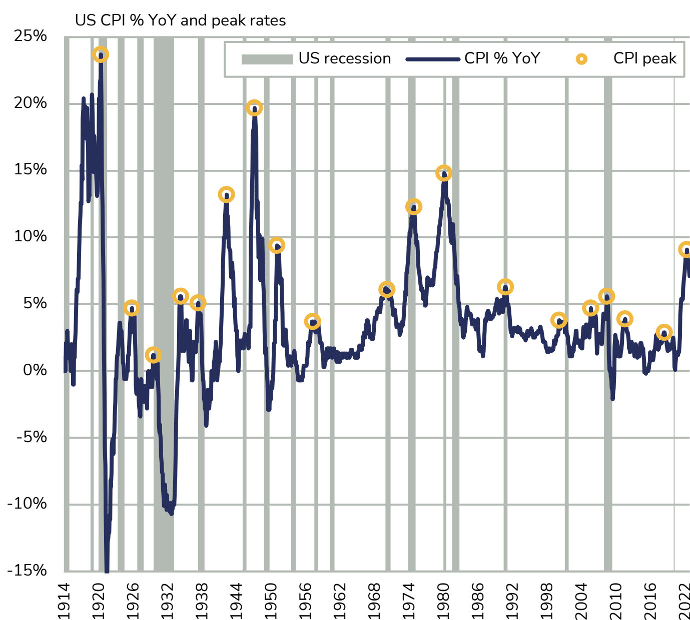
Sub-par economic activity will lead to a decrease in aggregate demand and therefore lower inflation.

- Inflation was a buzzword in 2022. Originally this started with excessive monetary supply as a response to COVID lockdowns. Then broken supply chains added to price hikes since buyers had to — either wait an abnormal amount of time for delivery, or overpay to receive goods ahead of competitors. Finally, there were politically motivated limitations of energy supplies to Europe in late 2021—early 2022, which ignited another round of supply routes reassessment and price hikes followed inevitably.
- In the beginning of 2023 inflation does not seem to be a headline theme. The coordinated response from global central banks in tightening and rate hikes put a break on economic growth and demand for energy. Western Europe has found alternative ways for disrupted energy supplies from Eastern Europe (-67 bcm 4Q21—3Q22) focusing on producers in the Gulf region and the US, as well as internal producers like Norway (all in +66 bcm form the same period).
- Growth in energy prices added 3—4% to CPI growth in the US since mid-2020. Now this process goes the opposite way (**fig. 1**).
- As mentioned earlier, housing was another source of inflation. Low mortgage rates spurred housing demand and lifted prices and owner equivalent rents. Apart from 2008—2009 shelter costs in the US have been growing at dull rates of 2—4% p.a. since late 1980s before exceeding 7% in 2022. Weak activity in housing should cool down shelter cost growth by the end of 2023 (**fig. 2**).
- Supply chains in general are no longer under pressure and indicate that US inflation can reach low single digit numbers in 2023 (**fig. 3**).
- Long term inflation expectations are well tamed and are in line with multi-year average levels (**fig. 4**). Investors consider spikes in inflation as temporary — therefore short-term inflation expectation exceed long-term by a record number.

Charts source. (1) Bloomberg, US Bureau of Labor Statistics. (2) US Bureau of Labor Statistics, US National Association of Home Builders. (3) US Bureau of Labor Statistics, Federal Reserve Bank of New York, Drewry. (4) US Bureau of Labor Statistics, Federal Reserve Bank of Cleveland.

US inflation peak
It's no mystery, Mr Cooper

1. Inflation spikes are not unusual.



- The performance of financial market after a US inflation peak largely depends on whether the US economy falls into recession or not.
- Since early 20th century the US economy lived through 18 inflation peaks plus the latest one in June 2022. Slightly over half of those started when there was no recession. And if this happened, then there is 80% empirical chance that 1Y after the inflation peak the economy would be still growing (**fig. 3**).
- If there is no recession in the 12M after an inflation peak date, then equities post positive total return numbers in 84.6% of cases (average growth +18.2%). If a recession hits, then the chances of positive returns are only 20% and average growth turns negative to -17.4%.
- Bonds do well in both scenarios — high single digit returns with almost certain probability.

2. Performance of S&P 500, short term and long term UST after 1Y from inflation peak date.

Infl. peak date	Infl. peak date + 1Y	Infl. at peak	Infl. at peak +1Y	Abs ch	Recess. at start	Recess. at end	S&P 500	LT UST	ST UST	S&P 500 vs LT UST	S&P 500 vs ST UST
Jun'20	Jun'21	23.7%	-15.8%	-39.5pp	Y	Y	-11.3%	7.7%	5.8%	-19.0%	-17.2%
Nov'25	Nov'26	4.7%	-1.7%	-6.4pp	N	Y	13.2%	5.3%	3.3%	8.0%	9.9%
Aug'29	Aug'30	1.2%	-4.6%	-5.8pp	Y	Y	-28.0%	7.5%	3.8%	-35.5%	-31.8%
May'34	May'35	5.6%	3.8%	-1.8pp	N	N	4.4%	5.7%	0.2%	-1.4%	4.2%
May'37	May'38	5.1%	-2.1%	-7.2pp	Y	Y	-39.3%	5.0%	0.2%	-44.3%	-39.5%
May'42	May'43	13.2%	7.4%	-5.8pp	N	N	57.6%	2.4%	0.4%	55.2%	57.3%
Mar'47	Mar'48	19.7%	6.8%	-12.9pp	N	N	5.1%	0.1%	0.7%	5.0%	4.4%
Feb'51	Feb'52	9.4%	2.3%	-7.1pp	N	N	13.6%	-0.1%	1.5%	13.7%	12.0%
May'57	May'58	3.7%	3.2%	-0.5pp	N	N	-3.1%	5.8%	2.9%	-8.9%	-6.1%
Apr'70	Apr'71	6.1%	4.2%	-1.9pp	Y	N	32.1%	21.4%	6.0%	10.7%	26.1%
Dec'74	Dec'75	12.3%	6.9%	-5.4pp	Y	N	37.2%	8.3%	6.3%	28.9%	30.9%
Mar'80	Mar'81	14.8%	10.5%	-4.3pp	Y	N	40.1%	10.2%	13.5%	30.0%	26.6%
Nov'90	Nov'91	6.3%	3.0%	-3.3pp	Y	N	20.3%	14.0%	6.7%	6.2%	13.6%
Mar'00	Mar'01	3.8%	2.9%	-0.9pp	N	Y	-21.7%	12.8%	6.3%	-34.5%	-28.0%
Sep'05	Sep'06	4.7%	2.1%	-2.6pp	N	N	10.8%	2.4%	4.5%	8.3%	6.3%
Jul'08	Jul'09	5.6%	-2.1%	-7.7pp	Y	N	-20.0%	8.1%	0.8%	-28.1%	-20.8%
Sep'11	Sep'12	3.9%	2.0%	-1.9pp	N	N	30.2%	6.3%	0.1%	23.9%	30.1%
Jul'18	Jul'19	2.9%	1.8%	-1.1pp	N	N	8.0%	14.2%	2.3%	-6.2%	5.6%
Jun'22	Jun'23	9.1%			N						
After infl. peak	Hit ratio						66.7%	94.4%	100.0%	55.6%	66.7%
	Average	8.1%	1.7%	-6.4pp			8.3%	7.6%	3.6%	0.7%	4.7%
Infl. peak + recess. 1Y	Hit ratio						20.0%	100.0%	100.0%	20.0%	20.0%
	Average	7.7%	-4.3%	-12.0pp			-17.4%	7.6%	3.9%	-25.1%	-21.3%
Infl. peak + NO recess. 1Y	Hit ratio						84.6%	92.3%	100.0%	69.2%	84.6%
	Average	8.3%	4.0%	-4.3pp			18.2%	7.6%	3.5%	10.6%	14.6%
Unconditional (1Y rolling)	Hit ratio						74.7%	81.8%	100.0%	63.8%	70.3%
	Average						12.3%	5.7%	3.6%	6.7%	9.0%

3. Recession probability in 1Y from inflation peak.

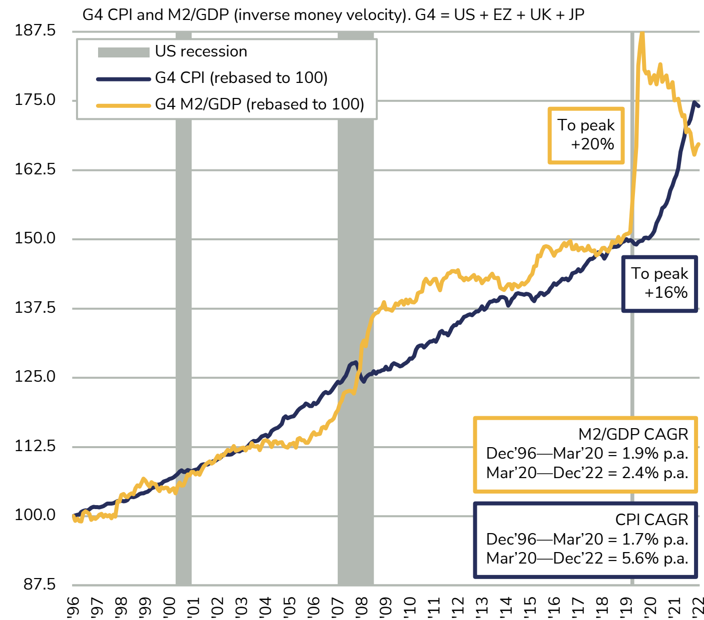
			To infl. peak date + 1Y	
			Recession	No Recession
			28%	72%
From infl. peak date	Recession	44%	38%	63%
	No Recession	56%	20%	80%

US economy faced inflation peak while growing. There is a high chance that growth will continue.

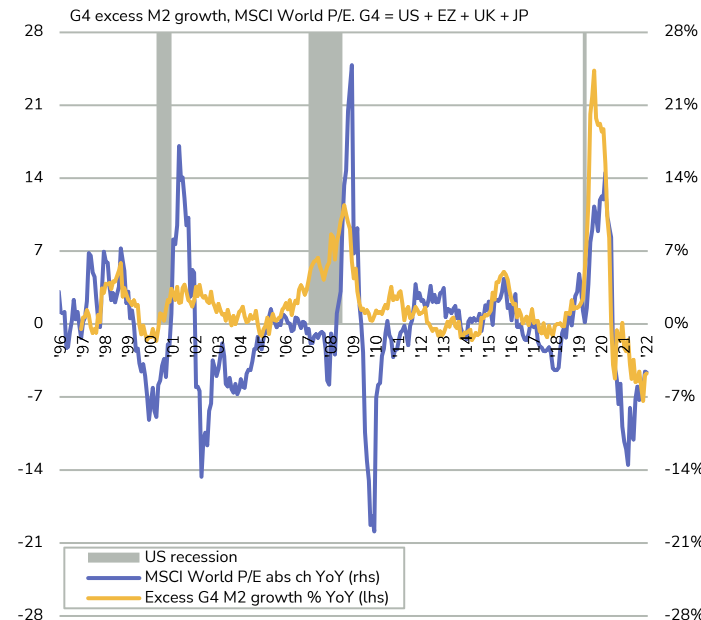
Charts source. (1) US Bureau of Labor Statistics. Proprietary calculations. (2) US Bureau of Labor Statistics, Bloomberg, proprietary calculations. Infl. = inflation = US CPI % YoY. S&P 500, LT UST and ST UST — all total return. (3) Proprietary calculations based on US Bureau of Labor Statistics data.

Central banks
Too much, too fast

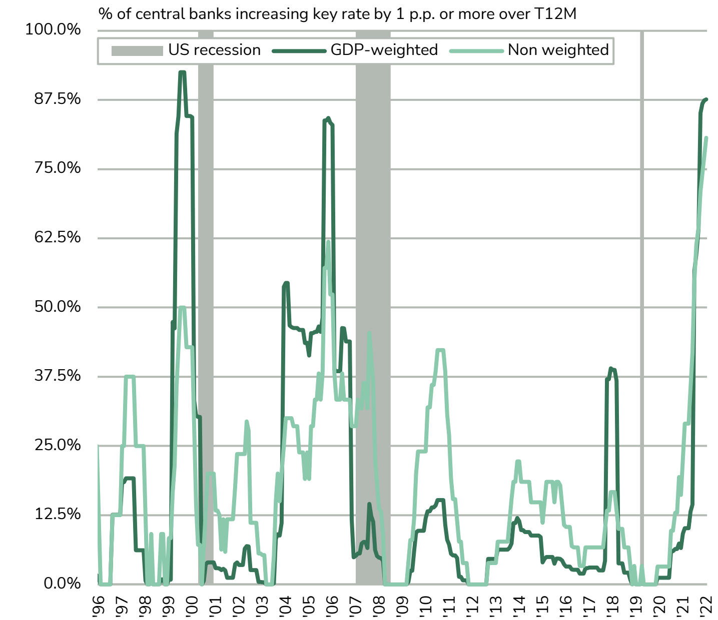
1. Money supply expansion triggered inflation...



2. ...And boosted valuations...



3. ...So central banks had to respond.



Deflating bubble

Money supply growth will be negative to zero, central banks will make a pause in hiking in 2023.

- Money supply in the world's largest developed economies grew in line with average inflation rates since the mid-90s. Here we consider G4 economies = US + Eurozone + UK + Japan. The only exception was 2007—2009, when monetary authorities had to bail out several major financial institutions. However this aid was focused on the financial sector and had a limited impact on overall price growth post-GFC. The average growth rate of M2 aggregate in comparison with GDP for G4 countries was 1.9% p.a. from Dec'96 to Mar'20, while GDP-weighted CPI grew by 1.7% p.a. over the same period (**fig. 1**).
- Central banks of G4 countries expanded balance sheets by 18% or $7.7 trln in Mar'20 to Dec'20 to fund anti-COVID policies. A year later this triggered one of the biggest inflation spikes over the last several decades.

- By the end of 2020 combined GDP of G4 countries exceeded Feb'20 levels in nominal terms. By the end of 2022 this value was 8.8% higher than the pre-COVID level, however the money supply is 20.2% higher. Money aggregate started to contract in absolute terms only in Apr'22.
- Such excessive money growth spurred equity valuations, which supported financial markets in 2Q20—3Q20 amid falling corporate earnings. Reversal of this trend almost inevitably resulted in compression of valuations (**fig. 2**). For the first time in 25 years we see a material reduction in M2 excess growth in G4 countries. And year end 2022 valuations (in terms of P/E) are broadly in line with average values on 2017—2019.

- Reduction in money supply is one of the two main responses from central banks to fight inflation. The other one — they raise key rates. Year 2022 marked the second largest coordinated hiking actions of global central banks (**fig. 3**, we have 31 in our sample).
- If history is any guidance to us, such movement cannot last for too long and we would expect key rates to reach a plateau in 2023, most likely in 2H.

Charts source. (1) Proprietary calculations based on data from Federal Reserve, US Bureau of Labor Statistics, US Bureau of Economic Analysis, ECB, Eurostat, Bank of England, UK Office for National Statistics, Bank of Japan, Economic and Social Research Institute of Japan. (2) Same as in previous point plus MSCI. (3) Proprietary calculations based on data from 31 central banks and The World Bank.

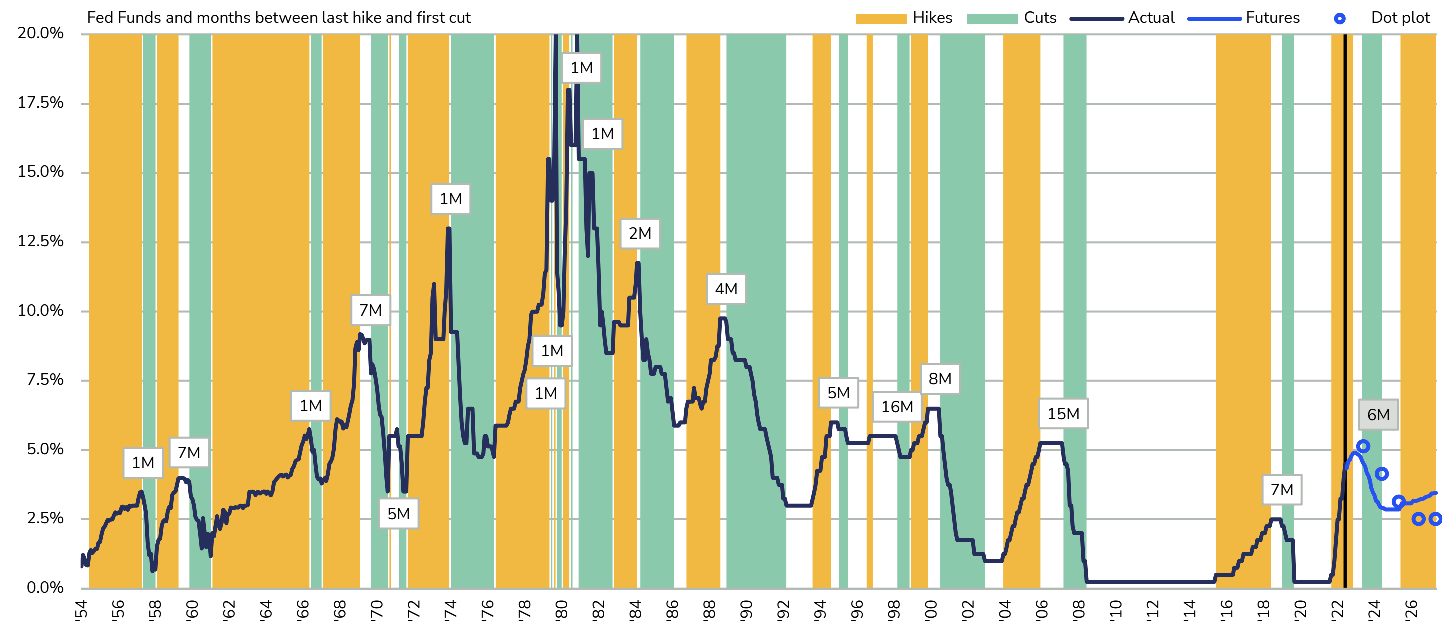
Key rate in the US
Reaching top of the hill

Much of the tightening job is done.

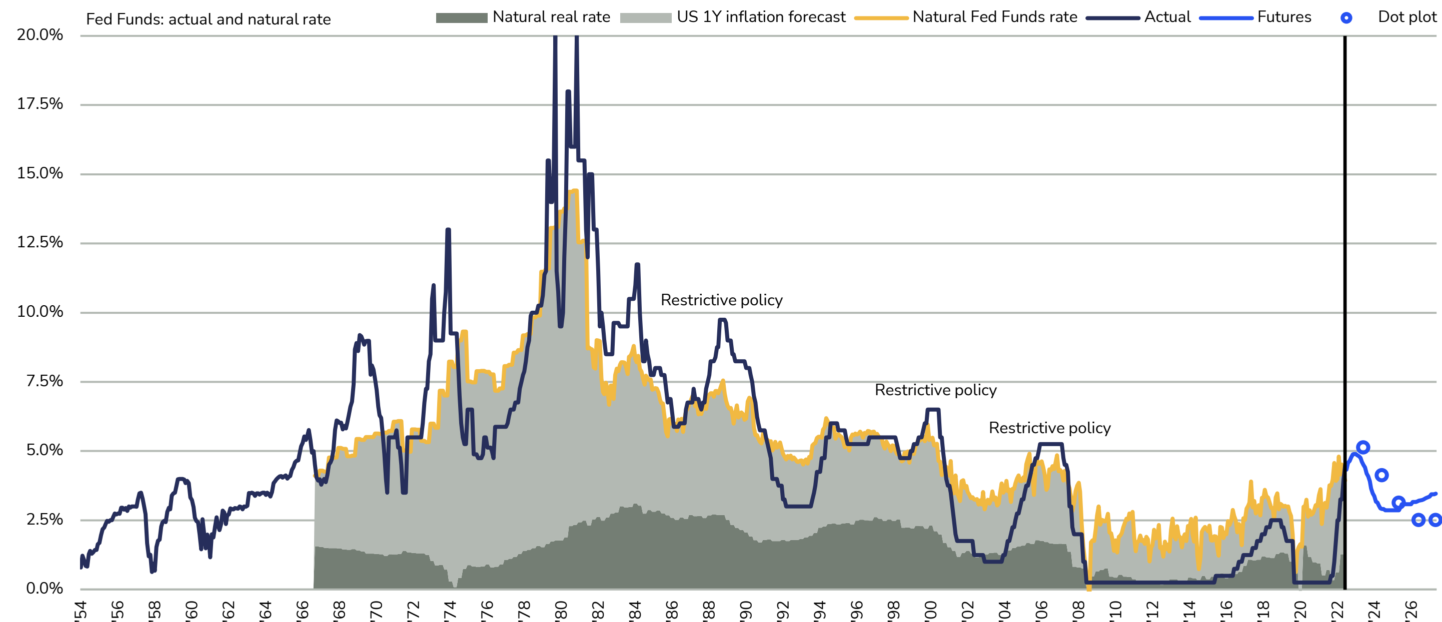
The market is pricing Fed cuts in late 2023. Actual rates are above their natural level and may grow. Rate cuts are probable in 2H23 and are subject to data.

- The Federal Reserve's mandate to keep sustained levels of inflation is as important as supporting economic growth. So overshooting in monetary tightening is not in the Fed's best interests. They respond to changing economic conditions in an active way by cutting down the Fed Funds rate to boost economic growth.
- On average it takes as much as 7.5 months for the Fed to start cutting the key rate after a tightening cycle is completed. This is excluding periods of 1 month length in '50s—'80s as we consider those actions as a delayed response to overshooting in tightening. Full sample average is 4.9 months (**fig. 1**).
- End of Dec'22 Fed Funds futures signal that the rates should peak at the level of 5% in May'23 and first cuts are expected as early as in Nov'23 — 6 months, in line with historical averages.
- The December 2022 meeting of the Fed revealed that median estimated key rate for Dec'23 is 5.1% and 4.1% a year after. The market is now pricing a deterioration in the economy, which would force the Fed to cut rates earlier in 2023.
- The concept of natural interest rate may help to estimate the fair level of Fed Funds. According to the Richmond Fed, the natural rate of interest is a hypothetical interest rate that is consistent with economic and price stability. If actual rates are above natural — this is a sign of restrictive monetary policy, while the opposite means that the policy is accommodative.
- January 2023 readings of natural real rates and short term inflation expectations imply a natural nominal rate of 3.9%, which is below the current level of 4.5%. The Fed's target for late 2023 is 5.1%, which is a clear message that rates will be higher for longer (**fig. 2**).
- For the first time since 2006—2007 the Fed may stay in the restrictive growth camp. For reference: last time the Fed stayed 15 months there.

1. Fed is fast in cutting rates after tightening is completed: 7.5M on average.*



2. Fed's target for late 2023 is 5.1%, which 1pp higher than natural rate. The end of hiking is close.



Charts source: (1) Proprietary calculations based on data from Federal Reserve, Bloomberg.
* 7.5 months is average length of periods between last hike and first cut in Fed Funds rate since 1954 and excluding periods of 1M length in '50s—'80s. Median value is 7M.
(2) Proprietary calculations based on data from Federal Reserve, Federal Reserve Bank of Philadelphia, Federal Reserve Bank of Cleveland, Federal Reserve Bank of Richmond, Bloomberg.

US employment
Who wants to work?

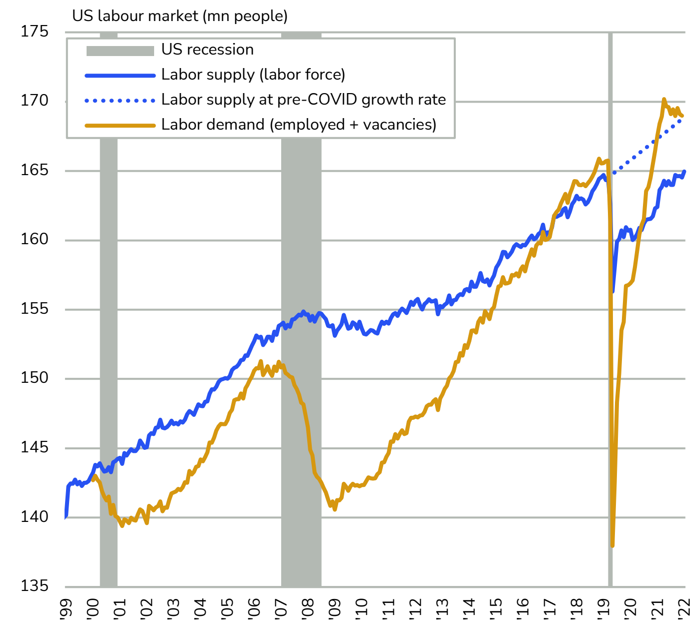
Job market is under structural shifts.

Job demand exceeds supply and supports wage growth. Structural changes will not reverse soon.

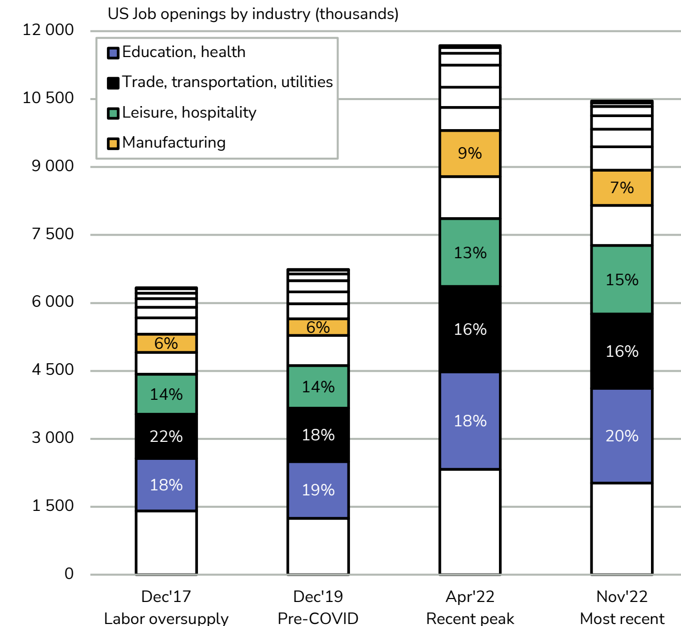
- The impact of COVID-19 on the US job market was huge. The labor force — the measure of labor supply — contracted by 5.5% or 9 mn people in Feb'20—Apr'20 and recovered to pre-COVID levels only by 3Q22. Theoretical job supply should have been at the level of 169 mn or 2.7% higher (~4mn people) than the actual number (**fig. 1**).
- The main reasons for the shortfall in the labor supply are the following: health problems and deaths due to COVID, lower internal and cross-border mobility, early retirement.
- Job demand has shown a V-shape recovery over the last 3 years quickly shrugging off COVID restrictive measures. Such flexibility led to a labor deficit in 2Q21, which has exacerbated since then. This imbalance of the job market resulted in substantial growth of wages (**fig. 3**). As we discussed earlier it was one of the key drivers of inflation.
- However imbalances in the US job market started to emerge in 2017, when the demand exceeded supply for the first time since the early 2000s. We think that COVID related changes have just amplified those imbalances and sped up the pace of changes.
- COVID has revealed high demand for healthcare workers. Over the last 5 years the share of vacancies in this field (joined by quite stable education) has expanded from 18% to 21% (**fig. 2**).
- Leisure and hospitality saw another expansion in vacancies (from 14% to 15%) — people are still hungry for travelling after lock-downs have been lifted (**fig. 2**).
- Manufacturing is another point of growth. Trade wars with China along with increasing relative labor costs in Asia push a lot of companies to expand within the US. Only 6% of the vacancies were in manufacturing companies in the US in Dec'19, while 3 years later it's around 7%, down from peak level of 9% in Apr'22 (**fig. 2**).
- And there was one sector that has been a net supplier of workforce — that's offline retail trade (grouped with other stable industries like transportation and utilities). Responsible for 22% of vacancies in Dec'17, now this sector demands just 16% — the biggest drop among 12 supergroups (**fig. 2**). E-Commerce has experienced a major boost in 2020—2021, offline retail loses its share slowly, but surely.
- Currently the US job market is quite strong with the signs of overheating. Though below-potential economic growth should cool the job market and wage growth, the structural shifts in the job market should persist and keep it relatively strong.

Charts source. (1, 2) US Bureau of Labor Statistics. (3) US Bureau of Labor Statistics, Federal Reserve Bank of Atlanta.

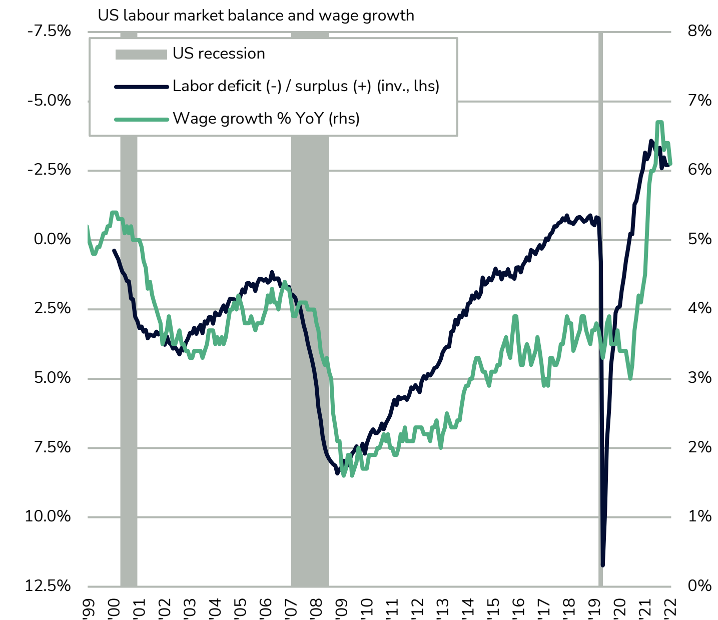
1. Over 4mn Americans are still out of labor force.



2. Job demand is structurally changing.



3. Labor market deficit push wages higher.



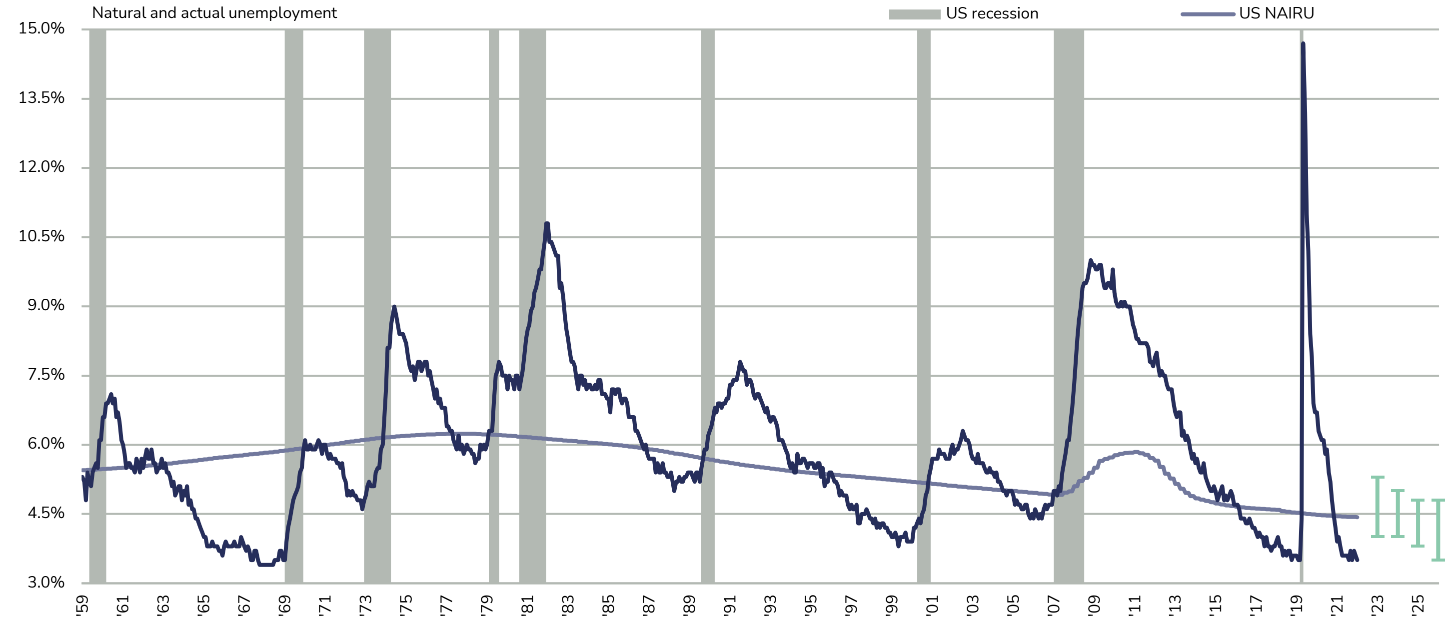
US employment as recession indicator
Looking back to look forward

Strong job market does not imply recession.

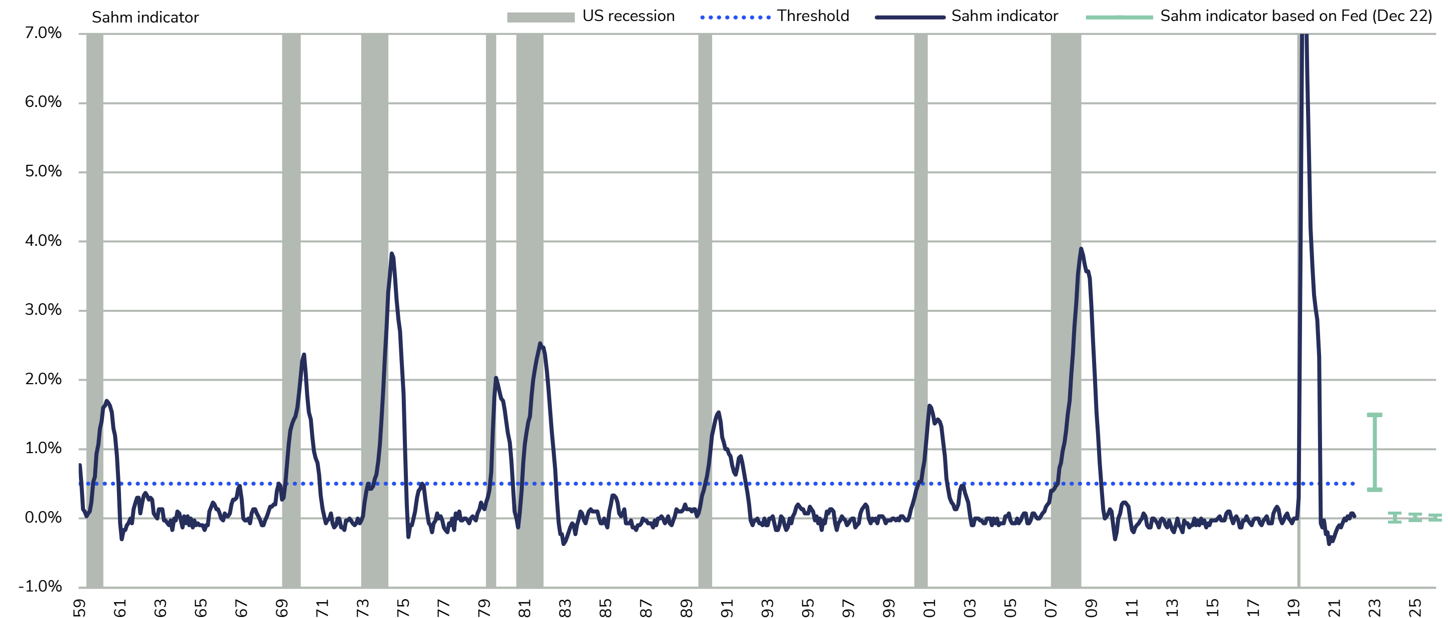
Unemployment is likely to rise in 2023, but not drastically as base case.

- Employment is usually a lagging or a coincident indicator with economic cycle — compared to leading indicators like sentiment or interest rates. Usually the lag is between 3 and 6 months, and it varies in time.
- However we can try to make a judgement on distance to recession, if it ever happens within 2023.
- One of the major thresholds for unemployment is NAIRU — non-accelerating inflation rate of unemployment. If unemployment is below this theoretical threshold, then inflation may accelerate. On average it took 12.7 months for US unemployment rate to reach NAIRU (since late '50s). And the average growth rate of unemployment was 11bps/month. Median values are 13 and 9 respectively.
- Given latest unemployment rate of 3.7% (Nov'22) this means that the US economy may reach NAIRU level in 3Q23, if deceleration turns into a full scale recession.
- Another indicator was proposed by Claudia Sahm of Macroeconomic Research Initiative of the Jain Family Institute. Effectively it is a reverse drawdown of the unemployment rate. If the 3MMA unemployment rate is above the lowest point in the previous 1Y by at least 0.5%, then recession is likely to happen very soon after. So far we see that this indicator is well below the threshold level.
- The Fed is targeting an unemployment rate in the range of 4.0% to 5.3% by Dec'23. In a low unemployment scenario a recession most likely will not occur — unemployment will still stay below NAIRU level and Sahm indicator will not cross the threshold. In a high unemployment scenario a recession may happen. However the Fed is guiding better economic conditions in 2024 and onwards.

1. Unemployment is well below NAIRU. Fed target — UR to reach NAIRU by Dec'23 and pull back after.

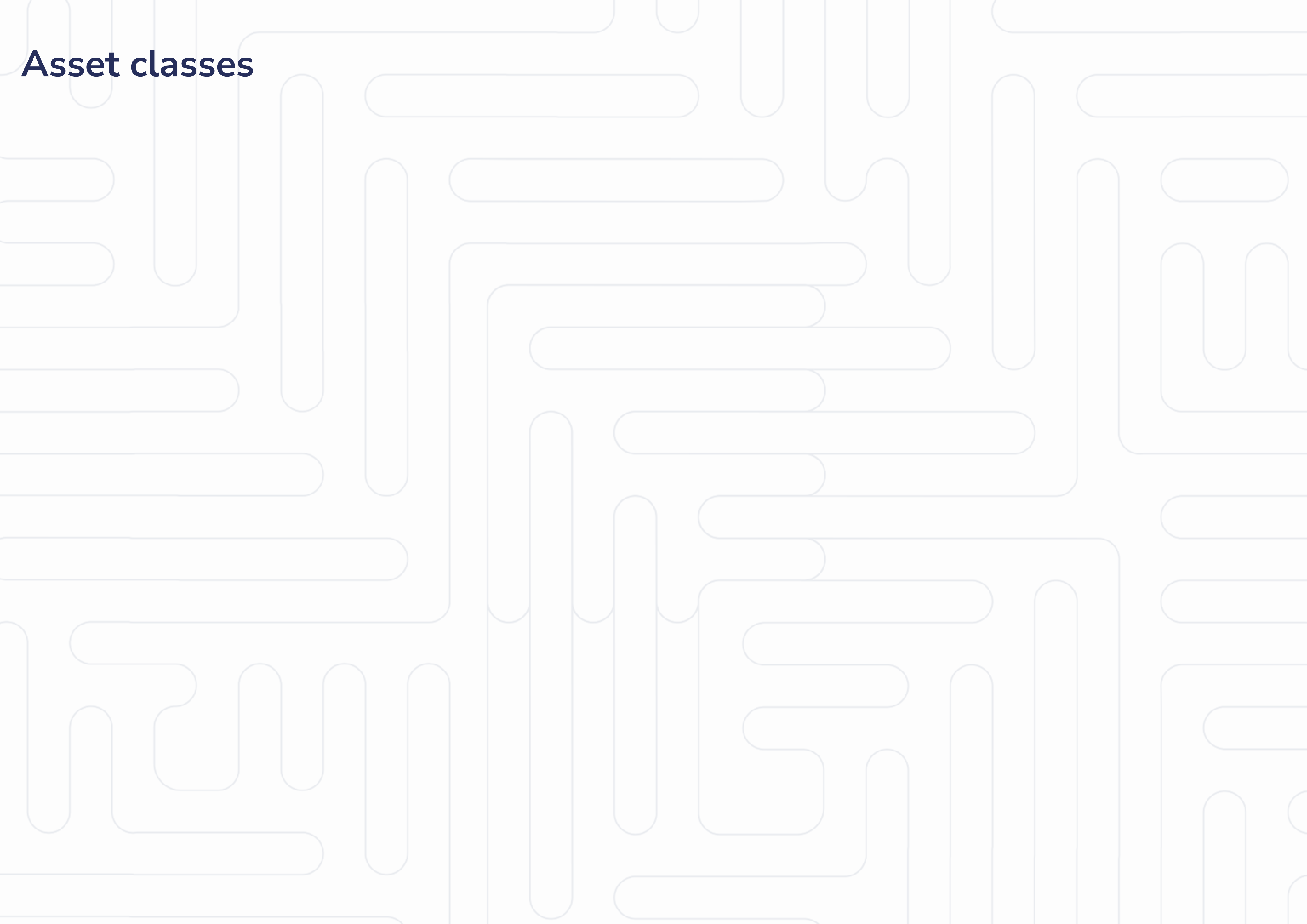


2. Low unemployment scenario — no recession, high unemployment — quite likely.



Charts source. (1) US Bureau of Labor Statistics, Federal Reserve. (2) The Federal Reserve Bank of St. Louis, Federal Reserve, proprietary calculations.

Asset classes



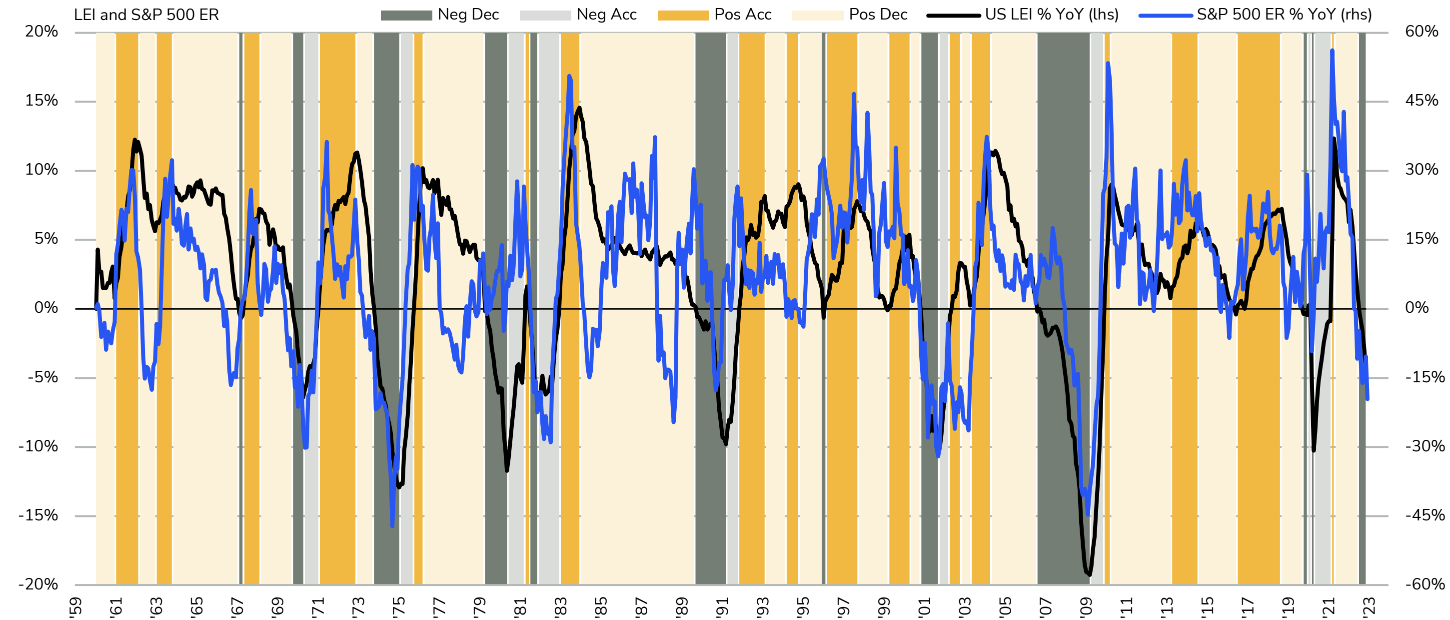
Equities. Performance, earnings, valuations
Go with the flow

Equities need growth or monetary easing.

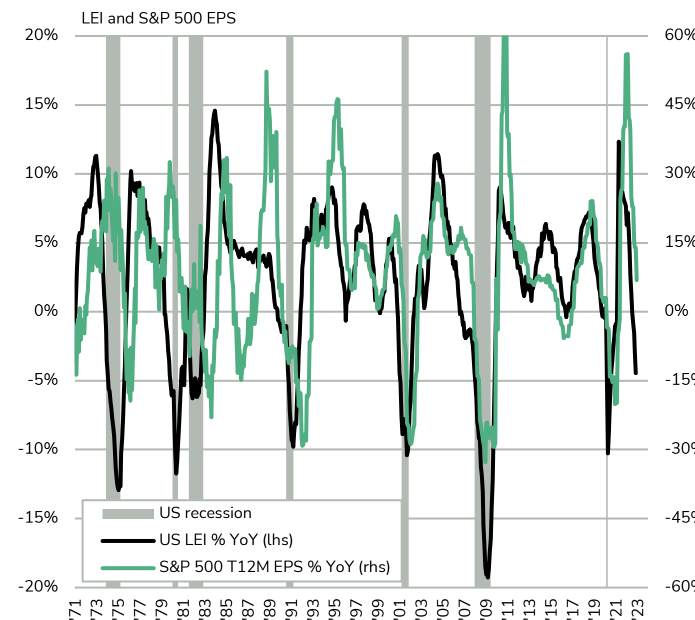
No stable driver of capital appreciation, potential downgrade in earnings growth, but multiples have de-rated. Stay on hedged and safe side until clearance in growth or monetary policy.

- In general equity returns go in line with economic activity, slightly leading it — higher activity and growth implies better equity returns (**fig. 1**). For instance March 2021 marked the point of the largest % YoY rolling excess return of US equities (S&P 500) since 1943. This coincided with the local top of US leading indicators (in terms of percentage change YoY). And equity markets started to decelerate in growth and then to fall.
- To a large extent this is due to change in earnings that are synchronized with a change in general economic activity (**fig. 2**). Currently leading indicators point to potential decrease of S&P 500 EPS by 15—20% over 2023, while Bloomberg consensus is +9.7% (snapshot — beginning of Jan'23). It's not unusual that investors downgrade their earnings forecasts over the year. Our base case scenario for US equity earnings growth is close to zero in '23 vs '22.
- Change in valuations is another major driver of performance. The rise in US real long term rates in 2022 was the largest on the record. This depressed valuations across the board (**fig. 3**). Stocks with high valuations suffered more losses in comparison with reasonably priced companies despite quite good financial results. For example, the tech heavy NASDAQ-100 fell by 33% due to a 37% freefall in P/E and a 6% gain in EPS*. At the same time the Dow Jones Industrial Average with focus on the old economy depreciated just by 9%, losing both in valuations (-6%) and earnings (-3%).
- Equity valuations are suppressed by a rise in rates and the Fed is keen on keeping rates high to fight inflation. Though, as discussed previously, inflation risks are fading, we may live in an era of high rates throughout 2023. At the same time earnings may be at risk due to sub-par economic growth. Stay in safe, high quality companies, add on large drawdowns and wait for an economic turnaround in 2H23.

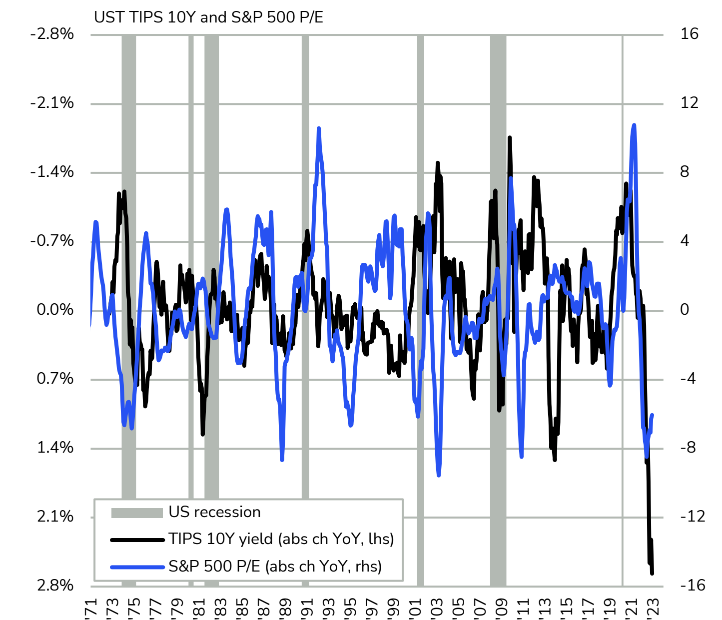
1. Equities usually underperform in negative deceleration phase.



2. Earnings follow economic cycle



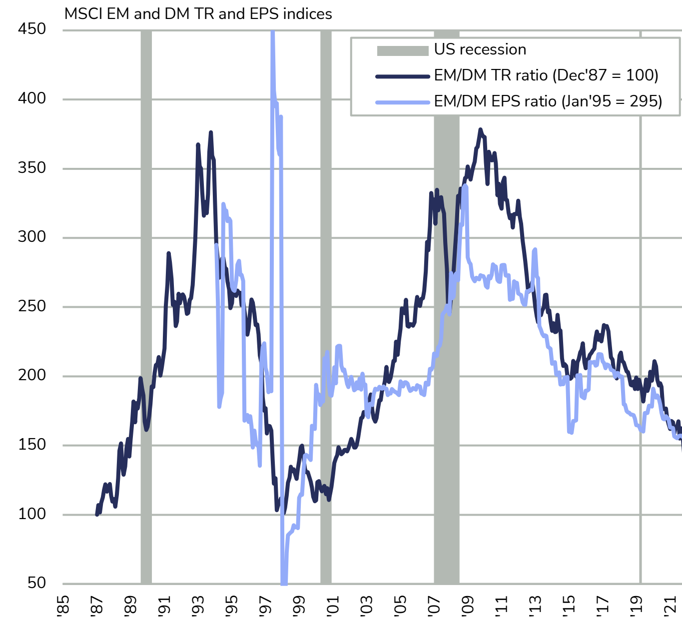
2. Valuations are highly dependent on real rates.



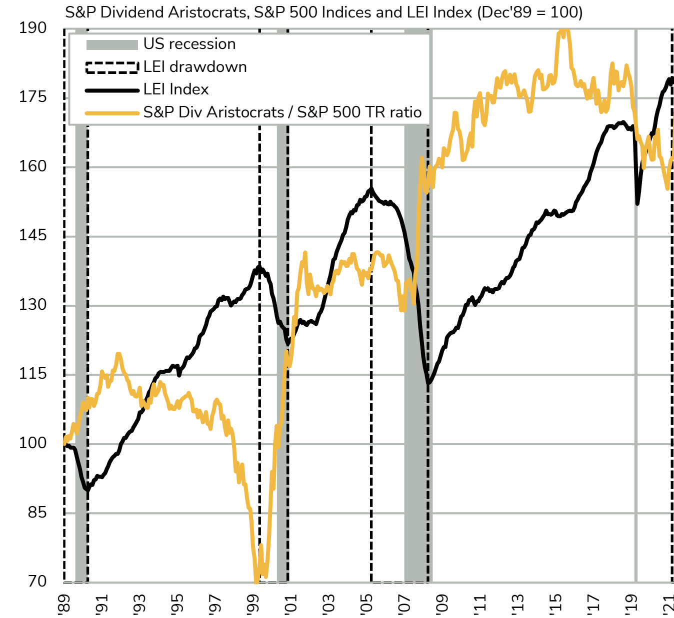
Charts source. (1, 2, 3) The Conference Board, Bloomberg, proprietary calculations.
* Multiple and earnings contributions do not add up to price change due to simple % change.

Equities. Emerging markets, dividends
Looking for income in safe places

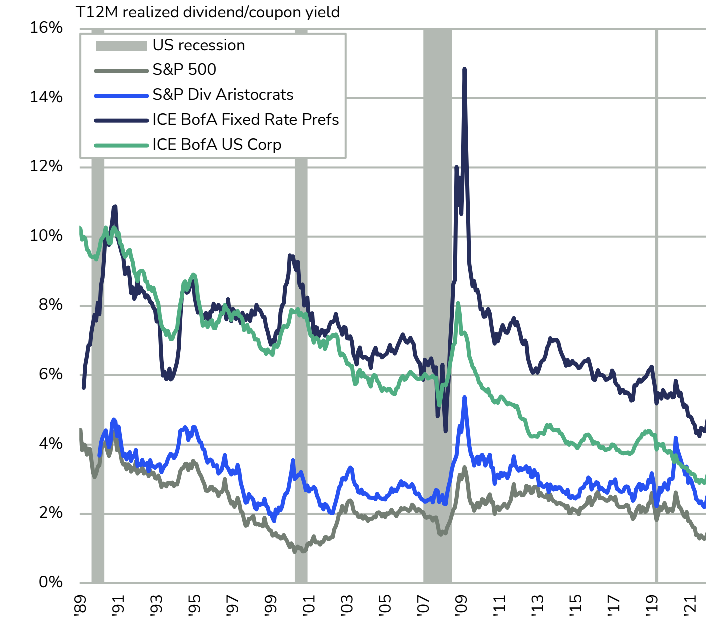
1. DM loses to EM only in football.



2. Dividend stocks provide hedge in turmoil.



3. Focus on current yield.



Where to get money in the world of equities?

We like DM over EM, dividend payers and preferreds.

- Established in the mid-1980s as a separate investment class, emerging market equities had two major periods of outperformance compared to the developed world (**fig. 1**)
- Firstly, the mid-1980s to the mid-1990s — associated with growing interest in new open economies. This period was followed by crises in Mexico ('94), South-East Asia ('97—'98) and Russia ('98). Secondly, it's 2001—2011 associated with an uprise in commodities.
- Since then the value in the chain moved to tech-related and innovative companies that happen to be represented more in DM equity indices (DM +175% since 2011, EM +17%).
- Emerging markets still do not represent a compelling case for investments in 2023 for us. The main reasons: less developed institutional framework, more political and warfare risks and export orientation amid strong USD. Weaker USD would support EM equities. Demographics momentum is shifting from EM countries to frontier markets with higher risks.

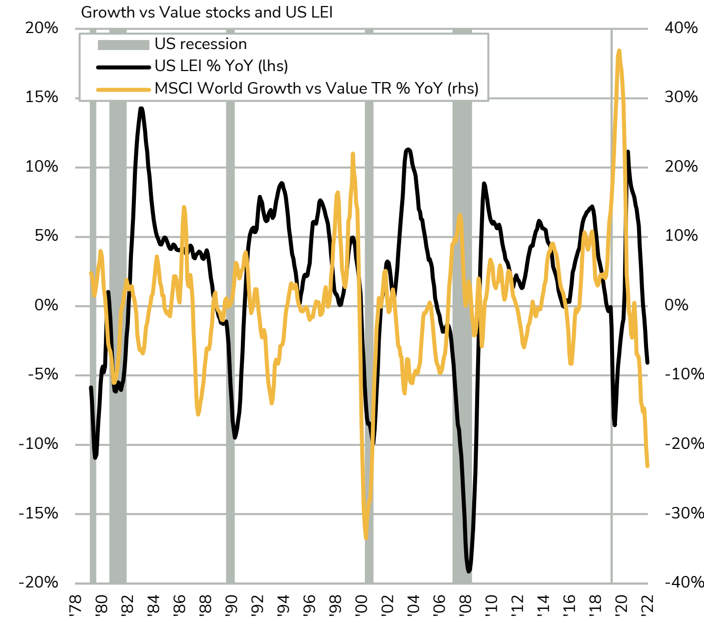
- Companies with a high and stable dividend stream represent a relatively safe bet in the world of equities. In the last three major drawdowns of global and US economy (in dashes in **fig. 2**; COVID period omitted for different nature of downturn) dividend payers managed to outperform broad market in relative terms.
- In general focus on recurrent income may be crucial for 2023. Equities derated in 2022 with valuations back to average 2017—2019 levels. Current dividend yield for US broad market is around 1.5%, while stable dividend payers bring 2.0% on average. Preferred equities yield more than twice than that — 4.7% (**fig. 3**).

- Financials represent the lion's share of any broad preferred equities index — between 50% and 70% as of Dec'22. We have quite a constructive view on financials in general due to high capital adequacy ratios, more regulated and less risk-taking nature of business compared to 2008 — however we admit that this asset class and sector is not suitable for every portfolio.

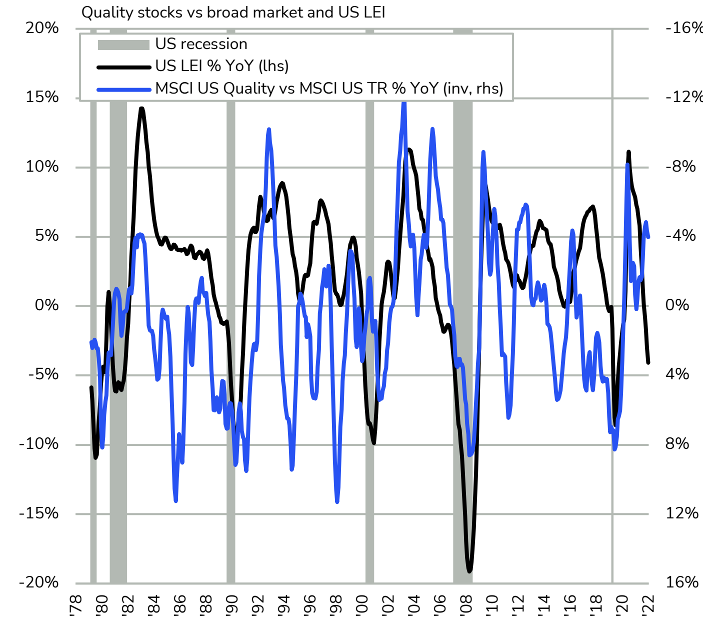
Charts source. (1) The Conference Board, Bloomberg. (2) S&P Global, The Conference Board, Bloomberg, proprietary calculations. (3) S&P Global, ICE, BofA, Bloomberg.

Equities. Factors
What is the new black?

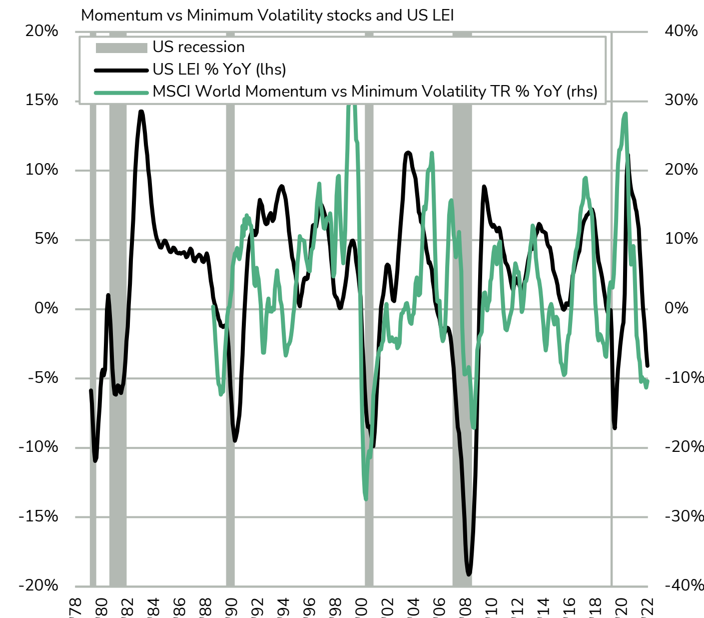
1. Value may beat Growth again in 2023.



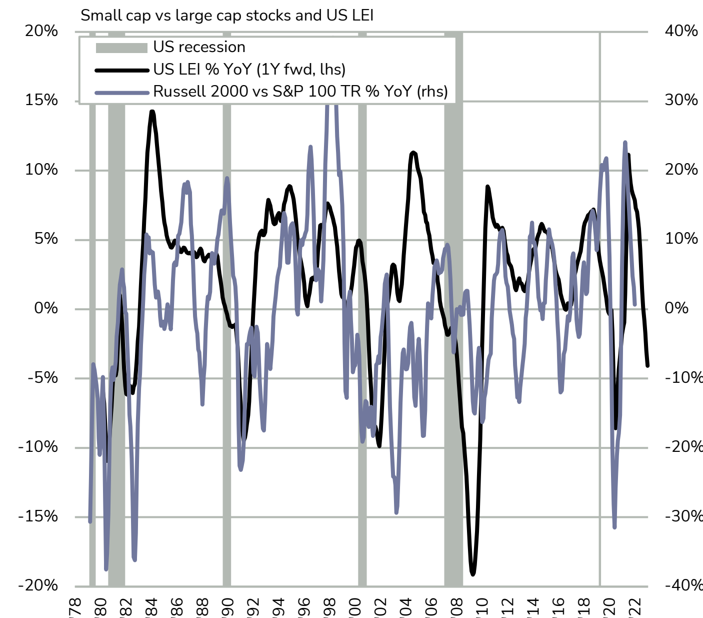
2. Quality may outperform broad market.



3. MinVol is safer than Momentum in downturns.



4. Small caps lose to large caps in downturns.



Not all equities are created equal.

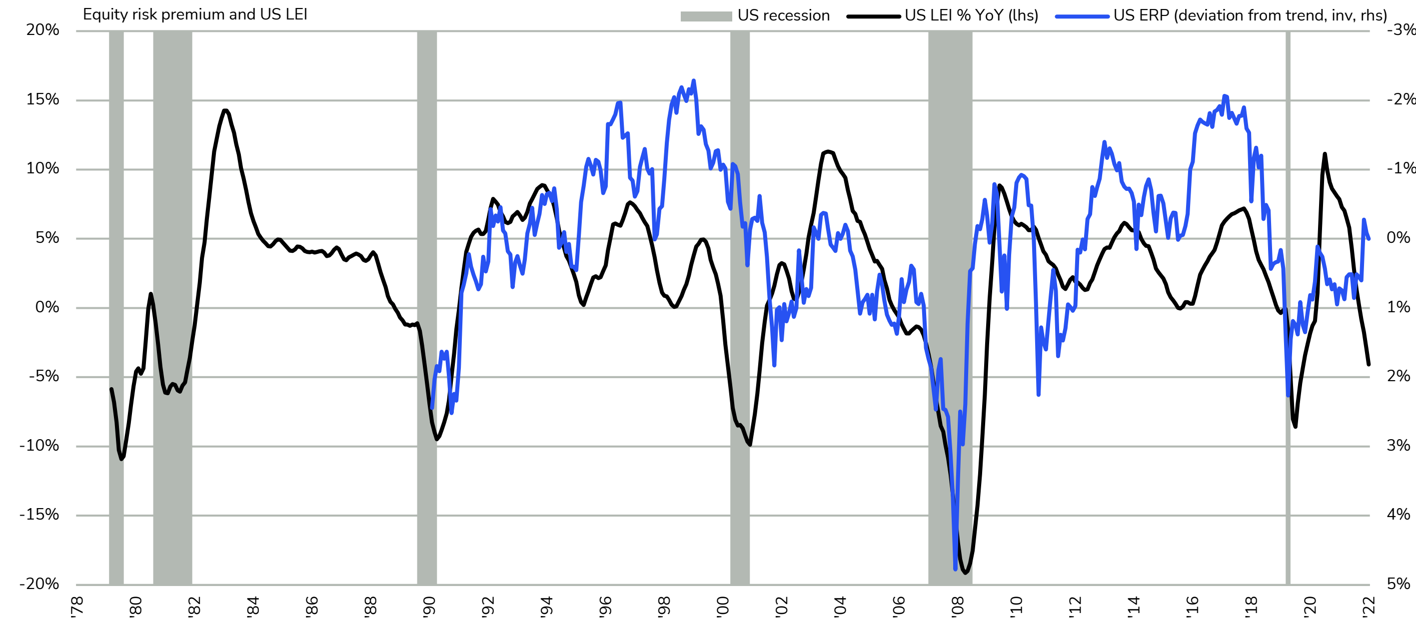
We prefer Value over Growth, High Quality over Low Quality, Minimum Volatility over Momentum and — with less conviction — Large Caps over Small Caps.

- Growth equities normally outperform value stocks in economic expansion periods and lag behind in contractions (**fig. 1**). COVID-19 provided a big boost to revenues of technology companies (representing around 60% of any major Growth index) and this seems to be fading. Growth has been punished severely in 2022 in multiple contractions despite positive earnings growth. We consider Growth is more vulnerable than Value at this stage of the cycle.
- We like High Quality for better visibility of earnings and dividends and stability of margins, as well as less leverage. We note that Quality has underperformed broad market (both US based) over the last months of 2022, which is unusual in negative deceleration phase (**fig. 2**).
- Stable and boring companies belonging to Minimum Volatility usually do better than fashionable Momentum in downturn periods (**fig. 3**). Watch this pair for being a good early indicator of economic reversal.
- Normally Small Caps outperform Large Caps in periods of expansion and underperform in downturns (**fig. 4**). We would like to highlight, that sector breakdown of index constituents plays the major role. Large cap indices are skewed to tech and communication sectors (40% of S&P 100), while small cap indices have different angle (tech + comm = 16% of Russell 2000, financials is the largest with 17% weight). While we expect continuing pressure on tech valuations in 1H23, Small Caps may do better. However long term competitiveness advantage of Large Caps seems more compelling to us.

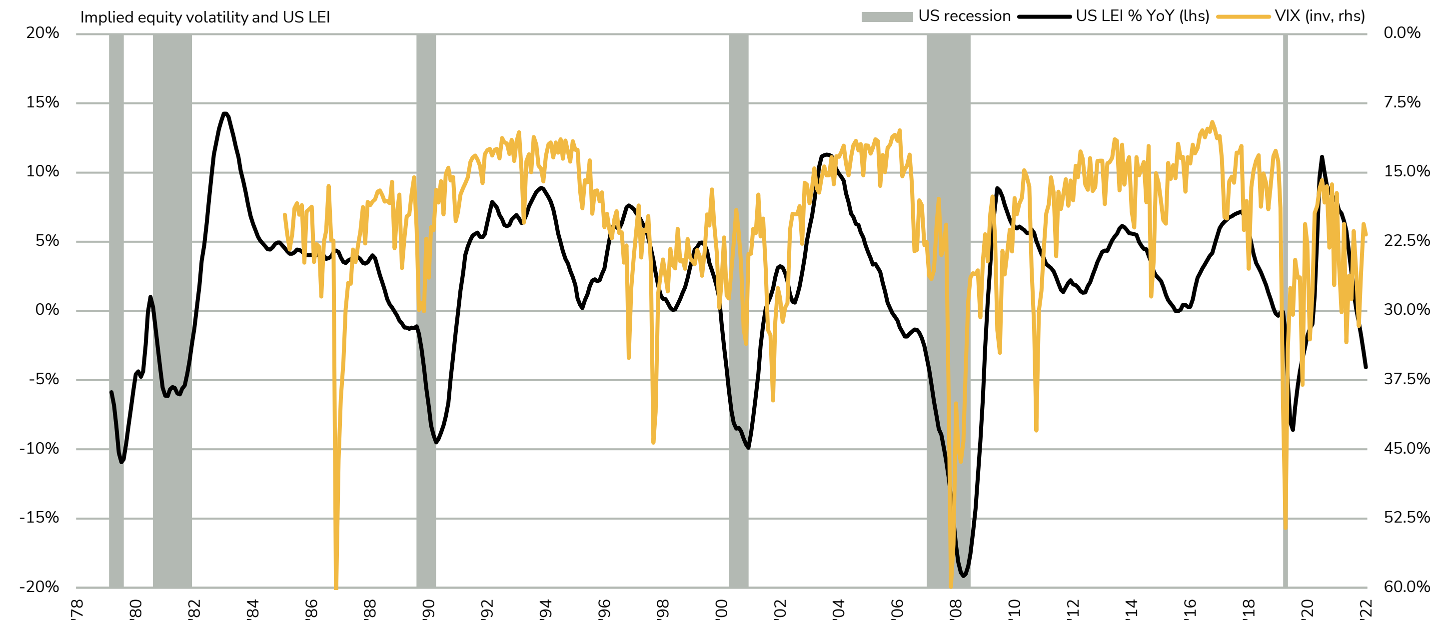
Charts source. (1, 2, 3) The Conference Board, MSCI, Bloomberg. (4) The Conference Board, FTSE Russell, S&P Global, Bloomberg.

Equities. Risk premia
Up!

1. Equity risk premium was surprisingly stable in 2022. We expect reasonable rise in 2023.



2. Economic downturn usually means more uncertainty.



Risk premia are set to rise. Most likely.

We expect equity risk premium and average levels of volatility to rise in 2023.

- Good shape of corporate earnings (S&P 500 EPS +7% YoY), yet materially unchanged earnings growth forecasts (1Y fwd S&P 500 EPS in Dec'21 = 7.8%, Dec'22 = 6.7%) and almost double the amount of buybacks (in terms of S&P 500 yield — 2021 = 1.4% vs 2022 = 2.6%) — all this kept equity risk premium relatively low in 2022 (**fig. 1**). Even a sharp increase in base rates (1.5% vs 3.7%) was not able to make a major offset for ERP.
- We expect that there will be revision of expected earnings in 2023, though it may be frontloaded and relatively shallow. Again our base case growth of broad US equity index EPS is around zero. This would push ERP up between 50 and 150 bps.
- Downturn periods are normally associated with elevated uncertainty and therefore volatility (**fig. 2**). Average VIX for 2022 was higher than in 2021 (25.5 vs 19.7). We expect growth of average VIX levels in 2023 compared to 2022, at least in the 1H.

Charts source. (1) The Conference Board, Bloomberg, proprietary calculations. (2) CBOE, The Conference Board.

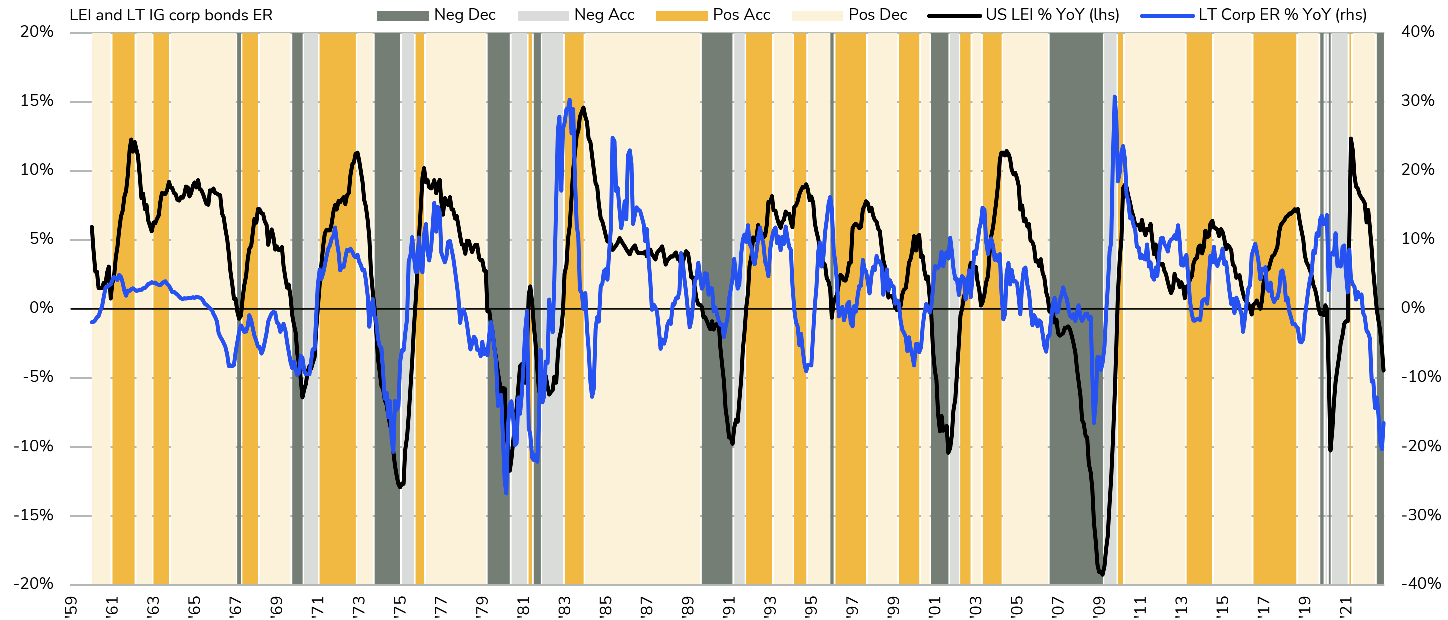
Fixed income. Performance, base rates, spreads
Heads — I win, tails — you lose

Fixed income seems to enter the goldilock's zone.

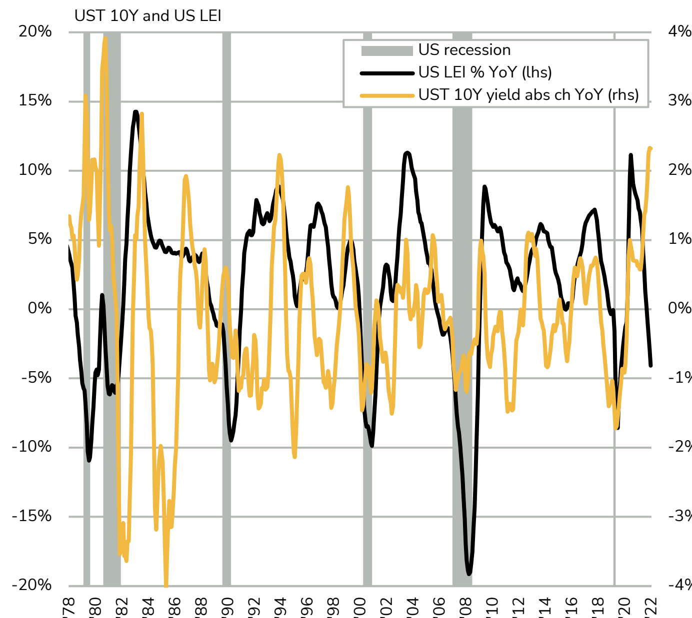
We are positive on fixed income, especially investment grade. Tenor-wise we like low duration. Risk takers may be well rewarded for taking high duration.

- Bonds are always a tale of two parts — base rates and spreads. Normally economic downturns are associated with accommodative monetary policy, low key rates and search for low risk investments — therefore base rates (government bonds as generally accepted risk-free securities) go south (**fig. 2**) and government bonds rally. By the same token, credit spreads normally widen as investors demand more risk premium (**fig. 3**). As a result the broad index of corporate bonds underperforms in deteriorating economic environment since falling base rates do not offset spread widening.
- 2022 was the worst year for bonds over the last 151 years (see **Overview** slide, **fig. 1**). Extremely low bond yields drifted up since 3Q20 amid a recovery in activity, elevated inflation and hawkish monetary policy. US government bond indices lost ~10% on average (circa between -3% to 33% depending on duration), while investment grade bonds lost 15% and high yield — half of this amount.
- In the beginning of 2023 we see more and more signs that fixed income may be entering a goldilocks period. For the first time in a decade investing in fixed income instruments — especially in low risk — does not penalize investors. Softening inflation means that the central banks may stop rate hikes in 2023 (we think, closer to 2H23). However economic activity is strong enough to maintain low bankruptcy rates.
- If we are wrong and recession hits in 2023, then there are quite high chances that the central banks led by the Fed will become dovish again. And this will push base rates down, i.e. government bonds are set to rally.
- We maintain positive stance on fixed income in general and investment grade instruments in particular. Low duration offers better reward against risk in our view.

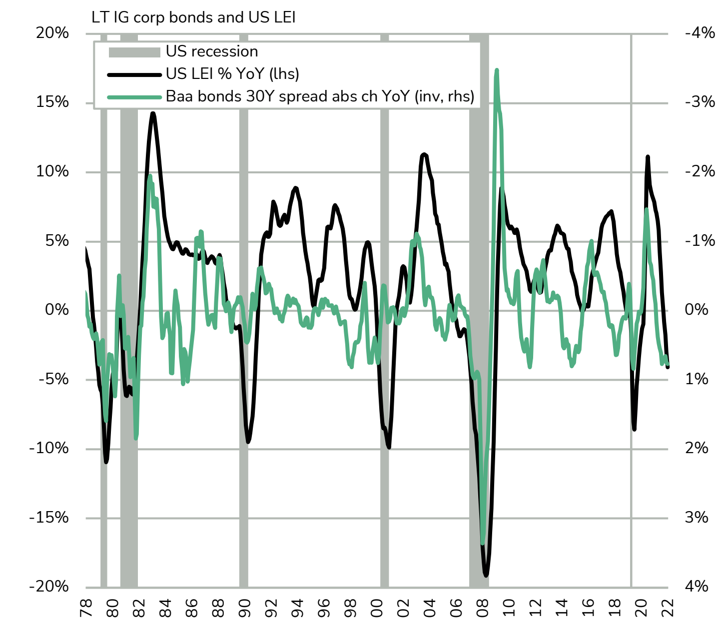
1. Corporate bonds normally underperform in downturns...



2. ...Though supported by falling bases rates...



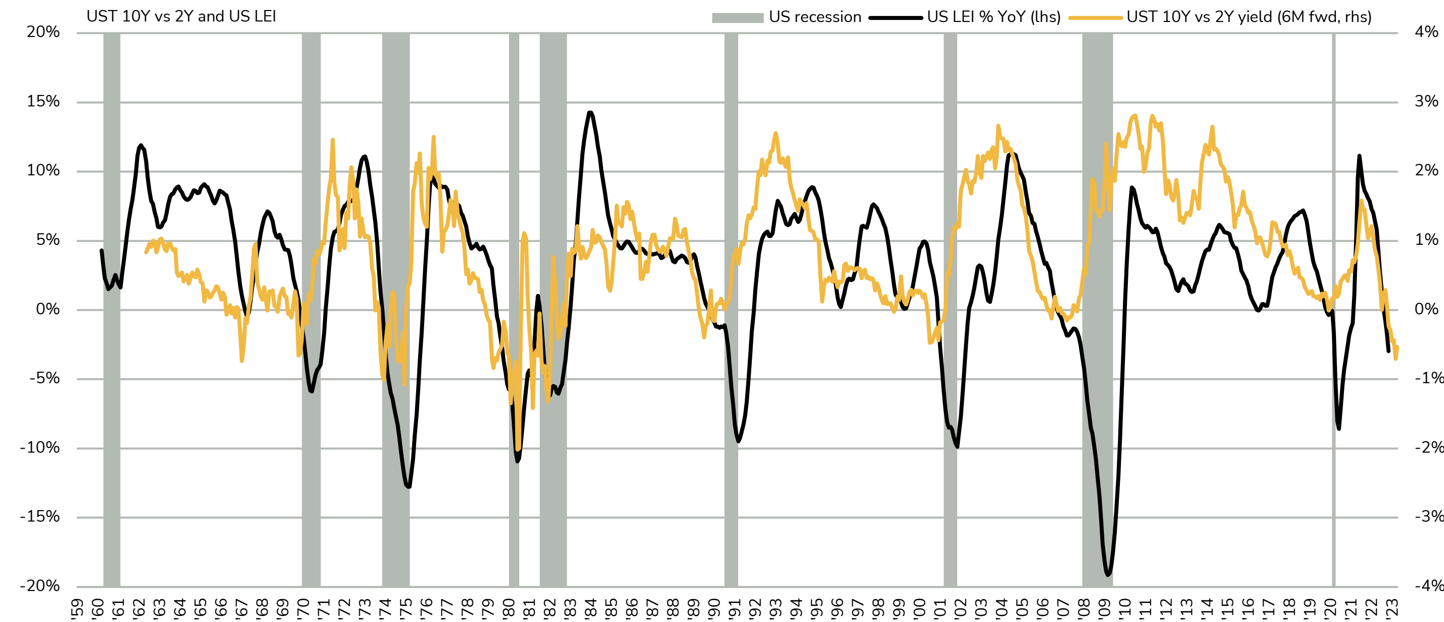
3. ...But spreads widen.



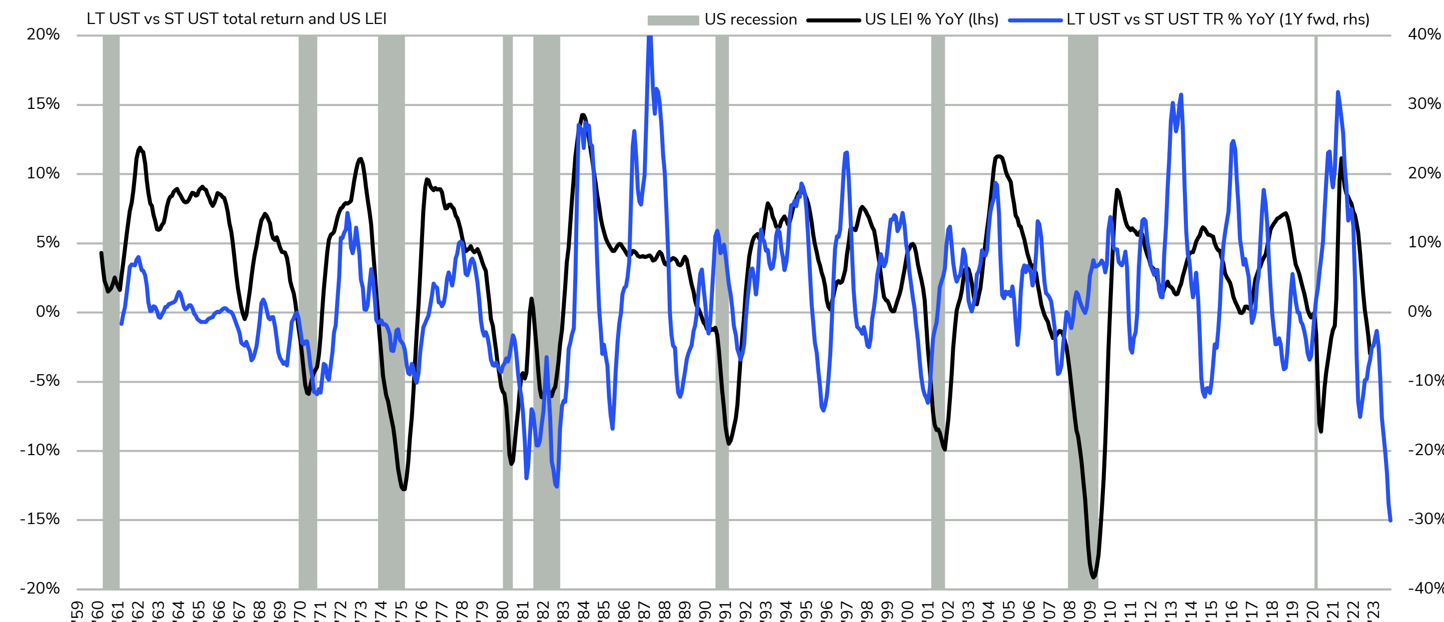
Charts source. (1) The Conference Board, proprietary calculations. (2) The Conference Board, Bloomberg. (3) The Conference Board, Moody's.

Fixed income. Tenors and curve
Staying short for not too long

1. UST curve is inverted a lot, but not at all time low values.



2. Long-term UST underperform short-term UST and imply Lehman-like recession. We doubt about it.



Benign inflation expectation keep LT rates low.

UST provide reasonable return for both risk averse investors and risk takers.

- As discussed earlier (*Prices in the US economy* slide, **fig. 4**), long term inflation expectations are quite balanced. Despite CPI inflation at 7.9% (Dec'22 3MMA % YoY), the consensus for 1Y ahead inflation is just 3.0% (3MMA), while 10Y ahead is even lower — 2.3% p.a. (3MMA). Basically, investors' consensus is that inflation spikes are relatively short-lived.
- At the same the Fed was quite consistent in assuring the market about higher-for-longer rates — median level of the Fed Funds by Dec'23 is 5.125%, though the market anticipates cuts in 4Q23.
- Such divergence in actual and anticipated interest rate paths created one of the most inverted US Treasury curves in history (2Y10Y Dec'23 -0.7% = 3.4%ile) and last seen is early '80s amid another inflation debacle (**fig. 1**). UST 2Y yields moved up 310bps over the last 12M, while 10Y only 180bps.
- 2022 marked the worst year of excess return of LT UST (**fig. 2**). Government bond market sold off extensively after touching all-time lows in LT rates in post-COVID period in a majority of countries.
- Currently US government bonds offer quite interesting payoff to the investors. More risk averse investors may favor purchase and roll short term bonds (maturities between 1M and 2Y) at yields in the range of 4.2—4.6%. If we are wrong on inflation and it persists, then reinvesting would come at higher rates. In case inflation goes down or the Fed stops hiking earlier than anticipated, the investors would still make a mid-single-digit total return — not seen in this sub-asset class for decade.
- Less risk averse investors may favor buying long-term debt (maturities 10Y and over) in anticipation of lower inflation and a downturn becoming recession. We would need a more hawkish stance from the Fed to lift long term rates, which is not our base case.

Charts source: proprietary calculations based on Bloomberg data

Fixed income. Linkers, EM vs DM, IG vs HY, convertibles
What is the new black? Part two

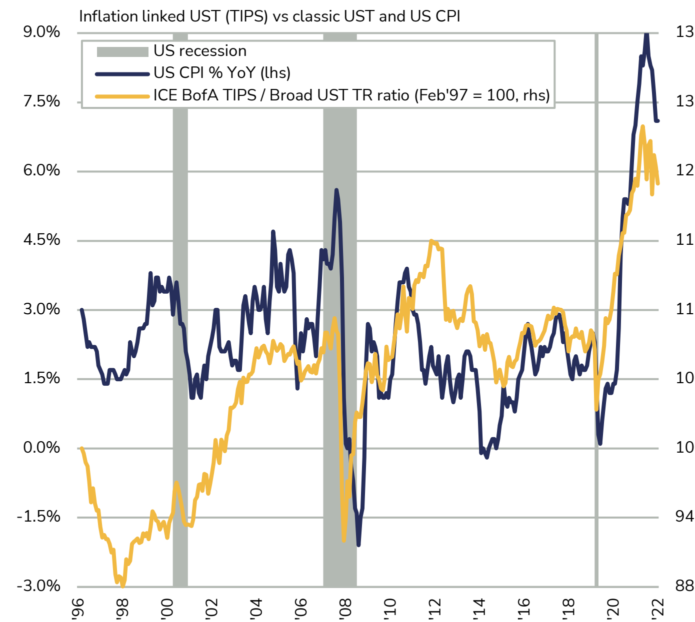
Bonds are not created equal as well.

We like nominal bonds over inflation linkers, investment grade over high yield. Neutral on EM sovereigns. Negative on convertibles.

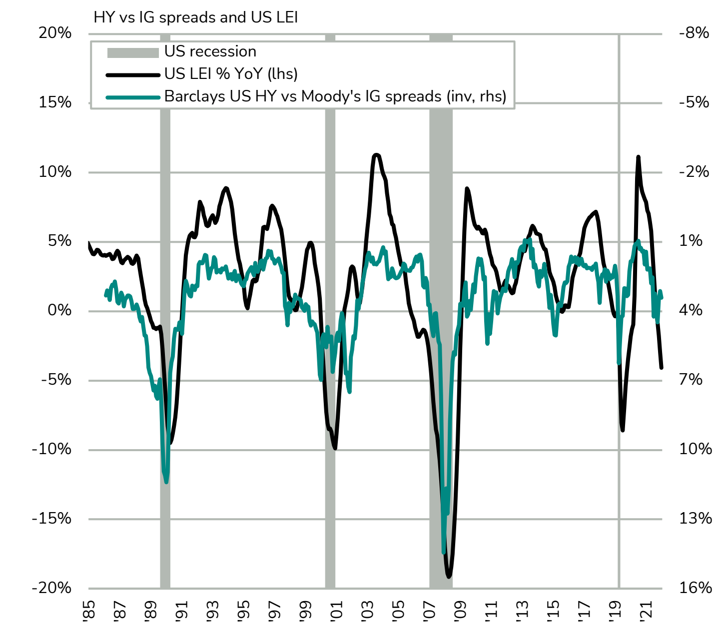
- If our base case where inflation deceleration becomes true, this would normally mean that traditional government bonds would outperform inflation linkers (we use UST vs TIPS as an example, **fig. 1**). Since June'22 (when we saw inflation peak) to Dec'22 UST lost 3.5% in total return, while TIPS lost 3.9%.
- In 2022 high yield debt did *not* manage to do better than investment grade if adjusted for duration and did even worse if adjusted for volatility. The Bloomberg Intermediate IG Index fell by 9.4% with 6.0% realized volatility, while the comparable HY index lost 10.5% with 7.5% realized volatility. In general this follow the pattern of HY underperforming IG in times of downturn (**fig. 2**, please note spread dynamics, not total return). We do not expect economic conditions to deteriorate so much to cause a global wave of insolvencies, in the weakest names first of all, i.e. HY may look worse than IG on this metric. At the same time IG credit which is more sensitive to movement in base rates may get a boost amid moderation of inflation and inflation expectations.
- EM bonds are still a play on commodities to a large extent (**fig. 3**). Given elevated political risks and cooling commodity prices we see a reasonable chance for EM sovereign spreads to widen. Although we admit that they have lagged commodity dynamics and do not look too expensive in the beginning of 2023.
- Convertible bonds normally do better than traditional portfolio of equities and bonds (60/40) in times of economic expansion, thus capturing the upside provided by embedded optionality. (**fig. 4**). In times of deceleration it's vice versa. Given that convertible markets are dominated by technology and communication issuers (46% of Bloomberg US Convertibles Index) of below average quality, we think this assets class will struggle to perform well in the coming 12 months.

Charts source. (1) US Bureau of Labor Statistics, ICE BofA. (2) Bloomberg, ICE BofA. (3) The Conference Board, Barclays, Moody's. (4) The Conference Board, ICE BofA, proprietary calculatons.

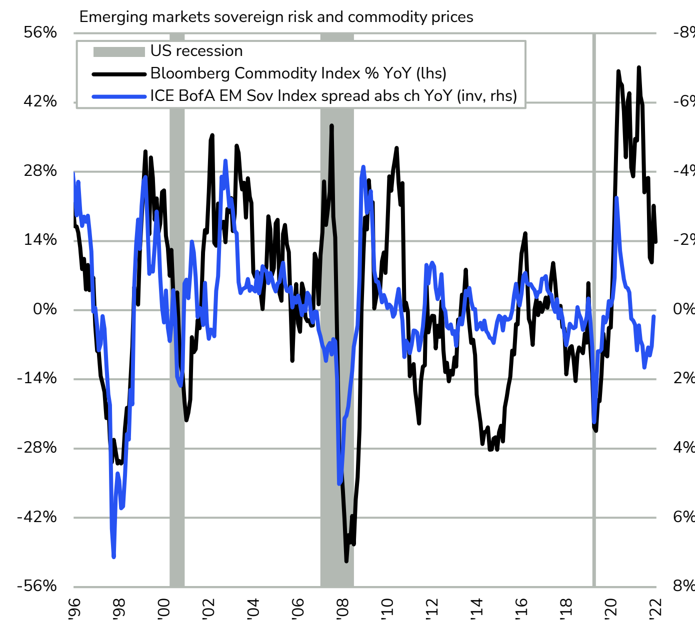
1. TIPS lose to nominal UST when CPI falls.



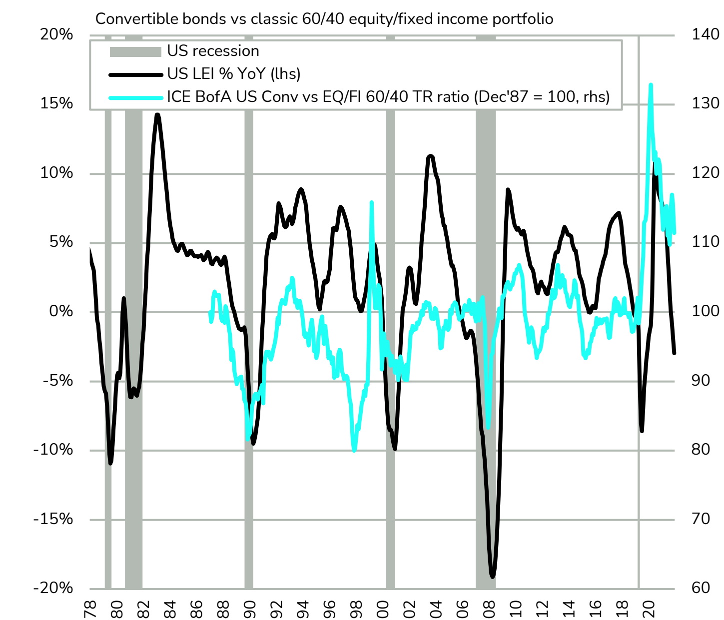
2. HY underperforms IG in downturns.



3. EM sovereigns are dependent on commodities.

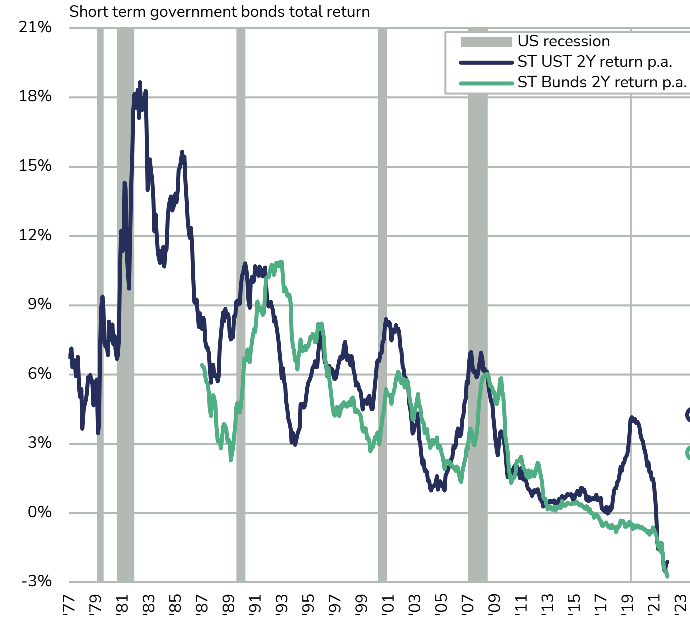


4. Convertibles do not look compelling.

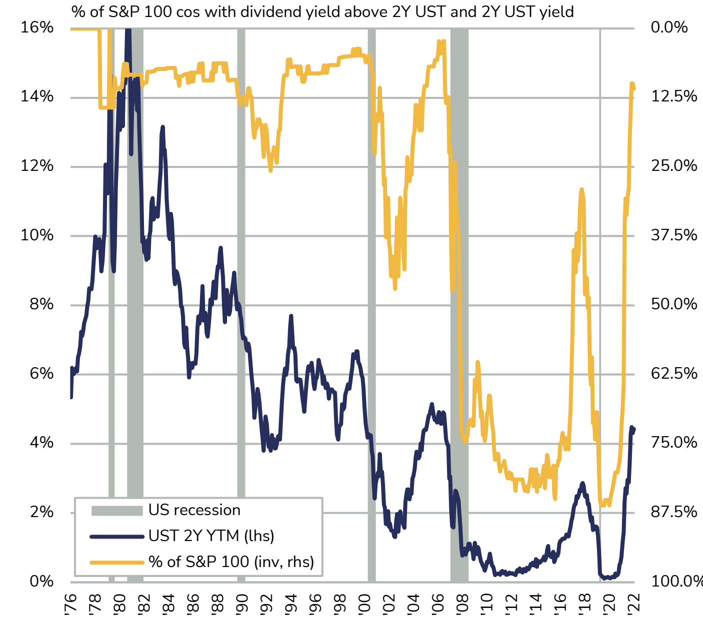


Money markets
Money for nothing, cash for free

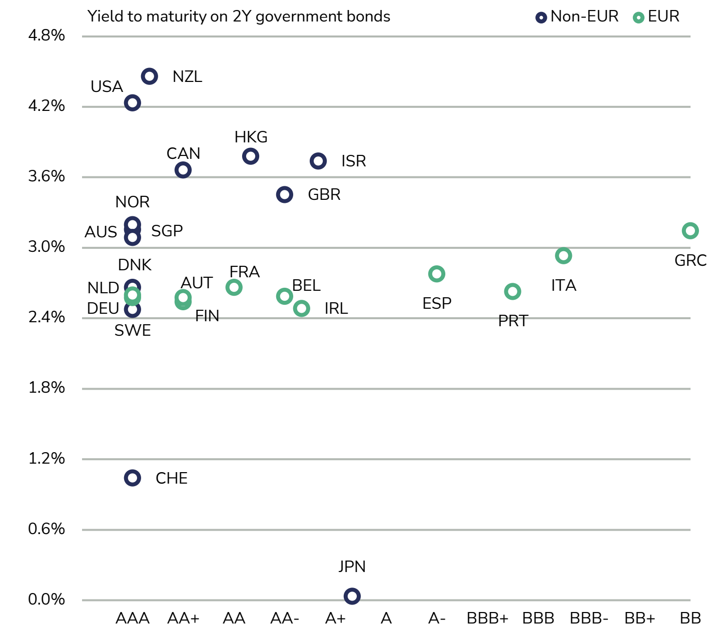
1. Decade of zero returns for ST bonds is over.



2. Equities is not an alternative for yield seekers.



3. US govies are the best from risk/reward.



Back in the game.

We like money market instruments from a risk and (once in a while) reward perspective amid elevated uncertainty.

- For the first time in more than a decade investing in money market instruments — developed market investment grade fixed income instruments with maturities up to 2Y as best proxy — does not penalize investors (**fig. 1**).
- Yield to maturity on 2Y US Treasuries is ~4.2% p.a. Short-term debt of high quality issuers can bring extra 0.5—2.0% p.a.
- The Fed has done a lot of tightening in 2022 and — subject to inflation data — we expect it to take a break in 2H23. Therefore 1H23 may be considered as a good time for initiation or increasing allocation in money markets.
- If our view on base rates is wrong and they continue going up, we would be reinvesting cash from maturing instruments at higher levels.

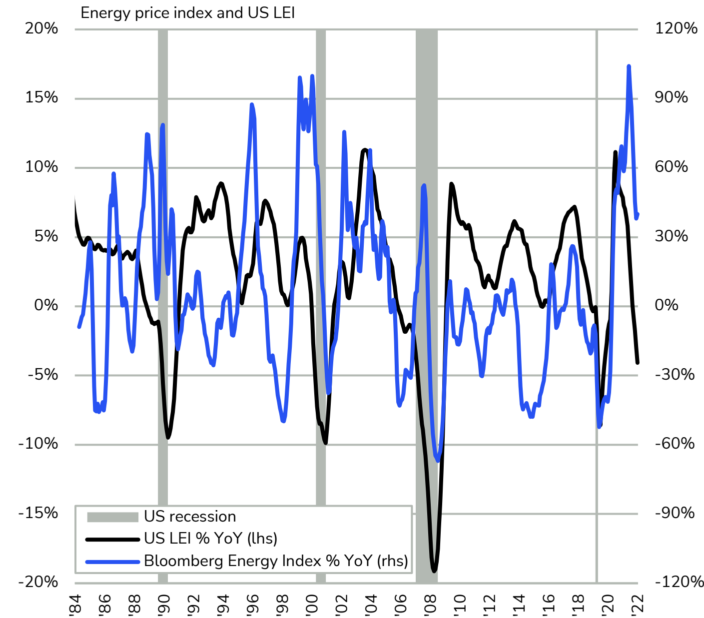
- Zero interest rate policy promoted by global central banks since 2009 with a rare exception in 2017—2018 has left risk averse investors with little choice. Either accept low yields, sometimes even negative, or go down the quality ladder investing into low quality fixed income instruments.
- Equities seemed to be a plausible alternative from a yield point of view (**fig. 2**). In 1976—2007 only 10% of S&P 100 companies on average provided dividend yield above yield to maturity on 2Y US Treasuries. In 2008—2021 this number soared to 71%. By the end of 2022 it was back to the level of 11%, which we find more sustainable.

- From currency point of view we consider USD to offer the best risk/reward among developed markets when investing into money markets (**fig. 3**).
- The closest peer is probably NZD, however we need to acknowledge substantially lower liquidity in instruments denominated in this currency and its dependence on commodity swings. Same logic would apply to AUD, CAD and NOK (see also **Currencies** slide, **fig. 4**).
- Getting additional yield in EUR space would require significant reduction in average quality, which is not justified in our view.

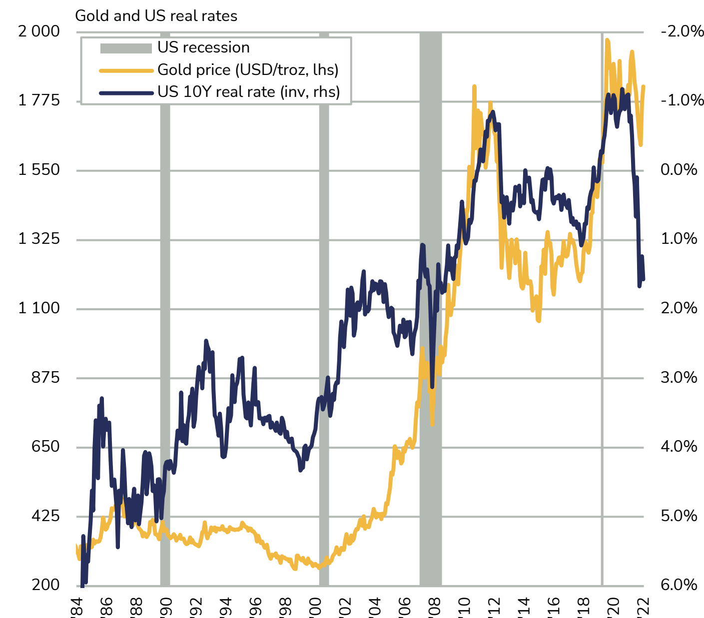
Charts source. (1) ICE BofaA, Bloomberg, proprietary calculartions. (2) S&P Global, Bloomberg, proprietary calculations. (3) Bloomberg.

Commodities
Ingot we trust

1. Energy prices still reflect supply concerns.



3. Gold is losing appeal amid high interest rates.



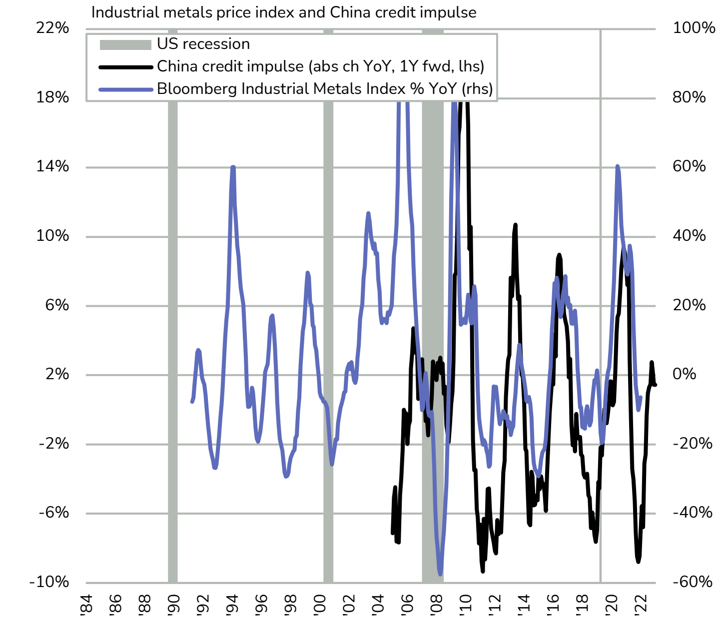
Commodity cycles are different.

We are neutral to negative on energy and agricultural prices. We are neutral to positive on gold and base metals.

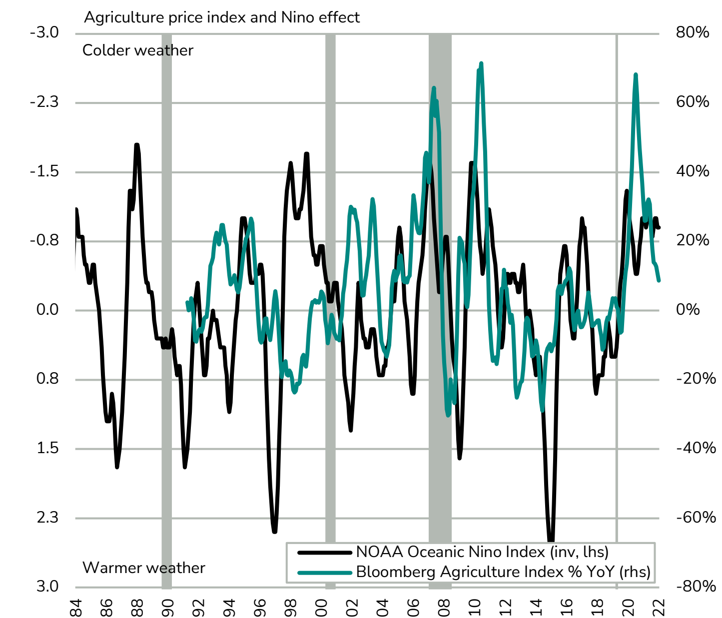
- Energy markets experienced major structural changes in 2022. Oil and gas supply disruptions in Europe have changed perceptions about the sustainability of traditional energy imports, ingnited the next wave of construction of LNG and FSRU terminals and made another boost of investments into renewables. We believe that demand concerns will be a major threat to energy prices that still embed some political risk premium and trade above levels justified by current economic phase (**fig. 1)**. Our long term view on prices of traditional energy sources is negative due to increasing efficiency and decreasing costs of renewable energy.
- According to Bloomberg (2022 est.), China is responsible for 49% of world's zinc demand, 47% of lead, 72% of nickel, 55% of copper and 59% of aluminium. China has been expanding credit supply since 2Q22 and along with new less restrictive COVID policy this may lead to additional demand for base metals in 2H23 (**fig. 2**).
- Gold touched its all time high of $1975/tr.oz. in summer 2020 amid an all time low in USD base rates and excessive monetary supply (**fig. 3**). Now when long term real USD rates are around 1%, and relatively safe fixed income instruments provide well above zero yield, gold is struggling to get investors' interest. However we may see additional demand in anticipation of more accommodative monetary policy from global central banks.
- Global agricultural prices traded above multi-year average levels in 2022 due to the same politically caused concerns about supplies and increased energy costs as a major input for production. Supply bottlenecks have been resolved and agriculture prices fell 15% from peak levels in 2Q22. Climate changes are still a major driver of agricultural prices. Relatively cold temperatures seen after 1Q22 lifted agricultural prices (**fig. 4**). According to National Oceanic and Atmospheric Administration, we may see rise in temperatures in 2023 from sub-trend to long-term trend levels (measured by El Nino-Southern Oscillation), which may be positive for production and negative for prices of agricultural goods.

Charts source. (1, 2, 3) Bloomberg. (4) NOAA, Bloomberg.

2. China opening may lift metals demand.



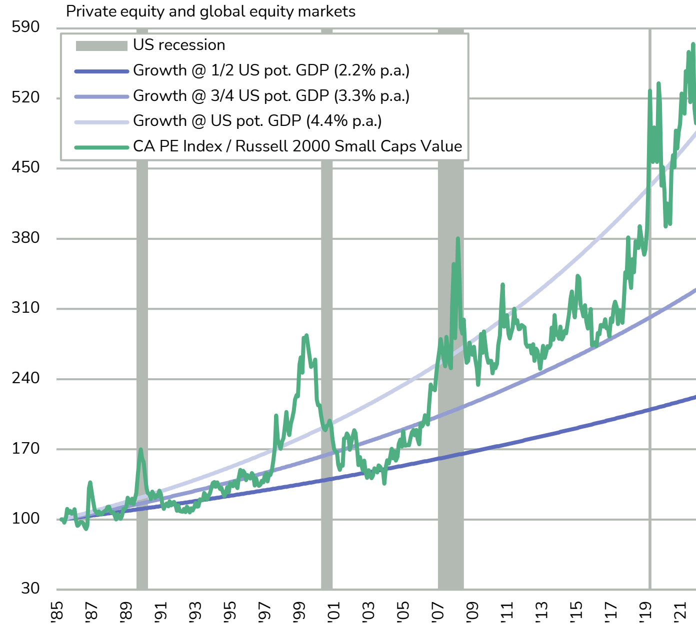
4. Climate is still a major driver of food prices.



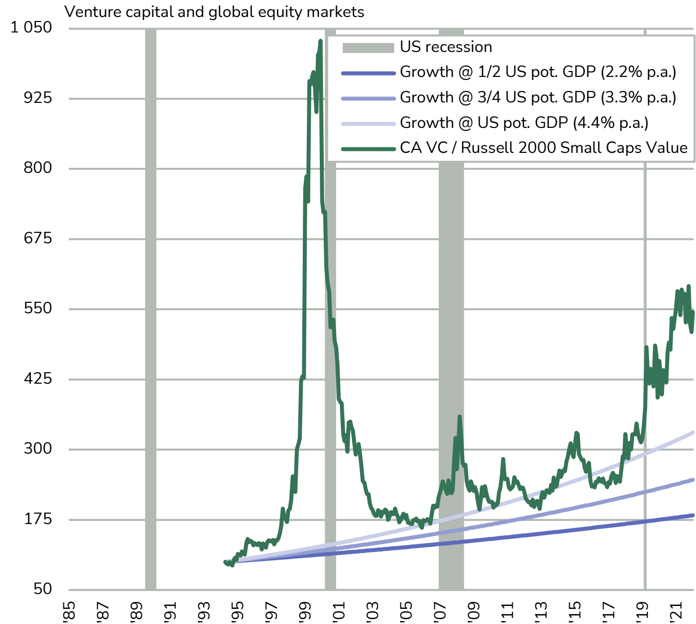
Alternatives. Real estate, private equity, venture capital
Bubble is yet to burst

1. US residential real estate

2. Private equity



3. Venture capital



Three different assets, common driver.

We are negative on real estate, private equity and venture capital.

- As discussed earlier (slide **Economic activity in the US**), US residential real estate market came under pressure in late 2022 due to a substantial rise in base rates, which almost inevitably triggered rise in a mortgage rates. In the beginning of 2022, the average 30Y mortgage rate in the US was 3.6% and 6.5% in the end (Mortgage Bankers Association).
- Along with sluggish economic growth, it caused deterioration in buyers' sentiment, cancellation or postponement of deals and, almost inevitably, will lead to falling prices (**fig. 1**).
- While mortgage rates are high, buyers may postpone new purchases waiting for turnaround in monetary policy due to weakening economic conditions. We do not expect a buying spree in 2H23, but — in case base rates and mortgage rates stabilize — this may provide support to residential real estate market.

- Private equity markets experienced major inflows in the post-GFC environment of low rates and abundant liquidity. The top-6 PE firms have increased AUM by a factor of 7.4x in 2008—2021, while the top-14 traditional public markets managers by a factor of 4.9x (Bloomberg).
- Investors were searching for non-zero returns and were ready to take additional market and liquidity risks investing in PE. Between 1985 and 2005 PE investments were outperforming small cap value companies (in our view — the best public market proxy for PE) by 2.2—3.3% p.a., which is 1/2—3/4 of US potential GDP growth (**fig. 2**). Peaks of 1990 (LBO boom) and 2000 (dot-com bubble) have been followed by multi-year periods of PE underperformance in relative terms.
- In 2006—2008 we saw another PE boom followed by flattish performance vs small cap value companies. Extremely dovish monetary policy allowed PE firms to avoid negative mark-to-marking in 2009—2019.

Charts source. (1) Freddie Mac, RCA, NAHB. (2, 3) Cambridge Associates, CBO.

- The Post-COVID period with zero interest rates fueled another round of PE inflows (2019—2021 AUM top-6 firms +66%) and pushed PE fund indices to an outperformance trend of 4.4% p.a. (100% of US potential GDP growth).
- Now when monetary policy across the globe is normalizing we believe that the period of PE outperformance vs public peers is over. Investors have choice of getting mid-single digit returns in safe instruments without locking capital for years.
  We acknowledge that PE has historically provided reasonable return premium compared to public markets for a reason (e.g. more risk, less liquidity), but current valuations are unjustified in our view.
- It is the same story for venture capital. However it has been exacerbated by substantial investments in the technology space. Now when the valuations bubble has burst (for example Morgan Stanley Unprofitable Tech Index P/S is back to 1.7x from 11.1x in late 2020), VC investors may experience multi-year underperformance vs public peers.

Currencies
The greenback is greener on the other side

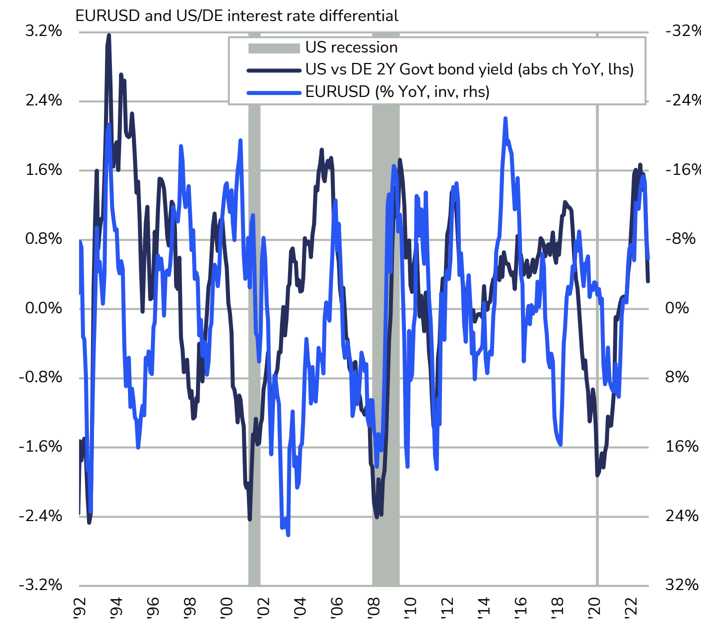
Interest rates cycles drive FX.

We expect a modest decline in USD. Neutral to positive on EUR and DM commodity FX. Neutral to negative on GBP.

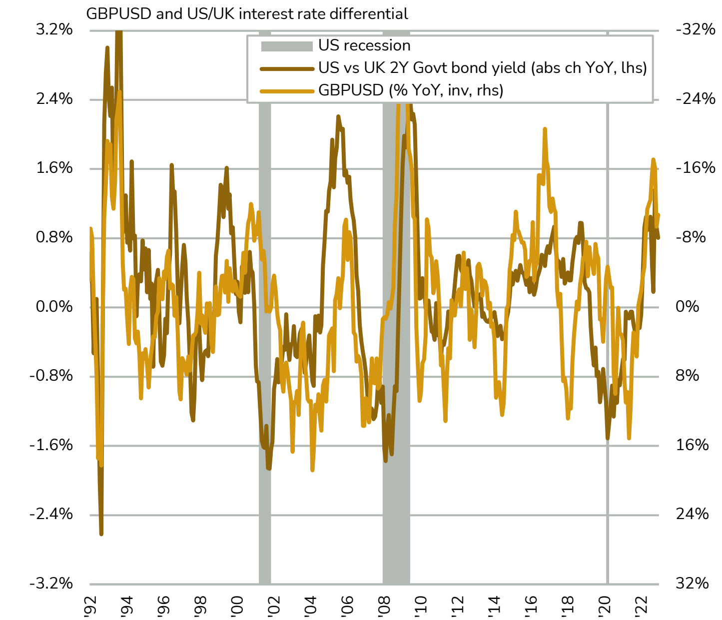
- The Fed was the first major central bank to start rate hiking and we expect it to be the first one to complete it.
- 4Q22 inflation related numbers in the US show material cooling (Dec'22 = 6.5% vs Dec'21 = 7.0% and peak value of 9.1% in Jun'22), which may provide the Fed a reason to decelerate (50bps hike in Dec'22 after 4 consecutive 75bps hikes) and then stop hiking. Other major DM central banks deal with less flexible economies and, in our view, will be at least 3 to 6 months behind.
- We may see a weakening in USD against major DM FX in 2023. After a rally in 2022 (+8% in DXY Index terms, +20% to peak in Oct'22) USD may cede gains.
- We are quite constructive on EUR (**fig. 1**). After major setbacks in 2022, the Eurozone re-established itself to have a more diversified range of energy suppliers. And yesterday's losers (e.g. chemicals — Eurostat production index dropped 15% in Jan—Nov'22) may strike back especially with respect to EUR weakness. ECB's hawkish rhetoric proved that money supply in Eurozone will dry, which is another bullish sign for EUR.
- We are less constructive on GBP (**fig. 2**). The UK have not recovered after COVID in real GDP terms (-0.8% over 4Q19—3Q22) and 2023 is not going to be better (-0.9% by Bloomberg consensus). Real income decline (-1.9% over 1H22, absolute level flat to 3Q18), extra tax burden and high government debt (90% GDP) — all makes GBP vulnerable despite BoE tightening.
- USDJPY rate is to a large extent determined by capital flows from Japan (**fig. 3**). Recent rise in LT interest rates in the US coupled with BoJ's yield curve control made USD-based investments more appealing driving JPY to multi-year lows. BoJ had to widen LT yields range by 25bps in Dec'22 and make FX interventions in 4Q22 to stop fall in JPY. We expect modest rise in JPY in 2023.
- DM commodity currencies have declined over the last 12M despite strong commodities (**fig. 4**). Providing yields in line with majors (2Y government bonds AU 3.2%, NZ 4.4%, CA 3.6%, NO 3.1% vs US 4.2%, UK 3.4%, DE 2.5%), these currencies may lure investors in 2023.

Charts source. Proprietary calculations based on Bloomberg data.

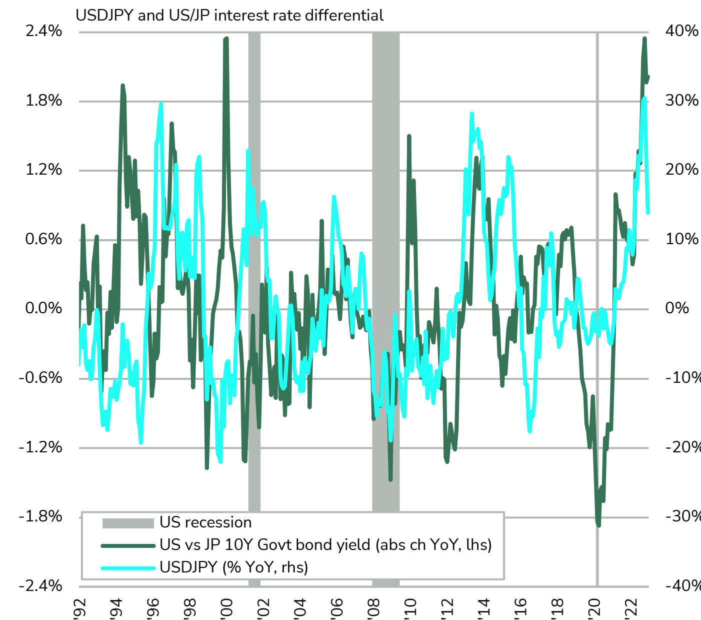
1. EURUSD follows short term interest rates...



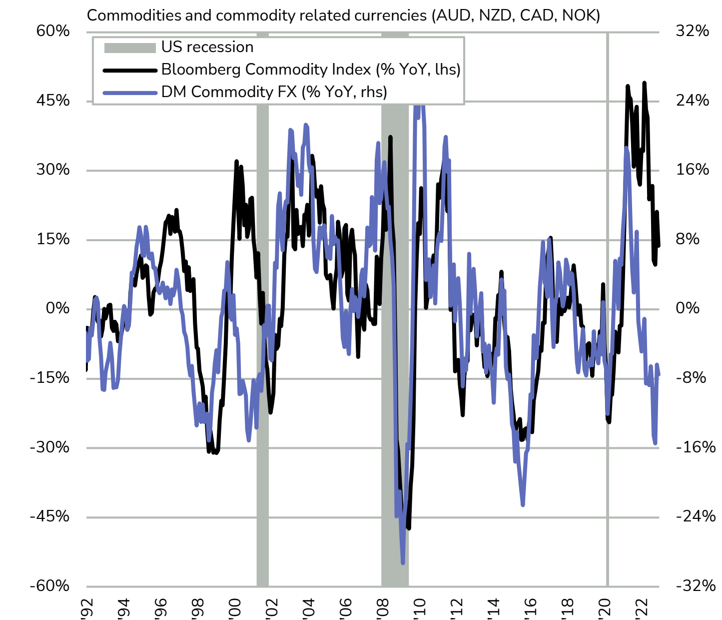
2. ...As well as GBP USD.



3. USDJPY is about long term capital flows.



4. AUD, NZD, CAD, NOK lagged commodities.



Themes

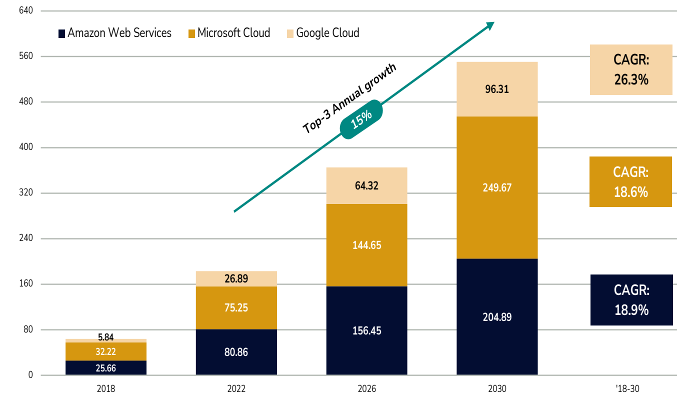
Cloud technology

The most promising innovation in tech

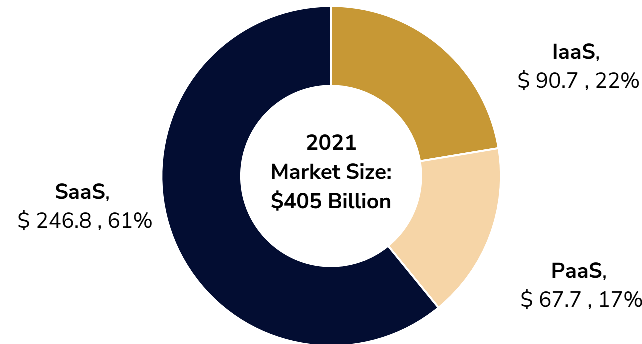
Multiple tailwinds should drive growth over the medium term, following a potential slowdown in 2023. We expect large cloud providers to continue to deliver robust results over the medium term, with consistently strong growth and margin progression.

- After several years of strong growth, especially post-pandemic, growth rates in cloud spending could decelerate in the very short term as companies adjust their spending. We anticipate this slowdown to be short-lived and expect growth to reaccelerate in 2024.
- Cloud penetration remains low (c.20-25%) and has the potential to double from current levels in the next decade. This represents a significant growth opportunity, as increasing usage of data and burgeoning penetration provides a strong and sustainable tailwind.
- The dominance of the three big players **(fig. 1)** could intensify as they increasingly focus on gaining market share and entrenching their respective market positions.
- We expect Amazon to maintain its lead, especially in infrastructure-as-a-service — which constitutes over 20% of the cloud market **(fig. 2)** — as it leverages its strong open-source background. We expect Microsoft, with its enterprise background, to gain market share and Google to remain a distant third (regionalization is not as strong).
- Oracle could be a surprise within cloud given its increasing related investments, but Microsoft should also benefit from its partnership with Oracle.
- We anticipate potential margin compression due to increasing electricity costs and wage inflation, exacerbated by aggressive pricing in pursuit of market share. Ultimately, we expect healthy margin progression trends to resume, as improving data center efficiencies and increasingly complex use cases act as tailwinds.

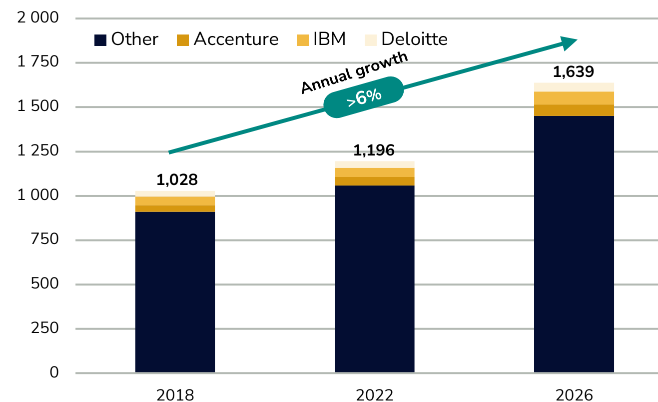
1. Sales of Top-3 Cloud Infrastructure Players, $bn



2. Cloud Spending Market Structure, $bn



3. Worldwide IT Services Market, $bn



IT services — taking you to a cloud

We prefer the larger vendors in IT services, as we believe they're better positioned to gain market share. We're targeting companies that focus on cloud-based solutions, rather than business process outsourcing and/or outdated technologies.

- In our view, digital transformation should remain high on the agenda for CIOs, representing a multiyear tailwind as companies upgrade their systems, with an increasing focus on back office functions/automation.
- Based on our conversations, the digital transformation agenda remains among chief information officers' top priorities. The global IT services market is forecast to attain a 6% CAGR between 2018 and 2026 **(fig 3)** driven by accelerated spending between 2022 and 2026.
- Given ongoing macro uncertainty, we expect that non-critical projects might be delayed, leading to a near-term slowdown in growth. This might vary by subsector, i.e., retail/the consumer may endure a more significant deceleration in growth than the financial services sector.
- This slowdown can also vary by geography. We foresee a steeper slowdown in Europe than in the US or Asia.
- Various ongoing challenges, including availability of talent, wage inflation and employee turnover in the sector represent margin headwinds. The last two years have witnessed robust pricing power by IT service providers.

Chart sources: (1, 2, 3) Bloomberg Intelligence.

Digital data

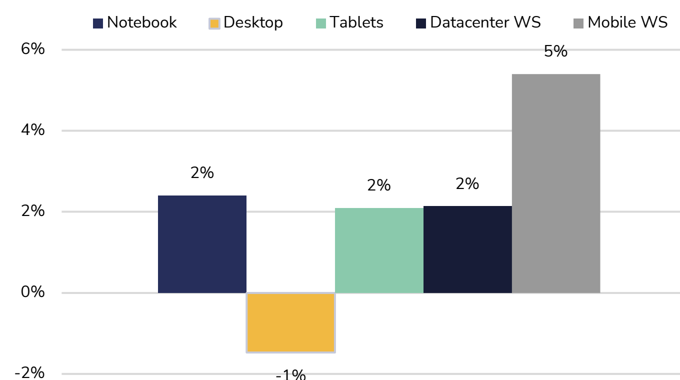
Hardware — devices around us

Given slowing consumer demand and elevated total shipments compared to pre-pandemic levels, it is reasonable to maintain a conservative stance on the hardware industry, investing only in the most defensive companies.

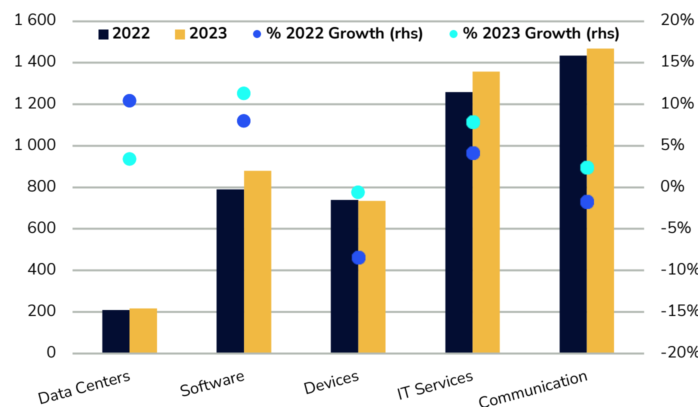
- **Personal computer devices (PCD).** Worldwide personal computer sales were down 15% Y/Y by 4Q22. PC makers shipped 74mm PCs in 3Q22, down 15% from 87mm PCs a year prior. Weakening sales are primarily due to a combination of "cooling demand and uneven supply" in the PC market.
- Further deterioration is expected in 2023 as consumer demand continues to slow and education demand is largely fulfilled, with enterprise demand elongated due to worsening macroeconomic conditions. The combined market for PCs and tablets is forecast to decline by 3% in 2023, before resuming its growth trajectory in 2024. Shortages over the past few years have led to an aggressive shift towards the premium segment.
- The average 2022-2026 forecast shipment CAGR for notebooks, tablets and datacenters WS exceeds 2%, while desktops are expected to lag, with a 2022-2026 shipment CAGR of -1.5% for this product **(fig. 1).**
- **Cloud and data centers.** Big Tech players invested heavily in cloud computing infrastructure during 2022. In 2023, these companies are expected to reduce their spending on the warehouse-sized data centers, filled with cutting-edge computing and communications technologies, that comprise the cloud **(fig. 2).**
- We anticipate server shipment growth to be weaker in 2023 and stay in a range 2.7%-2.9% as the global economic outlook remains moderately negative and companies across most industry sectors adopt more targeted expenditure plans for 2023.
- In the event of an economic slowdown in the US, cloud spending growth could slow from 25-35% to 15-20%. Consequently, we expect software spending (including on cloud infrastructure) to increase by 11% in 2023 **(fig. 3).**

Chart sources: (1) Gartner, (2) Jon Peddie Research, (3) Bloomberg Intelligence.

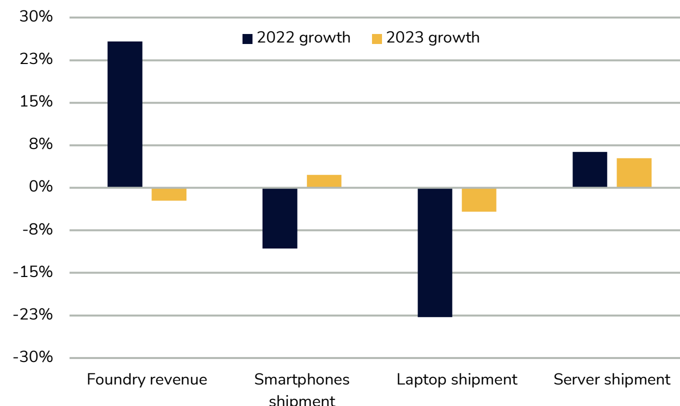
1. PCD Forecast Shipment, 2022-2026 CAGR



2. Worldwide IT Spending, $bn



3. Global Foundry Sales vs. Segment Shipments



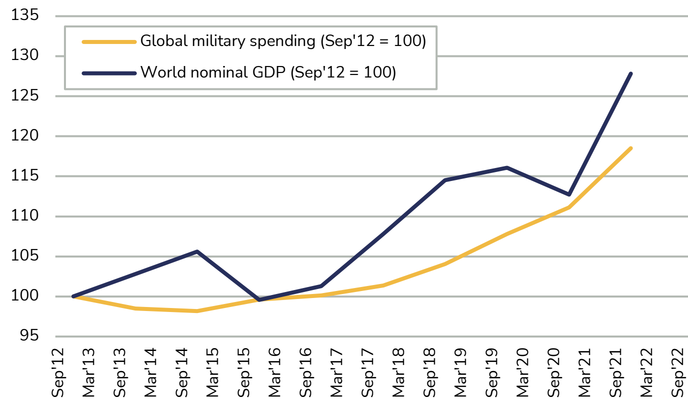
Semiconductors — life and chips

The two factors that are exerting significant pressure on the semiconductor industry's 2023 outlook are (1) declining consumer demand for PCs and consumer electronics and (2) inventory adjustments. Despite the long-term attractiveness of the semiconductor industry, we maintain a tactically cautious stance for the first half of 2023.

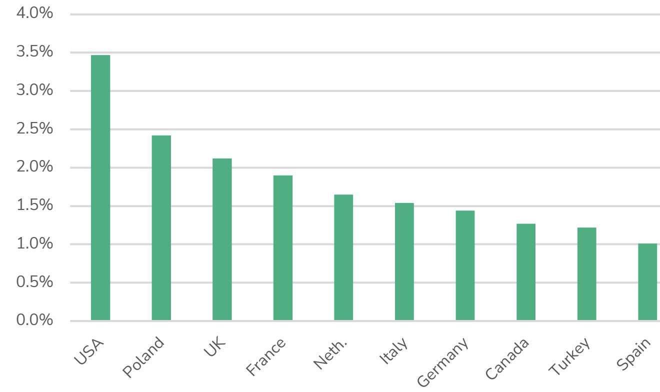
- In 2023, global foundry revenues are expected to decline by 2-3%, due to ongoing inventory adjustments during 1H23, macroeconomic uncertainty affecting consumers' willingness to buy new products and the technological war between the US and China **(fig. 3)**.
- Over the next five years, we forecast an 8% CAGR and expect these revenues to reach $205bn by 2027.
- While the Industrial Internet of Things (IIoT), automotive and other specialized communications semiconductors are likely to maintain relatively stable growth, the growth rate of individual semiconductor companies will vary depending on the contribution of these applications to their respective businesses. As the industry recovers, we anticipate increased demand for applications such as 5G and high-performance computing (HPC), higher silicon content in electronic vehicles (EVs) and cars, coupled with brand and system owners such as Amazon, Microsoft, Google and Apple moving to proprietary chips.
- The enterprise market has been relatively stable, and we don't expect it to decline as much as the consumer market with respect to semiconductor demand. We anticipate weakness during 2023 in the memory market — expecting oversupply to contribute to a decline of up to 16% — and in the NAND flash market, which could see a decline of up to 14%.
- A paramount ongoing consideration is the impact of weaker consumer demand on retail prices. GPU producers have already started reducing their prices to adjust inventory levels, while DRAM and NAND flash manufacturers have curtailed production plans to prevent a significant price correction.

Security

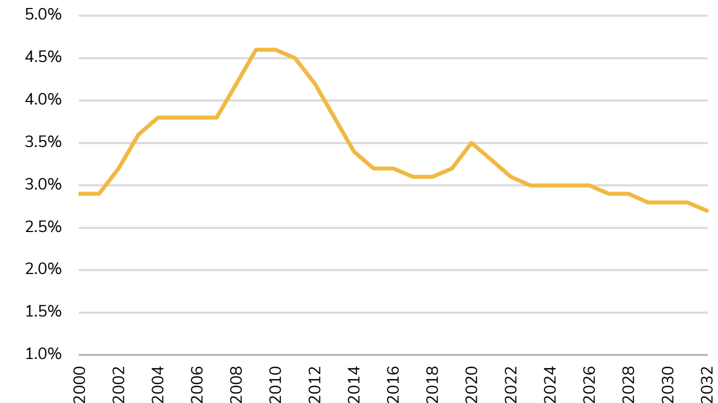
1. Global Military Spending and Nominal GDP



2. Defense Spending in 2022, % of GDP



3. US Defense Spending, % of GDP



Addressing the new threats

Defense contractors' stocks and valuations have outpaced the S&P 500 Index in 2022 as investors have sought safe havens from market volatility, inflation risks and geopolitical turmoil. Global defense budgets are set to rise as countries compensate for years of underinvestment.

- The aerospace and defense (A&D) sector has suffered various setbacks and operational challenges brought by COVID-19 and global macroeconomic turbulence. However, the sector continues to benefit from several positive drivers, and as such its earnings are expected to achieve a 12% CAGR over the next five years.
- The 2022 Aerospace & Defense Global Market Report forecasts A&D market revenues to reach $1.047bn in 2026, an 8.5% CAGR (2021-2022: $700bn to $755bn, 7.8% Y/Y growth).
- With the NATO (US) military gradually moving its focus away from the Middle East to emerging threats such as China, defense companies will emphasize building improved capabilities in fighter aircraft, space resilience, shipbuilding, and cybersecurity.
- Another important segment is Advanced Air Mobility (AAM). The market for AAM in the United States alone is estimated to reach $115bn annually by 2035.
- Supply-chain constraints, which most companies now expect to persist through 2023 and perhaps into 2024, continue to affect industry revenues. These disruptions had been expected to abate in 2H23, but many companies revised their outlooks after 3Q as the robust recovery that they had anticipated failed to materialize.

A new outlook on defense spending

- Growth in global military spending has lagged global GDP growth over the last decade **(fig. 1)**.
- Prompted by the war in Ukraine, many European countries have committed to meeting or exceeding the NATO spending target of 2% of GDP — in some cases, years before they originally planned to do so — a level of spending which most did not attain during 2022 **(fig. 2)**.
- Germany, for instance, announced in February 2022 that it would spend an additional €100bn per annum (c.1.5% of GDP) on defense over the next few years, having committed an average of just 1.3% of GDP to military spending between 2008 and 2021. Another example is Poland, which set a defense budget of 2.4% of GDP for 2022, alongside plans to increase this to 3% in 2023.
- US defense spending for 2023 represents c.3% of GDP, and has been declining since 2010, but is expected to reaccelerate in absolute terms — albeit lag projected GDP growth — over the next decade **(fig. 3)**, to speed up modernization and address new global security threats.

Cyberwarfare

- Cybersecurity has become a critical issue for all industries, but acutely so for the defense manufacturers, given the sensitive nature of defense data and the consequent threats to national security: as the modern soldier becomes increasingly connected, all devices must be protected.
- Militaries around the world are planning and developing next-generation technologies for cybersecurity, which represent substantial growth opportunities and are designed to: improve the speed and accuracy of battlefield logistics planning, increase the autonomous functionality of systems, facilitate decision making, reduce overhead costs, and diminish risks to soldiers.
- Industry sources valued the global cybersecurity market at $21.3bn in 2021 and project it to reach $43.4bn by 2031, achieving a 2022-2031 CAGR of 7.7%.

Chart sources: (1, 3) Bloomberg, (2) The Business Research Company.

Health care
Pharma

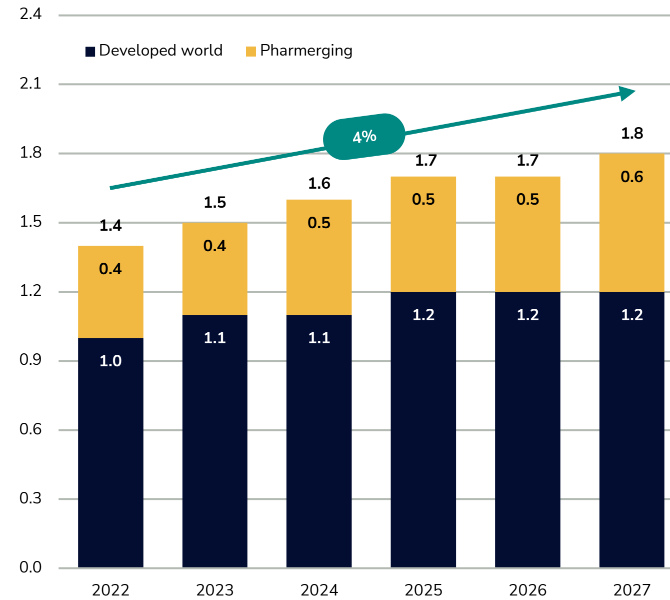
Stable and cash generative

We favor investing in companies with lower USD-exposure (assuming peaking USD strength in 2023), substantial cash balances (to execute bolt-on acquisitions) and consistently high ROIC.

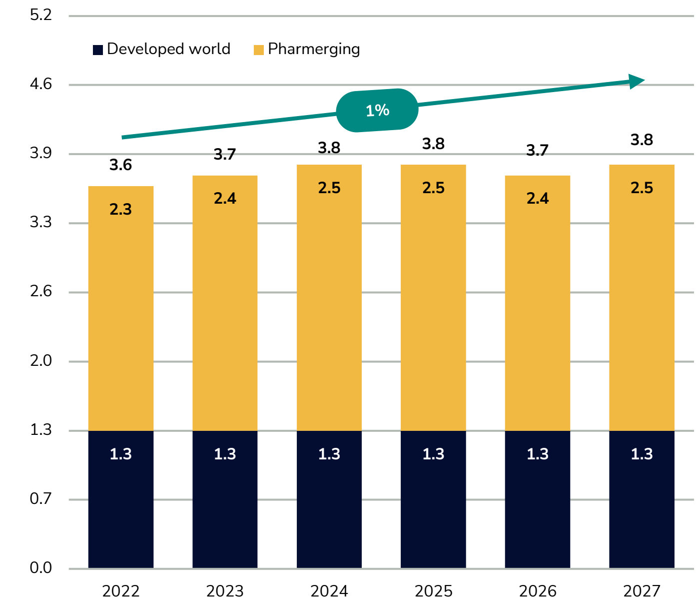
- **2022 overview.** Pharmaceuticals' market value continued to grow at a stable pace (**fig. 1**) fueled by an increase in the use of existing medicines (**fig. 2**) and drug discovery.
- **Drug prices and projected spending composition.** Drug prices are forecast to grow at a modest pace in 2023: 2.7% for contract products and 3.6% for non-contract products. Oncology is projected to account for 22.8% of total drug spending, with oncology- and dermatology-related drugs to lead price appreciation (**fig. 3**). By 2025, pharma spending on new brands is expected to outpace income declines arising from loss of exclusivity (**fig. 4**).
- **Regulatory shifts.** The major upcoming regulatory change is the Drug Supply Chain Security Act, due to be enacted in Nov'23. This will require pharmaceutical companies to provide stipulated data alongside product shipments to trading partners, or face shipping constraints and/or fines. Moreover, US lawmakers are considering price caps for insulin and several other drugs.
- **Impact of the strong USD.** Most global, non-US providers (including Sanofi: +7.6% translational effect on sales for 9M, GSK, +9.0% and Novo Nordisk, +10.0%) have benefitted from the strong USD. Conversely, both US-incorporated Global Pharma providers and global players with a substantially USD-denominated cost base (such as Johnson & Johnson and Roche) have suffered.
- **Mergers and acquisitions.** The strong financial results registered by biopharma companies in 2022 contributed to substantial M&A activity. We expect many big pharma firms to accumulate substantial cash balances in the next three years, facilitating deals to augment their pipelines in 2023 and beyond. (At the end of 3Q22, Pfizer, Johnson & Johnson and AbbVie had the highest cash balances.)

Chart sources: (1, 2) IQVIA. (3) Vizient. (4) Center for Medicare and Medicaid Services, IQVIA.
Note: Pharmerging countries are countries with a low position on the pharmaceutical market, but growing at higher pace

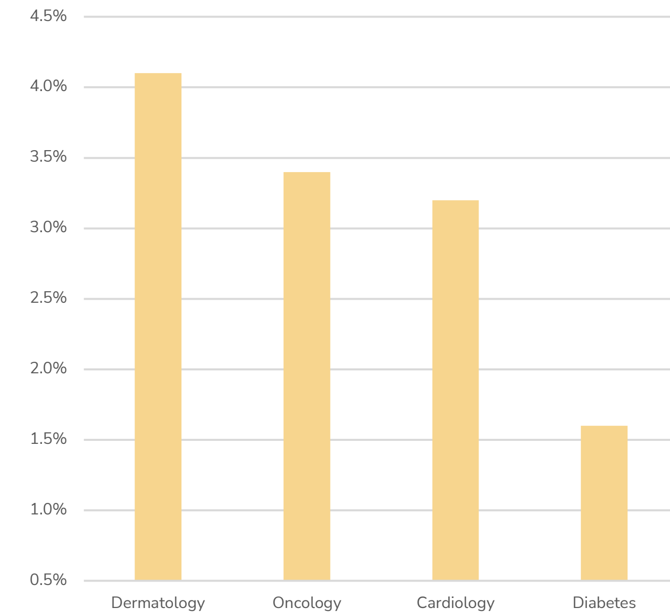
1. Projected Global Pharma Market Value, $tr



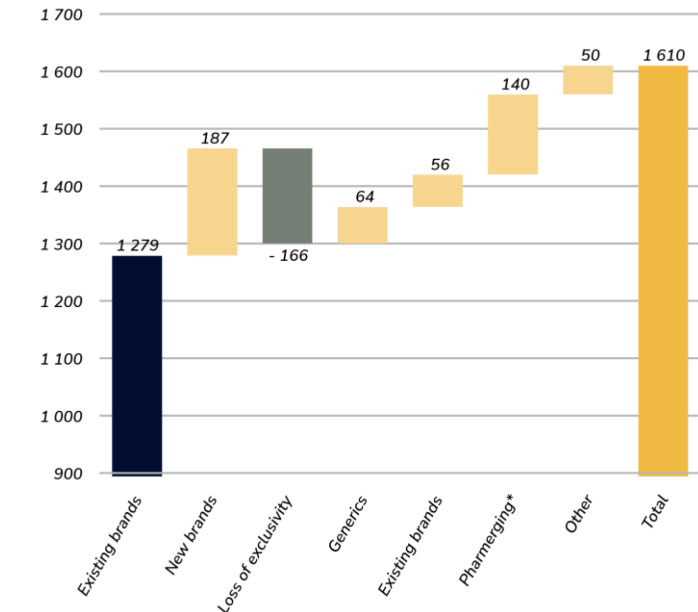
2. Projected Use of Medicines, mn daily doses



3. Pharmacy Price Growth by Disease in 2023, %

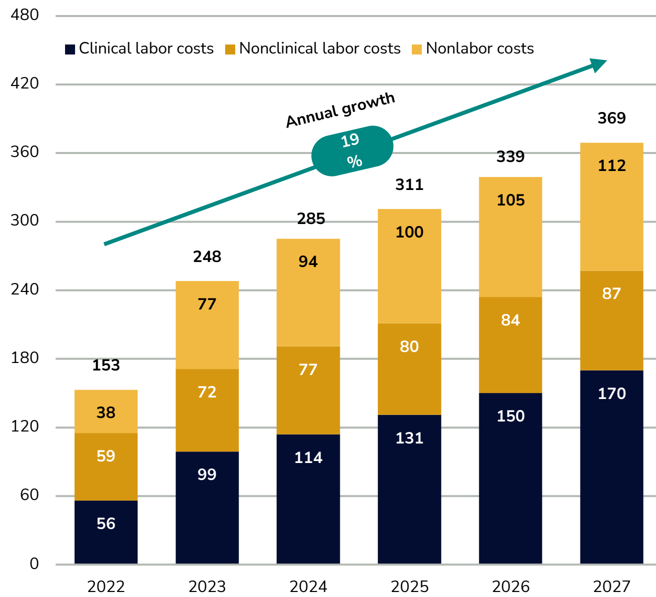


4. Global Pharma Spending by 2025, $bn

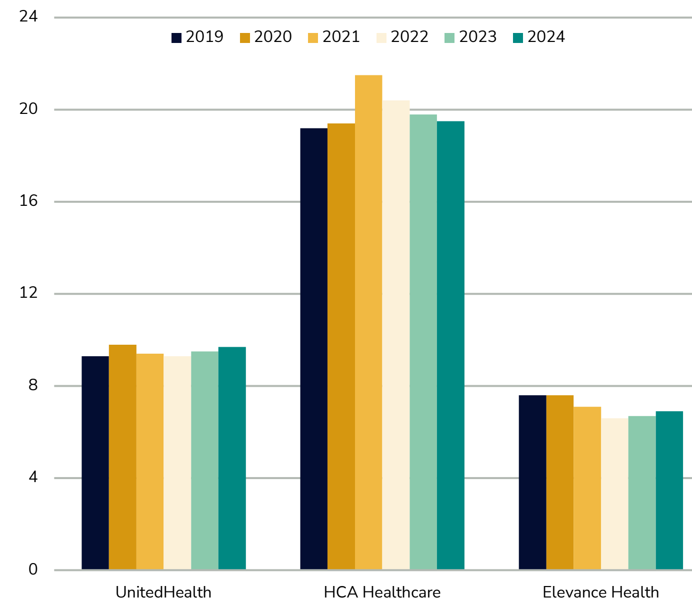


Health care Services

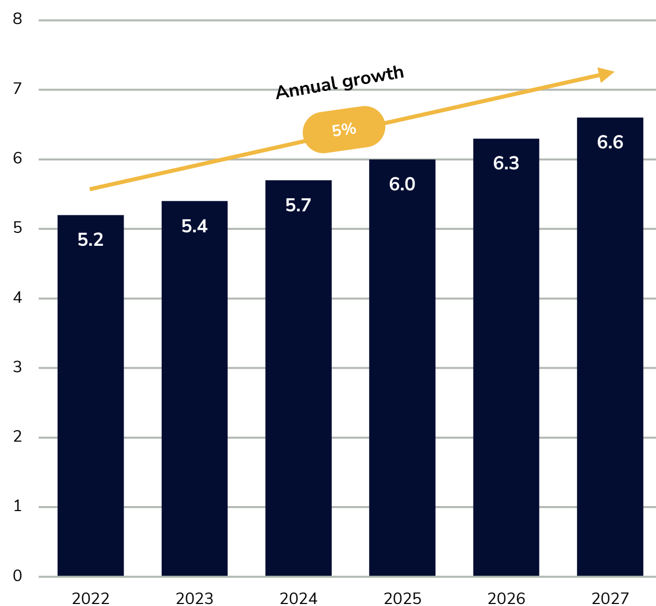
1. Projected US Healthcare Costs, $bn



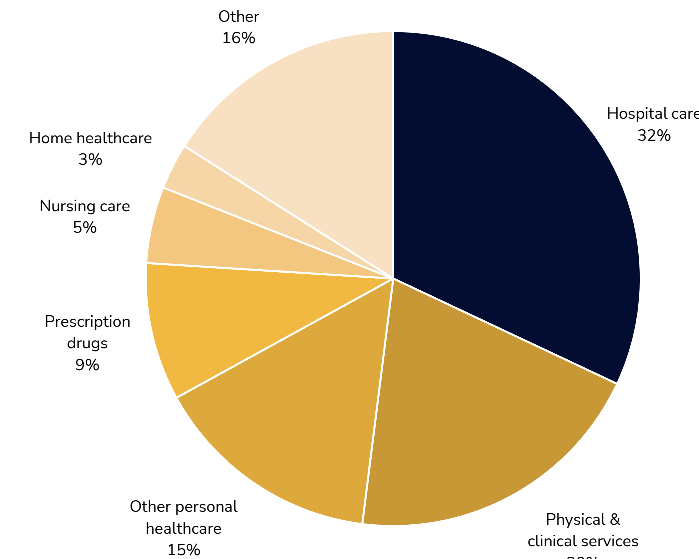
2. EBITDA Margins of Selected US Players, %



3. National Health Executive Spending, $tr



4. US Healthcare Spending by Type in 2023, %



Structurally growing

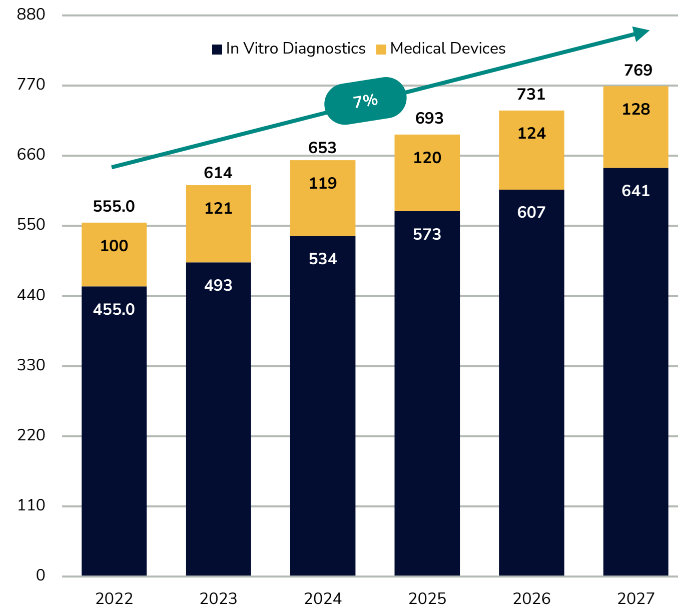
We like companies that demonstrate moderation in wage growth, exhibit high-and-growing ROIC and benefit from emerging new trends (such as the growing adoption of Medicare Advantage).

- **2022 overview.** Healthcare services faced multiple challenges, including rising costs (labor- and drug-related costs +37% vs. 2019, supply costs +21%), coverage shifts (about 15mm Medicaid enrollees may lose coverage after the COVID-19) and regulatory changes.
- **Costs and margins forecast for 2023.** Total healthcare costs are projected to grow by 62% in 2023 Y/Y (**fig. 1**), driven by cost inflation, clinical labor wage growth and rising interest rates. Margin dynamics in 2023 (**fig. 2**) will differ for the various providers, with HCA experiencing minor deceleration, while others experience growth.
- **Labor force forecast for 2023.** Contraction in the labor force will lead to a gap of 190k-440k registered nurses and 48k-75k doctors (10-20% and 6-10% of the workforce, respectively) driving Y/Y labor cost growth of 5-10% in 2023-2024.
- **Regulatory shifts.** Since Oct'22, healthcare providers have been required to implement the 21st Century Cures Act. Starting from 2023, there are substantial changes in County Plan Models under the COHS plan (which has a moderately negative impact on multi-plan providers). We expect the COVID-19 public health emergency and national emergency to conclude in 2023.
- **Shifts in demand.** Rapid growth in the over-65 population, increased adoption of Medicare Advantage (44% in 2021, forecast to grow to 52% by 2030 amongst the Medicare population) and improved profitability of managed Medicaid (due to more coordinated and integrated care) will increase demand for managed services. Total national health executive spending in 2023 (**fig. 3**) will be driven primarily by hospital care (**fig. 4**).
- **Mergers and Acquisitions.** Despite inflationary pressures, existing players plans to accelerate M&A activity in 2023. New players are also investing in this area: Amazon plans to close their acquisition of One Medical, while WBA has announced plans to wholly acquire CareCentrix.

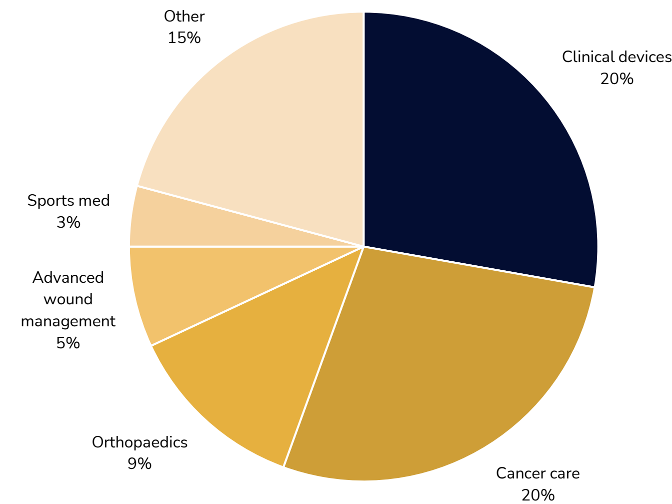
Chart sources: (1) McKinsey & Co. (2) Company reports, Bloomberg.
(3, 4) Center for Medicare and Medicaid Services.

Life sciences

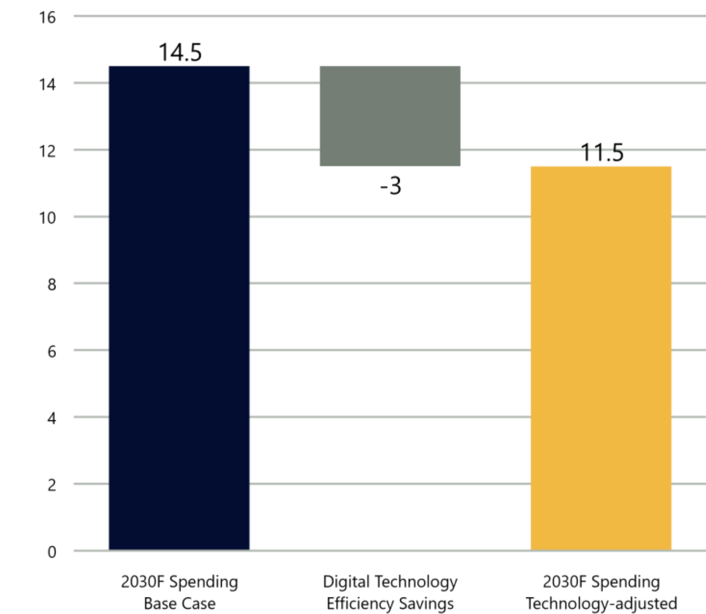
1. Medical Devices Market Value, $bn



2. Medical Devices Market Composition, %



3. Healthcare Spending and Efficiency Savings, $tr



Temporary headwinds

Business models in the medical device universe remain susceptible to increasing labour-and-materials costs, ongoing supply-chain-related challenges and deteriorating capital structures arising from higher debt levels.

- **2022 overview.** The medical devices market faced several challenges, including supply chain disruptions, raw material price increases, labor cost increases and an inability to pass price increases through to customers.
- **Diagnostic devices.** This market is expected to achieve a 7% CAGR from 2022-2027 (**fig. 1**). An increase in the geriatric population is expected to propel the growth of the diagnostic devices market. Aging of the population will increase the overall demand for diagnostics in certain areas, such as cancer, diabetes and other age-related diseases. Age-related diseases are also heavily represented in the composition of the medical devices market, with clinical and cancer-related devices comprising 40% of total (**fig. 2**).
- **FDA fees for medical equipment.** Companies importing medical equipment to the US can expect substantial increases in fees relative to 2022: the 510(k) premarket notification fee increased by 56%, while fees for De Novo Classification and Premarket Approval increased by 18%.
- **Impact of the strong USD.** Most of the US providers expect a negative impact from currency fluctuations. For example, Medtronic expects its FY23 earnings to be affected by up to 17%. Abbott suffered an impact of -6% on its sales, and the company expects its 2023 results to be affected as well.
- **Supply chain vulnerabilities.** Shocks could cause some medical device companies to lose c.3.8% of annual earnings (Pharma: c.2.4%).
- **Digital technology** has the potential to capture significant value within healthcare systems around the world, contributing to annual cost savings of $1.5-3.0tr by 2030 (**fig. 3**), via a range of innovative solutions such as remote monitoring, artificial intelligence, and digitalization.
- **Mergers and acquisitions** in the medical device industry declined in 2022, a trend which may continue into 2023.

Chart sources: (1) OECD, WHO. (2) Siemens Health. (3) McKinsey& Co.

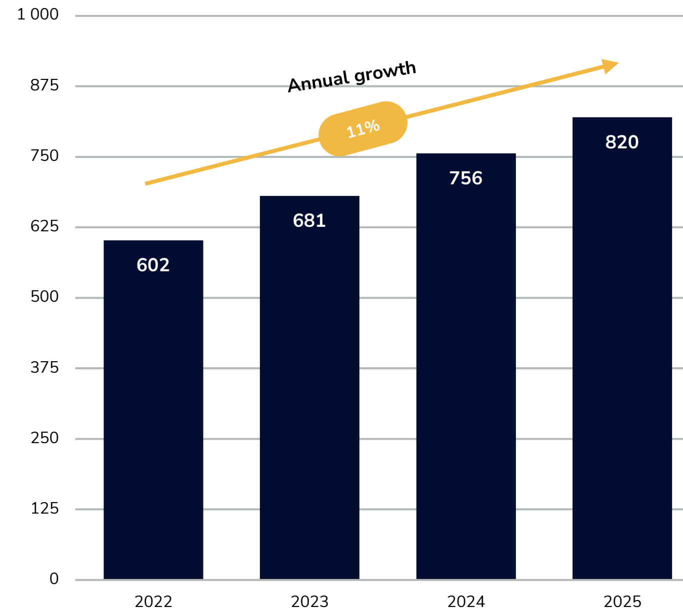
Virtual life
Social networks and digital advertising

Battles in the virtual space

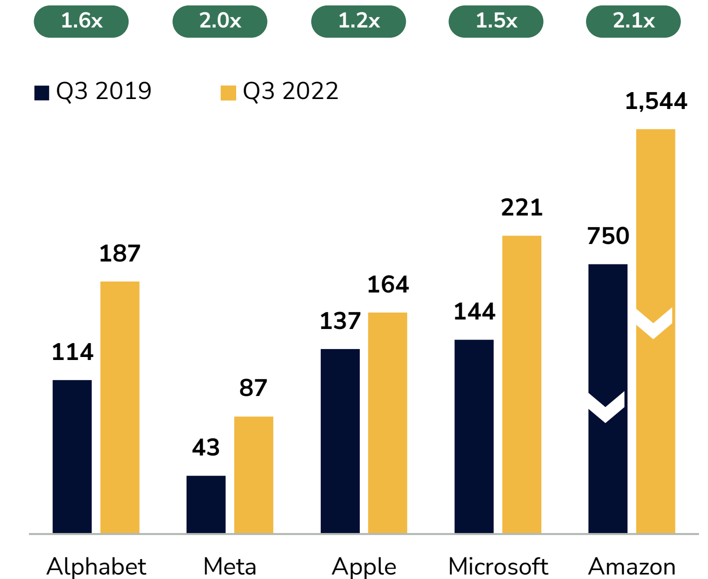
Accelerating capex prompted by lower prices for core equipment that is essential for AI development and margin stabilization arising from layoffs will support Big Tech's market leadership and bolster respective market shares.

- **2022 overview.** The digital ads market grew by c.9% Y/Y, reaching $602bn and exceeding 2019's spend levels by 8.7%. Digital ads accounted for 56% of global ads. Global digital ads spend is forecast to achieve an 11% CAGR by 2025 (**fig. 1**). Subsectors whose growth is expected to outpace the broader market include social ads (+21.4% Y/Y) and search (+16.9% Y/Y).
- **Prices.** Digital ad spend per person is estimated at $584 per internet user for 2022 (+6.47% Y/Y). Prices are expected to rise by 6.3% in 2023 and by 5.7% in 2024.
- **Demand dynamics.** c.30% of major advertisers expect to reduce their ad budgets in 2023, while c.40% expect similar spend levels and c.30% plan to increase spending.
- **Competition dynamics.** The rivalry between Meta and TikTok is set to intensify. Most e-commerce brands are planning to increase their TikTok budgets in 2023, with 85% of brands expecting to hike total ad spend on this platform (vs. 39% for Meta).
- **Margins.** Most providers substantially increased staff count during the pandemic (**fig. 2**) adversely affecting margins. Subsequently, Meta, Amazon and Alphabet have announced layoffs of more than 10k employees each. We expect operating margins to stabilize around current levels, with limited further declines in this metric.
- **Capex.** Gartner Global Communication Services expects market capex to grow by 2.4% in 2023, to $1.5tr (2022: c.3%), due primarily to investments in data centers.
- For 2023, Meta expects to incur capex of c.$34-39bn for investments in data centers and AI, as it seeks to increase its market share and accelerate its growth. Meta's capex cycles, including investments in computational capacity, typically coincide with subdued demand for computing power (**fig. 3**).
- **Regulatory changes.** We anticipate the most significant change in 2023 to relate to data privacy regulations and data restrictions from web browsers on websites that have enabled data-sharing functionality.

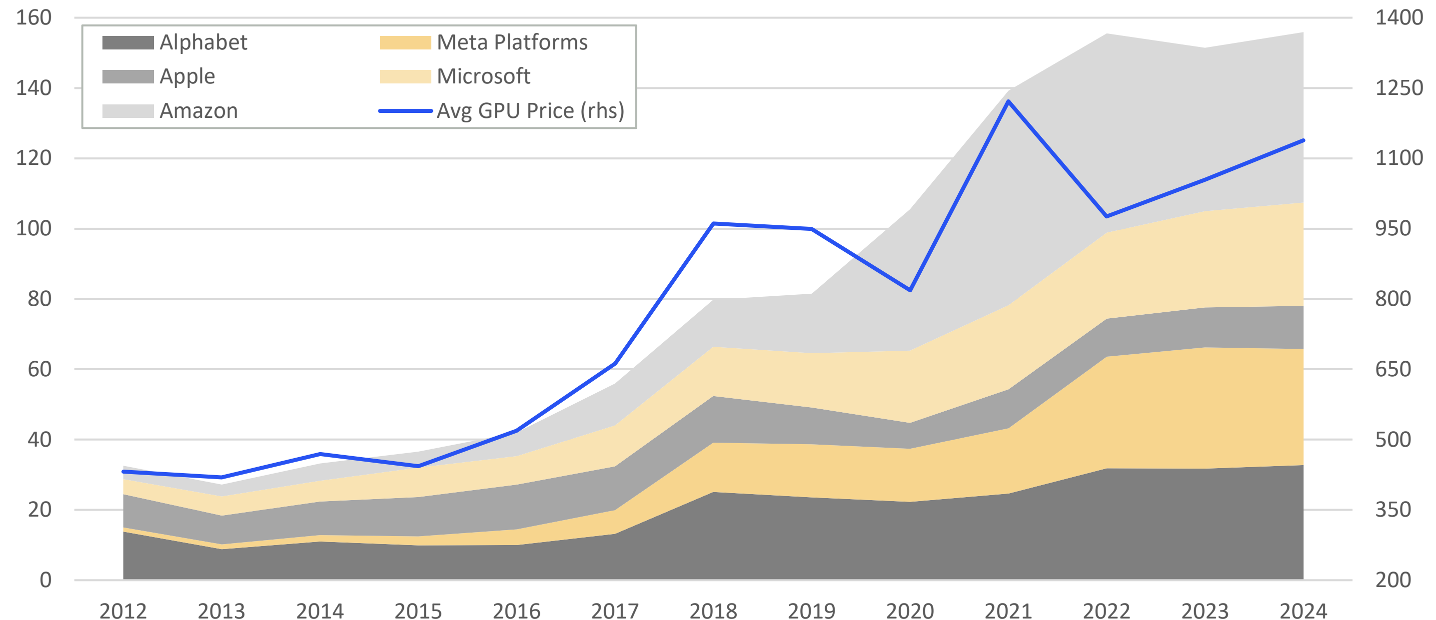
1. Global Digital Ads Spending, $bn



2. Big Tech Number of Employees, '000s



3. Global Technology Players Capex, $bn, and GPU Prices, $



Charts source. (1) Dentsu. (2, 3, 4) Company reports

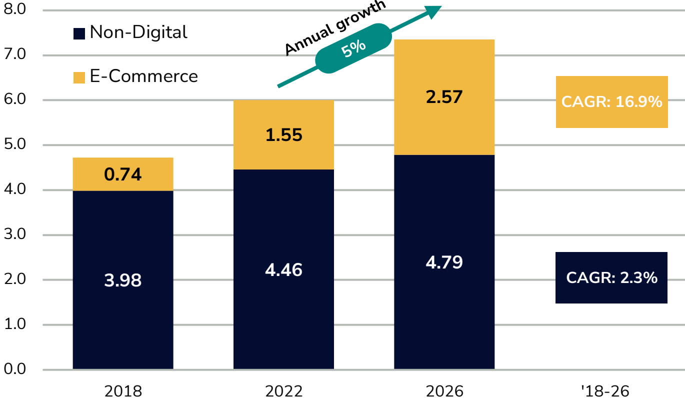
Virtual life
e-Commerce

Focus to shift to strong FCF growth

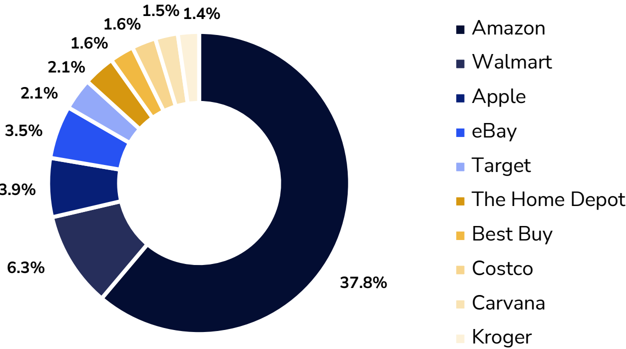
We believe current de-rating reflects significant near term concerns and does not fully reflect medium term opportunities for companies like Amazon. Companies with weak unit economics or highly competitive end markets should be avoided.

- Covid-19 provided a significant boost to e-commerce sales in 2020/1H21 with up to 3-5 years of channel shift happening in a very short time.
- Economies opened in 2H21 leading to consumer expenditure returning to normal levels (more on experiences/travel) across categories in combination with opening of stores. This led to sharp slowdown in growth for e-commerce with declining sales in some categories.
- In 2022, higher than expected inflation led to consumer expenditure increases in non-discretionary items. Additionally, higher wage inflation led to pressure on margins.
- Normalization is expected to return in 2023 with e-commerce growing marginally higher than underlying category growth but most of the categories might be closer to saturation in a steep channel shift away from stores to online.
- Basket size, average order per customer could continue to increase incrementally.
- In the long term, we do believe in gradual channel shift driven by demography, advance technologies but we expect companies to focus on maximizing FCF growth while balancing growth in developed markets.
- Penetration in Emerging markets remains low which provides opportunity but long-term ROCE is still uncertain.

1. US E-Commerce Market by sales type ($ trln)



2. e-Commerce market structure in the US



Charts source. (1, 2) Dentsu.

Financial edge
Banking

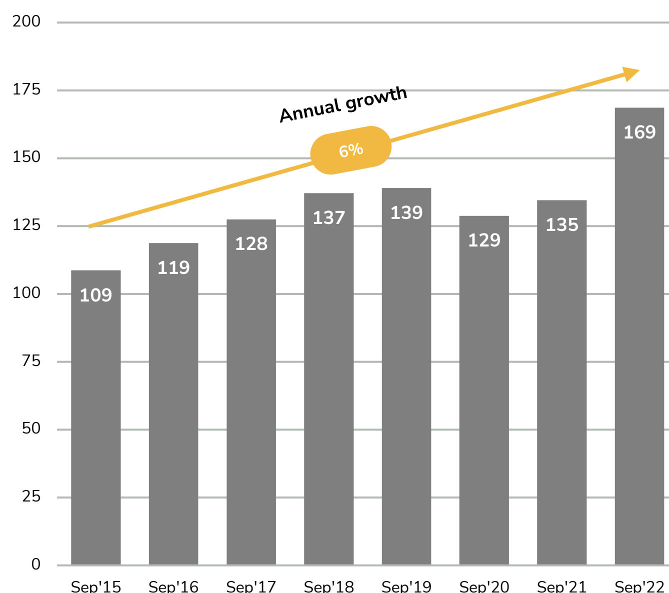
Beneficiaries of higher rates environment

Banks with high ROE, low forward multiples, predominantly involved in consumer lending could be good portfolio diversifiers in the high rates environment.

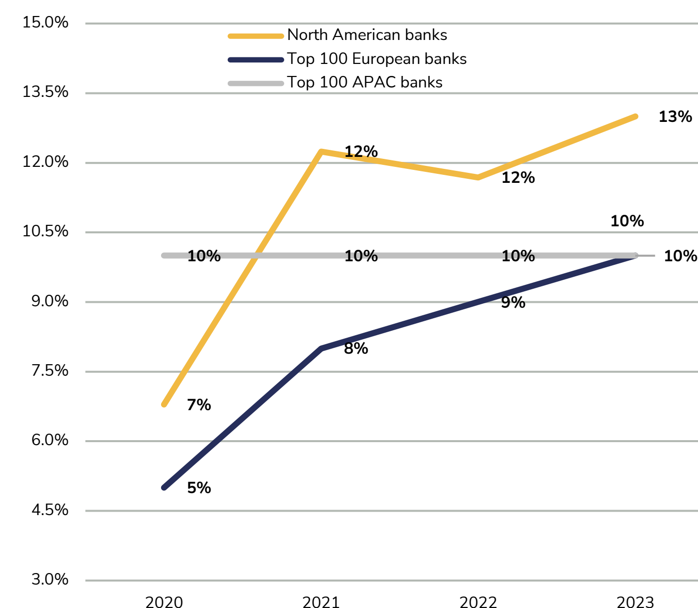
- **2022 overview.** Unlike many other sectors, the banking segment mostly benefits from rising rates. Most of the US and EU banks are trading with multiples near their long-term lows, while major regulatory shifts are postponed. The Global bank account balances are set to reach $13 trln by 2026 from $11 trln in 2021, growing 2.1% YoY on average.
- Due to an uptick in interest rates in 2022, net interest income/net interest margins are expected to normalize at levels higher than pre-pandemic levels **(fig. 1)**.
- Acceleration of non-interest income from higher trading revenues and fee-based businesses could prop up further growth of the banking industry in 2023.
- **Interest rates impact.** Rising interest rates pushed bank margins higher in 2022. Deposit costs have climbed modestly through the first half of the year but accelerated in the second half and will increase even further in 2023, slowing margin expansion.
- Overall, all major US banks boosted guidance for net interest income in 2022-2023 (for example, JP Morgan upgraded its NII guidance for full FY22, +23%). Bank ROEs are projected to grow in 2023 (**fig. 2**).
- **Regulatory shifts.** Even though the preferred starting date for the implementation of Basel IV is Jan 2023, this regulation in the US will likely come into force not earlier than 2025. Still its implementation will impose additional requirements on Banks: the minimum reserve capital a bank needs under the Basel framework is 10.5% of its risk-weighted assets plus the countercyclical capital buffer and leverage ratio requirement.
- **Healthiness of the banking system.** Major global banks demonstrate an increase in business healthiness. The 1000 largest banks' Tier 1 capital has surpassed $10 trln (+4.7% YoY), with US banks accounting for c.$2 trln (avg. CET1 for Top-10 US banks ~12%) **(fig. 3)**.

Charts source. (1) FDIC. (2) S&P Global, Federal Reserve. (3) Deloitte. (4) Federal Reserve, company information.

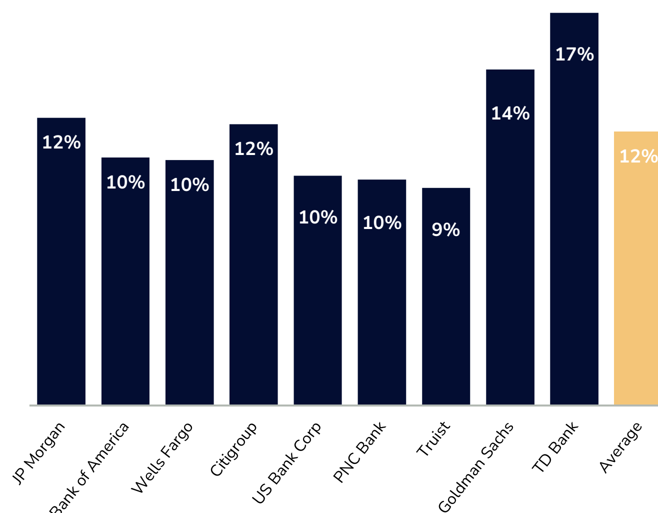
1. US Banks Net Interest Income (NII), $bn



2. Global banking industry ROE, %

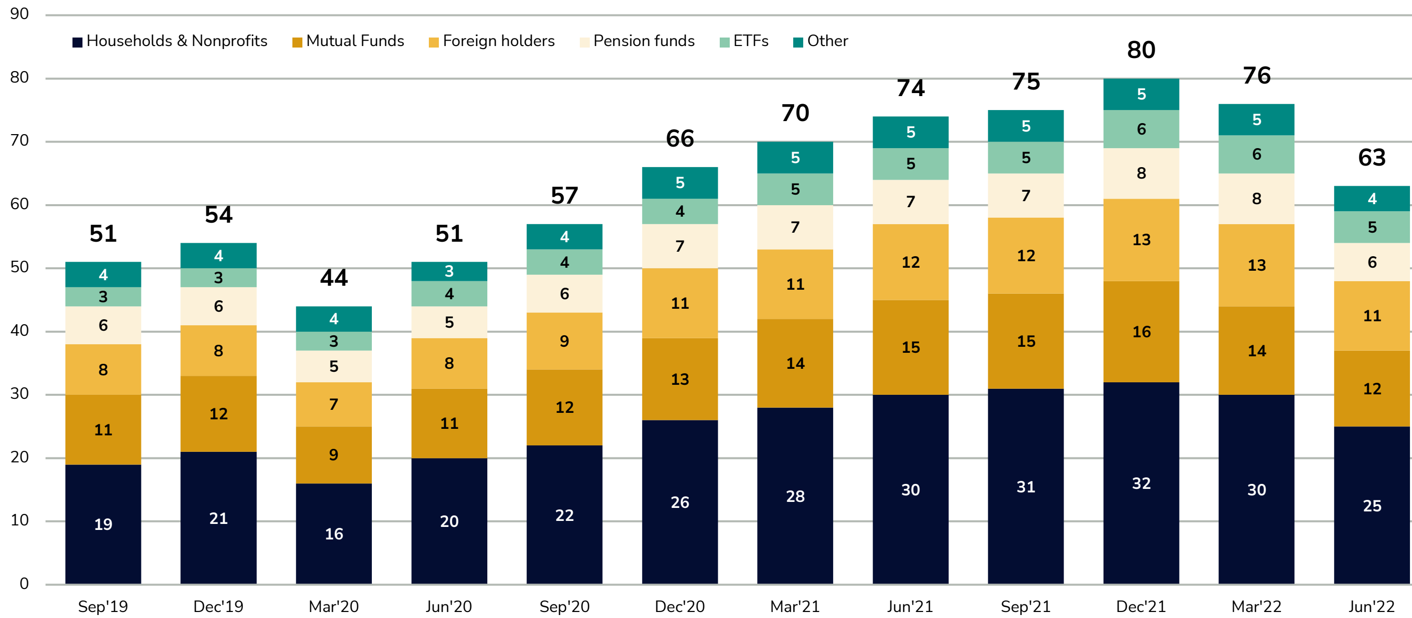


3. Major US banks CET1 ratio, 3Q22, %

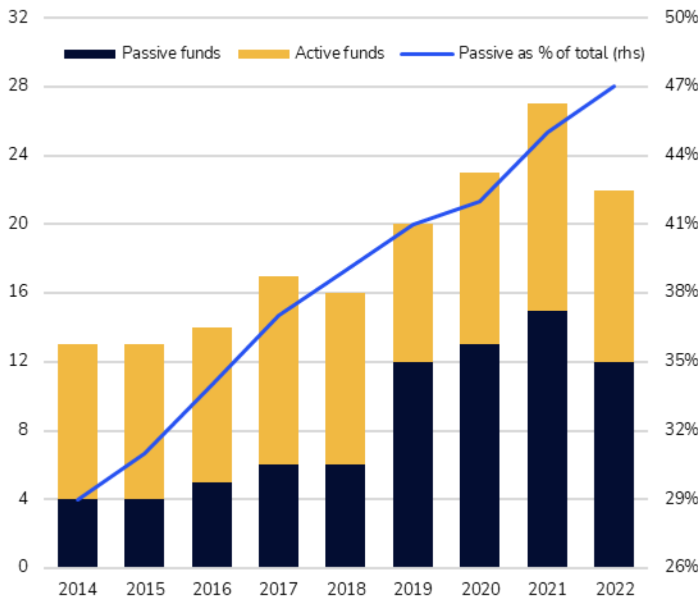


Financial edge
Asset management

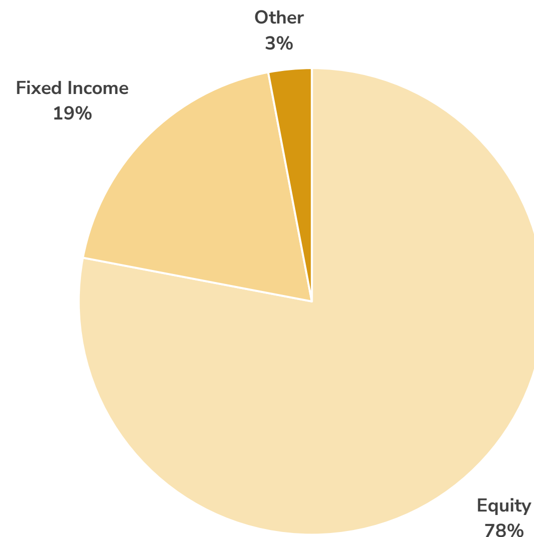
1. Breakdown of US Securities Holders by Type, $tr



2. Active vs. Passive Fund Assets, $tr



3. ETFs by Major Asset Classes in 2022, %



Accumulating wealth

Online brokerage firms and global ETF providers could benefit from prevailing market dynamics, while companies with higher deposit betas will be negatively affected by rising rates.

- **2022 overview.** After inflows accelerated in 2021 (to at least $59bn per month, according to McKinsey), the international asset management industry experienced a substantial reversal of this trend during 1H22 (**fig. 1**). In contrast to the record $1.6tr inflows in 2021, projected total outflows for 2022 are $400-500bn (with hedge funds set to suffer outflows of almost $75bn).
- **Fund management.** Active fund assets declined by $3.6tr in 2022 and were more vulnerable than passive fund assets, which fell by $2.3tr **(fig. 2)**. Consequently, the share of passive funds by total fund assets increased further, reaching 47% (2021: 45%) **(fig. 2)** as relative demand for passive funds was supported by retail investors using them as a tool for tax optimization.
- Overall, equity ETFs account for c.78% of total ETF AUM, with fixed income ETFs comprising a further 19% (**fig. 3**).
- **Impact of rising rates.** This varies considerably between online brokerage firms, wealth management firms and investment banks.
- **Brokerage firms** largely benefit from rising rates, due to their low deposit beta, although the margins of smaller competitors with higher deposit betas are vulnerable.
- **Investment banks** are typically moderately interest-rate sensitive, with interest rate hikes marginally benefitting their financial and operating results. Over the longer term, their businesses are influenced more markedly by their ability to retain clients and introduce new products.
- **Wealth management firms'** results are generally benefiting from rising rates, as their clients' deposits attract higher returns, contributing incrementally to performance-based wealth management fees.

Chart sources: (1, 2, 3) Federal Reserve.

Financial edge
Rating agencies and payments

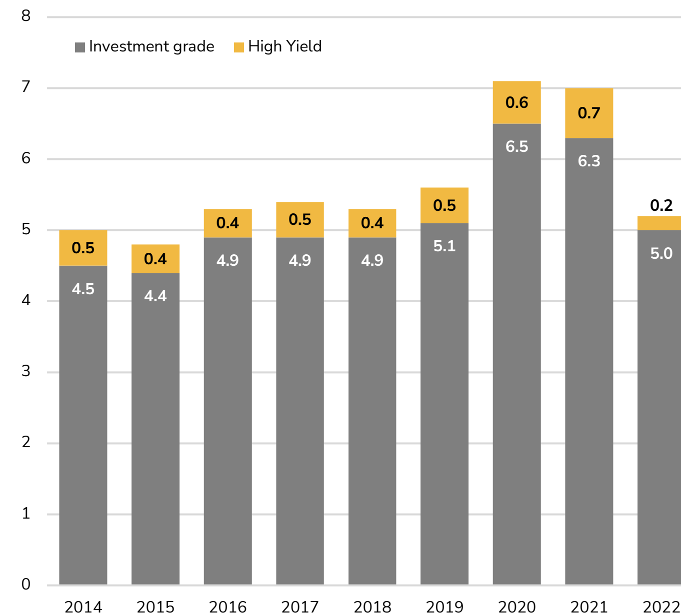
Indexing the world

Rating agencies stand to benefit from a recovery in debt issuance. We're constructive on companies providing analytics and involved in index-related businesses.

- After a strong 2021, debt and equity issuance declined materially in 2022 (**fig. 1**) with limited signs of any near-term acceleration. We expect issuance to be affected by elevated market volatility and a potential recession in 1H23, before recovering gradually in 2H23.
- According to S&P Global, global bond issuance is set to contract by 18.5% in 2022, due to rising interest rates, before increasing by 1.7% in 2023. Despite this deceleration in growth, refinancing requirements remain a strong tailwind for the sector (**fig. 2**).
- Rating agencies are very attractively positioned, due to their oligopolistic market (**fig. 3**) and the recovery in debt issuance across various categories, both of which confer substantial pricing power.

Chart sources: (1) Dealogic. (2) JPMorgan. (3) Government Actuary's report, ESMA. (4) Bloomberg Intelligence.

1. Global Bonds Issuance, $tr

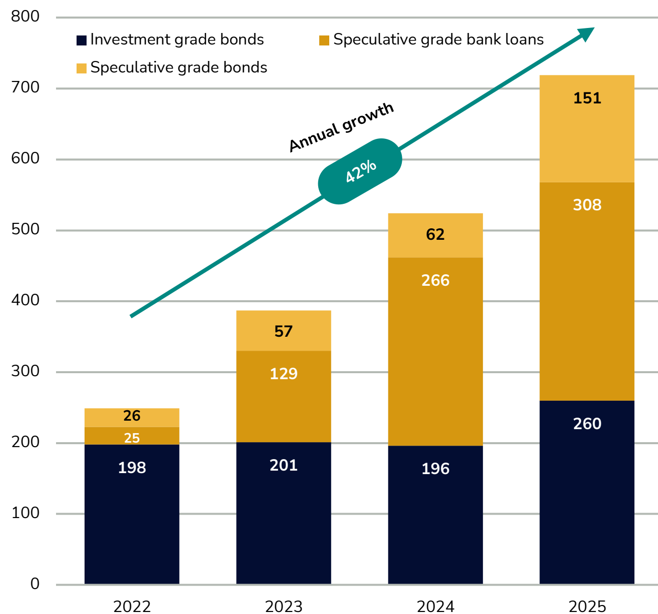


Payments — moving money around

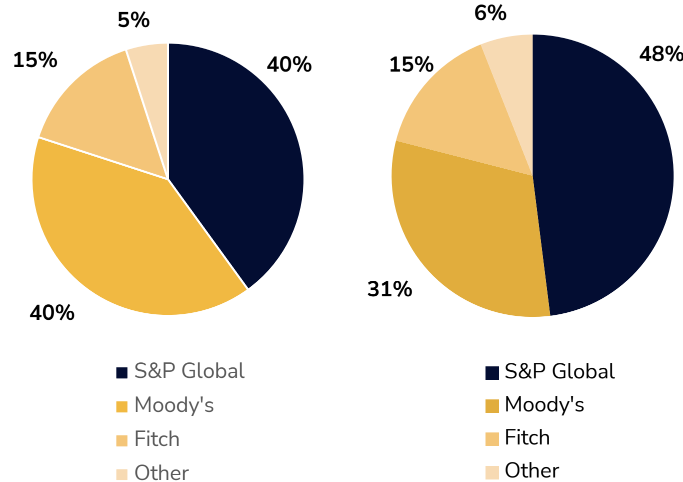
While we would prefer a larger margin of safety, the risk/reward for some companies with proven sustainable competitive advantages is increasingly attractive.

- All forms of digital payment were boosted by COVID-19 and, in 2022, economic re-opening provided a further tailwind for highly-profitable cross-border travel (**fig. 4**).
- Consumers rebalancing their spending between categories (e.g., experience vs. goods) and channels (e.g., online vs. physical) created significant divergences in 2022 and contributed to erratic share price performance.
- In 2023, a general slowdown in consumption is expected in the US, with continued strain in the EU, which could reduce growth rates from mid teens to high single digits. A deeper recession could further affect multiple categories and channels.
- Network providers are best positioned due to their global presence, strong pricing power and exposure to the ongoing recover in cross-border travel.

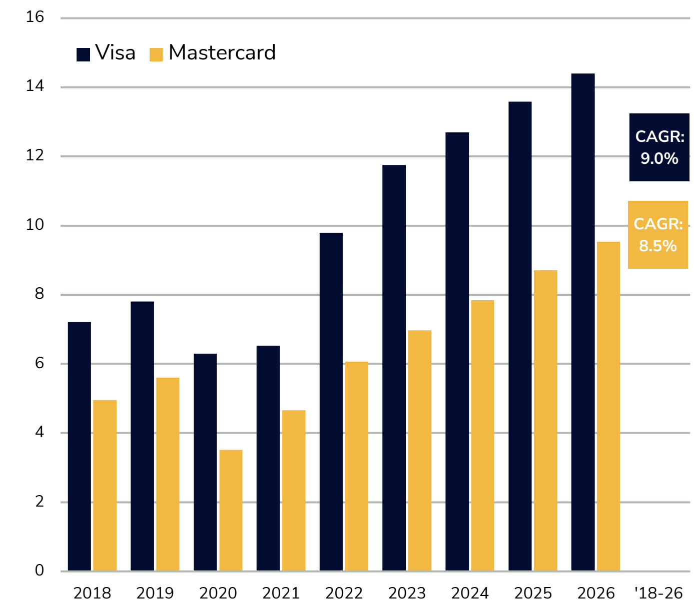
2. Maturities: US Non-Financial Bonds And Loans



3. US (left) and EU (right) Ratings Market in 2022



4. Global Payment Networks Revenues, $bn



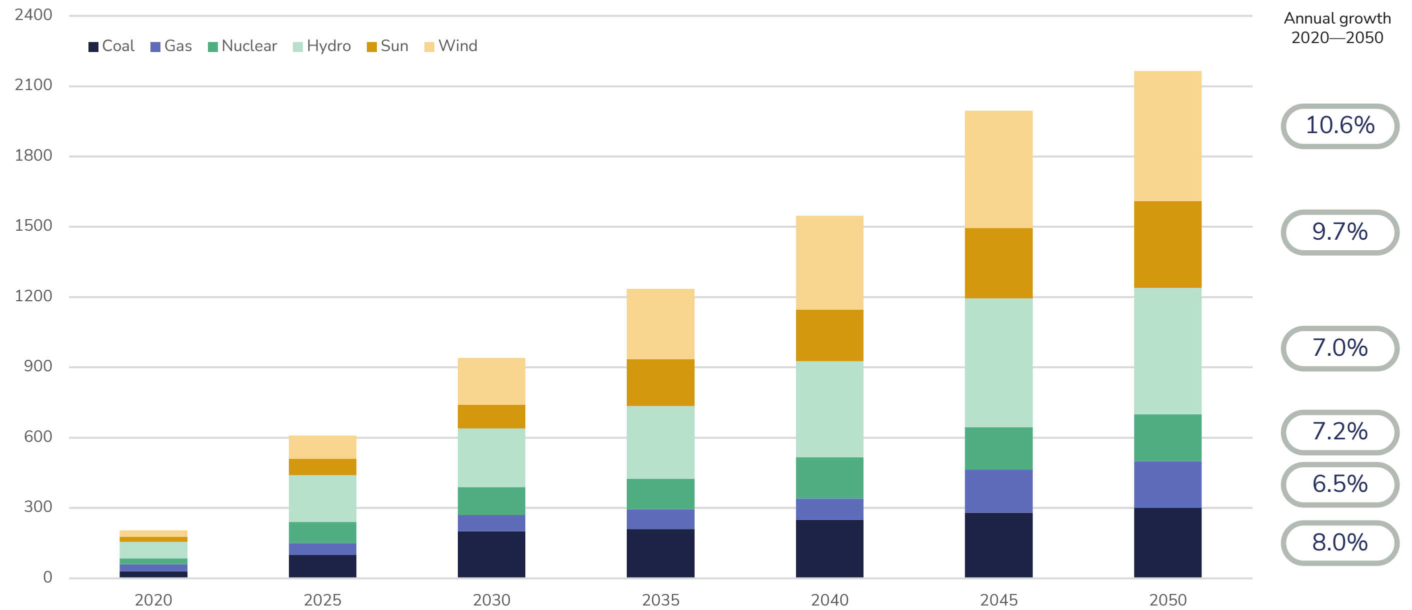
Clean energy
Solar and wind

Acceleration of the trend

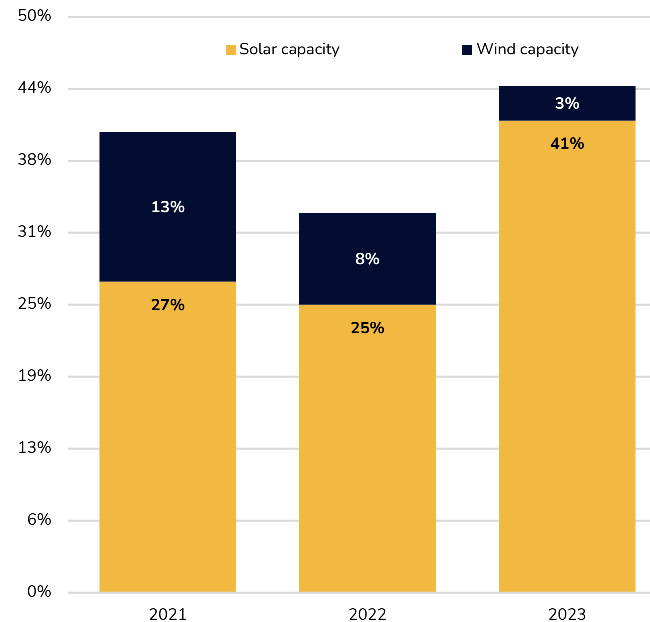
The renewable energy industry benefits from the current macroeconomic landscape due to growing demand and a highly accommodative regulatory framework.

- **2022 overview**. The renewable energy sector recorded substantial growth of almost 10%, underpinned by rising capacity volumes.
- Increases in US electricity generation capacity are driven primarily by solar and wind energy sources. This dynamic is forecast to continue in the long-term (**fig. 1**). The EIA forecasts renewable sources to constitute 24% of the total US energy supply in 2023 (up from an estimated 22% in 2022) and account for 44% of the Y/Y growth in the energy supply (up from an estimated 33% in 2022) (**fig. 2**).
- According to the EIA, the increasing adoption of alternative energy will drive lower costs for all major sources — batteries, electrolysers, solar and wind — by 2030. The foundation for this trend is the continued growth in overall renewables consumption (**fig. 3**).
- **Capex.** Capital investment in renewables outpaced oil and gas spending on new projects by $45-50bn in 2022.
- **Prices.** According to LevelTenEnergy, "North American renewable energy buyers saw P25 solar and wind power purchase agreement prices rise another 5.3% to $41.92 per MWh in 2022".
- **Regulatory changes.** In the US, most of the local states' integrated resource planning initiatives — to reduce greenhouse gas emissions and achieve at least 75% renewable and/or clean energy grids by 2050 — are scheduled to be implemented during 2023.
- **Storage.** The global migration towards renewable energy has played a significant role in driving demand for long-duration energy storage (LDES). In 2023, we expect LDES technology to remain topical, and its major providers to benefit from rising demand.

1. Global EBITDA Value Pool by Technology, $bn



2. US Change in Energy Supply, % of Total Change



3. US Renewables Consumption, Quadrillion Btu

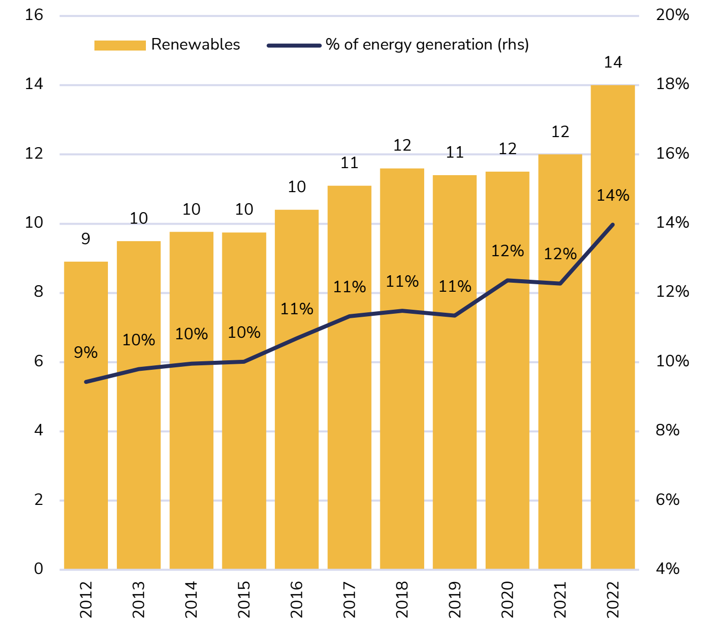


Chart sources: (1) Aurora Energy Research. (2, 3) EIA.

Clean energy
Natural gas

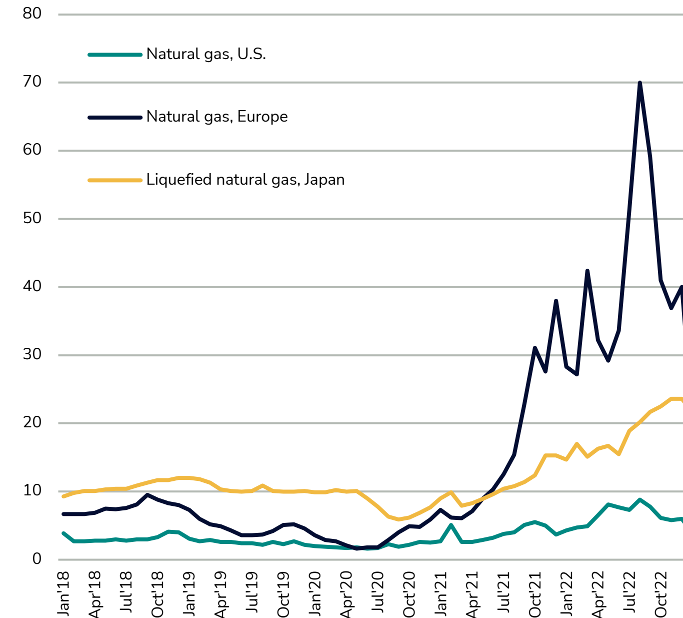
Looking for alternatives

Energy prices skyrocketed in 2022, due to economic activity rebounding in China and the relocation of capacity required to substitute Russian oil, gas and coal. By the end of 2022, prices for major energy sources declined by 30-40% from peak levels. Nevertheless, energy prices remain significantly higher than respective five-year averages.

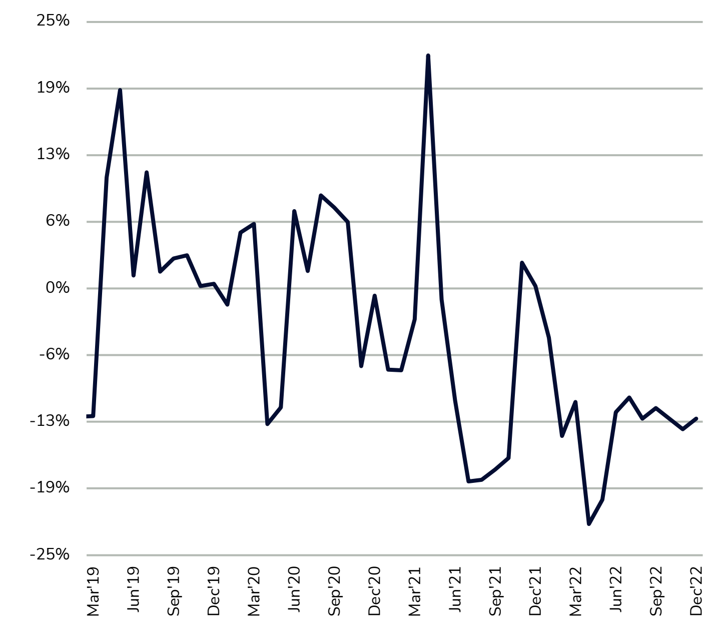
- European natural gas prices and Asian spot LNG prices spiked in 2022 **(fig. 1)**, reducing consumption **(fig. 2)** and incentivizing users to substitute other energy sources — such as coal and oil — for their power generation needs.
- Europe has counteracted the impact of drastically-reduced Russian gas supplies, which contributed to inventory declines **(fig. 3)** by increasing LNG imports and securing alternative pipeline supplies from Norway and elsewhere **(fig. 4)**. Europe's demand for LNG surged by 65% Y/Y in the first 10 months of 2022, drawing supply away from traditional buyers in the Asia-Pacific region, where demand dropped by 7%. Thus, the European energy crisis rendered incremental LNG supply unaffordable for developing markets in Asia and deprived the region of Floating Storage and Regasification Units (FSRUs), a critical component of its infrastructure.
- In 2021, gas imports in the EU totaled 371.57 billion cubic meters (bcm) and were sourced from Russia (41%), Norway (23.5%), LNG regasification terminals (20.5%), Algeria (10.5%), the Trans Adriatic Pipeline (2%) and Libya (1%). In Oct'22, Russia provided the region with 1.94 bcm of natural gas (Oct'21: 10.08 bcm, -80% Y/Y) **(fig. 4)**. Europe's dependence on Russian pipeline gas is estimated at 8%.
- The volume of global LNG trade is expected to increase by 4% in 2023, fueled by continued growth in European imports — to an all-time high of 177 bcm — and by a modest recovery in Asia, following the region's demand decline in 2022. US LNG exports are forecast to continue growing at around 4%, driven by the anticipated return to full production of the 20 bcm Freeport LNG terminal in Texas, more than offsetting a slowdown in new liquefaction capacity additions in 2023.

Chart sources: (1) EIA, World Bank, Bloomberg

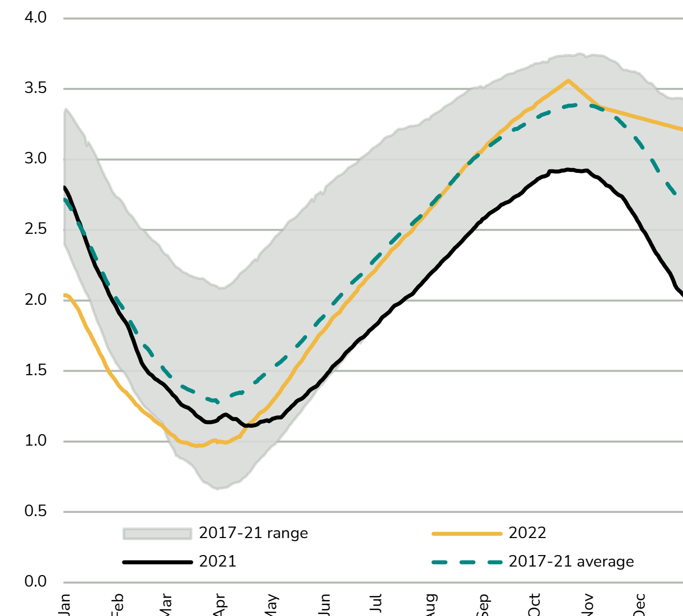
1. Natural Gas Prices, US$/mmbtu



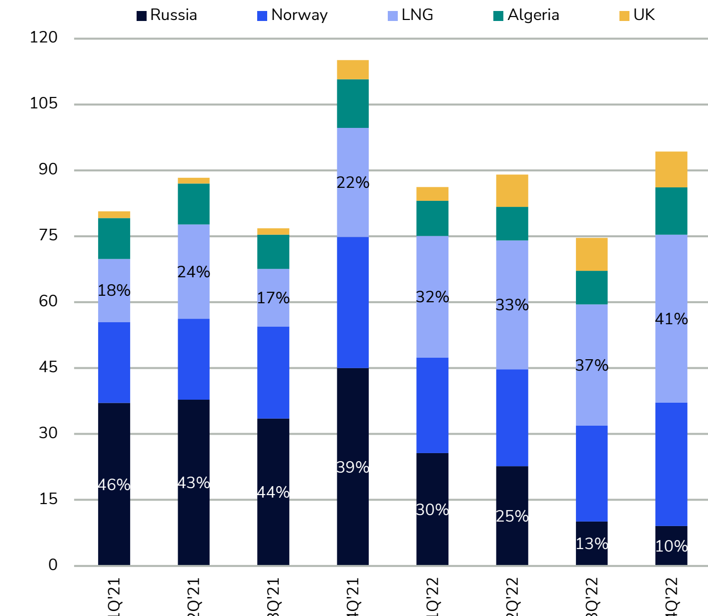
2. EU Natural Gas Consumption, % Y/Y



3. European Natural Gas Inventories



4. EU Imports of Natural Gas, bcm



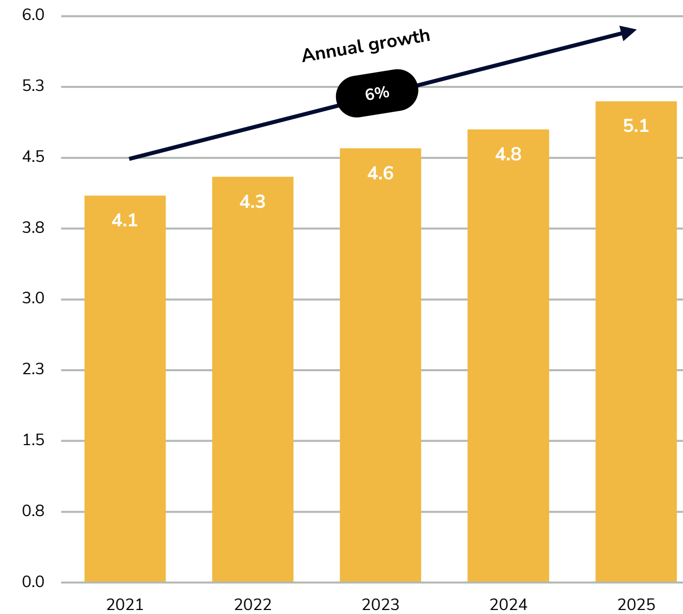
Infrastructure
Real estate

Sensitive to rates

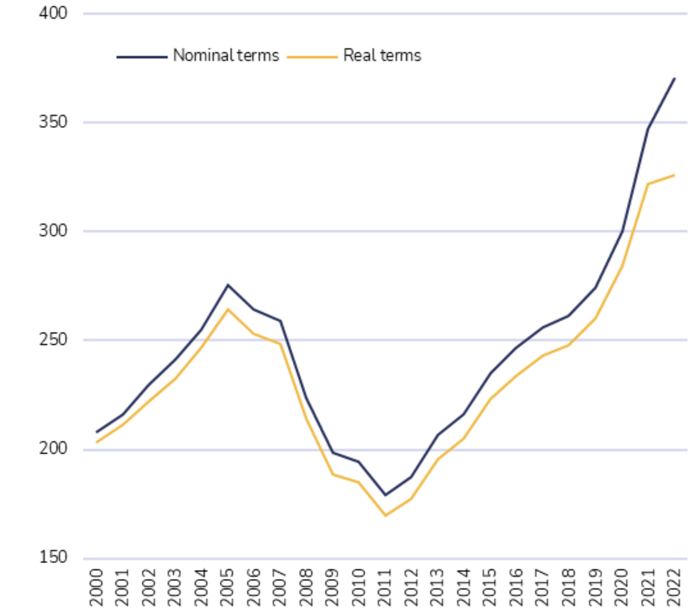
Due to elevated mortgage rates and ongoing economic uncertainty, we expect the US real estate market to decelerate in 2023 before rebounding in 2024.

- **2022 overview.** The US real estate market was estimated at $4.3 trln in 2022 (2021: $4.1 trln) and is expected to achieve a c.5.6% CAGR from 2021 to 2025 **(fig. 1)**.
- **Prices.** As mortgage rates exceeded 6% in 2022, house prices (in real terms) decreased by 13% from their 2022 peaks and are expected to decline by a further 10-15% in 2023. Overall, at the end of 2022, U.S. home prices were up 1.3% YoY **(fig. 2)**.
- **Residential property.** Due to still-elevated prices and mortgage rates in the single-family housing market, individuals are incentivized to rent for longer. Until mortgage rates decline — they're forecast to reduce to 5.8% by the end of 2023 — house prices and demand for houses will remain weak.
- **Commercial property.** Industry sources suggest that multifamily and industrial properties registered the most significant declines in 2022.
- **Real estate transaction volumes** for 2023 are forecast to decline to $725 bn (down from $800 bn in 2022) before rebounding to $750 bn in 2024, per estimates from S&P Global.
- **US REIT Market composition.** The Healthcare, Infrastructure and Residential sectors together comprise 51% of the aggregate market **(fig. 3)**.
- **Transaction flow** has declined considerably during 2022, as reflected in the decelerating volumes of US REIT capital raising **(fig. 4)**.
- **Leverage** (debt-to-market assets), has stabilized below 40% since 2011, remaining in the 30-35% range since 2016. REITs have well-termed and well-structured debt. As the result, they are well-positioned to weather both (1) higher rates and (2) recessionary environments.
- Overall, we consider REITs to be appealing at present, first of all due to valuation reason. However we note that property prices may be at pressure due to high and rising interest rates.

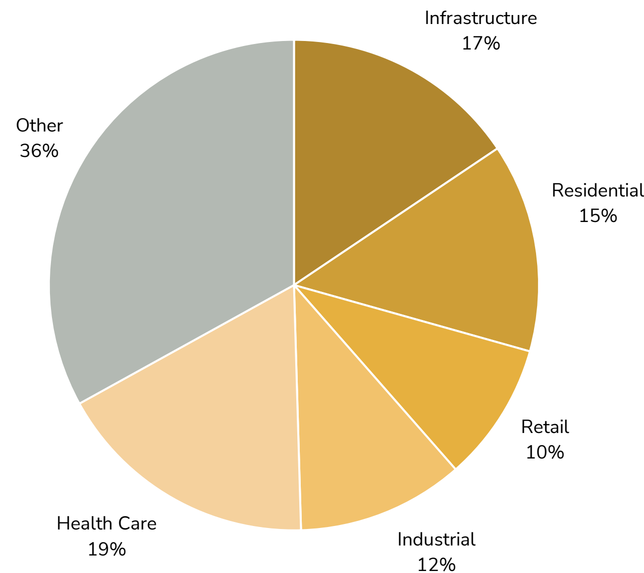
1. US Real Estate Market Value, $tr



2. US Median sales price of existing homes, $'000



3 US REIT Market Composition in 2022, %



4. US REIT Capital Raising, $bn

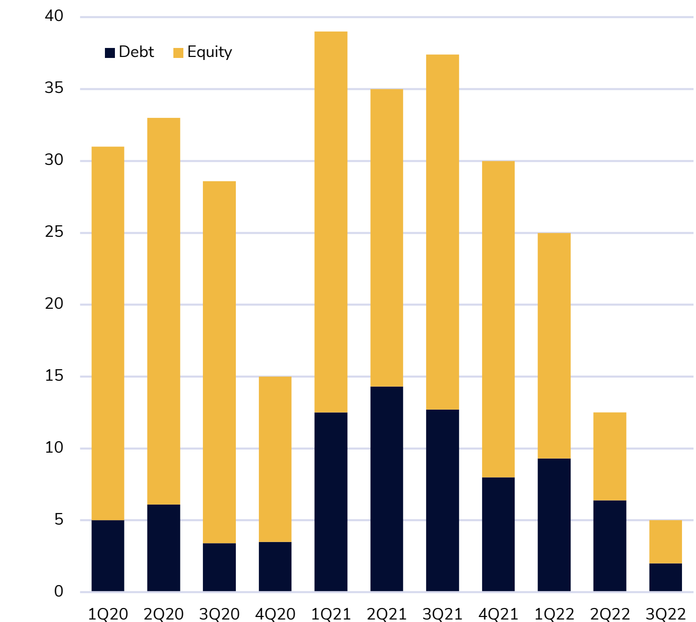


Chart sources: (1) MSCI. (2) FRED economic data, Prequin. (3) Morgan Stanley. (4) US REITs reporting, Bloomberg

Agriculture

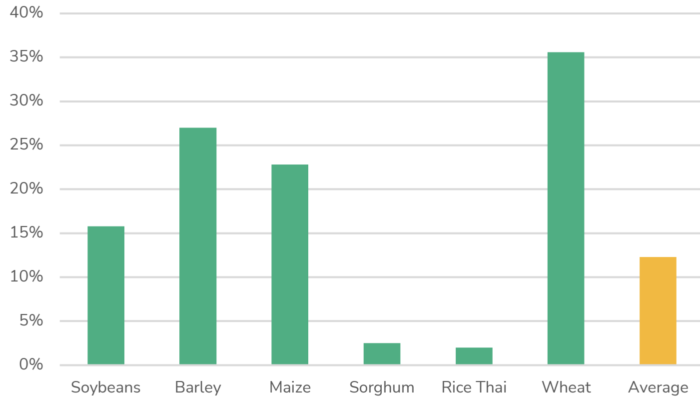
Feeding the world

Lower commodity prices could weigh on agricultural revenue despite larger production; some analysts expect farm income to decline in 2023 and in 2024 as commodity prices recede more rapidly than input costs.

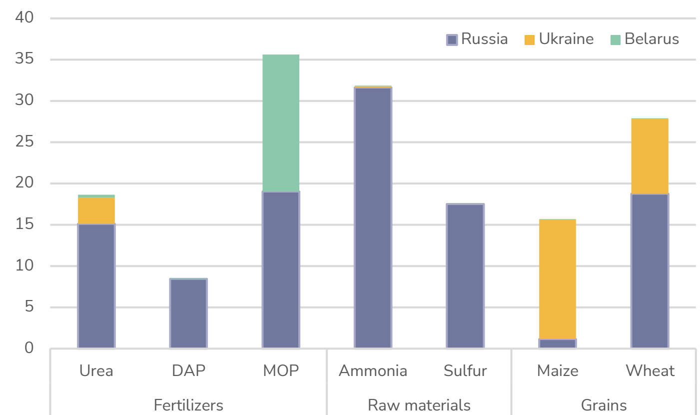
- In 2023, Global weather conditions are expected to improve, which may lead to reduced food prices. Crop yields are poised to pick up, easing the supply shortage of grains and oilseeds. This would indirectly affect other agricultural products such as meat and edible oil, whose prices depend on soybean availability.
- **Inventory and production.** Global food inventories are expected to decline marginally, relative to projected demand, during the 2022-2023 season. However, for the three main grains — wheat, maize, and rice — the US Department of Agriculture estimates that global production will decline by 2.3%, or 57mm metric tons (mmt), this season. This is in stark contrast to historical growth levels, which averaged 35mmt annually over the past three decades.
- **Price outlook.** Following an estimated increase exceeding 12% in 2022 **(fig.1)**, agricultural prices are expected to fall by nearly 5% in 2023. Stabilization is expected in 2024, as supplies of most food commodities increase due to higher yields and Ukraine's contribution to the global markets resumes. Despite the expected declines, most prices will remain elevated relative to historical norms due to the world's high dependence on Russian, Belarusian and Ukrainian supply of grains and fertilizers **(fig.2)**.
- Broadly lower agriculture prices could weigh on the Food Producers Index in 2023; its performance will depend largely on the pace of these price declines. We expect supply chain normalization to curtail the profits of producers and processors, such as ADM and Bunge.
- **US agricultural revenue.** US agricultural exports for the 2023 fiscal year are projected to be $193.5bn, down from an estimated record $196bn in 2022, with the decrease primarily driven by lower exports of cotton, beef, and sorghum, partially offset by higher exports of soybeans and horticultural products.

- **The grain price index** declined by 12% Q/Q by the end of 3Q22 but remains almost 20% higher than a year prior. The broader food price index declined similarly.
- A favorable global wheat crop and a United-Nations-brokered deal that facilitated grain exports from Ukraine have been key contributors to recent grain price easing.
- **The oils and meal price index** declined by over 18% Q/Q by the end of 3Q22, the largest drop among key food price indexes. The lower prices reflect higher prospective crop yields across most edible oils and oilseeds, Indonesia's removal of its export ban on palm oil, and weakening global demand due to consumer affordability issues and faltering growth prospects.
- The resumption of exports from Black Sea ports also contributed to improved supply sentiment: Ukraine accounts for c.30% of global sunflower production.
- **Fertilizers.** The rally in energy prices — especially coal and natural gas — has sharply increased agricultural input costs, including fertilizer costs **(fig.3)**, in 2022. High energy prices compelled some chemical companies to halt or reduce production capacity (especially in Europe). The recent pullback in prices reflects weak demand, as farmers have curbed fertilizer field applications due to problems associated with affordability and availability.
- We expect the Fertilizers Index to remain volatile as supply disruptions gradually ease, however, we anticipate prices for natural gas — the main raw material for fertilizers — to remain significantly higher than historical averages until 2025.

1. Change in Prices in 2022, Y/Y% in $/mt



2. Share in Global Food Production, %



3. Fertilizer Prices, US$/mt

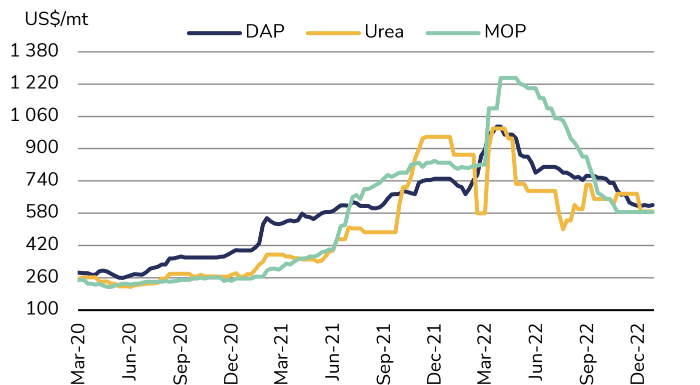
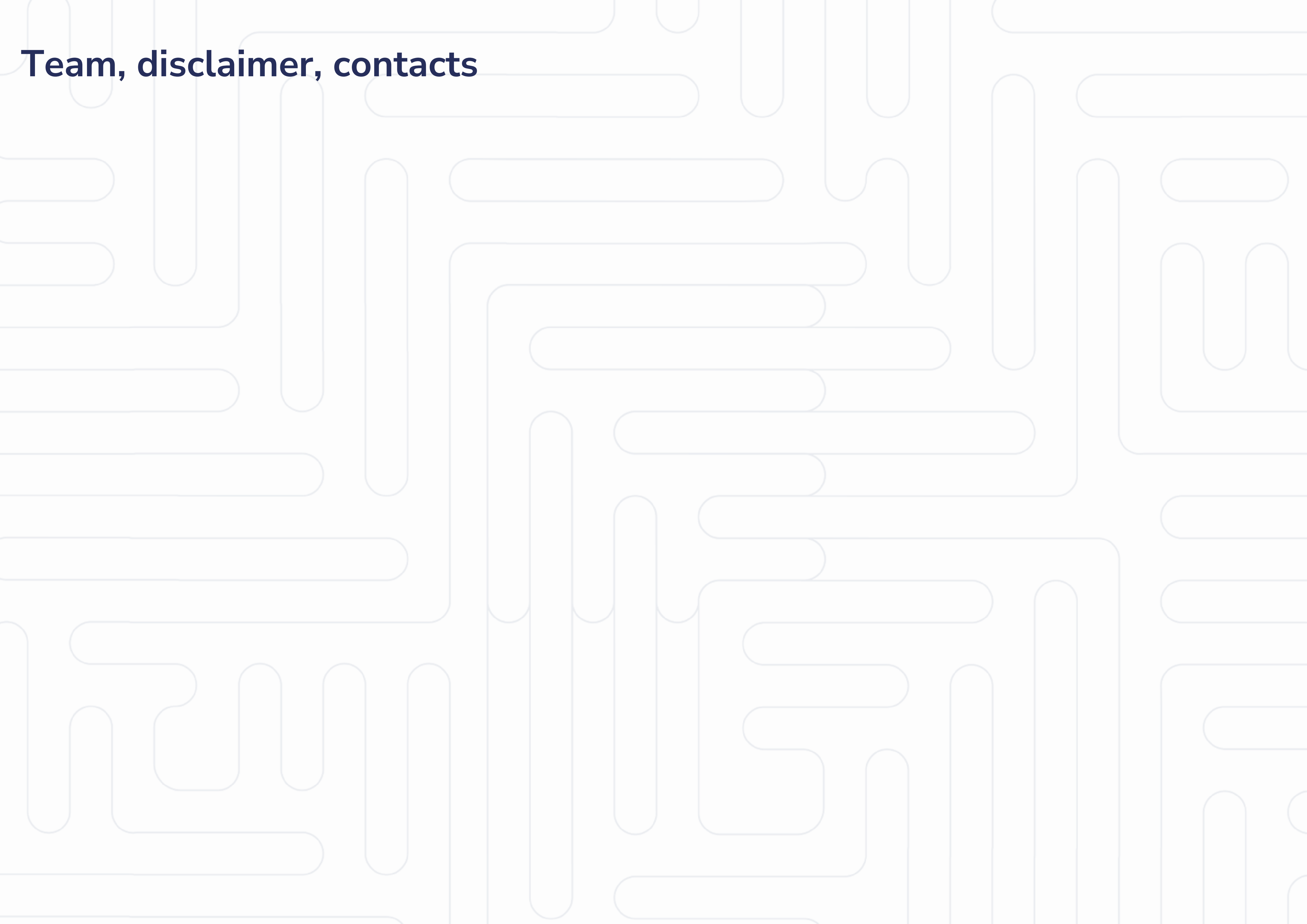


Chart sources: (1) IMF. (2) The World Bank. (3) Bloomberg.



Team, disclaimer, contacts

Team (1/3)

Dmitry Evenko
Senior Partner

Dmitry Evenko has more than 29 years of experience of working in financial industry. In 2015—2018 he was the Senior Partner and the CEO of Signet Group. In 2000—2014 Dmitry was the Chairman of the Board and the CEO of Marcuard Spectrum, a hedge fund with strong emerging markets focus. Between 1995 and 2000 he was the Head of Capital Markets and the President of Fleming UCB, the Russian subsidiary of Robert Fleming and Co.
Dmitry has economic degree from Lomonosov Moscow State University and Executive MBA from Skolkovo School of Management.

Mike Miroshnichenko, PhD, CQF
Chief Investment Officer

Mike has more than 19 years of experience in financial markets. He joined Signet in 2016.
Prior to that, he was Head of Fixed Income, Currencies and Commodities at Renaissance Asset Managers / Kazimir Partners, where he was managing the hedge fund strategies.
Between 2009 and 2012 Mike was Head of Capital Markets at RESO Insurance. Total AUM there were north of $2.5bn. In 2005—2008 he was a fixed income and currency trader at Morgan Stanley. Mike holds a bachelor and master degrees in economics from Moscow State University, where he also received a PhD. He also holds a Certificate in Quantitative Finance.

Team (2/3)

Anatoly Fedorov
Portfolio Manager

Anatoly has more than 12 years of experience in financial industry. He joined Signet in 2018. Anatoly manages Signet Global Leaders Fund and has experience working with Equity Long Short and Merger Arbitrage strategies. Prior to joining Signet in 2018, he worked at JPMorgan in EMEA Diversified Industrials Practice on large scale equity raise and M&A transactions. Prior to JPMorgan, he was an Equity Research Analyst at Genesis Investment Management, covering Emerging Markets. Anatoly holds a bachelor and master degrees in economics from Moscow State University as well as master degree in economics from New Economic School.

Evgeny Shatrov, PhD
Portfolio Manager

Evgeny Shatrov has over 15 years of experience in financial markets. Before joining Signet Evgeny worked as a senior equity and equity derivatives trader at Sberbank CIB in Moscow, Nicosia and London facilitating clients' flow and managing prop book of the desk. In 2009—2013 Evgeny worked as equity trader at Morgan Stanley bank, covering Russia and CIS markets. In 2006—2009 he was Portfolio manager at Renaissance Insurance group and Uralsib Asset management. Evgeny holds PhD from Institute of World Economy and International Relations (RAoS), BSc in Financial management from International University in Moscow and BA in International Business and Spanish from Washington & Jefferson College.

Nikolay Tsarkov
Portfolio Manager

Nikolay has professional experience of more than 15 years in financial industry in investment banking, private banking and asset management. In 2007-2014 Nikolay was in different roles in Sberbank CIB (former Troika Dialog), in 2014—2018 was in BCS Group as a sales trader in Cyprus and Moscow, in 2018—2020 in Gazprombank worked as an executive director also in Cyprus and Moscow, came back to Sberbank SIB in Cyprus in the end of 2020 as senior financial advisor and joined Signet Capital Management Cyprus in mid of 2022 as a discretionary portfolio manager. Nikolay has degree of international finance from NSI Higher School of Economics.

Team (3/3)

Maksim Semianin
Portfolio Manager

Maksim Semianin has over 10 years of experience in asset management. Joined Signet in 2020. Previously has been a Director of Investment Management Department at SOLID Management, prior to which he was a Portfolio Manager at the same company since 2012 and was responsible for Mutual and Pension Funds, algorithmic trading strategies. Maksim graduated from the Financial Academy under the Government of the Russian Federation with a degree in Mathematical Methods in Economics.

Tushar Jain
Senior Analyst

Tushar Jain has 11 years of experience as an equity research analyst with a strong knowledge of analyzing financial statements, corporate strategy and industry trends to identify medium- to long-term investment opportunities. He has a strong analytical and quantitative background (MBA from INSEAD, Computer Science from NUS, CFA) which is complemented with around 10 years of equity research experience at Goldman Sachs and the Bank of America Merrill Lynch.

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