



MARKET ESSENTIALS

AMERICAS CIO VIEW

MARCH 2024



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DWS STRATEGIC CIO FORECASTS



Overview of Strategic 12-Month Forecasts

Fixed Income

		Strategic Forecast Nov-23	Current level	12m forwards	Strategic Forecast Mar-24	Forecast change	Expected 12m Total Return	10yr Total Return (p.a.) ⁴
	Market Index	Target Dec-24	13-Mar-24	13-Mar-24	Target Mar-25			
Forecasts - US								
UST 2yr	US 2y yield	3.95%	4.6%	4.05%	3.95%	→	4.97%	3.68%
UST 10yr	US 10y yield	4.20%	4.16%	4.09%	4.20%	→	4.50%	4.34%
UST 30yr	US 30y yield	4.45%	4.32%	4.25%	4.45%	→	2.33%	4.45%
Municipals	Muni HY Index OAS	2.50%	1.86%		2.25%	↘	-0.33%	3.22%
US IG Corp	BarCap US Credit	105 bp	88 bp		85 bp	↘	4.95%	4.74%
US HY ¹	Barclays US HY	450 bp	308 bp		400 bp	↘	4.30%	5.70%
Securitized / MBS	MBS Index OAS	120 bp	160 bp		120 bp	→	5.00%	4.14%
Forecasts - Europe								
Schatz 2yr	GER 2y yield	2.50%	2.83%	2.16%	2.50%	→	2.68%	2.05%
Bund 10yr	GER 10y yield	2.70%	2.31%	2.23%	2.60%	↘	0.90%	1.78%
Bund 30yr	GER 30y yield	3.00%	2.46%	2.41%	2.80%	↘	-4.05%	2.62%
Gilt 10yr	UK 10y yield	4.20%	3.96%	3.91%	4.20%	→	3.08%	4.02%
EUR IG Corp	ICE BofA Bond Index	110 bp	117 bp		95 bp	↘	4.76%	3.29%
EUR HY ¹	M LEUR Non-Fin HY Constr. Index	450 bp	350 bp		400 bp	↘	3.81%	5.53%
Securitized / Covered	iBoxx Covered	70 bp	72 bp		55 bp	↘	4.15%	2.75%
Italy 10yr ³	GTITL10Y Corp - GTDEM 10Y Corp	220 bp	127 bp	143 bp	180 bp	↘	-1.61%	n/a
Forecasts - AsiaPac								
JGB 2yr	JPN 2y yield	0.35%	0.20%	0.28%	0.25%	↘	0.31%	0.31%
JGB 10yr	JPN 10y yield	1.15%	0.77%	0.94%	0.90%	↘	0.63%	0.44%
Asia Credit	JACI Index	280 bp	237 bp		210 bp	↘	9.38%	-
Forecasts - Global								
EUR vs USD	EUR/USD	1.10	1.09		1.10	→	-0.90%	-
USD vs JPY	USD/JPY	146	148		145	↘	2.87%	-
EUR vs JPY	EUR/JPY	161	162		160	↘	2.27%	-
EUR vs GBP	EUR/GBP	0.87	0.85		0.86	↘	-0.90%	-
GBP vs USD	GBP/USD	1.27	1.28		1.28	↗	0.07%	-
USD vs CNY	USD/CNY	7.35	7.2		7.35	→	4.75%	-
EM Sovereign ¹	EMBIG Div.	440 bp	362 bp		390 bp	↘	4.67%	7.30%

Benchmark Rates

		Strategic Forecast Nov-23	Current Level	Strategic Forecast Mar-24	Forecast change	Expected 12m Total Return	10yr Total Return (p.a.) ⁴
	Market Index	Target Dec-24	13-Mar-24	Target Mar-25			
Forecasts - Benchmark rates							
United States	Federal funds rate	4.50-4.75	5.25-5.50	4.50-4.75	→		
Eurozone	Deposit rate	3.25	4.00	3.00	↘		
United Kingdom	Repo rate	4.75	5.25	4.25	↘		
Japan	Policy Rate	0.25	-0.10	0.25	→		
China	1year lending rate	3.15	3.45	3.30	↗		

Equities

Forecasts - Equity							
US	S&P 500	4,700	5,175	5,300	↗	3.91%	6.40%
Germany	DAX	16,600	17,962	18,700	↗	4.11%	5.95%
Eurozone	Eurostoxx 50	4,400	5,000	5,000	↗	3.31%	5.61%
Europe	Stoxx 600	465	507	515	↗	4.92%	6.28%
Japan	MSCI Japan	1,520	1,641	1,740	↗	8.24%	4.42%
SMI	SMI	10,700	11,777	11,450	↗	0.32%	6.81%
UK	FTSE 100	7,400	7,761	7,600	↗	1.92%	7.99%
Emerging Markets	MSCI EM	1,010	1,049	1,050	↗	2.99%	8.02%
Asia ex Japan	MSCI AC Asia ex Japan	640	663	675	↗	4.47%	8.32%
Australia	MSCI Australia	1,400	1,547	1,500	↗	0.86%	8.36%

Alternatives

Forecasts - Commodities							
Gold - Spot	Gold Spot	2,250	2,159	2,400	↗	-	1.77%
Gold - Futures	Gold 12m Futures	-	2,278	-	-	5.34%	n/a
Oil - Spot ¹	Brent Spot	88	83	84	↘	-	7.88%
Oil - Futures ²	Brent 12m Futures	-	78	-	-	8.29%	-
Carbon	Carbon 12m Futures	-	95	80	↘	45.35%	-
Real Estate & Infrastructure							
Listed US RE (LC)						5.00%	5.35%
Non-Listed US RE (LC)						4.00%	3.68%
Listed Global RE (LC)						4.50%	4.93%
Non-Listed European RE (LC)						7.00%	4.55%
Non-Listed APAC RE (LC)						5.50%	6.35%
Non-Listed Global RE (LC)						5.50%	4.59%
Listed Infrastructure (LC)						5.00%	7.54%
Non-Listed Infrastructure (LC)						10.70%	12.39%

¹US HY default rate: 2.75%, 40% recovery, CCC average price of 80 used (instead of par); EUR HY default rate: 2.75%, 40% recovery; EM Sov default rate 2%, 50% recovery; // ²Oil-Futures used to calculate expected TR; forecasts are made on Brent-Spot // ³Total return. Excess return for Italy 10yr is -1.30% // ⁴LTCMA forecasts for Gold and Oil based on futures

Note: Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.

DWS GLOBAL MACRO FORECASTS



GDP Growth Rate

% year-on-year

	2023	2024F	2025F	Consensus 2024 (BBG)
World	3.1 (3.0)	3.0 (2.8)	3.1	2.7
U.S.	2.5	1.8 (0.8)	1.6	2.0
EUZ	0.5	0.7 (0.7)	1.1	0.5
GER	-0.1	0.4 (0.9)	1.2	0.2
UK	0.1	0.4 (0.6)	1.3	0.4
Japan	1.9	0.5 (1.0)	1.1	0.7
China	5.2	4.8 (4.7)	4.4	4.6

Inflation (CPI)

% year-on-year average

	2023	2024F	2025F	Consensus 2024 (BBG)
World				4.1
U.S.	4.1	2.8	2.3	2.7
EUZ	5.5 (5.7)	2.5 (2.9)	2.3	2.3
GER	6.1 (6.0)	2.6 (3.2)	2.5	2.5
UK	7.3	2.5 (2.8)	2.4	2.6
Japan	3.2 (2.9)	2.3 (2.3)	1.7	2.2
China	0.2 (0.5)	0.8 (1.8)	1.7	1.0

Unemployment Rate (Annual average)

%

	2023	2024F	2025F	Consensus 2024 (BBG)
U.S.	3.6	4.0	4.1	4.1
EUZ	6.6	6.7 (6.5)	6.5	6.7
GER	5.7	5.9 (5.7)	5.7	5.9
UK	4.0	4.4 (4.5)	4.6	4.5
Japan	2.6	2.4 (2.4)	2.4	2.5
China***	5.1 (5.0)	5.0	5.0	5.1

Fiscal Balance

% of GDP

	2023	2024F	2025F	Consensus 2024 (BBG)
U.S.	-6.5	-6.2	-6.2	-6.0
EUZ	-3.2	-2.8 (-3.0)	-2.7	-3.0
GER	-1.9	-0.9 (-1.2)	-0.7	-1.6
UK	-5.3	-4.0 (-4.5)	-3.5	-2.4
Japan	-5.2	-4.5 (-4.5)	-3.0	-4.1
China****	-13.6	-13.3	-13.0	-5.0

Source: DWS Macro Research. (*) For the U.S., GDP growth Q4/Q4 % is 0.5% in 2024 and 2.0% in 2025, (**) Measure is CPI, other measures see US part of the presentation, (***) Urban unemployment rate (end of period), not comparable to consensus data, (****) China fiscal deficit refers to augmented fiscal balance (widest definition) and refers to IMF. It's not comparable with the consensus. as of March 2024.

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DWS STRATEGIC CIO VIEW – MARCH 2024



Global economic outlook: Inflation comes down gradually as does global growth

Global growth: Soft recession respective anemic growth. China: Drag on growth from housing to ease. Strong fiscal and other support

- **U.S. growth:** We adjust growth path but hold on to a slowdown into 2024. Most of the upgrade is because of a robust carry-over from 2023 but at the same time we are a bit more optimistic compared to the last CIO Day. Nevertheless, we remain cautious on the fallout of higher policy rates, risk surrounding our base case remain skewed to the downside, also as any upside risk case might pivot to the downside later in time.
- **EUZ growth:** Our growth picture remains virtually unchanged. Monetary policy works, economy activity has come down. We expect growth to accelerate from here on at very low levels. 2024: 0.7%/Y and 1.2%/Y in 2025. High interest rates hurt the construction sector and weigh on investments. Global demand is also weak. High wage growth, resilient labor market and declining headline inflation lead to higher real disposable income which should support private consumption.
- **UK:** The economy was in a shallow recession in H2/23, but timely indicators point to a moderate reacceleration of momentum. Sentiment has stabilized, the labor market is still relatively solid, and the housing market has bottomed out. After GDP growth of a meagre 0.1% in 2023, we expect a plus of 0.4% (old: 0.6%) in 2024 and an expansion by 1.3% in 2025.
- **Japan:** Growth in H2/23 was disappointing due to a lack of domestic demand. We expect a gradual recovery in 2024. Private consumption should be supported by moderating price increases and better wage growth. However, 2024 growth will be dampened by a negative carry-over effect. We expect GDP to grow by 0.5% (1.0%) in 2024 and by 1.1% in 2025.
- **China:** YOY GDP growth in Q1 yoy to be depressed by high base. Main growth drivers in 2024 will remain consumption (backed by 6% growth in disposable income) and investment, supported by infrastructure as well as manufacturing, while the strong downturn of real estate investment in 2023 should at least level out this year. We expect GDP growth at 4.8% 2024 and 4.4% in 2025.
- **India:** After extraordinarily (but unsustainably high) growth in Q4 of >8% yoy, we have revised 2024 growth forecast to 6.8%. The slowdown from 2023 will come mainly from lower fiscal expansion from high levels. This is already reflected in the budget draft.

Inflation: Focus on wages, energy and food prices – disinflationary process to continue

- **U.S. inflation:** We expect inflation rates to decrease further but warn that this might be a slow process and setbacks are likely. For 2024 we expect the disinflationary process to proceed on lower growth and a weaker pass-through from labor markets (e.g. re-flattening of the Phillips-Curve after the pandemic).
- **EUZ headline CPI:** Disinflationary process in Q4 2023 was stronger than expected which was the main reason for a downward revision of our headline inflation forecast from 2.9% to 2.5% in 2024. Sideways movement of inflation rate during the course of 2024. Service price inflation remains sticky, core inflation rate at 2.6% Y/Y in 2024 expected.
- **UK:** Inflation will continue to moderate in the coming months and temporarily fall below the 2% target in the spring. Thereafter, we expect inflation to be in a corridor between 2% and 3%. Service price inflation remains elevated, as does wage growth. Both pose the greatest risk to the return to target. We expect inflation to average 2.5% (2.8%) in 2024 and 2.4% in 2025.
- **Japan:** Price dynamics will moderate successively but settle down well above the 1%-mark. Price increases have now become more broadly based. To overcome the deflationary phase, it is crucial that services price inflation as a proxy for domestic price dynamics holds up. After 3.3% in 2023, we forecast 2.3% (2.3%) in 2024 and a more moderate 1.7% in 2025.
- **China:** Negative headline CPI likely to be past soon, we expect gradual turn into positive territory, but still very subdued inflation (0.8% in 2024, after 0.2% in 2023).
- **EM:** in most countries headline falling, however core inflation remain sticky in many places (Brazil, Mexico, Hungary, Poland) due to fiscal expansion and/or wage pressure

Monetary policy: Key interest rates peaked - central banks to discuss rate cuts

- **Fed:** We expect the terminal rate to be reached at 5.25-5.50 and keep first rate cuts in Q2 2024 (June). For 2024 we expect three cuts and 2025 we expect four cuts as the Fed can adjust its monetary policy stance to lower growth and inflation. The Fed remains data-dependent, and we see the risk tilted to the upside.
- **ECB:** Still data and not date dependent. Lower inflation rates and the perspective that wage growth will slow, open the door of a less restrictive monetary policy. Looking for four rate cuts in June, September, December and January 2025 to a deposit rate of 3.00%. Medium-term target 2.5%. PEPP reinvestments to phase out until the end of 2024, but no active selling of bonds.
- **BoE:** The BoE moved to a neutral stance and indicated that the next move will be down. However, the MPC remains concerned about the risks of more persistent inflation. As long as wage and service price inflation moderates as expected, we expect a first 25bp cut in June and a total of four cuts within the forecast horizon. This would leave Bank Rate at 4.25% in March 2025.
- **BoJ:** The BoJ has loosened its Yield Curve Control and is increasingly hinting at an end of its Negative Interest Rate Policy. Provided that the spring wage negotiations show wage growth as strong as expected, we anticipate an end of NIRP in April and one further 25bp hike in the key rate to 0.25% by the end of the forecast horizon.
- **PBoC:** After 50 bp cut in RRR (January) a cut in the 5y LPR (reference rate for mortgages) by 25bp to 3.95% (February), we expect for the rest of 2024 two more RRR cuts (25bp each) and a 15 bp cut in the 1y LPR

DWS MACRO VIEW, CENTRAL BANKS & RISKS



Macro: Key messages

- ▶ U.S.: Soft patch in Q2 followed by a moderate recovery. Euro area: Worst probably behind us. Very moderate recovery due to moderate increase in real consumption
- ▶ China: Normalization expected. Negative headwinds (real estate) to run out gradually but re-opening push as well
- ▶ Inflation: further decline in the U.S. over the course of the year. Euro area headline will come down more quickly than sticky core inflation. Chinese headline inflation rate gradually switching into positive territory as base effects in food prices fade.

Risks to the View

„No landing“ meaning delayed „hard landing“ Sticky inflation / labor markets force central banks to keep on tightening what in turn might trigger a more severe recession, debt sustainability concerns, rise in bankruptcies, stress in banking sector & credit crunch

China

Further delay of the recovery in the housing markets despite many support measures.
New credit events/defaults (developers), potential impact on sentiment and banks.

Monetary Policy: Key messages

- ▶ Fed: Gradual policy normalization. Four rate cuts until March 2025, starting in June, 25 bps each quarter. Target March 2025: 4.25-4.50%. Further normalization ahead.
- ▶ ECB: Key interest rates to remain in restrictive territory within forecasting period after first rate cut in June (0.25%-pts). Each quarter further 25 bps. Target end of March 2025: 3%
- ▶ BoJ: BoJ is already allowing the longer end of the yield curve to move more flexibly. Key interest rates: two small policy rate hikes into slightly positive territory from spring 2024 on as wage increases materialize.

Risks to the View

Tech / trade war

Further escalation of sanctions and counter sanctions; strategic competition on future tech leadership. Increasing conflict about China's EV exports

Geopolitics

Middle East: Attacks on energy infrastructure and/or transport routes. Risk of disruption of global supply chains. Worst case: Closure of Red Sea and/or street of Hormuz. Oil and liquid gas transport affected.

Russia-Ukraine: Military advances by Russia as Ukraine lacks munition and weapons and increasingly soldiers. Impact: higher military spending in other countries. Migrant flows out of Ukraine....

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DWS MARCH 2025 EQUITY INDEX TARGETS



Index	3M relative View	Current Level	Previous Target CIO Day Nov	Target Mar 25	Chg in Target	Expected Total Return Mar 25	----- thereof -----			Assumptions						
		14/03/2024						EPS growth NTM*	LTM multiple impact	Dividend Yield	EPS NTM* (e)	DWS vs. Cons.	Target LTM P/E in Mar 25	Target PE discount to US	Payout ratio	chg of LTM target PE
S&P 500		5,153	4,700	5,300	13%	4.3%	USD	8.2%	-5%	1.5%	247	-2.3%	21.5x		31%	2.1x
Stoxx 600		506	465	515	11%	5.0%	EUR	4.7%	-3%	3.3%	37.0	-1.5%	13.9x	-35%	45%	1.1x
EuroStoxx 50		4,993	4,350	5,000	15%	3.3%	EUR	3.5%	-3%	3.2%	370	-1.0%	13.5x	-37%	43%	1.6x
DAX40		17,942	16,600	18,700	13%	4.2%	EUR	4.1%	-3%	3.2%	1458	-1.1%	12.4x	-42%	40%	1.2x
SMI		11,721	10,950	11,450	5%	0.7%	CHF	9.1%	-11%	3.0%	673	-1.2%	17.0x	-21%	52%	0.8x
FTSE 100		7,743	7,400	7,600	3%	2.1%	GBP	-0.6%	-1%	3.9%		-1.4%	11.2x	-48%	45%	0.8x
MSCI EM		1,047	1,010	1,050	4%	3.2%	USD	11.9%	-10%	2.9%	80.7	-6.5%	13.0x	-40%	37%	-0.4x
MSCI AC Asia xJ		661	640	675	5%	4.8%	USD	15.3%	-11%	2.6%	48.3	-5.3%	14.0x	-35%	36%	-0.7x
MSCI Japan		1,643	1,520	1,740	14%	8.2%	YEN	11.2%	-5%	2.3%	109.9	2.5%	15.8x	-27%	34%	0.5x
MSCI Australia		1,547	1,400	1,500	7%	0.9%	AUD	-0.3%	-3%	3.9%	93.0	-0.9%	16.1x	-25%	66%	1.7x

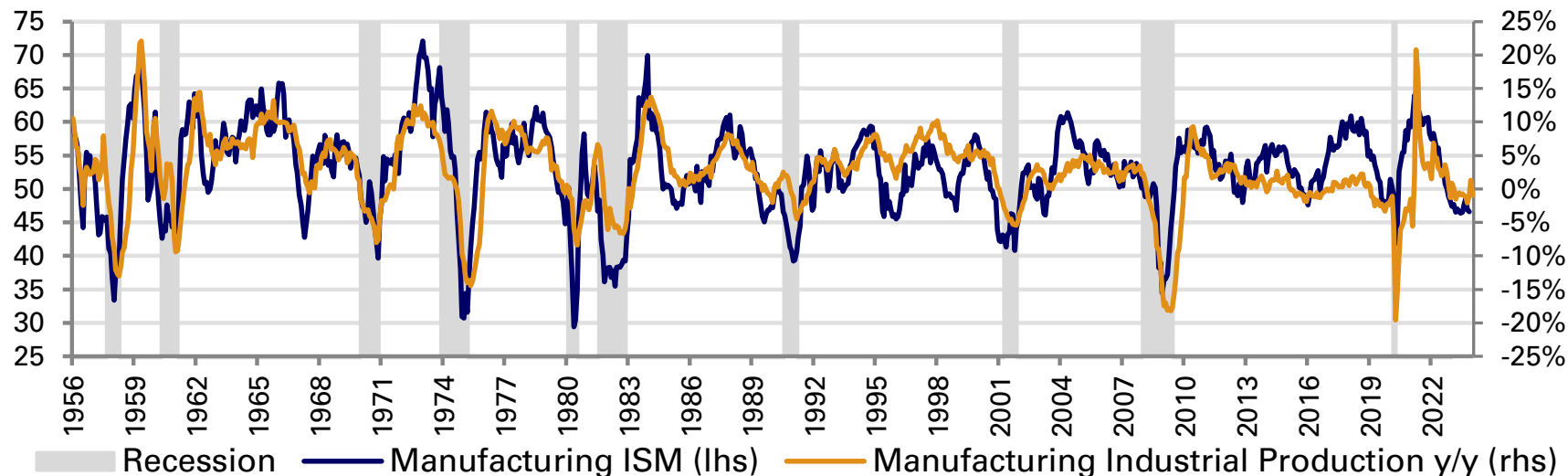
12 months- assumptions

- (Geo)politics:** Ukraine – no war extension into NATO; Israel - no oil price above \$100; Taiwan – no escalation; US – orderly elections;
- DM Economies:** 2024 US/EU/J soft patch, moderate acceleration 2025; China – containment of real estate problems
- Interest rates:** FED and ECB first cuts Q2 '24 “because they can, not because they have to”: US 10y yields below 4.5%;
- Earnings growth:** EPS growth 6% MSCI AC World
- US valuation:** lifting trailing PE in 12 months to 21x for S&P 500, including a “digital PE-premium” as the composition has shifted towards technology
- European valuation:** solid pan-Europe earnings growth similar to S&P 492 should results in stable PE discount to S&P 500
- Japan:** benefiting from fx-weakness on earnings front; international investors choosing Japan as an alternative to Chinese equities helps on the multiple
- EM:** US-Chinese tensions remain a drag on multiples; DWS EPS estimates clearly below consensus as negative revisions continue

Cons – Consensus, LTM – Last twelve month, NTM – Next twelve month, EPS – Earnings per share, Chg – Change, P/E – Price to earnings ratio

Source: DWS Investment GmbH as of March 2024, for illustrative purposes only. This material is for informational purposes only and sets forth our views as of this date. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect. The underlying assumptions and these views are subject to change without notice. Past performance is not indicative of future returns.

U.S. MANUFACTURING ISM VS. MANUFACTURING IP



Manufacturing output has been weak, consistent with survey, but an upturn might be coming but led by capital goods related to A.I. technology and electrification.

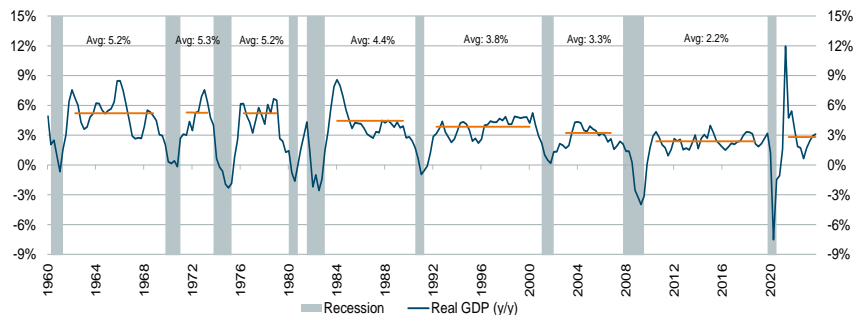
ISM: Institute for Supply Management

IP: Industrial Production

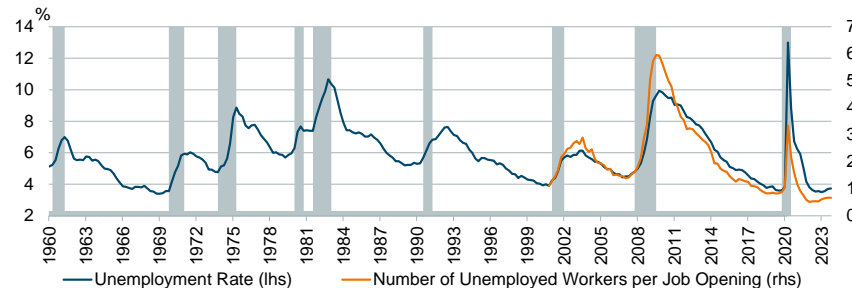
Source: Haver, DWS Investment GmbH as of March 2024, for illustrative purposes only.

U.S. ECONOMICS

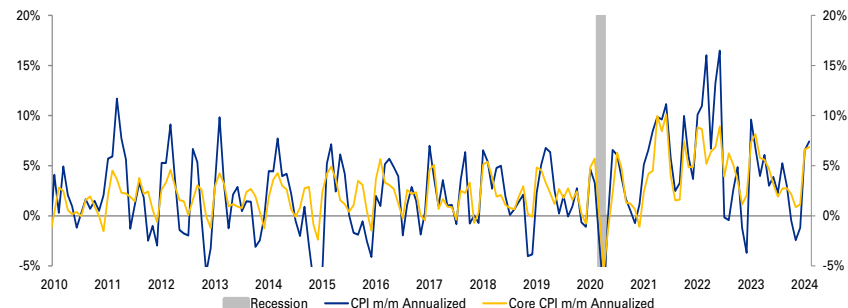
REAL GROSS DOMESTIC PRODUCT (GDP) GROWTH



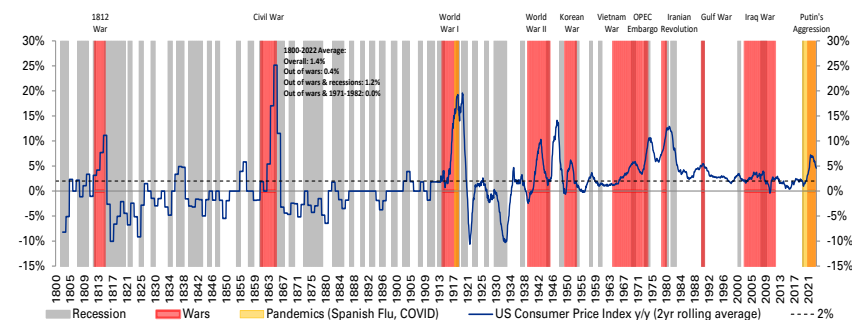
UNEMPLOYMENT RATE



CONSUMER PRICE INDEX (CPI)



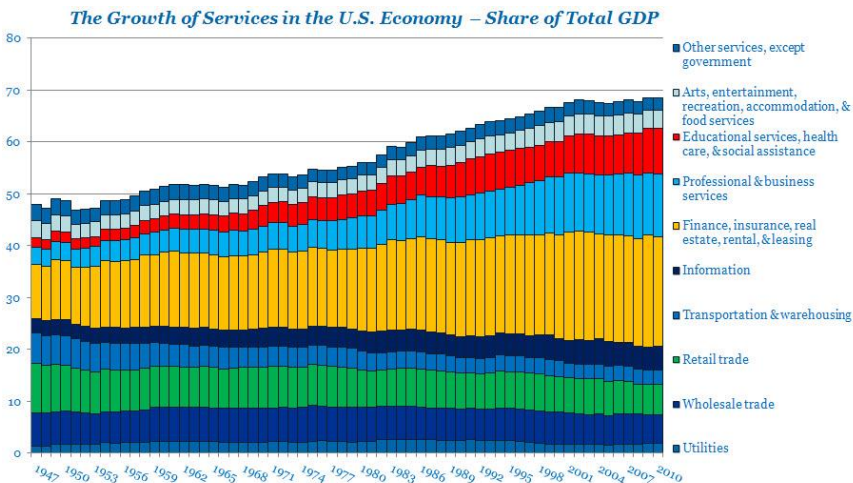
LONG HISTORY OF INFLATION



Source: Haver, DWS Investment GmbH as of March 2024, for illustrative purposes only.

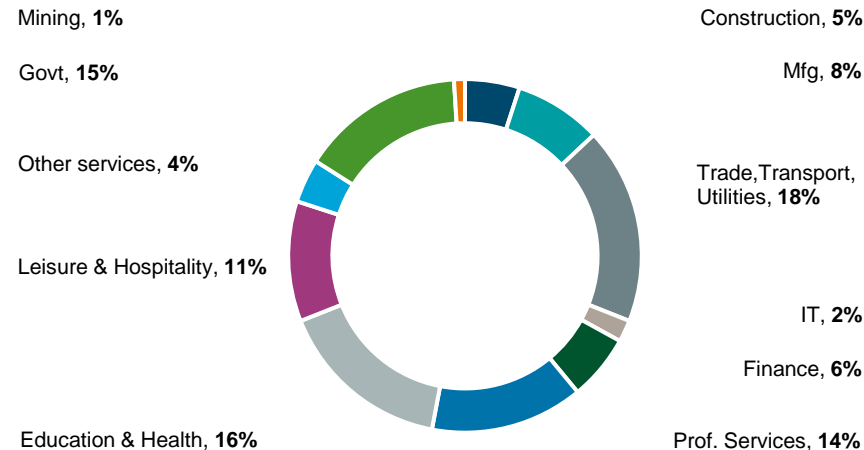
U.S. GDP COMPOSITION

SERVICES ARE NEARLY 70% OF U.S. GDP



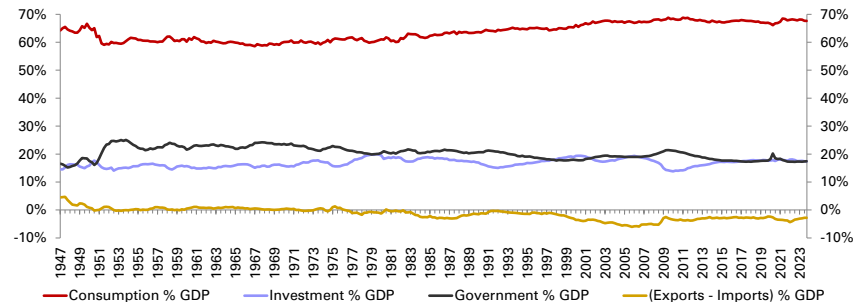
SOURCE: BEA Industry Economic Accounts Tables

SERVICES ARE ABOUT 85% OF PRIVATE NON-FARM JOBS

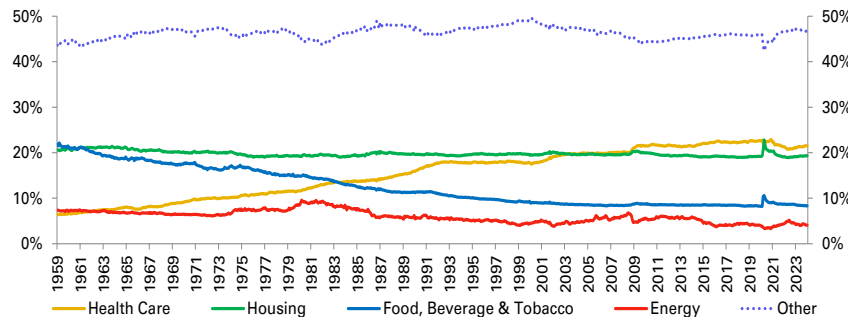


U.S. GDP COMPOSITION

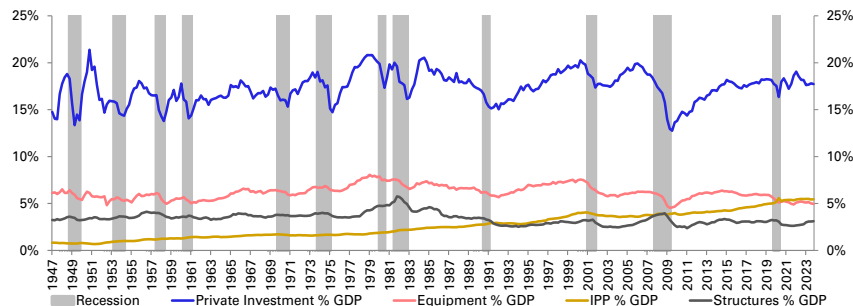
U.S. GDP COMPOSITION: CONSUMPTION + INVESTMENT + GOVERNMENT + (EXPORTS - IMPORTS)



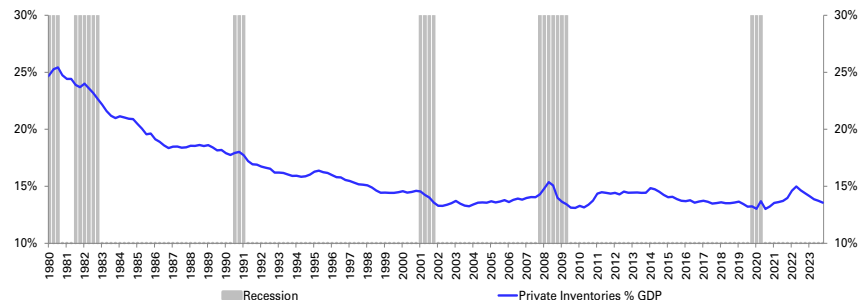
U.S. CONSUMPTION: MORE SERVICES & HEALTHCARE



U.S. ECONOMY IS LESS CYCLICAL, LESS INVESTMENT DRIVEN

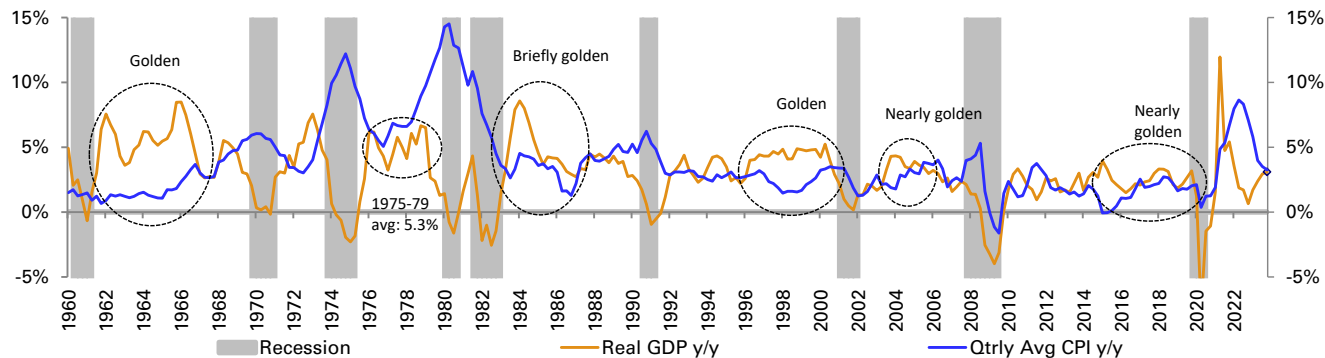
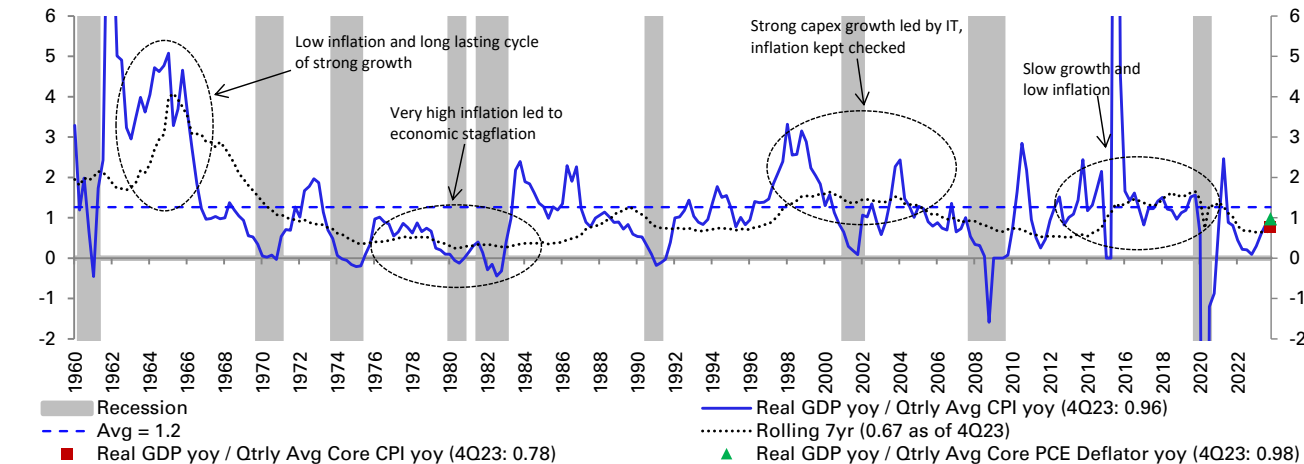


INVENTORY AS % OF U.S. GDP



Source: BEA, NBER, Haver, DWS Investment GmbH as of March 2024, for illustrative purposes only.

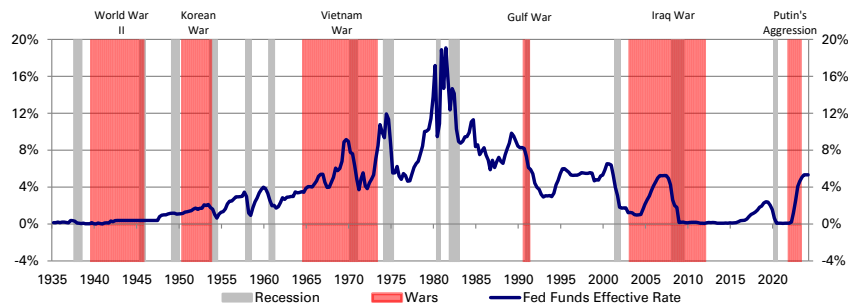
THE GOLDEN RATIO: REAL GDP GROWTH / CPI



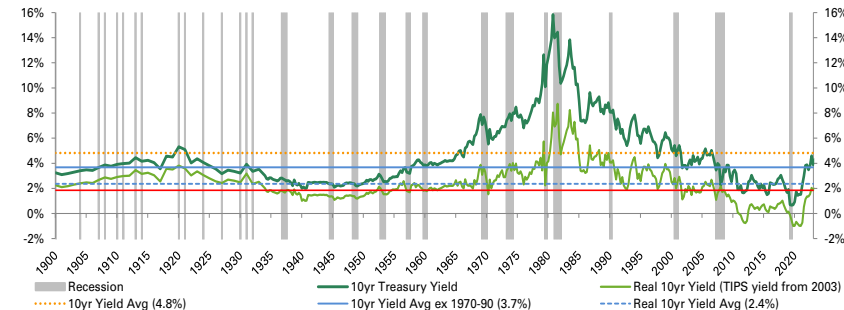
Source: Haver, DWS Investment GmbH as of 4Q2023, for illustrative purposes only.

INTEREST RATES

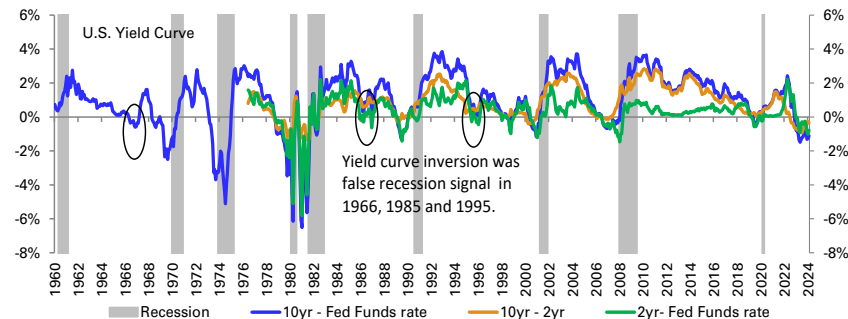
FED FUNDS RATE



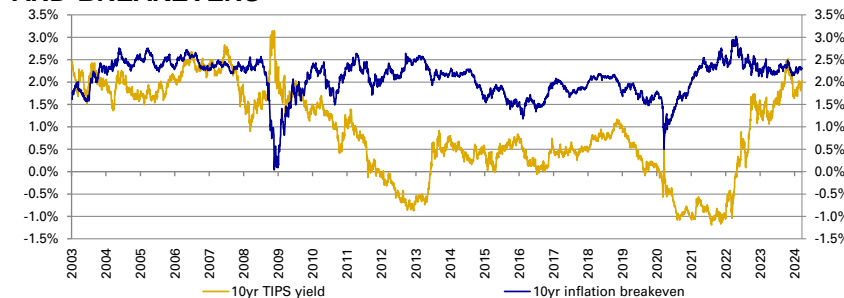
10-YEAR TREASURY YIELDS



YIELD CURVE

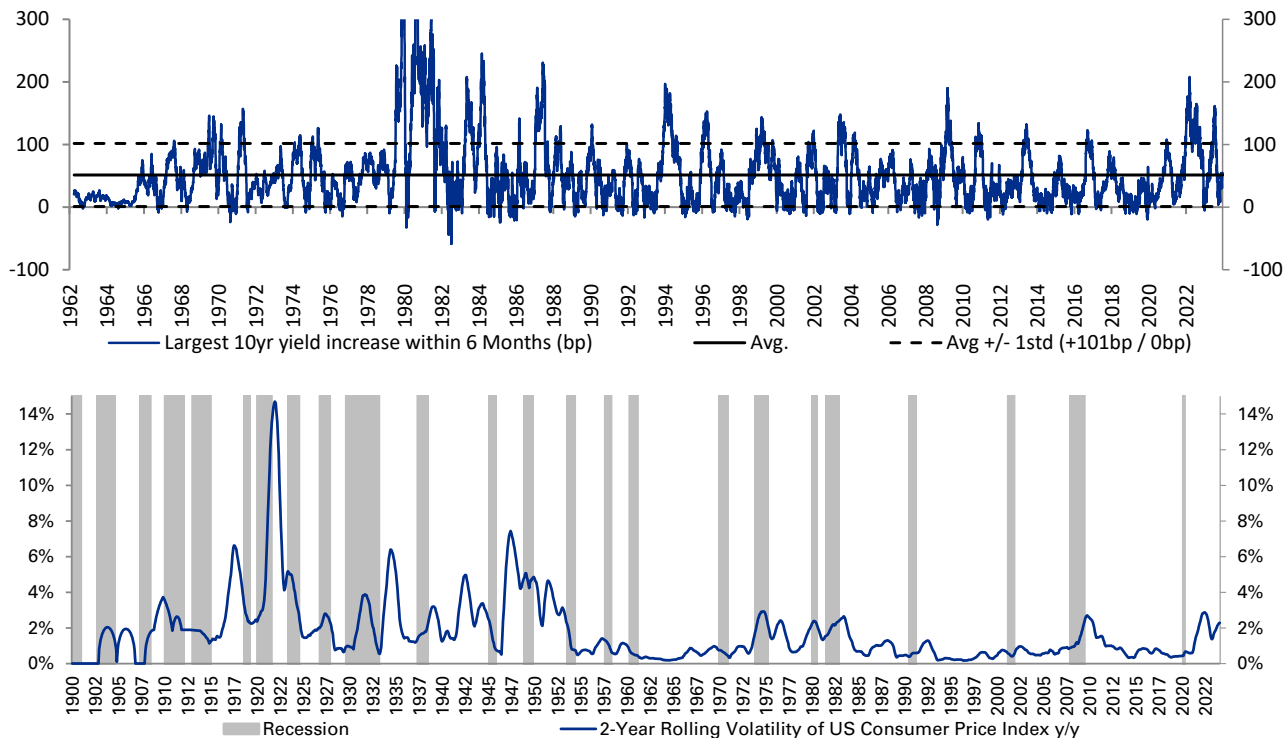


TREASURY INFLATION-PROTECTED SECURITIES (TIPS) YIELDS AND BREAKEVENS



Source: Haver, DWS Investment GmbH as of March 2024, for illustrative purposes only.

INTEREST RATE AND INFLATION VOLATILITY



Source: Haver, DWS Investment GmbH as of March 2024, for illustrative purposes only.

FED HIKEs SINCE 1960

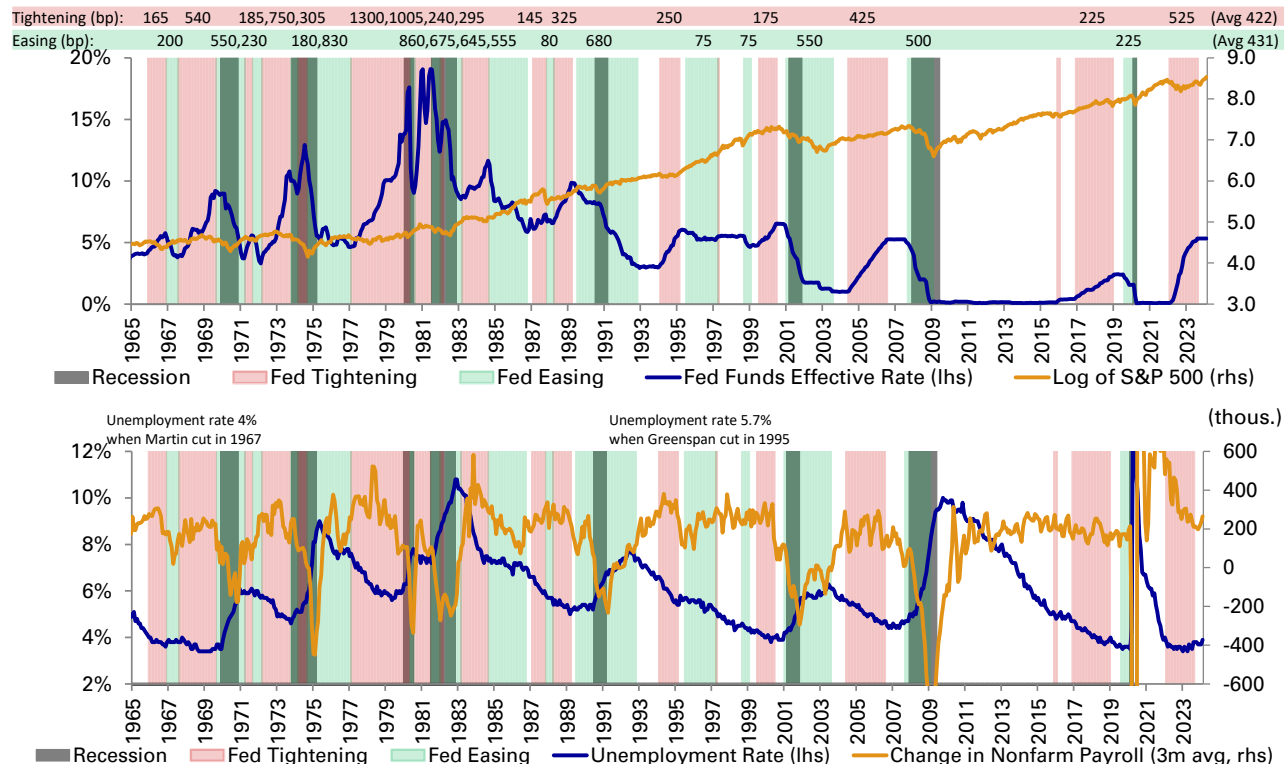
Start				Fed	Durati	10yr - 10yr -																						
Date of	Date of	Late	End	Effecti	on of											1yr	1yr	Chg	Before	After								
Fed	Reaching	Cycle	Date of	ve	Hike	Peak	Total	1yr	10yr	Unit	PE at	PE at				(%) at	(%) at	in	Reachin	Reachin								
Rate	Late	Signals	Fed Rate	Rate	(Mont	Fed	Rate	Yield	Yield	Labor	Start	End	PE	Avg PE	of	of	1yr	g Late	g Late	3m	Initial							
Hike *	Cycle **	**	Hike	Rate (%)	hs)	Rate	Rate	(%)	(%)	Cost	of	of	Chg	during	Hike	Hike	Hike	Cycle	Cycle	before	Reactio	1m	3m	6m	12m	Date of First		
Hike	Cycle	**	Hike	Rate (%)	hs)	Rate	Rate	(%)	(%)	y/y	Hike	Hike	Chg	Hike	Hike	Hike	Hike	(ar)	(ar)	Hike	n ***	1m	3m	6m	12m	Hike		
Dec-65	Dec-65	1	Nov-66	0.04	12	0.06	0.017	0.04	0.04	1.7%	-0.2%	0.0	18.4	14.6	-3.8	15.9	0.1	-0.4	-0.5									
Aug-67	Dec-67	1,3	Aug-69	0.04	25	0.09	0.054	0.05	0.05	2.9%	3.1%	0.0	17.8	16.4	-1.4	17.6	0.2	-0.8	-1.0	9.3%	-14.1%	0.6%	0%	-3%	-8%	-13%		
Apr-71	Apr-71	2	Aug-71	0.04	5	0.06	0.019	0.04	0.06	4.4%	1.0%	0.1	19.2	18.6	-0.6	18.9	2.0	0.8	-1.2									
Mar-72	Mar-73	1,2	Sep-73	0.03	19	0.11	0.075	0.04	0.06	3.8%	2.2%	0.1	18.7	14.1	-4.6	17.1	1.8	-1.2	-3.0	4.0%	-5.5%	1.0%	0%	0%	3%	4%		
Mar-74	Mar-74	1,2	Aug-74	0.09	6	0.12	0.030	0.07	0.07	10.0%	7.1%	0.1	11.8	8.3	-3.5	9.9	0.1	-1.3	-1.4	-47.0%	3.1%	-4%	-8%	-32%	-11%			
Feb-77	Feb-77	2	Apr-80	0.05	39	0.18	0.130	0.05	0.07	5.2%	5.5%	0.1	10.3	6.9	-3.4	8.2	1.9	-1.8	-3.8		2.0%	1.4%	-1%	-4%	-3%	-13%		
Aug-80	Aug-80	1,2	Jun-81	0.09	11	0.19	0.101	0.09	0.10	13.2%	11.4%	0.1	8.1	8.8	0.7	8.9	1.6	-1.4	-3.0	8.7%	2.1%	3%	15%	7%	0%			
Jan-82	Jan-82	1,2	Feb-82	0.12	2	0.15	0.024	0.13	0.14	8.9%	7.2%	0.1	8.1	7.4	-0.6	7.7	0.9	-0.3	-1.2	-52.7%	1.1%	-6%	-3%	-11%	21%			
Apr-83			Aug-84	0.09	17	0.11	0.029	0.09	0.11	3.6%	2.8%	0.1	12.1	10.0	-2.2	11.3	1.5	0.9	-0.6	1.0%	10.8%	-1.7%	10%	10%	10%	3%	3/31/1983	
Jan-87	Aug-87	3	Oct-87	0.06	10	0.07	0.014	0.06	0.07	1.2%	3.0%	0.1	14.8	13.6	-1.3	17.2	1.2	1.9	0.7	37.3%	-80.2%	1.4%	0.4%	11%	19%	21%	3%	1/5/1987
Apr-88	Dec-88	1,2,3	Mar-89	0.07	12	0.10	0.032	0.07	0.08	3.8%	2.9%	0.1	12.5	11.8	-0.7	12.0	1.7	-0.2	-1.9	9.6%	27.1%	8.9%	-5.6%	2%	6%	6%	15%	3/30/1988
Feb-94			Apr-97	0.03	39	0.06	0.025	0.04	0.06	2.5%	1.6%	0.1	17.7	19.0	1.3	16.5	2.2	0.9	-1.3	18.6%	5.4%	-3.9%	-4%	-1%	3%	5%	2/4/1994	
Mar-97	Apr-97	3	Apr-97	0.05	2	0.06	0.003	0.06	0.06	3.0%	1.2%	0.1	19.3	19.0	-0.3	18.5	0.9	0.9	0.0	97.6%	8.8%	-9.3%	12%	24%	32%	51%	3/25/1997	
Jul-99	Mar-00	1,3	Jun-00	0.05	12	0.07	0.017	0.05	0.06	2.0%	0.6%	0.0	29.7	26.1	-3.6	27.6	0.8	-0.1	-0.9	19.8%	-11.2%	5.1%	-0.8%	1%	-3%	5%	6%	6/30/1999
Jul-04	Jan-06	1,2	Jul-06	0.01	25	0.05	0.042	0.02	0.05	3.2%	1.0%	0.1	18.4	15.6	-2.8	17.0	2.6	-0.1	-2.7	10.5%	-0.5%	3.1%	-5.2%	2%	1%	8%	14%	6/30/2004
Dec-15	Dec-15	3	Apr-19	0.00	41	0.03	0.023	0.00	0.02	0.4%	2.5%	0.1	17.5	17.3	-0.2	18.6	1.8	0.1	-1.7	10.3%	7.9%	-10.1%	-1%	9%	13%	20%	12/16/2015	

General rules of thumb for investing around Fed rate cycles:

- Don't sell the first hike, as this is confirmation of a recovery.
 - Don't buy the first cut, as this is usually the beginning of a recession
 - Several Fed hiking cycles have ended badly for stocks.
- The last hike has historically been the worst hike because the Fed only stopped upon signs of a recession.
- Examples are the recession bears of 1974, 1980, 1982, (Fed was hiking in 1987), 2000, 2007.
- Soft landings have indeed occurred, even though not often.
- 1995, 1985, 1967 are accepted by economists as soft landings. Equities performed well in these soft landing.
- In these years, the Fed cut modestly after a series of relatively aggressive hikes to fight inflation above target.
- The small cuts in these years came as inflation returned or stayed on target without a recession occurring.

Source: Haver, Factset, DWS Investment GmbH as of March 2024, for illustrative purposes only.

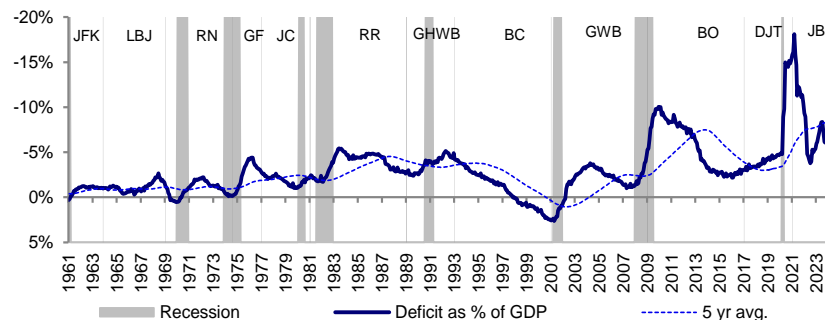
FED TIGHTENING AND EASING CYCLES SINCE 1960



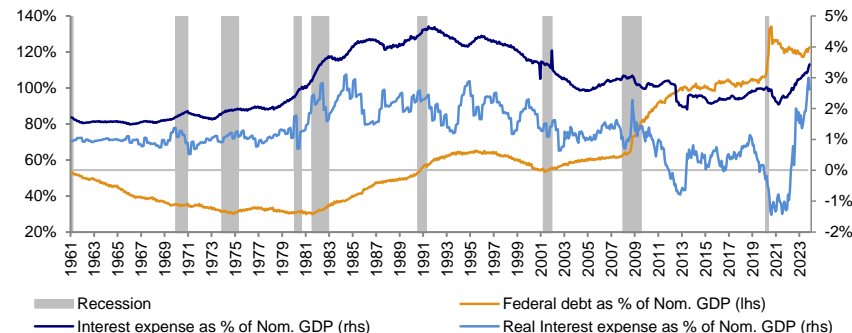
Source: Haver, Factset, DWS Investment GmbH as of March 2024, for illustrative purposes only.

U.S. FISCAL AND FED BALANCE SHEET

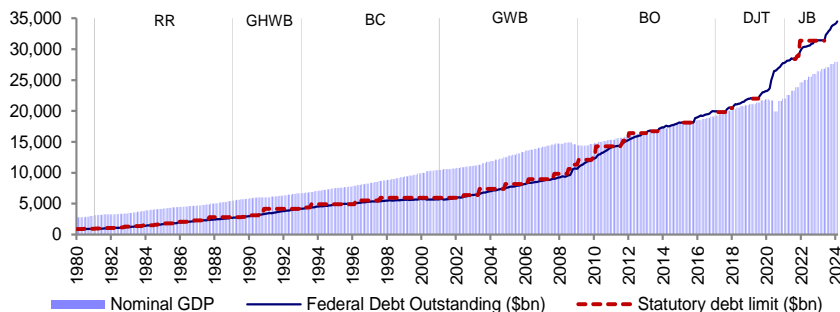
U.S. GOVERNMENT DEFICIT



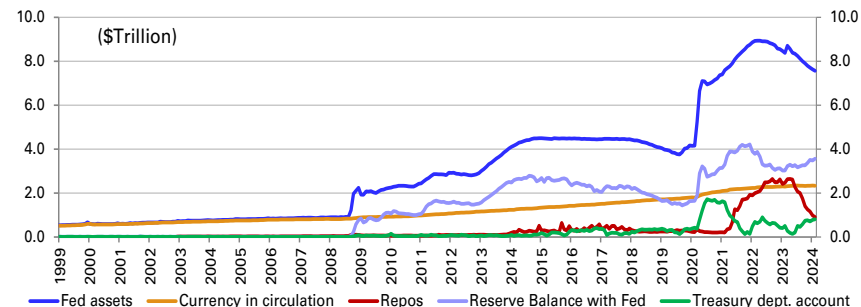
U.S. FEDERAL RESERVE (FED) DEBT / GDP, INTEREST / GDP



DEBT CEILING

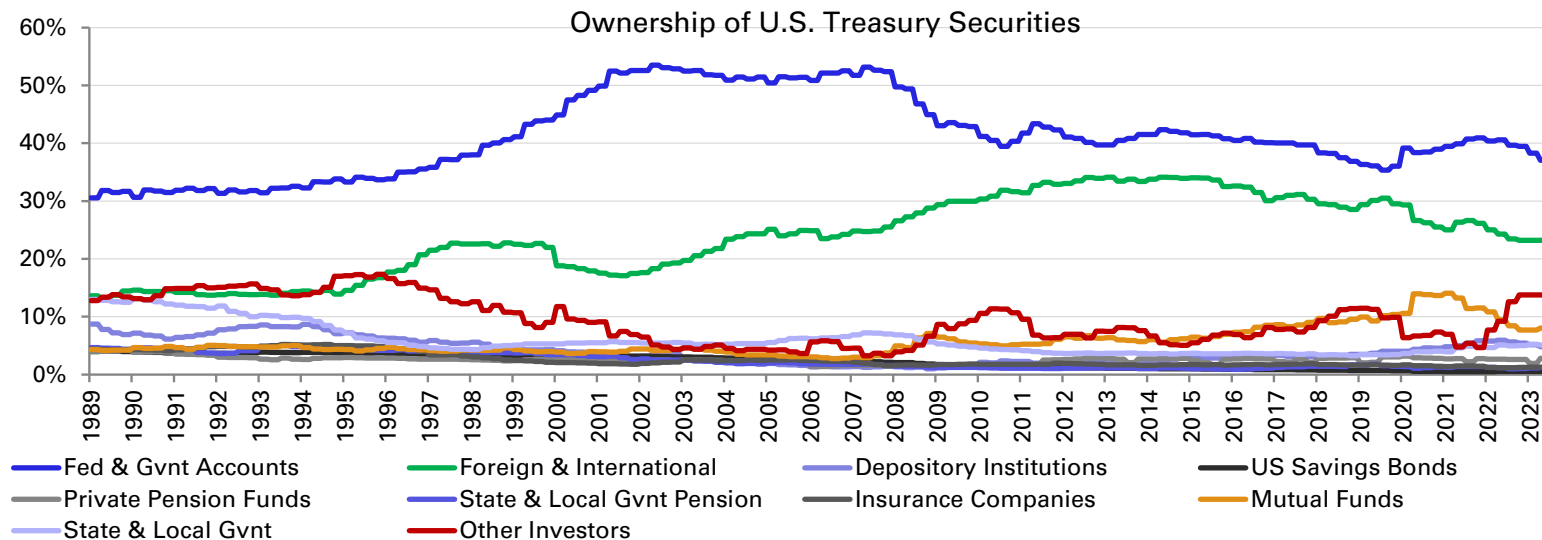


FEDERAL RESERVE ASSETS & LIABILITIES



Source: Haver, DWS Investment GmbH as of March 2024, for illustrative purposes only.

OWNERSHIP OF U.S. TREASURY SECURITIES

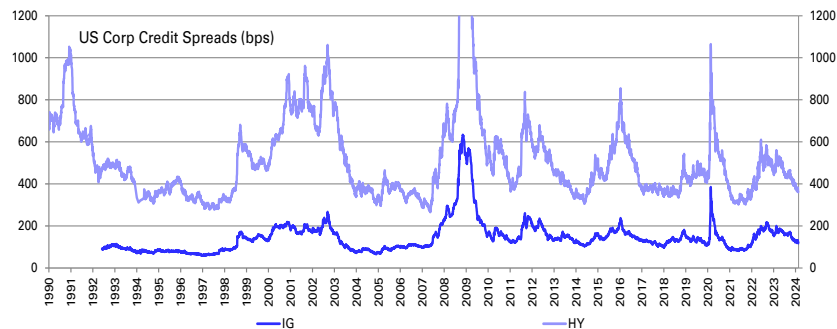


Source: Haver, DWS Investment GmbH as of March 2024, for illustrative purposes only.

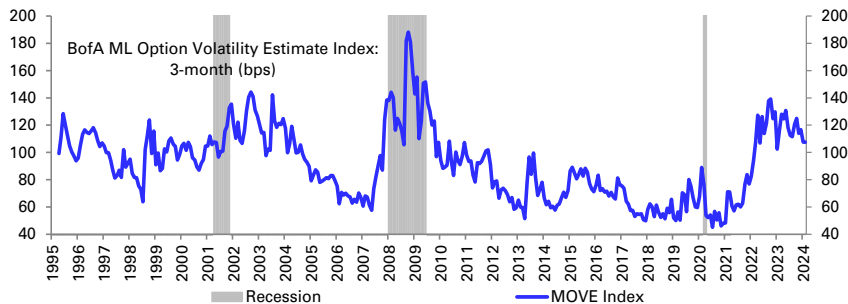
FIXED INCOME



INVESTMENT GRADE (IG) AND HIGH YIELD (HY) SPREADS

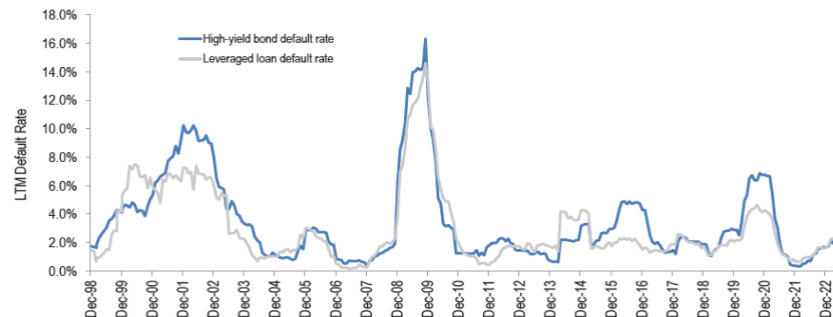


INTEREST RATE VOLATILITY – MOVE INDEX

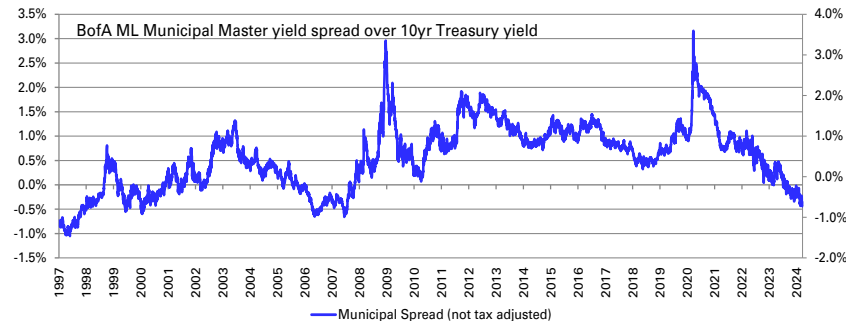


HIGH YIELD BOND AND LEVERAGED LOAN DEFAULT RATES

High-yield bond and loan par-weighted default rates



MUNICIPAL BOND SPREAD (NOT TAX ADJUSTED)



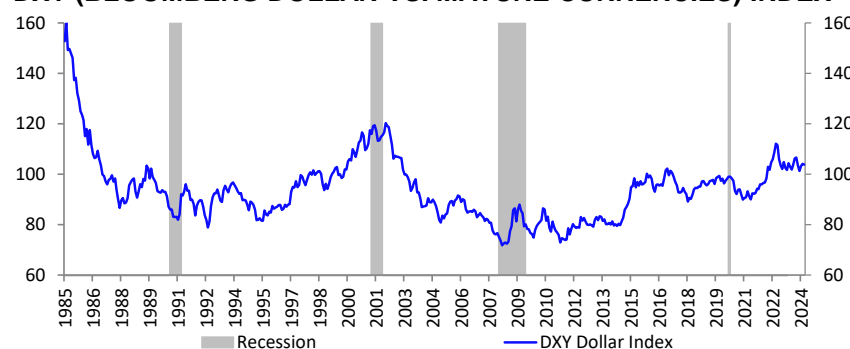
Source: Haver, J.P.Morgan, DWS Investment GmbH as of March 2024, for illustrative purposes only.

CURRENCY

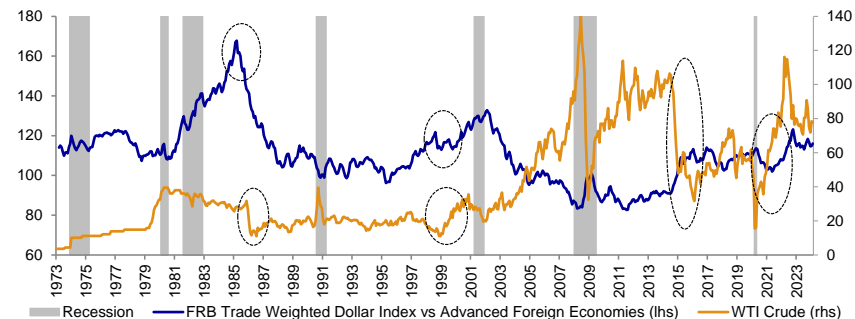
EUR/USD AND USD/JPY



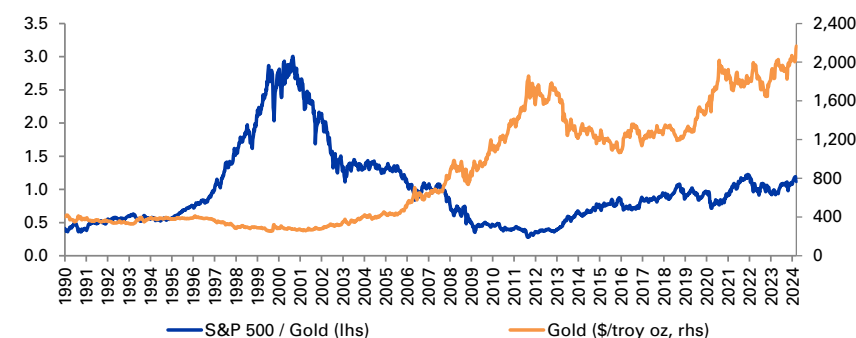
DXY (BLOOMBERG DOLLAR VS. MATURE CURRENCIES) INDEX



U.S. DOLLAR VS. OIL



GOLD



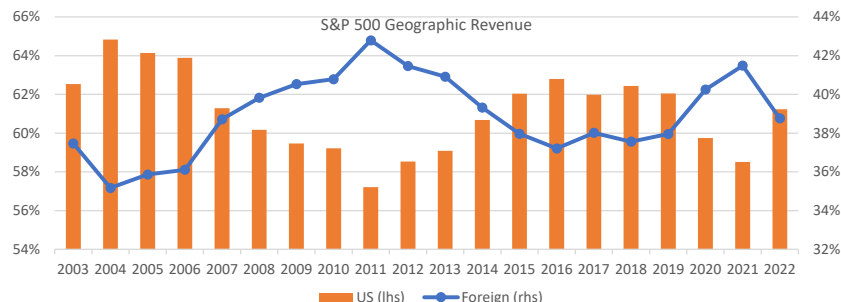
Source: Haver, DWS Investment GmbH as of March 2024, for illustrative purposes only.

S&P 500 REVENUE GEOGRAPHIC DISTRIBUTION

S&P 500 REVENUE GEOGRAPHIC DISTRIBUTION

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
US	62.5%	64.8%	64.1%	63.9%	61.3%	60.2%	59.5%	59.2%	57.2%	58.5%	59.1%	60.7%	62.0%	62.8%	62.0%	62.4%	62.0%	59.8%	58.5%	61.2%
Foreign	37.5%	35.2%	35.9%	36.1%	38.7%	39.8%	40.5%	40.8%	42.8%	41.5%	40.9%	39.3%	38.0%	37.2%	38.0%	37.6%	38.0%	40.2%	41.5%	38.8%
Europe	16.7%	15.6%	15.6%	15.5%	17.0%	17.7%	16.7%	16.0%	16.0%	15.0%	15.2%	14.6%	13.9%	13.4%	13.7%	13.9%	13.7%	14.4%	14.4%	13.1%
UK	2.9%	2.9%	2.7%	2.7%	3.0%	2.9%	2.7%	2.7%	2.8%	2.7%	2.7%	2.6%	2.8%	2.6%	2.3%	2.4%	2.3%	2.5%	2.4%	2.3%
Asia	12.3%	11.6%	11.6%	11.1%	11.8%	11.4%	12.9%	13.5%	14.3%	14.1%	13.7%	13.4%	13.6%	14.1%	14.9%	14.9%	15.4%	17.1%	18.5%	16.4%
China	2.1%	2.1%	2.2%	2.2%	2.6%	2.8%	3.4%	3.8%	4.5%	4.3%	4.6%	4.7%	5.3%	5.3%	5.8%	6.0%	6.0%	6.9%	7.9%	7.1%
Japan	4.8%	4.4%	4.2%	3.6%	3.5%	3.4%	3.9%	4.1%	4.0%	3.7%	3.2%	2.9%	2.7%	2.9%	2.9%	2.8%	2.9%	3.1%	3.1%	2.6%
LatAm	3.0%	3.2%	3.4%	3.5%	3.7%	3.9%	4.0%	4.3%	4.7%	4.6%	4.6%	4.2%	3.9%	3.5%	3.6%	3.4%	3.4%	3.2%	3.2%	3.4%

S&P 500 REVENUE GEOGRAPHIC DISTRIBUTION



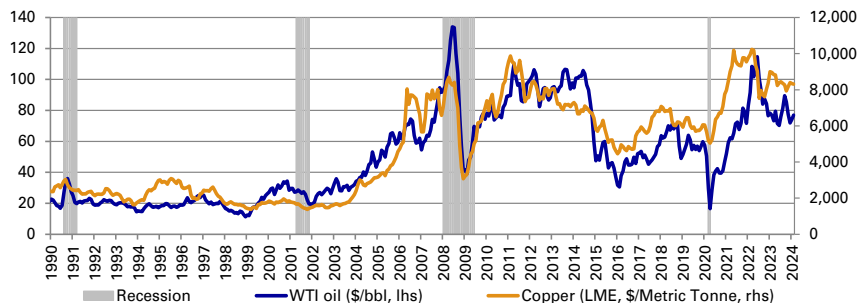
S&P 500 REVENUE GEOGRAPHIC DISTRIBUTION BY SECTOR

	US	Foreign	Europe	UK	Asia	China	Japan	LatAm
S&P 500	59.8%	40.2%	14.1%	2.4%	17.5%	7.3%	3.0%	3.3%
Communication	58.3%	41.7%	17.1%	2.6%	14.0%	3.1%	2.4%	3.6%
Cons. Disc.	65.7%	34.3%	14.2%	3.3%	12.2%	7.3%	2.4%	3.3%
Cons. Staples	55.3%	44.7%	15.9%	2.1%	14.8%	5.4%	3.1%	5.3%
Energy	61.4%	38.6%	12.6%	3.8%	17.3%	7.1%	0.8%	1.1%
Financials	78.4%	21.6%	8.8%	2.2%	7.2%	2.0%	2.0%	1.8%
Health Care	63.5%	36.5%	17.3%	2.1%	12.4%	4.7%	2.9%	2.7%
Industrials	67.6%	32.4%	12.3%	1.5%	11.9%	4.1%	2.1%	2.7%
Tech	41.6%	58.4%	15.9%	2.2%	32.6%	15.3%	4.8%	4.0%
Materials	43.7%	56.3%	22.1%	6.7%	19.6%	6.5%	2.9%	8.1%
Real Estate	83.4%	16.6%	4.4%	1.5%	5.4%	0.9%	0.9%	3.0%
Utilities	98.2%	1.8%	0.8%	0.0%	0.1%	0.0%	0.0%	0.8%

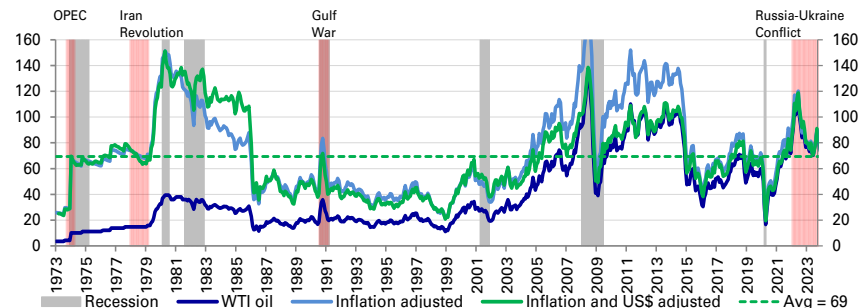
Source: Factset, DWS Investment GmbH as of March 2024, for illustrative purposes only.

COMMODITY

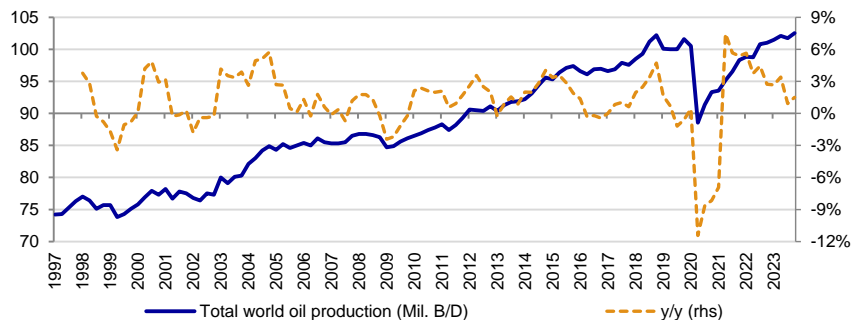
WEST TEXAS INTERMEDIATE (WTI) CRUDE OIL AND COPPER



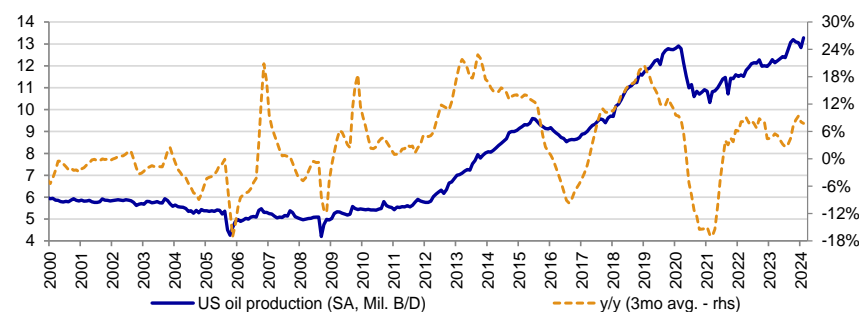
INFLATION AND U.S. DOLLAR ADJUSTED WTI OIL PRICE



GLOBAL OIL PRODUCTION



U.S. OIL PRODUCTION

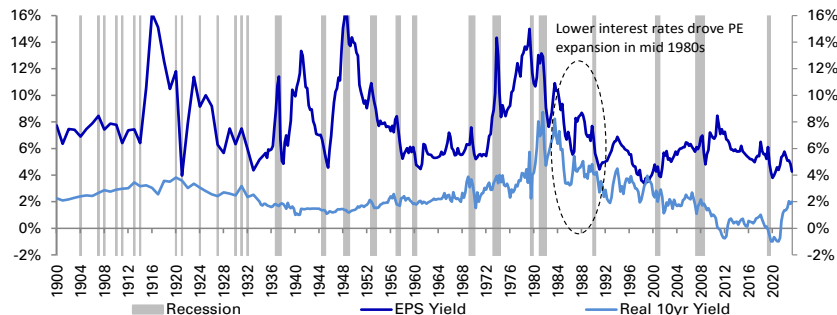


Source: Haver, EIA, DWS Investment GmbH as of March 2024, for illustrative purposes only.

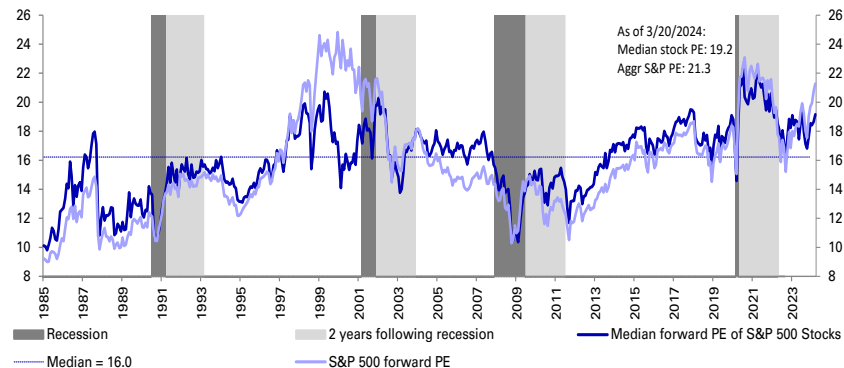
EQUITY



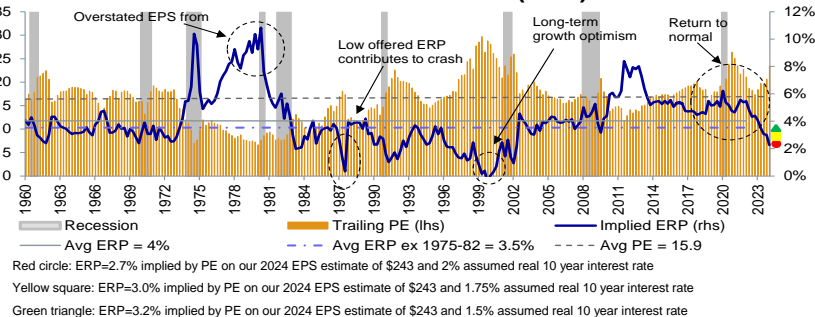
S&P 500 EARNINGS PER SHARE (EPS) YIELD



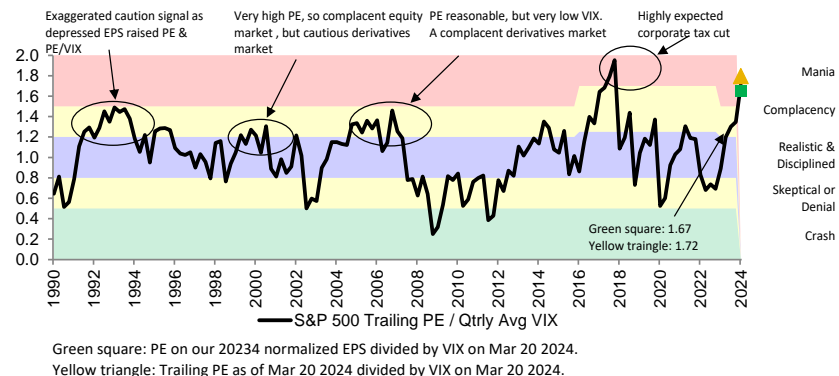
S&P 500 FORWARD PRICE-TO-EARNINGS (P/E) RATIO



S&P 500 IMPLIED EQUITY RISK PREMIUM (ERP)

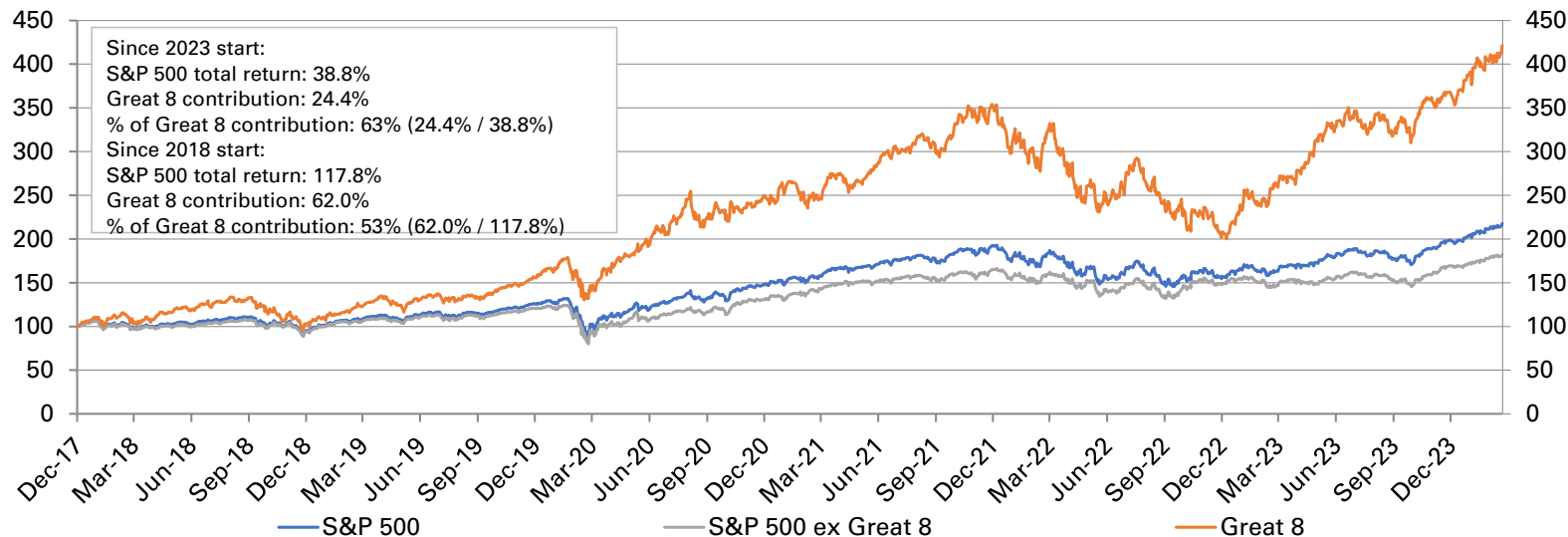


S&P 500 PE / VIX (CBOE VOLATILITY INDEX)



Source: Haver, Compustat, Clarifi, DWS Investment GmbH as of March 2024, for illustrative purposes only. Past performance may not be indicative of future results.

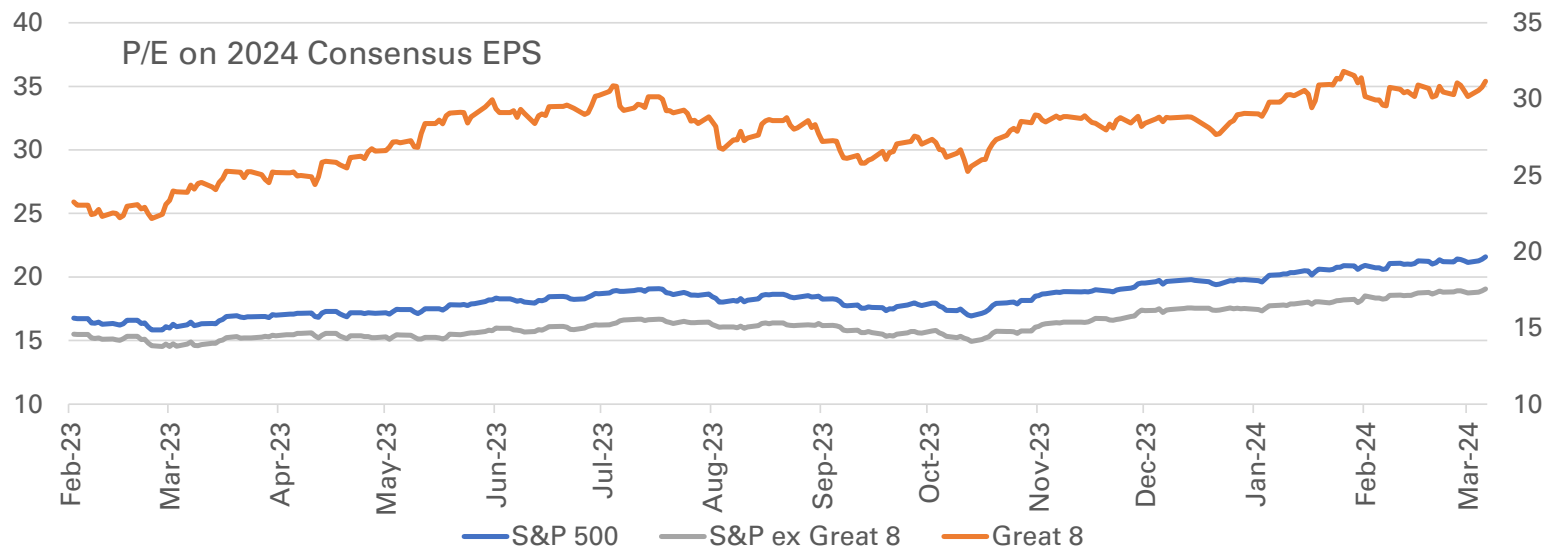
S&P 500 AND THE GREAT 8 TOTAL RETURN



The Great 8: AAPL, AMZN, GOOG/GOOGL, META, MSFT, NFLX, NVDA, TSLA

Source: IBES, Factset, DWS Investment GmbH as of 3/20/2024. Past performance may not be indicative of future results. It is not possible to invest directly in an index.

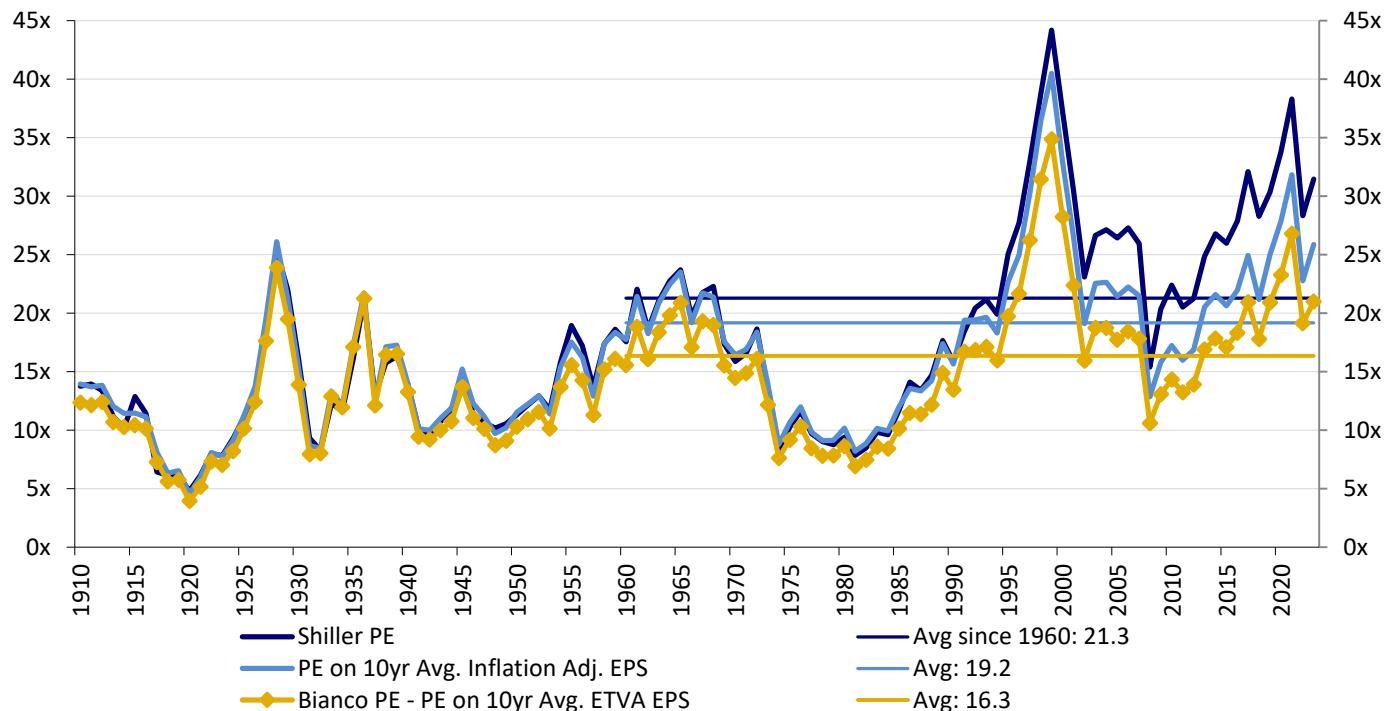
S&P 500 AND THE GREAT 8 P/E RATIO



The Great 8: AAPL, AMZN, GOOG/GOOGL, META, MSFT, NFLX, NVDA, TSLA

Source: IBES, Factset, DWS Investment GmbH as of 3/20/2024. Past performance may not be indicative of future results. It is not possible to invest directly in an index.

BIANCO PE: PE ON EQUITY TIME VALUE ADJUSTED EPS



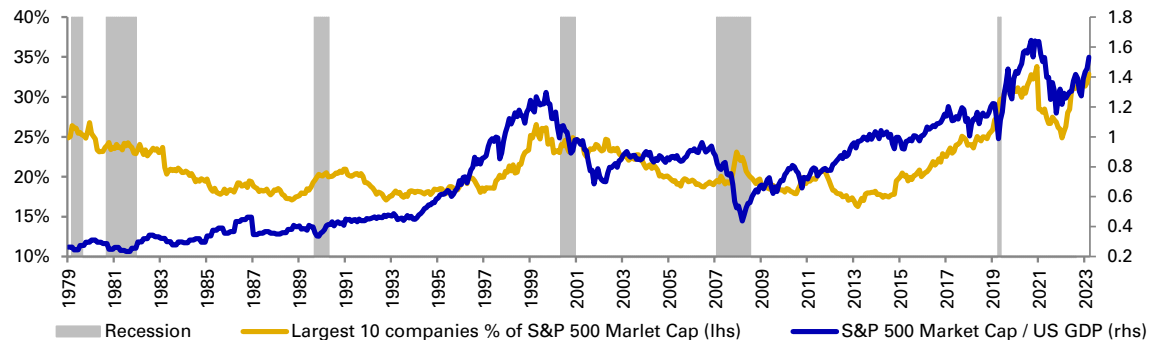
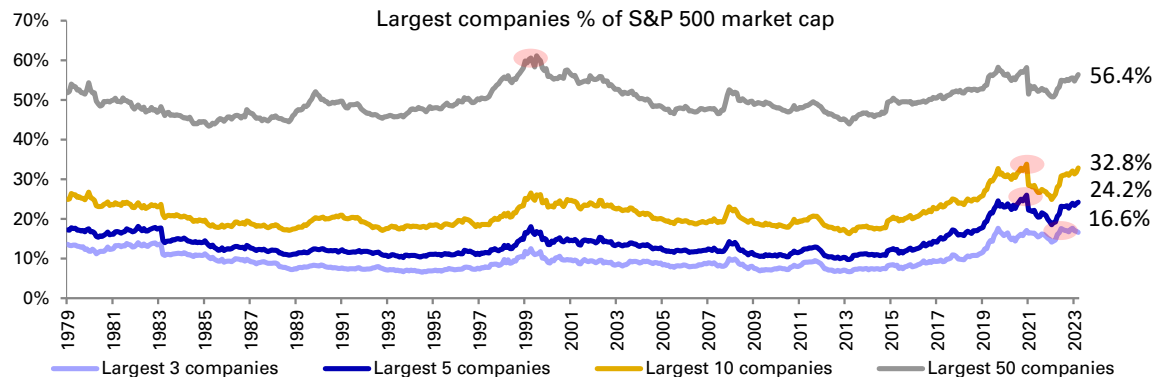
Current premium to average since 1960:
 Shiller PE: 48%
 PE on Inflation adj non-GAAP S&P EPS: 35%
 Bianco PE: 28%

Note: Bianco PE is the PE multiple based on the trailing 10-year average EPS adjusted by inflation and earnings retention ratio.

Shiller PE is the price earnings ratio based on average inflation-adjusted earnings from the previous 10 years, known as the Cyclically Adjusted PE Ratio (CAPE Ratio). It's developed by Robert J. Shiller.

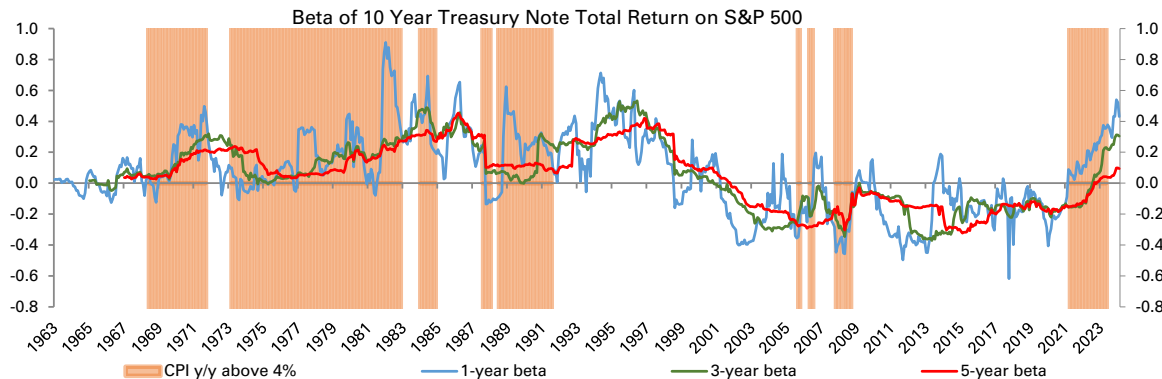
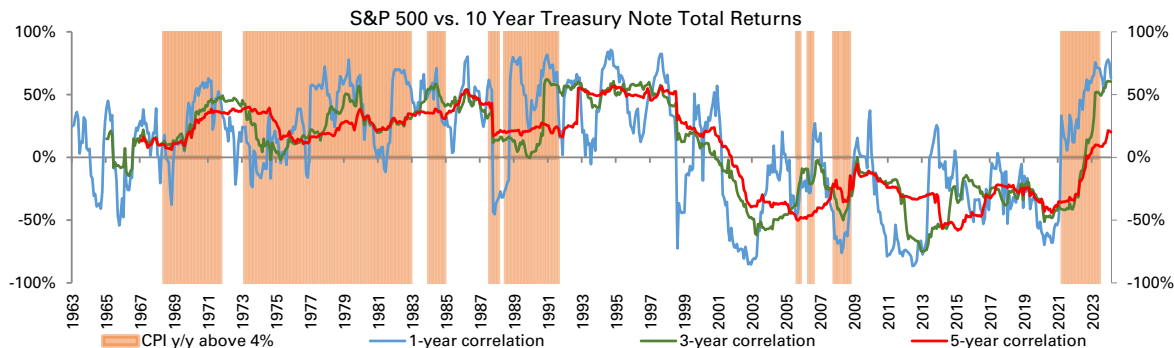
Source: IBES, Shiller, Factset, Haver, DWS Investment GmbH as of 4Q2023, for illustrative purposes only.

S&P 500 CONCENTRATION



Source: Clarifi, DWS Investment GmbH as of March 2024, for illustrative purposes only.

S&P 500 VS. 10Y TREASURY NOTE: CORRELATION & BETA



Source: Haver, DWS Investment GmbH as of March 2024, for illustrative purposes only.

GLOBAL EQUITY VALUATIONS



	S&P 500				Europe				Japan				EM				Asia ex Japan			
	Trailing EPS	10Yr Avg ETVA EPS	Trailing PE	Bianco PE	Trailing EPS	10Yr Avg ETVA EPS	Trailing PE	Bianco PE	Trailing EPS	10Yr Avg ETVA EPS	Trailing PE	Bianco PE	Trailing EPS	10Yr Avg ETVA EPS	Trailing PE	Bianco PE	Trailing EPS	10Yr Avg ETVA EPS	Trailing PE	Bianco PE
1995	37.68	31.23	16.3	19.7	46.70		15.7		13.54		70.9		21.28		21.5					
1996	41.03	34.23	18.1	21.6	51.76		16.8		16.11	27.73	56.3	32.7	20.14		23.6					
1997	45.03	37.00	21.6	26.2	54.24		19.5		11.96	26.81	64.4	28.7	20.26		20.4					
1998	44.33	39.09	27.7	31.4	58.19		23.0		8.91	24.02	78.2	29.0	11.32		26.4					
1999	51.02	42.14	28.8	34.9	54.41	55.19	28.0	27.6	9.36	19.90	108.5	51.0	13.37		36.6					
2000	57.09	46.75	23.1	28.2	58.61	56.35	23.5	24.5	21.13	17.47	38.3	46.3	20.20		16.5					
2001	45.22	51.31	25.4	22.4	46.20	57.67	23.5	18.8	12.46	15.35	52.3	42.4	24.32		13.1		12.18		16.3	
2002	47.98	55.20	18.3	15.9	42.31	59.85	20.5	14.5	14.24	14.77	36.9	35.5	28.61		10.2		15.64		11.4	
2003	55.44	59.37	20.1	18.7	58.42	63.11	20.0	18.5	22.96	16.01	27.8	39.9	33.46	28.71	13.2	15.4	16.38		15.6	
2004	67.10	64.64	18.1	18.7	83.19	68.02	16.6	20.3	34.50	18.71	20.3	37.4	47.92	31.94	11.3	17.0	25.43		11.5	
2005	76.28	70.40	16.4	17.7	104.44	74.65	14.1	19.7	44.61	22.14	22.4	45.2	55.76	35.72	12.7	19.8	25.60		13.6	
2006	88.18	76.93	16.1	18.4	134.50	84.17	14.2	22.7	52.54	26.32	20.2	40.4	65.17	41.19	14.0	22.2	28.89		15.7	
2007	84.56	82.45	17.4	17.8	156.38	96.64	13.6	21.9	57.77	31.88	16.3	29.5	78.35	49.27	15.9	25.3	35.71		17.4	
2008	61.85	85.31	14.6	10.6	124.76	104.91	8.8	10.5	38.75	36.17	13.7	14.7	65.32	57.99	8.7	9.8	26.50		10.9	
2009	62.02	85.40	18.0	13.1	91.03	109.84	15.8	13.1	10.75	36.66	53.0	15.5	58.76	65.51	16.8	15.1	26.88		18.0	
2010	85.49	87.76	14.7	14.3	117.83	117.74	12.4	12.4	33.47	36.94	16.8	15.2	84.61	75.55	13.6	15.2	38.50	34.05	14.7	16.7
2011	97.83	95.08	12.9	13.2	120.55	129.74	10.4	9.7	31.44	39.80	14.2	11.2	89.76	86.21	10.2	10.6	40.19	38.63	11.4	11.9
2012	103.59	102.63	13.8	13.9	116.48	141.60	12.4	10.2	28.89	42.15	18.4	12.6	87.44	95.60	12.1	11.0	41.68	42.47	13.1	12.9
2013	109.59	109.43	16.9	16.9	113.98	148.96	15.4	11.8	45.01	45.47	17.9	17.7	86.51	104.44	11.6	9.6	43.82	46.74	12.6	11.8
2014	118.83	115.55	17.3	17.8	107.41	149.59	15.0	10.8	54.38	48.81	16.0	17.8	78.49	109.33	12.2	8.7	43.96	48.84	12.8	11.5
2015	118.20	119.65	17.3	17.1	96.20	146.56	15.8	10.4	60.71	50.40	15.5	18.6	65.33	111.66	12.2	7.1	39.76	50.54	12.6	9.9
2016	119.07	122.19	18.8	18.3	87.89	139.25	16.7	10.6	55.18	50.35	16.6	18.2	64.51	111.47	13.4	7.7	37.49	51.28	13.7	10.0
2017	132.95	127.66	20.1	20.9	108.25	131.27	16.6	13.7	68.73	51.18	15.6	21.0	80.42	110.56	14.4	10.5	47.97	52.12	14.9	13.7
2018	162.98	141.06	15.4	17.8	114.23	129.20	13.0	11.5	78.23	55.64	11.4	16.1	84.35	113.10	11.4	8.5	49.68	54.97	12.0	10.9
2019	163.91	154.63	19.7	20.9	110.73	132.42	16.1	13.5	68.08	63.86	15.2	16.2	75.34	117.48	14.8	9.5	44.11	58.55	15.6	11.8
2020	142.38	161.74	26.4	23.2	77.30	126.48	23.8	14.5	46.86	65.05	23.6	17.0	62.86	113.15	20.5	11.4	41.01	57.86	20.6	14.6
2021	209.38	177.87	22.8	26.8	125.78	130.41	16.6	16.1	76.34	70.31	16.1	17.5	93.54	113.80	13.2	10.8	52.77	58.93	15.0	13.4
2022	221.59	200.25	17.3	19.2	145.02	144.45	11.9	12.0	92.14	80.63	12.5	14.3	82.41	118.76	11.6	8.1	46.84	60.31	13.2	10.3
2023	216.541	212.10	21.4	21.6	148.22	150.72	13.9	13.4	89.08	82.82	15.2	16.4	76.11	119.77	14.2	8.4	43.34	59.94	15.2	10.7
vs. S&P							-35%	-38%			-29%	-24%			-34%	-61%			-29%	-51%
Median			18.1	18.7			15.8	13.5			18.4	18.4			13.4	10.6			13.7	11.8
vs. S&P							-12%	-28%			2%	-2%			-26%	-43%			-24%	-37%

ETVA: Equity time value adjusted.

Source: IBES, Shiller, Factset, Haver, DWS Investment GmbH as of 4Q2023, for illustrative purposes only.

S&P 500 5%+ PULLBACKS

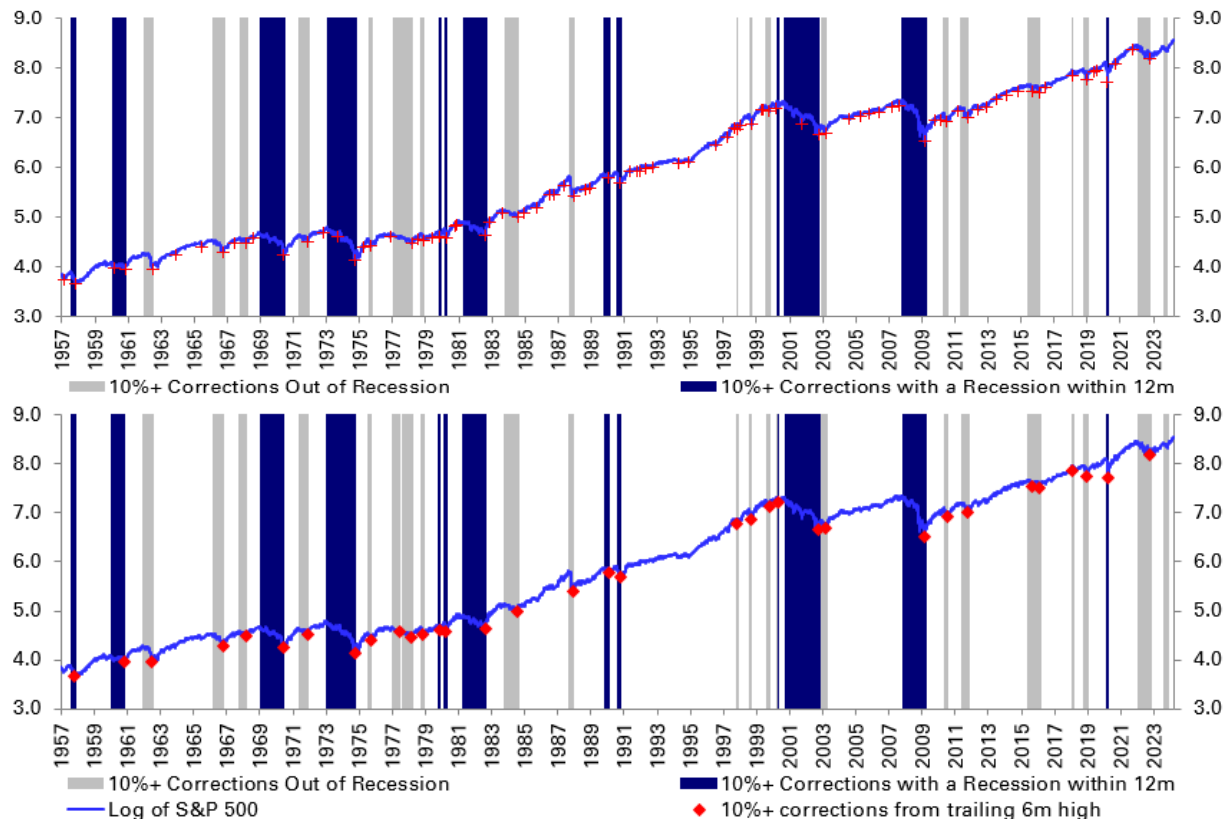


From high of:	All time	3yr high	1yr high	6mos high
5% Dips	68	84	94	89
10% Corrections	29	34	35	34
15% Swoons	21	22	22	24
20% Bears	14	11	15	13
25%+ Crash	13	8	8	8

	Count	Avg Sell-off	Avg 3m Return	Avg 6m Return	Avg 12m Return
5%+ Sell-offs	89	-12.2%	11.4%	14.7%	20.5%
5%+ Sell-offs Leading to a 10%+ Correction	32	-20.9%	15.6%	21.0%	28.1%
5%+ Sell-offs not Leading to a 10%+ Correction	57	-7.4%	9.0%	11.1%	16.0%
5% sell-offs without recession in 12m	68	-10.5%	10.9%	14.4%	21.2%
5% sell-offs leading to 10%+ & no recession in 12m	21	-18.0%	15.0%	20.1%	26.5%
5% sell-offs not leading to 10%+ & no recession in 12m	47	-7.2%	9.0%	11.8%	18.7%
10%+ Corrections with a Recession within 12m	11	-26.4%	16.6%	22.9%	31.0%
10%+ Corrections out of Recession	21	-18.0%	15.0%	20.1%	26.5%
10%+ Corrections out of Recession (ex 1987 Crash)	20	-17.2%	14.8%	20.1%	26.8%
10% Corrections Leading to a 20%+ Bear Market	10	-33.9%	19.2%	24.3%	34.4%
10% Corrections not Leading to a 20%+ Bear Market	21	-14.1%	12.7%	18.2%	22.8%

Source: Haver, Haver, DWS Investment GmbH as of March 2024. Past performance may not be indicative of future results. For illustrative purposes only.

S&P 500 5%+ DIPS AND 10%+ CORRECTIONS



Source: Haver, Haver, DWS Investment GmbH as of March 2024. Past performance may not be indicative of future results. For illustrative purposes only.

S&P 500 SECTOR AND INDUSTRY VIEWS



	Market	Allocated	Sector	2022	2023	2024	Overweight	2022	2023	2024	Equal weight	2022	2023	2024	Underweight	2022	2023	2024			
Over-weight	12.5%	16.5%	Health Care	17.7	22.0	19.1	Biotechnology	13.6	18.7	17.5	Health Care Providers & Services	17.2	16.0	15.2	Life Sciences Tools & Services	25.7	30.0	29.3	Sector OW		9.49%
							Health Care Equipment & Supplies	27.3	27.4	25.5									Sector UW		-9.49%
							Pharmaceuticals	15.2	25.3	18.1									Industry OW		19.52%
	3.9%	5.2%	Energy	8.9	12.0	12.8	Energy Equipment & Services	24.3	16.4	14.5									Industry UW		-19.52%
							Oil Gas & Consumable Fuels	8.5	11.8	12.7											
	8.9%	10.1%	Communication Services	28.4	22.8	19.6	Diversified Telecommunication Servi	7.3	7.8	8.5	Wireless Telecommunication Servi	78.2	23.0	18.2	Media	11.7	11.4	11.0			
Equal-weight	13.1%	14.3%	Financials	19.1	17.2	16.8	Entertainment	72.3	40.1	28.5											
							Interactive Media & Services	39.9	28.5	22.9											
	2.2%	3.2%	Utilities	18.4	17.3	16.0	Banks	12.9	11.1	11.9	Financial Services	30.1	26.1	24.3	Capital Markets	20.2	20.9	19.0			
							Insurance	20.8	17.1	14.4											
							Electric Utilities	19.3	17.4	16.0	Gas Utilities	20.4	18.4	17.5	Consumer Finance	12.3	14.0	13.6			
											Independent Power & Renewable E	9.3	8.9	8.2							
Under-weight	6.0%	6.6%	Consumer Staples	20.6	20.9	20.3	Multi-Utilities	16.5	17.2	16.2	Food Products	26.7	23.8	22.6							
							Water Utilities	26.7	23.8	22.6											
							Beverages	25.2	22.6	21.6											
							Consumer Staples Distribution & Ret	21.7	25.6	24.5											
							Household Products	28.2	26.0	24.8											
							Personal Care Products	19.4	24.7	24.7											
Macro tilts:	8.8%	8.8%	Industrials	26.0	23.0	21.3	Aerospace & Defense	36.2	28.2	23.1	Construction & Engineering	39.4	36.0	30.0	Air Freight & Logistics	12.8	17.7	17.0			
							Electrical Equipment	30.2	28.4	25.0	Machinery	23.6	18.6	18.7	Building Products	26.7	24.0	22.4			
							Industrial Conglomerates	26.7	26.8	22.8											
							Passenger Airlines	17.0	7.1	7.1											
											Chemicals	18.0	22.5	22.6	Construction Materials	51.5	35.0	30.7			
											Metals & Mining	10.3	15.6	18.9	Containers & Packaging	14.4	18.8	18.5			
Capex	2.3%	1.9%	Real Estate	18.2	18.3	17.9	Specialized REITs	18.8	19.3	18.4	Hotel & Resort REITs	11.6	11.0	10.6	Health Care REITs	19.3	18.8	17.4			
											Office REITs	12.0	12.1	12.7	Industrial REITs	24.9	22.8	23.9			
											Retail REITs	13.2	13.3	13.4	Residential REITs	17.5	16.4	16.2			
															Real Estate Mgmt. & Development	29.6	40.8	40.8			
Health Care	10.2%	6.2%	Consumer Discretionary	40.6	28.4	26.6	Automobile Components	15	13.6	11.1	Distributors	17.6	18.2	17.6	Automobiles	20.2	21.7	23.8			
											Hotels Restaurants & Leisure	66	25.1	23.5	Household Durables	11.5	12.4	13.3			
											Leisure Products	12.2	18.9	14.2	Broadline Retail	-2027	57.0	43.9			
															Multiline Retail						
															Specialty Retail	23.5	23.7	22.9			
															Textiles Apparel & Luxury Goods	23.6	24.4	22.2			
Financials	29.8%	24.8%	Information Technology	37.2	34.8	29.7	Communications Equipment	19.0	17.2	16.6	Software	45.2	39.0	34.1	Electronic Equipment	23.0	24.4	23.1			
							IT Services	25.9	24.4	23.4	Technology Hardware Storage & P	27.8	28.0	25.7	Semiconductors	45.9	43.5	31.8			
											Equalweight	28.8	25.9	24.2		29.9	28.4	25.2			
Aggregate PE: DWS View							Overweight	18.3	19.1	17.7	Equalweight	28.8	25.9	24.2		29.9	28.4	25.2			
S&P 500								5225			2022, 2023& 2024 EPS	219.41	223.00	243.00	2022, 2023 & 2024 PE	23.8	23.4	21.5			
											Bottom-up Consensus EPS	219.41	223.33	245.45	Bottom-up Cons. PE	23.8	23.4	21.3			
															2022, 2023 & 2024 Ex Energy PE	24.3	24.3	22.0			
															Btm-up Cons. Ex Energy PE	25.5	24.3	21.8			

Source: Factset, DWS Investment GmbH as of 3/20/2024, for illustrative purposes only. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.

DWS VIEW: S&P 500 FAIR VALUE BY SECTOR



Assuming a ~5.50% real cost of equity (CoE) for overall S&P 500

	Market Value (\$bn)	Current 2024 PE	2024E Earnings (\$bn)	Normal Ratio	Normal 2024E Earnings	Accounting Quality Adjustment	Fully Adjusted Earnings	Net Debt / Market Cap	FCF / EPS	Real CoE	Steady State Value	Growth Premium	2024 Start Fair Value (\$bn)	2024E Dividend Yield	2024 End Fair Value (\$bn)	PE on Normal 2024E EPS	2024 End Upside %	2024 End Upside vs. S&P 500
Communication Services	4,167	19.6	213.0	99%	211.4	-7%	196.6	11%	0.83	5.50%	3,574	20%	4,288	0.9%	4,594	21.7	10%	14%
Consumer Discretionary	4,530	26.6	170.0	102%	173.8	-6%	163.3	10%	0.74	5.50%	2,970	31%	3,895	1.0%	4,168	24.0	-8%	-4%
<i>Automobiles</i>	596	23.8	25.0	95%	23.8	-8%	21.9	30%	0.99	6.50%	336	40%	471	0.5%	511	21.5	-14%	-11%
<i>Broadline (Internet) Retail</i>	1,624	43.9	37.0	120%	44.4	-5%	42.2	0%	0.18	5.25%	803	75%	1,406	0.0%	1,514	34.1	-7%	-3%
<i>ex. Auto & Broadline (Internet) Retail</i>	2,310	21.4	108.0	98%	105.6	-6%	99.3	12%	0.75	5.43%	1,830	10%	2,019	1.4%	2,150	20.4	-7%	-3%
Consumer Staples	2,468	20.3	121.5	98%	119.2	-6%	112.1	14%	0.84	5.25%	2,135	5%	2,242	2.8%	2,354	19.7	-5%	-1%
Energy	1,790	12.8	140.0	101%	141.0	-10%	126.9	13%	0.91	6.25%	2,030	-18%	1,665	2.2%	1,774	12.6	-1%	3%
Financials	5,892	16.6	356.0	97%	345.6	-7%	319.8		1.10	6.25%	5,117	-3%	4,963	1.8%	5,310	15.4	-10%	-6%
<i>Banks</i>	1,491	11.9	125.0	95%	118.8	-7%	110.4		1.11	7.50%	1,473	-10%	1,325	2.8%	1,421	12.0	-5%	-1%
Health Care	5,457	19.1	285.0	99%	281.7	-8%	259.2	9%	1.14	5.40%	4,800	15%	5,520	1.4%	5,881	20.9	8%	11%
Industrials	3,670	21.3	172.0	101%	173.6	-7%	161.4	14%	0.88	5.50%	2,935	10%	3,228	1.6%	3,434	19.8	-6%	-3%
Information Technology	13,196	29.7	445.0	103%	459.0	-3%	445.2	2%	0.95	5.25%	8,481	35%	11,449	0.8%	12,243	26.7	-7%	-4%
Materials	1,049	21.9	48.0	97%	46.7	-8%	42.9	15%	0.89	6.00%	716	5%	751	1.4%	805	17.2	-23%	-20%
Real Estate	941	17.9	52.5	97%	50.8	-3%	49.2	33%	1.80	5.75%	856	5%	899	3.5%	942	18.6	0%	4%
Utilities	932	16.0	58.3	103%	60.3	-7%	56.0	86%	-0.64	5.75%	975	0%	975	3.7%	1,019	16.9	9%	13%
S&P 500 (\$ bn)	44,093	21.4	2061.3	100%	2062.9	-6.3%	1932.7			5.55%	34,587	15.3%	39876	1.4%	42,524	20.6	-4%	0%
S&P 500 Index (\$/sh)	5225	21.5	243.0	100%	243.0	-6.2%	228.0	9%	0.93	5.50%	4145	15.6%	4790	1.4%	5098	21.0	-2%	0%

	>5%		Bigger upside vs. S&P 500
	between -5% and 5%		Same upside as S&P 500
	<-5%		Smaller upside vs. S&P 500

S&P 500 EPS historical constituents represents the earnings per share (EPS) of S&P 500 index constituents at the time, while S&P 500 EPS current constituents represents the earnings per share of index constituents as of the date the data was compiled 9/30/2023.

The estimated 2023 yearend upside is on absolute valuation basis of each sector, not on relative sector valuation basis.

Source: IBES, DWS Investment GmbH as of 3/20/2024, for illustrative purposes only. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.

DWS S&P 500 ANNUAL EPS OUTLOOK

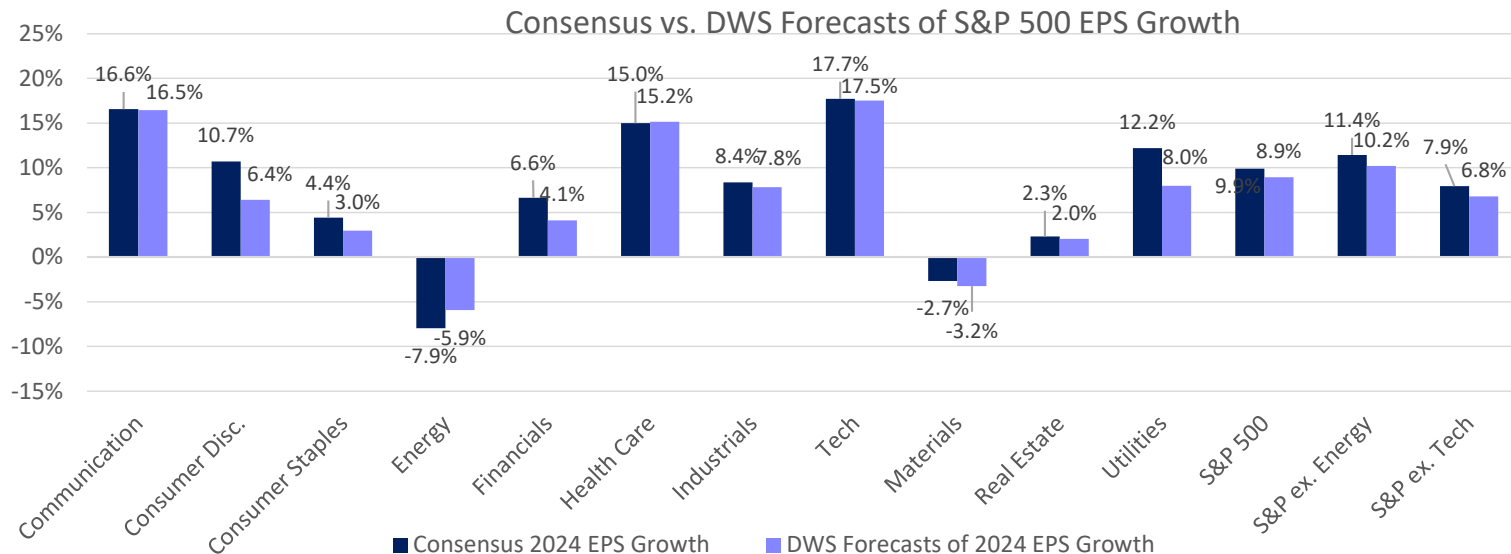


	2014A	2015A	2016A	2017A	2018A	2019A	2020A	2021A	2022A	y/y	Bottom-up Consensus (IBES)				DWS View				Normalized 2024	
											2023E	y/y	2024E	y/y	2023E	y/y	2024E	y/y	(\$)	% of 2023
S&P 500 EPS (historical index)	\$118.82	\$117.46	\$118.10	\$132.00	\$161.93	\$162.93	\$139.72	\$208.12	\$218.09	4.8%										
S&P 500 EPS (current constituents)	\$116.70	\$117.17	\$117.41	\$129.32	\$155.41	\$161.17	\$143.29	\$208.02	\$219.41	4.4%	\$223	1.8%	\$245	9.9%	\$223	1.6%	\$243	9.0%	\$243	100%
Sector (\$ bn)																				
Communication Services	67.4	77.8	90.6	98.8	123.4	129.8	135.0	187.4	146.9	-21.6%	182.8	24.5%	213.1	16.6%	182.9	24.5%	213.0	16.5%	211.4	99%
Consumer Discretionary	58.4	68.7	76.6	80.6	95.6	93.6	64.6	124.2	111.5	-10.2%	160.1	43.6%	177.2	10.7%	159.8	43.4%	170.0	6.4%	173.8	102%
Consumer Staples	83.9	82.7	85.4	89.7	96.8	97.9	105.2	117.8	119.5	1.5%	117.3	-1.9%	122.5	4.4%	118.0	-1.3%	121.5	3.0%	119.2	98%
Energy	94.3	39.4	10.5	37.1	69.8	49.4	-6.1	79.2	200.5	153.3%	149.0	-25.7%	137.2	-7.9%	148.8	-25.8%	140.0	-5.9%	141.0	101%
Financials	184.1	199.6	203.7	213.2	262.7	276.6	225.5	363.2	308.5	-15.1%	342.2	10.9%	364.9	6.6%	342.0	10.9%	356.0	4.1%	345.6	97%
Health Care	136.7	151.7	156.5	170.8	187.5	205.5	225.7	293.4	307.9	5.0%	246.8	-19.8%	283.9	15.0%	247.5	-19.6%	285.0	15.2%	281.7	99%
Industrials	100.5	103.9	98.3	107.2	130.5	125.1	66.9	112.0	141.1	26.0%	160.3	13.6%	173.7	8.4%	159.5	13.1%	172.0	7.8%	173.6	101%
Information Technology	162.6	168.2	176.5	208.0	239.7	233.4	264.7	345.8	354.8	2.6%	378.8	6.8%	445.9	17.7%	378.7	6.8%	445.0	17.5%	459.0	103%
Materials	24.8	23.8	22.9	28.9	36.4	34.3	32.5	61.4	64.0	4.2%	49.6	-22.5%	48.3	-2.7%	49.6	-22.6%	48.0	-3.2%	46.7	97%
Real Estate	22.6	25.8	28.5	32.1	35.8	37.3	37.3	44.5	51.8	16.4%	51.5	-0.5%	52.7	2.3%	51.5	-0.6%	52.5	2.0%	50.8	97%
Utilities	32.9	33.0	35.6	37.0	40.8	44.8	46.8	49.3	50.8	2.9%	52.0	2.4%	58.3	12.2%	54.0	6.4%	58.3	8.0%	60.3	103%
S&P 500	968.3	974.8	985.0	1103.4	1319.0	1327.8	1198.1	1778.1	1857.2	4.4%	1890.4	1.8%	2077.7	9.9%	1892.2	1.9%	2061.3	8.9%	2062.9	100%
S&P ex. Energy (\$bn)	874.0	935.4	974.6	1066.3	1249.2	1278.4	1204.2	1698.9	1656.7	-2.5%	1741.4	5.1%	1940.5	11.4%	1743.4	5.2%	1921.3	10.2%	1921.9	100%
S&P ex. Tech (\$bn)	805.7	806.6	808.5	895.4	1079.4	1094.4	933.4	1432.3	1502.5	4.9%	1511.6	0.6%	1631.8	7.9%	1513.5	0.7%	1616.3	6.8%	1603.9	99%
S&P 500 Sales/Share (historical index)	\$1,163	\$1,127	\$1,151	\$1,232	\$1,339	\$1,415	\$1,362	\$1,567	\$1,753	11.9%										
S&P 500 Non-GAAP Net Margin	10.2%	10.4%	10.3%	10.7%	12.1%	11.5%	10.3%	13.3%	12.4%											

S&P 500 EPS	Year	1Q	2Q	3Q	4Q
2019A	163	39	41	41	42
2020A	140	33	28	38	42
2021A	210	49	53	54	54
2022A	222	55	58	56	53
2023E	223	53	54	58	57
2024E	243	57	59	62	65

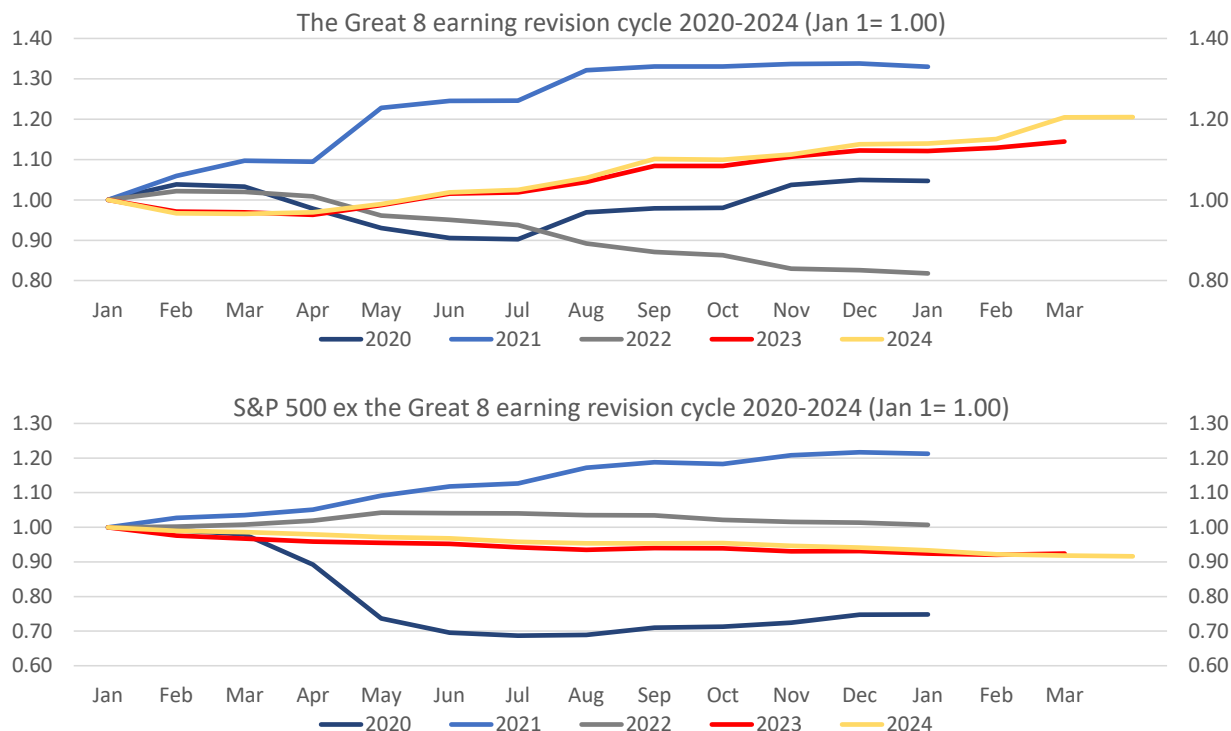
Source: Factset, DWS Investment GmbH as of 3/20/2024, for illustrative purposes only. Forecasts are based on assumptions, estimates, opinions and hypothetical models that may prove to be incorrect.

DWS S&P 500 EPS OUTLOOK



Source: DWS Investment GmbH as of 3/20/2024, for illustrative purposes only. Forecasts are based on assumptions, estimates, opinions and hypothetical models that may prove to be incorrect.

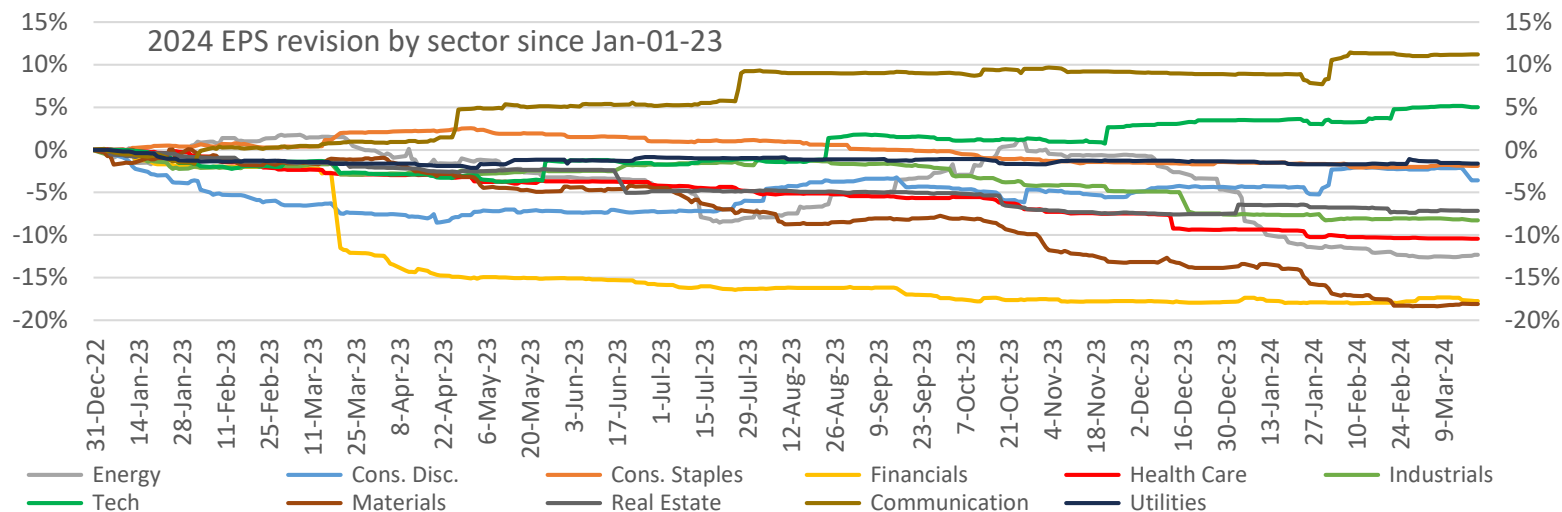
S&P 500 AND THE GREAT 8 EPS REVISIONS



The Great 8: AAPL, AMZN, GOOG/GOOGL, META, MSFT, NFLX, NVDA, TSLA

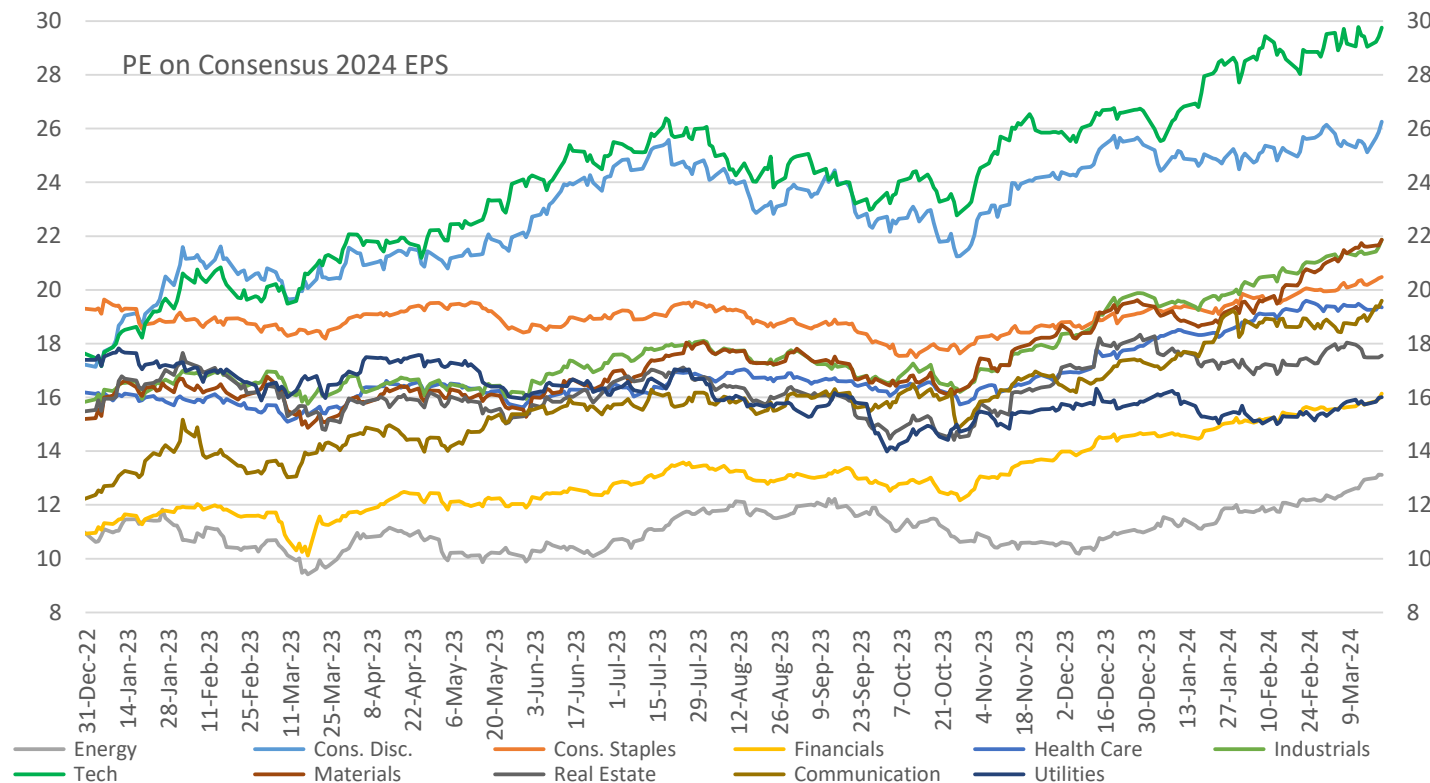
Source: IBES, Factset, DWS Investment GmbH as of 3/20/2023. Past performance may not be indicative of future results. It is not possible to invest directly in an index.

S&P 500 2023 EPS REVISION BY SECTOR



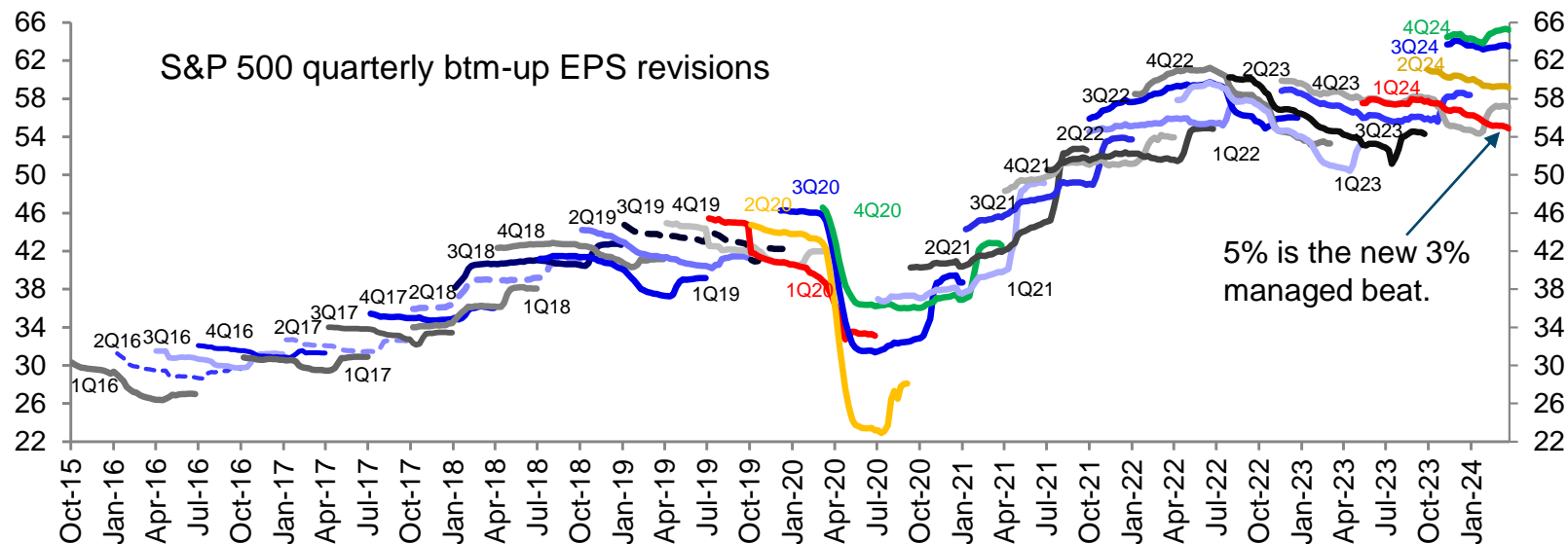
Source: IBES, Factset, DWS Investment GmbH as of 3/20/2024. Past performance may not be indicative of future results. It is not possible to invest directly in an index.

S&P 500 PE ON CONSENSUS 2024 EPS BY SECTOR



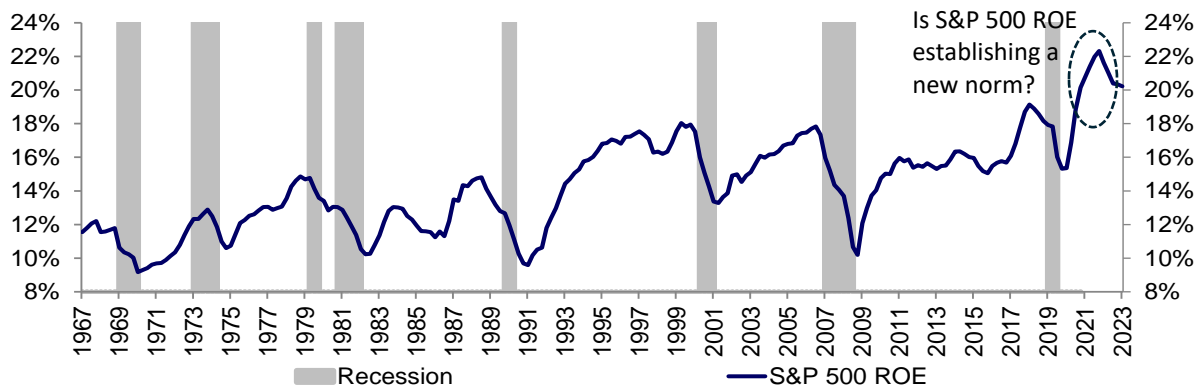
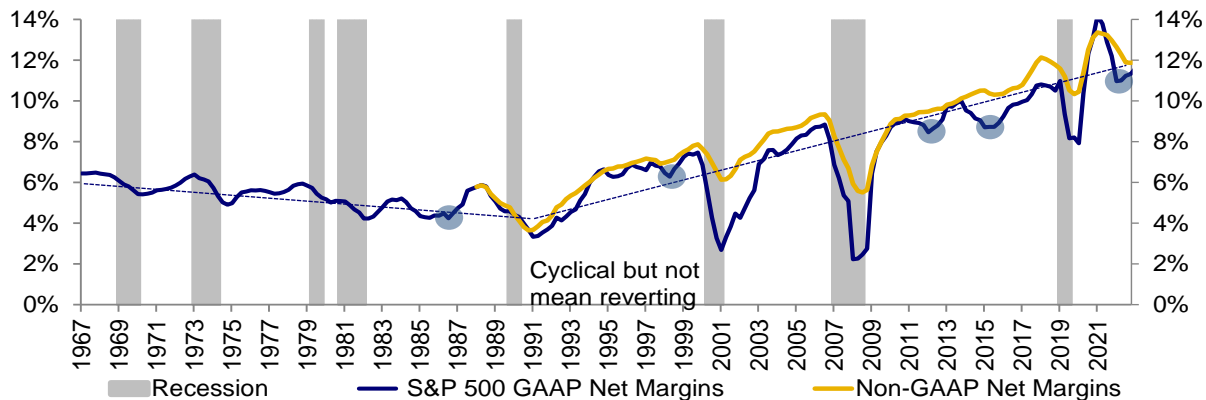
Source: IBES, Factset, DWS Investment GmbH as of 3/20/2024. Past performance may not be indicative of future results. It is not possible to invest directly in an index.

S&P 500 QUARTERLY EPS REVISION



Source: IBES, Factset, DWS Investment GmbH as of 3/20/2024. Past performance may not be indicative of future results. It is not possible to invest directly in an index.

S&P 500 NET MARGIN AND ROE (RETURN-ON-EQUITY)



Source: IBES, Factset, DWS Investment GmbH as of March 2024. Past performance may not be indicative of future results. It is not possible to invest directly in an index.

S&P 500 INTRINSIC VALUATION MODEL



S&P 500 Capitalized EPS Valuation		S&P 500 Dividend Discount Model		S&P 500 Long-term EPS & DPS Growth		S&P 500 Cost of Equity & Fair Book Multiple	
DWS 2024E S&P 500 EPS	\$243.00	DWS 2024E S&P 500 DPS	\$76.00	DWS 2024E S&P 500 aggregate ROE	22.1%	Fair long-term nominal return on S&P 500 index	8.00%
		2024E dividend payout ratio	31%	2023E end S&P 500 book value per share	\$1,100	Components of estimated fair S&P 500 return:	
DWS "normal 2024E" S&P 500 EPS	\$243.00	DWS "normal 2024E" S&P 500 DPS	\$76.00	DWS "normal 2024E" S&P 500 aggregate ROE	20.7%	+ Long-term real risk free interest rate	1.75%
"Normal 2024E" EPS / 2024 EPS	100%	Normal dividend payout ratio	33%			+ Long-term fair S&P 500 equity risk premium*	3.75%
Accounting quality adjustment to pro forma EPS	-\$15.00	EPS directed to net share repurchases	\$55.00	S&P EPS retained for true reinvestment	43%	= Long-term real S&P 500 cost of equity	5.50%
		Normal share repurchase payout ratio	24%	Estimated ROE on reinvested S&P EPS	9.00%	+ Long-term inflation forecast	2.50%
Normal 2024E S&P 500 EPS fair to capitalize	\$228	Total payout of S&P 500 EPS	\$131.00	Economic margin (EM) or ROE-CoE	1.00%	= S&P 500 nominal cost of equity	8.00%
Key principle: steady-state value = normal EPS / real CoE		Total payout ratio of normal and quality adj. EPS	57%	Sources of long-term earnings growth:		* S&P 500 ERP history 300-400bps, w/ real CoE @ 5% - 6.5%	
				+ Long-term inflation forecast	2.50%		
				+ Fair return on true reinvestment	2.34%	Fair S&P 500 Market Value and Book Value Multiple	
				+ Value added return on true reinvestment	0.43%	2023E end S&P 500 book value per share	\$1,100
				= Long-term earnings growth	5.27%	Fair PB = Fair PE * normal aggregate ROE	4.35
				+ Growth from net share repurchases	1.15%	Fair PE =(inc ROE-g)/(inc real ROE*(real CoE-real g))	19.71
				= Long-term S&P 500 EPS/DPS growth	6.41%	Implied S&P 500 fair value of book at 2024 start	4790
				+ Fair normal dividend yield	1.59%	Steady-state PB = normal agg. ROE / real CoE	3.77
				= Total long-term return at constant PE	8.00%	Confirmed by fair steady-state PE = 1 / real CoE	18.2

Normal EPS / (real CoE-value added EPS growth)	4493	DPS discount model using true DPS (all payout)	4790	Value added growth premium in fair value est.	16%	Normal 2024E economic profit per share	\$167.50
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S&P 500 EPS discount model 5 steps to value:

- 1) Estimate normalized S&P 500 EPS
- 2) Adjust normalized EPS for pro forma accounting quality
- 3) Estimate a fair long-term real return on S&P 500 ownership (CoE)
- 4) Capitalize normalized and accounting quality adj. EPS at real CoE
- 5) Consider long-term potential for value added growth opportunities

2024E Normal S&P 500 EPS					
	\$230	\$235	\$243	\$245	\$250
5.00%	5648	5865	6226	6319	6556
5.25%	5132	5311	5605	5680	5871
5.50%	4703	4853	5098	5160	5317
5.75%	4341	4468	4675	4727	4859
6.00%	4031	4141	4318	4363	4475

Source: DWS Investment GmbH as of March 2024, for illustrative purposes only. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.

MULTI-ASSET SUMMARY STATISTICS (1 OF 2)



		3/21/2024	Historical Levels								10-Yr	20-Yr	10-Yr	20-Yr	Total Return						10Y	10Y
		Current	1 wk	1 mo	3 mo	6 mo	1 Yr	5 Yrs	10 Yrs	Avg.	Avg.	Z-Score	Z-Score	Yield	1 mo	YTD	1 Yr	5 Yrs	10 Yrs	Sharpe R.	Std Dev	
U.S. Asset Class Hierarchy		Corresponding Index																				
Equity																						
		LTM P/E																				
US Large Cap	S&P 500 TR	25.20	24.55	23.36	21.97	22.10	18.25	16.74	16.49	20.79	18.41	1.29	1.85	1.4%	5.2%	9.9%	34.3%	15.0%	12.7%	0.87	13.2%	
US Small Cap	Russell 2000 TR	27.04	26.50	31.89	28.41	27.89	24.00	23.90	31.63	36.90	32.37	-0.31	-0.21	1.6%	3.7%	2.7%	20.7%	7.5%	7.1%	0.30	20.8%	
Europe	MSCI Europe Net TR	14.91	14.97	13.82	13.16	13.09	13.04	13.48	22.36	16.67	15.80	-0.57	-0.22	3.4%	3.2%	4.1%	19.1%	7.4%	3.9%	0.22	15.4%	
Japan	MSCI Japan	17.77	17.63	17.94	16.64	16.84	15.82	11.57	17.48	16.42	23.13	0.48	-0.17	2.2%	6.7%	19.7%	51.2%	15.1%	10.8%	0.47	15.8%	
Asia ex-Japan	MSCI Asia ex-Japan	16.34	16.86	15.80	15.88	15.69	14.38	12.14	14.62	15.60	15.41	0.29	0.28	2.9%	-0.1%	-3.0%	5.4%	2.9%	3.5%	0.18	14.6%	
Emerging Markets	MSCI Emerging Markets	14.73	15.52	14.59	14.76	14.04	12.32	11.36	11.73	14.11	14.04	0.26	0.24	3.0%	1.6%	1.2%	12.4%	1.8%	3.0%	0.13	18.5%	
		NTM P/E																				
US Large Cap	S&P 500 TR	21.83	21.29	22.78	21.12	20.66	17.62	15.65	16.77	19.31	17.13	0.93	1.51	1.4%	5.2%	9.9%	34.3%	15.0%	12.7%	0.87	13.2%	
US Small Cap	Russell 2000 TR	27.04	26.50	31.89	28.41	27.89	24.00	23.90	31.63	36.90	32.37	-0.31	-0.21	1.6%	3.7%	2.7%	20.7%	7.5%	7.1%	0.30	20.8%	
Europe	MSCI Europe Net TR	14.23	14.18	13.99	13.07	12.89	11.96	12.86	15.45	15.49	14.17	-0.49	0.04	3.4%	3.2%	4.1%	19.1%	7.4%	3.9%	0.22	15.4%	
Japan	MSCI Japan	17.20	17.07	16.64	15.88	15.65	15.16	12.40	16.60	16.00	20.02	0.40	-0.17	2.2%	6.7%	19.7%	51.2%	15.1%	10.8%	0.47	15.8%	
Asia ex-Japan	MSCI Asia ex-Japan	13.51	16.09	14.42	14.66	14.62	13.24	12.40	13.43	14.43	14.15	-0.45	-0.29	2.9%	-0.1%	-3.0%	5.4%	2.9%	3.5%	0.18	14.6%	
Emerging Markets	MSCI Emerging Markets	12.31	14.38	13.18	13.52	13.43	11.39	11.38	11.09	13.07	12.82	-0.36	-0.23	3.0%	1.6%	1.2%	12.4%	1.8%	3.0%	0.13	18.5%	
		LTM E/P																				
US Large Cap	S&P 500 TR	3.97%	4.07%	4.28%	4.55%	4.52%	5.48%	5.97%	6.07%	4.91%	5.62%	-1.38	-1.58									
US Small Cap	Russell 2000 TR	3.70%	3.77%	3.14%	3.52%	3.59%	4.17%	4.18%	3.16%	3.40%	3.84%	0.33	-0.09									
Europe	MSCI Europe Net TR	6.71%	6.68%	7.23%	7.60%	7.64%	7.67%	7.42%	4.47%	6.19%	6.74%	0.48	-0.02									
Japan	MSCI Japan	5.63%	5.67%	5.57%	6.01%	5.94%	6.32%	8.64%	5.72%	6.25%	5.61%	-0.68	0.01									
Asia ex-Japan	MSCI Asia ex-Japan	6.12%	5.93%	6.33%	6.30%	6.37%	6.96%	8.23%	6.84%	6.58%	6.69%	-0.49	-0.40									
Emerging Markets	MSCI Emerging Markets	6.79%	6.44%	6.85%	6.77%	7.12%	8.12%	8.80%	8.53%	7.30%	7.35%	-0.47	-0.36									
		E/P Spread Over 10-Yr Treasury Yield														Return Spread over Treasury Return ¹						
US Large Cap	S&P 500 TR	-0.31%	0.00%	0.37%	0.22%	0.42%	1.60%	3.29%	3.04%	2.58%	2.72%	-2.85	-2.21		4.8%	11.5%	34.7%	15.0%	11.7%			
US Small Cap	Russell 2000 TR	-0.58%	-0.30%	-0.78%	-0.81%	-0.52%	0.29%	1.50%	0.13%	1.07%	0.94%	-1.94	-1.03		3.4%	0.04211	21.1%	7.5%	6.2%			
Europe	MSCI Europe Net TR	2.43%	2.60%	3.32%	3.27%	3.53%	3.79%	4.74%	1.44%	3.86%	3.84%	-1.67	-0.69		2.9%	5.7%	19.5%	7.4%	3.0%			
Japan	MSCI Japan	1.35%	1.60%	1.66%	1.68%	1.83%	2.45%	5.96%	2.69%	3.92%	2.70%	-2.20	-0.62		6.4%	21.2%	51.6%	15.1%	9.8%			
Asia ex-Japan	MSCI Asia ex-Japan	1.85%	1.86%	2.42%	1.97%	2.26%	3.08%	5.55%	3.81%	4.25%	3.79%	-2.47	-1.35		-0.4%	-1.5%	5.8%	2.9%	2.6%			
Emerging Markets	MSCI Emerging Markets	2.51%	2.37%	2.94%	2.45%	3.01%	4.24%	6.12%	5.50%	4.97%	4.45%	-2.33	-1.25		1.2%	2.8%	12.8%	1.8%	2.1%			
		E/P Spread Over 10-Yr TIPs																				
US Large Cap	S&P 500 TR	2.05%	2.28%	2.61%	2.46%	2.65%	3.90%	5.00%	5.30%	4.56%	4.82%	-3.22	-2.33									
US Small Cap	Russell 2000 TR	1.78%	1.98%	1.47%	1.43%	1.71%	2.59%	3.21%	2.39%	3.04%	3.04%	-1.51	-0.83									
Europe	MSCI Europe Net TR	4.79%	4.89%	5.57%	5.51%	5.77%	6.10%	6.45%	3.70%	5.84%	5.94%	-1.28	-0.62									
Japan	MSCI Japan	3.71%	3.88%	3.91%	3.92%	4.07%	4.75%	7.67%	4.95%	5.90%	4.80%	-2.15	-0.54									
Asia ex-Japan	MSCI Asia ex-Japan	4.20%	4.14%	4.66%	4.21%	4.50%	5.38%	7.26%	6.07%	6.23%	5.89%	-2.62	-1.32									
Emerging Markets	MSCI Emerging Markets	4.87%	4.65%	5.18%	4.68%	5.25%	6.54%	7.83%	7.76%	6.95%	6.55%	-2.23	-1.18									
		E/P Comparison																				
US Large Cap - US Small Cap	S&P 500 - Russell 2000	0.27%	0.30%	1.14%	1.03%	0.94%	1.31%	1.79%	2.90%	1.52%	1.77%	-1.51	-0.95									
US Large Cap - Europe	S&P 500 - MSCI Europe	-2.74%	-2.61%	-2.95%	-3.05%	-3.12%	-2.19%	-1.45%	1.59%	-1.28%	-1.12%	-1.57	-1.22									
US Large Cap - Japan	S&P 500 - MSCI Japan	-1.66%	-1.60%	-1.29%	-1.46%	-1.41%	-0.84%	-2.67%	0.35%	-1.34%	0.01%	-0.42	-0.88									
US Large Cap - Asia ex-Japan	S&P 500 - MSCI Asia ex-Japan	-2.15%	-1.86%	-2.05%	-1.75%	-1.85%	-1.48%	-2.26%	-0.78%	-1.67%	-1.07%	-1.00	-0.94									
US Large Cap - EM	S&P 500 - MSCI EM	-2.82%	-2.37%	-2.57%	-2.22%	-2.60%	-2.64%	-2.83%	-2.46%	-2.39%	-1.73%	-0.65	-0.78									

Source: Bloomberg, NCREIF, DWS Investment GmbH as of 3/21/2024, for illustrative purposes only.

MULTI-ASSET SUMMARY STATISTICS (2 OF 2)



		3/21/2024	Historical Levels							10-Yr	20-Yr	10-Yr	20-Yr	Total Return					10Y	10Y	
		Current	1 wk	1 mo	3 mo	6 mo	1 Yr	5 Yrs	10 Yrs	Avg.	Avg.	Z-Score	Z-Score	Yield	1 mo	YTD	1 Yr	5 Yrs	10 Yrs	Sharpe R.	Std Dev
Fixed Income		Spreads to Sov.																			
US Treasuries	Bbg. Barclays U.S. Tsy													4.5%	0.3%	-1.6%	-0.4%	0.0%	0.9%	(0.08)	5.5%
US TIPS	Bbg. Barclays US TIPS													4.8%	0.6%	0.7%	3.8%	3.2%	1.9%	0.13	2.4%
10-Year Bunds ²	Bbg. Barc. BUNDESREPUBLIK	0.00	0.00	0.00	(0.03)	(0.04)	(0.01)	0.19	(0.11)	0.10	0.09	-1.41	-1.27	0.0%	0.0%	-0.1%	1.4%	-0.7%	1.7%	0.00	5.5%
US Securitized	Bbg. Barclays U.S. Securi	0.48	0.48	0.51	0.61	0.58	0.56	0.39	0.40	0.39	0.57	0.61	-0.22	5.1%	0.8%	-1.3%	1.6%	-0.2%	1.0%	(0.07)	4.5%
US IG Credit	Bbg. Barclays U.S. Corp.	0.90	0.95	0.96	1.04	1.18	1.30	1.53	1.14	1.24	1.49	-1.18	-0.70	5.4%	0.5%	-1.2%	5.0%	1.6%	2.5%	0.18	6.8%
US HY Credit	Bbg. Barclays U.S. HY	3.00	3.14	3.44	3.70	3.72	4.69	5.26	3.82	4.24	4.93	-1.14	-0.82	7.7%	1.2%	1.2%	13.3%	4.2%	4.3%	0.42	7.3%
Non-US IG Credit & Sovereigns	Bbg. Barclays Global Agg. Ex-L	0.38	0.39	0.43	0.46	0.47	0.51	0.57	0.53	0.46	0.55	-1.04	-0.79	3.1%	0.6%	0.0%	5.0%	1.1%	2.5%	0.21	4.6%
EM Hard Currency	JPM EMBI Global														1.8%	0.4%	9.9%	0.8%	2.8%	0.15	8.1%
Alternatives																					
Commodities	Bloomberg Commodity Index														4.0%	1.8%	2.1%	6.0%	-1.5%	-0.05	19.3%
Infrastructure (EV/EBITDA)	DJ Brookfield Global Infra	10.50	10.54	11.15	10.97	10.61	11.38	11.38	11.38	11.97	11.91	-2.20	-2.08	4.4%	2.4%	-1.7%	2.9%	3.6%	4.6%	0.35	11.0%
US REITs ³	MSCI US REIT Index	17.97	17.97	17.97	19.58	19.63	17.62	21.64	19.19	21.89		-1.63		4.2%	1.3%	-2.1%	12.2%	4.3%	6.4%	0.36	16.6%
REITs	S&P Dev. REIT USD TR													4.4%	1.3%	-3.0%	9.3%	2.3%	4.9%	0.29	15.3%
Non-Listed Real Estate	NCREIF ODCE (Yield)	4.28%			4.22%	4.19%	4.26%	5.07%	5.65%	9.11%	8.41%	-1.13	-1.23	4.3%	7.0%	0.0%	7.0%	9.9%	9.1%	0.69	11.5%
Convertibles	BbgBarc US Convertibles	2.0%	2.0%	2.0%	1.9%	1.7%	2.7%	6.2%	3.7%	4.1%	4.0%	-1.05	-1.18	2.0%	1.2%	0.5%	13.3%	9.3%	8.1%	0.24	18.3%
Loans (Yield)	S&P/LSTA Lev. Loan	9.3%	9.3%	9.6%	9.7%	9.5%	9.1%	7.0%	5.24	5.8%	5.8%	2.01	2.17	9.3%	1.1%	2.3%	13.6%	5.4%	4.5%	0.56	4.8%
U.S. Economic Indicators																					
Headline CPI		3.20%	3.20%	3.10%	3.10%	3.70%	7.10%	1.90%	1.50%	2.70%	2.58%										
Core CPI		3.80%	3.80%	3.90%	4.00%	4.30%	6.00%	2.20%	1.70%	2.70%	2.39%										
Core PCE		2.85%	2.85%	2.85%	3.19%	3.73%	5.09%	2.04%	1.55%	2.30%	2.09%										
GDP		3.10%	3.10%	3.10%	3.10%	3.10%	3.20%	3.00%	2.30%	2.30%	2.09%										
Unemployment Rate		3.90%	3.90%	3.70%	3.70%	3.80%	3.60%	3.90%	6.70%	4.70%	5.88%										
Change in Nonfarm Payrolls		275.0	275.0	2.3	182.0	210.0	258.0	182.0	55.0	167.4	112.2										
Fixed Income and Rates																					
3-month LIBOR		5.59%	5.58%	5.58%	5.63%	5.66%	4.77%	2.81%	0.25%	1.67%	1.86%										
3-month T-Bill		5.28%	5.27%	5.23%	5.30%	5.33%	4.31%	2.37%	0.05%	1.34%	1.43%										
US 10-Year Treasury		4.27%	4.08%	3.91%	4.33%	4.11%	3.88%	2.69%	3.03%	2.33%	2.90%										
Yield Curve (10 YR - 2 YR in bps)		-36	-40	(30)	(35)	(76)	(55)	20	265												
Yield Curve (10 YR - 3 mo in bps)		-100	-120	-132	-97	-122	-43	31	298												
Yield Curve (10 YR - Fed Funds in bps)		(123)	(143)	(159)	(117)	(139)	(63)	18	278												
30-Year Fixed Rate Mortgage		7.16%	7.03%	6.97%	7.55%	7.53%	4.77%	4.97%	4.80%	4.54%	5.02%										
Commodities Indicators																					
Baltic Dry Index		2,284	2,345	1,398	2,937	1,086	1,515	1,271	2,277	1,372	2,333										
Dow Jones Transport Index		27,382	26,923	26,486	25,585	26,699	22,488	14,544	10,944	17,741	11,959										
Gold 200-Day Moving Average		1,982	2,179	1,965	1,945	1,913	1,781	1,251	1,343	1,504	1,252	4.77	3.74		7.7%	5.7%	12.4%	66.6%	63.4%	0.31	11.8%
Oil 200-Day Moving Average		78	78	78	78	76	95	65	99	63	70	2.57	1.55		4.0%	13.1%	16.9%	35.1%	-18.5%	0.09	48.1%
Currencies																					
Euro (USD/EUR)		1.09	1.09	1.08	1.09	1.08	1.07	1.15	1.37	1.14	1.24										
Sterling (USD/GBP)		1.27	1.29	1.27	1.26	1.27	1.21	1.28	1.66	1.35	1.53										
Yen (JPY/USD)		151.71	147.06	146.92	148.20	145.54	131.12	109.69	105.31	116.34	107.86										
Australian Dollar (USD/AUD)		0.66	0.66	0.66	0.66	0.65	0.68	0.70	0.89	0.74	0.80										
Canadian Dollar (CAD/USD)		1.35	1.35	1.34	1.36	1.35	1.36	1.36	1.06	1.29	1.19										
Swiss Franc (CHF/USD)		0.90	0.88	0.86	0.88	0.88	0.92	0.98	0.89	0.95	1.02										
Brazilian Real (BRL/USD)		4.98	4.98	4.96	4.92	4.96	3.87			4.11	3.09										

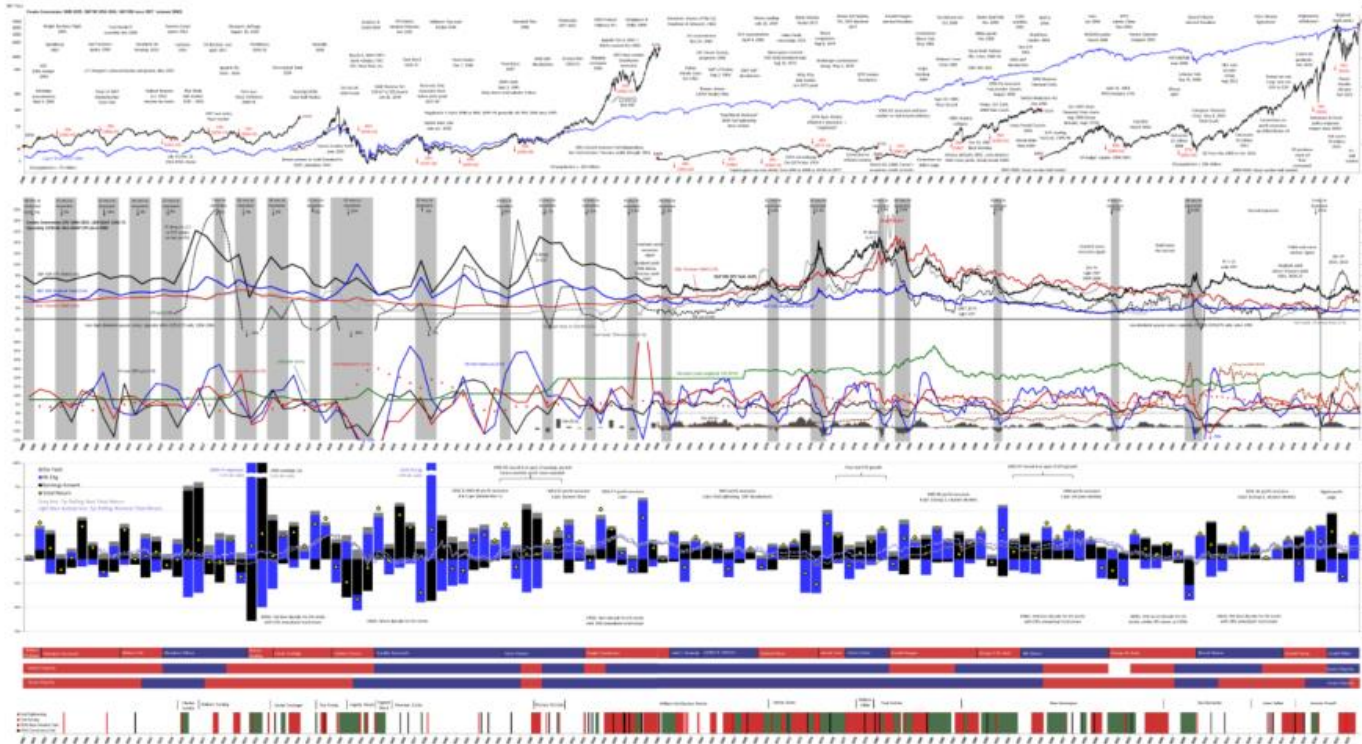
Source: Bloomberg, NCREIF, DWS Investment Summary GmbH as of 3/21/2024, for illustrative purposes only.

20 INVESTMENT STRATEGY PRINCIPLES



1. The value of a stock is the present value of all its future free cash flows. Do not rely on any valuation methodology that does not reconcile with this concept.
2. S&P is not U.S. GDP. Long-term S&P EPS growth \neq U.S. GDP growth. The S&P 500 differs regionally and by sector; it's global, digital and increasingly medical. EPS growth is a function of retained EPS and incremental returns.
3. Perception of normalized EPS can drive short-term S&P 500 performance, but actual EPS through the cycle will drive most S&P 500 long-term performance. S&P 500 margins exhibit cyclicity, but not secular mean reversion. Assess normal EPS with rigorous fundamental analysis, be leery of simple shortcuts.
4. True EPS is usually between generally accepted accounting principles (GAAP) and non-GAAP measures. True earnings will equal FCF when no investment is made for growth. At steady-state, $\text{EPS} = \text{FCF}/\text{sh.} = \text{DPS}$. Prefer EPS yield over FCF yield, unless a difference other than investment recurs.
5. Equities are real assets. Long-term growth will equal inflation when $\text{EPS} = \text{DPS}$ (dividend per share). A fair PE on normalized steady-state $\text{EPS} = 1/\text{a fair long-term real stock return}$. If expected long-term real EPS growth + dividend yield = fair real cost of equity (CoE), then a steady-state exists. EPS & DPS yields are real; compare to real interest rates.
6. A secular decline in yields is good for stocks, but a cyclical decline is bad. It can take hindsight to differentiate. Fed influence is secular like, if ahead-of-the-curve.
7. Risk is an outcome different than expected. Uncertainty (vol) is a very uncertain variable. Mean reversion is a fair assumption.
8. Only economic profit growth justifies a PE greater than $1/\text{real CoE}$. Consider long-term growth potential along with the investments required to support it.
9. GDP growth affects the fair PE only to the extent that it affects the ability of a company to earn returns above its cost of capital. Slow GDP growth often best.
10. Value investors seek stocks with normalized earnings greater than market expectations. Growth investors seek stocks with economic profit growth potential greater than market expectations. No rule against seeking both.
11. The market has predicted 9 of the last 5 recessions. Avoid panic selling. It usually takes a recession to stop a bull market (exceptions: 1966, 1987, 1998).
12. Natural disasters are less market damaging than manmade disasters. U.S. military strike preparations can pressure stocks, but typically rally on military action.
13. Investor panic subsides when policy setter panic begins. Respect the Fed's firepower, but its arsenal will be exhausted if inflation (Unit labor costs, or ULCs) is a problem.
14. Flows follow returns, not vice versa, so stay return focused and don't follow.
15. Lack of patience is the market's most reliable inefficiency.
16. Seek truth with scientific method: Theory first, then observation and experience.
17. Trends will continue until they don't. Valuation doesn't matter until it does.
18. Confront market/sector PE extremes vs. historical averages, but respect industry/stock PE extremes.
19. The market is an imperfect price mechanism, but superior to all others. Those who improve its function earn gains slowly, those who don't can lose suddenly.
20. Diversification comes from the correlation of stocks, not the number of stocks. Don't substitute diversification for diligence.

U.S. stock market since 1900



Contact your DWS representative for wall poster size prints.

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GLOSSARY



Technically, a **bear market** refers to a situation where the index's value falls at least 20% from a recent high.

The **CBOE Volatility Index (VIX)** is a trademarked ticker symbol for the Chicago Board Options Exchange Market Volatility Index. It is a popular measure of the volatility of the S&P 500 as implied in the short term option prices on the index.

The **consumer price index (CPI)** measures the price inflation as a percentage, year over year, of a basket of products and services that is based on the typical consumption of a private household.

Correlation is a measure of how closely two variables move together over time.

Cost of equity (CoE) is the return (often expressed as a rate of return) a firm theoretically pays to its equity investors, to compensate for the risk they undertake by investing their capital.

Dividend per share (DPS) is the sum of declared dividends issued by a company for every ordinary share outstanding.

Earnings per share (EPS) is calculated as a company's net income minus dividends of preferred stock, all divided by the total number of shares outstanding.

Equity risk premium is an excess return earned by an investor when they invest in the stock market over a risk-free rate. This return compensates investors for taking on the higher risk of equity investing.

Fed Funds rate refers to the target interest rate range set by the Federal Open Market Committee (FOMC). This target is the rate at which commercial banks borrow and lend their excess reserves to each other overnight.

Generally accepted accounting principles, or GAAP, are a set of rules that encompass the details, complexities, and legalities of business and corporate accounting.

The **gross domestic product (GDP)** is the monetary value of all the finished goods and services produced within a country's borders in a specific time period.

High-yield bonds are issued by below-investment-grade-rated issuers and usually offer a relatively high yield.

Investment grade (IG) refers to a credit rating from a rating agency that indicates that a bond has a relatively low risk of default.

MOVE index is the BofA Merrill Lynch option volatility estimate index.

Municipal bonds (Munis) are debt securities issued by a state, municipality or country.

The **price-to-earnings (P/E) ratio** compares a company's current share price to its earnings per share.

A **recession** is, technically, when an economy contracts for two successive quarters but is often used in a looser way to indicate declining output.

The **Return on equity (ROE)** is the amount of net income returned as a percentage of shareholders' equity.

The **S&P 500** is an index that includes 500 leading U.S. companies capturing approximately 80% coverage of available U.S. market capitalization.

A **soft landing** is when an economy's rate of growth slows in a controlled fashion without major disruptive effects on employment, external balances etc.

The **TED spread** is the difference between the three-month Treasury bill and the three-month LIBOR based in U.S. dollars. To put it another way, the TED spread is the difference between the interest rate on short-term U.S. government debt and the interest rate on interbank loans.

Treasury Inflation-Protected Securities (TIPS) are a form of U.S. Treasury bonds designed to protect investors against inflation. These bonds are indexed to inflation and pay investors a fixed interest rate as the bond's par value adjusts with the inflation rate.

The **U.S. Federal Reserve**, often referred to as "**the Fed**," is the central bank of the United States.

Unit labor costs (ULC) measure the average cost of labor per unit of output.

Volatility is the degree of variation of a trading-price series over time. It can be used as a measure of an asset's risk.

West Texas Intermediate (WTI) is a grade of crude oil used as a benchmark in oil pricing.

A **yield curve** shows the annualized yields of fixed-income securities across different contract periods as a curve. When it is inverted, bonds with longer maturities have lower yields than those with shorter maturities.

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