

MARKET ESSENTIALS

AMERICAS CIO VIEW, JULY-AUGUST 2024

David Bianco
Americas Chief Investment Officer
david.bianco@dws.com

Ju Wang
Equity Portfolio Manager
ju.wang@dws.com

DWS GLOBAL MACRO FORECASTS



GDP Growth Rate

% year-on-year average

	2023	2024F	2025F	Consensus 2024 (BBG)
World	3.2 (3.1)	3.1 (3.0)	3.2 (3.1)	3.0
U.S.	2.5	2.0 (1.8)	1.6	2.4 (2.1)
EUZ	0.5	0.7	1.1	0.7 (0.5)
GER	0.0 (-0.1)	0.4	1.2	0.2
UK	0.1	0.7 (0.4)	1.3 (1.3)	0.5 (0.4)
Japan	1.9	0.3 (0.5)	1.4 (1.1)	0.6 (0.7)
China	5.2	5.0 (4.8)	4.4	4.9 (4.6)

Inflation (CPI)

% year-on-year average

	2023	2024F	2025F	Consensus 2024 (BBG)
World				4.1
U.S.	4.1	3.0 (2.8)	2.3	3.2 (2.7)
EUZ	5.5	2.5	2.3	2.4 (2.3)
GER	6.1	2.6	2.5	2.4 (2.5)
UK	7.3	2.5 (2.5)	2.3 (2.4)	2.5 (2.6)
Japan	3.2	2.5 (2.3)	2.0 (1.7)	2.4 (2.2)
China	0.2	0.6 (0.8)	1.7	0.7 (1.0)

Unemployment Rate (Annual average)

%

	2023	2024F	2025F	Consensus 2024 (BBG)
U.S.	3.6	4.0	4.1	3.9
EUZ	6.6	6.6 (6.7)	6.5	6.6 (6.7)
GER	5.7	5.9	5.7	5.9
UK	4.0	4.4 (4.4)	4.6 (4.6)	4.3 (4.5)
Japan	2.6	2.4 (2.4)	2.3 (2.4)	2.5
China*	5.2	5.0	5.0	5.1

Fiscal Balance

% of GDP

	2023	2024F	2025F	Consensus 2024 (BBG)
U.S.	-6.5	-6.0	-5.9	-5.8
EUZ	-3.7	-2.8	-2.7	2.9 (-3.0)
GER	-2.1	-1.5 (-1.2)	-1.0 (-0.7)	-1.6
UK	-4.2	-4.0 (-4.5)	-3.5 (3.5)	-3.5 (-2.4)
Japan	-5.3	-5.0 (-4.5)	-3.0 (3.0)	-4.1
China**	-13.6	-13.3	-13.0	-4.9

Source: DWS Macro Research. (*) For the U.S., GDP growth Q4/Q4 % is 0.9% in 2024 and 2.1% 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 June 2024.

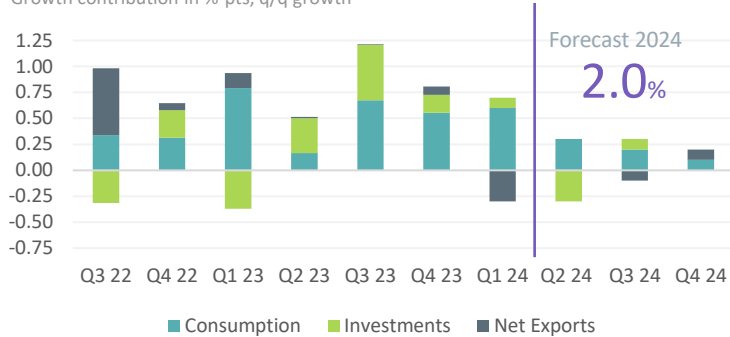
Note: Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.

For institutional use and registered representative use only. Not for public viewing or distribution.

Economy: Receding Inflation & moderate growth ahead

Growth – U.S. 2023 GDP better than anticipated

Growth contribution in %-pts, q/q growth



Forecast 2025

1.6%

GDP growth

2.3%

Inflation



Forecast 2025

1.1%

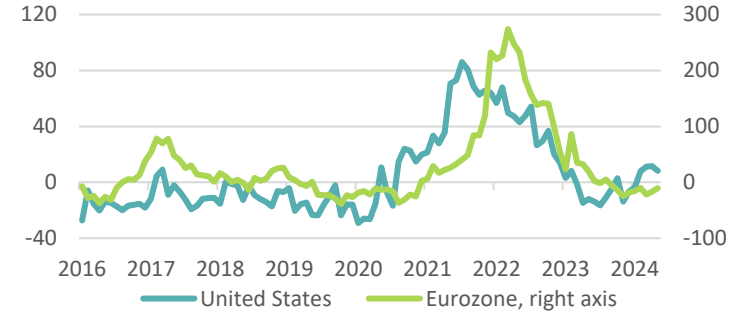
GDP growth

2.3%

Inflation

Inflation – EUZ as expected, U.S. disinflation stalls

Inflation Surprise Index



- U.S. base case: **Smooth slowdown in '24**, some acceleration in '25
- U.S.: expansionary fiscal policy played decisive role in strong growth
- EZ base case: **avoid recession** – single countries might experience one
- Rising wages + falling inflation → **supports private consumption**

- Surprise indices measure actual data against consensus estimates
- After years of upside surprises, inflation rates in line with expectations
- However, lately U.S. data is surprising to the upside again
- Uneven decline in inflation rates: central bank policy divergence

Monetary policy is working, inflation is coming down while growth is slowing down

Source: Bloomberg Finance L.P.; DWS Investment GmbH; as of: July 2024. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect

DWS STRATEGIC CIO FORECASTS



Overview of Strategic 12-Month Forecasts

Fixed Income		Strategic Forecast	Current level	12m forwards	Strategic Forecast	Forecast change	Expected 12m Total Return	10yr Total Return (p.a.) ⁴
		Mar-24	13-Jun-24	13-Jun-24	Jun-24			
Market Index		Target Mar-25			Target Jun-25			
Forecasts - US								
UST 2yr	US 2y yield	3.95%	4.7%	4.24%	4.15%	↗	4.97%	4.04%
UST 10yr	US 10y yield	4.20%	4.28%	4.27%	4.25%	↗	5.02%	4.53%
UST 30yr	US 30y yield	4.45%	4.45%	4.43%	4.55%	↘	2.98%	4.64%
Municipals	Taxable Muni Index OAS	80	67		75	↘	5.26%	3.56%
US IG Corp	BarCap US Credit	85 bp	83 bp		80 bp	↘	5.59%	4.97%
US HY ¹	Barclays US HY	400 bp	302 bp		400 bp	→	4.01%	5.75%
Securitized / MBS	MBS Index OAS	120 bp	140 bp		120 bp	→	5.52%	4.49%
Forecasts - Europe								
Schatz 2yr	GER 2y yield	2.50%	2.94%	2.46%	2.50%	→	3.02%	2.32%
Bund 10yr	GER 10y yield	2.60%	2.52%	2.5%	2.60%	→	2.65%	2.04%
Bund 30yr	GER 30y yield	2.80%	2.68%	2.66%	2.80%	→	0.46%	2.92%
Gilt 10yr	UK 10y yield	4.20%	4.15%	4.17%	4.20%	→	4.57%	4.1%
EUR IG Corp	ICE BofA Bond Index	95 bp	107 bp		95 bp	→	4.92%	3.33%
EUR HY ¹	ML EUR Non-Fin HY Constr. Index	400 bp	340 bp		400 bp	→	3.98%	5.89%
Securitized / Covered	iBoxx Covered	55 bp	62 bp		50 bp	↘	4.50%	2.92%
Italy 10yr ²	GTITL 10Y Corp - GTDEM 10Y Corp	180 bp	144 bp	157 bp	180 bp	→	1.43%	n/a
Forecasts - AsiaPac								
JGB 2yr	JPN 2y yield	0.25%	0.33%	0.47%	0.70%	↗	0.13%	0.41%
JGB 10yr	JPN 10y yield	0.90%	0.98%	1.16%	1.40%	↗	-1.48%	0.29%
Asia Credit	JACI Index	210 bp	226 bp		200 bp	↘	9.19%	-
Forecasts - Global								
EUR vs USD	EUR/USD	110	108		1.08	↘	-1.52%	-
USD vs JPY	USD/JPY	145	157		150	↗	0.24%	-
EUR vs JPY	EUR/JPY	160	170		162	↗	-1.29%	-
EUR vs GBP	EUR/GBP	0.86	0.84		0.85	↘	-0.87%	-
GBP vs USD	GBP/USD	1.28	1.28		1.27	↘	-0.69%	-
USD vs CNY	USD/CNY	7.35	7.3		7.35	→	3.97%	-
EM Sovereign ³	EMBIG Div.	390 bp	386 bp		390 bp	→	7.97%	7.8%

Benchmark Rates		Strategic Forecast	Current Level	Strategic Forecast	Forecast change	Expected 12m Total Return	10yr Total Return (p.a.) ⁴
		Mar-24	13-Jun-24	Jun-24			
Market Index		Target Mar-25		Target Jun-25			
Forecasts - Benchmark rates							
United States	Federal funds rate	4.50-4.75	5.25-5.50	4.50-4.75	↔		
Eurozone	Deposit rate	3.00	3.75	3.00	↔		
United Kingdom	Repo rate	4.25	5.25	4.25	↔		
Japan	Policy Rate	0.25	0.10	0.50	↗		
China	1year lending rate	3.30	3.45	3.10	↘		
Equities							
Forecasts - Equity							
US	S&P 500	5,300	5,432	5,600	↗	4.59%	6.20%
Germany	DAX	18,700	18,382	19,600	↗	6.63%	5.17%
Eurozone	Eurostoxx 50	5,000	4,967	5,100	↗	5.98%	4.86%
Europe	Stoxx 600	515	518	530	↗	5.71%	6.09%
Japan	MSCI Japan	1,740	1,705	1,760	↗	5.50%	3.37%
SMI	SMI	114,500	12,009	11,900	↗	1.45%	6.93%
UK	FTSE 100	7,600	8,169	8,200	↗	4.18%	7.78%
Emerging Markets	MSCI EM	1,050	1,069	1,100	↗	5.84%	7.82%
Asia ex Japan	MSCI AC Asia ex Japan	675	688	710	↗	5.84%	8.07%
Australia	MSCI Australia	1,500	1,549	1,500	→	0.86%	7.76%
Alternatives							
Forecasts - Commodities							
Gold - Spot	Gold Spot	2,400	2,312	2,600	↗	-	145%
Gold - Futures	Gold 12m Futures	-	2,422	-	-	7.36%	n/a
Oil - Spot ²	Brent Spot	84	83	80	↘	-	7.43%
Oil - Futures ²	Brent 12m Futures	-	79	-	-	1.59%	-
Carbon	Carbon 12m Futures	80	70	80	→	14.71%	-
Real Estate & Infrastructure							
Listed US RE (LC)						7.00%	5.28%
Non-Listed US RE (LC)						5.00%	3.94%
Listed Global RE (LC)						6.50%	4.80%
Non-Listed European RE (LC)						7.00%	4.45%
Non-Listed APAC RE (LC)						4.50%	5.63%
Non-Listed Global RE (LC)						5.70%	4.50%
Listed Infrastructure (LC)						6.50%	7.62%
Non-Listed Infrastructure (LC)						11.30%	12.66%

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 1%, 50% recovery; ²Oil-Futures used to calculate expected TR; forecasts are made on Brent-Spot // ³Total return. Excess return for Italy 10yr is -2.38% // ⁴LTCMA forecasts for Gold and Oil based on futures

Note: Forecasts are not a reliable indicator of future returns. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.

DWS MARCH 2025 EQUITY INDEX TARGETS



Index	3M relative View	Current Level	Previous Target CIO Day Nov	Target Jun 25	Chg in Target	Expected Total Return Jun 25	----- thereof -----			Assumptions			
							14/06/2024	EPS growth NTM*	LTM multiple impact	Dividend Yield	EPS NTM* (e)	DWS vs. Cons.	Target LTM P/E in Jun 25
S&P 500		5,434	5,300	5,600	6%	4.5%	USD	10.8%	-7%	1.5%	261	0.0%	21.4x
Stoxx 600		514	515	530	3%	6.4%	EUR	5.3%	-2%	3.3%	37.6	-2.8%	14.1x
EuroStoxx 50		4,884	5,000	5,100	2%	7.8%	EUR	4.3%	0%	3.3%	376	-2.2%	13.6x
DAX40		18,146	18,700	19,600	5%	8.0%	EUR	7.6%	-3%	3.3%	1515	0.0%	12.5x
SMI		12,063	11,450	11,900	4%	1.6%	CHF	9.6%	-10%	3.0%	693	-3.9%	17.2x
FTSE 100		8,155	7,600	8,200	8%	4.4%	GBP	0.9%	0%	3.8%		-3.5%	11.9x
MSCI EM		1,077	1,050	1,100	5%	5.1%	USD	12.8%	-9%	2.9%	84.1	-5.1%	13.1x
MSCI AC Asia xJ		694	675	710	5%	5.0%	USD	14.6%	-11%	2.6%	50.6	-3.6%	14.0x
MSCI Japan		1,696	1,740	1,760	1%	6.0%	YEN	9.7%	-5%	2.3%	111.8	0.8%	15.7x
MSCI Australia		1,552	1,500	1,500	0%	0.6%	AUD	-0.2%	-4%	4.0%	93.0	-0.1%	16.1x

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:** US 10y yields below 5.0%; ECB first cuts Q2 '24, FED follows in Q4 '24 "because they can, not because they have to"
- Earnings growth:** EPS growth 6% MSCI AC World; \$5 EPS lift to S&P 500 in 2024 and 2025 vs. last CIO Day due to better M7 earning;
- US valuation:** unchanged trailing PE in 12 months to 21.5x for S&P 500
- European valuation:** solid pan-Europe earnings growth similar to S&P 493 should result in stable PE discount to S&P 500
- Japan:** international investors no longer switching from Chinese equities to Japan
- EM:** double digit EPS growth driven by Asian semis (Taiwan, Korea),

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

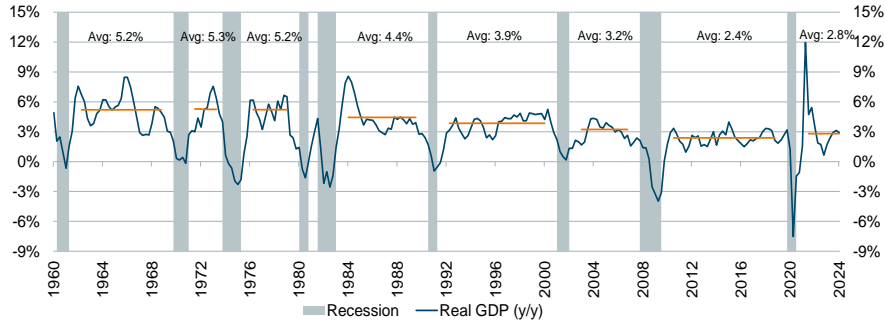
Source: DWS Investment GmbH as of July 2024, for illustrative purposes only. This material is for informational purposes only and sets forth our views as of this date. Forecasts are not a reliable indicator of future returns. Forecasts are based on assumptions, estimates, views and hypothetical models 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.

For institutional use and registered representative use only. Not for public viewing or distribution.

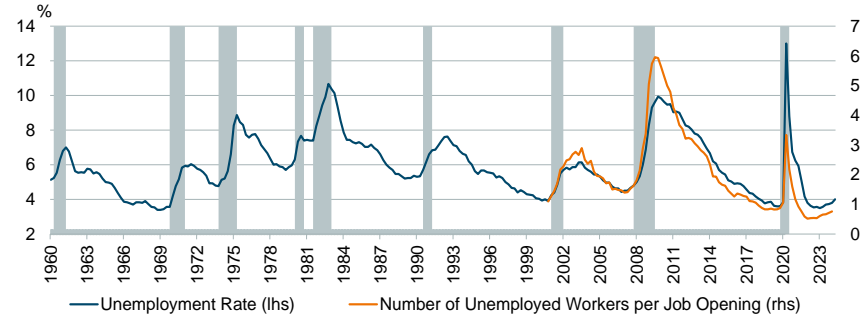
U.S. ECONOMICS



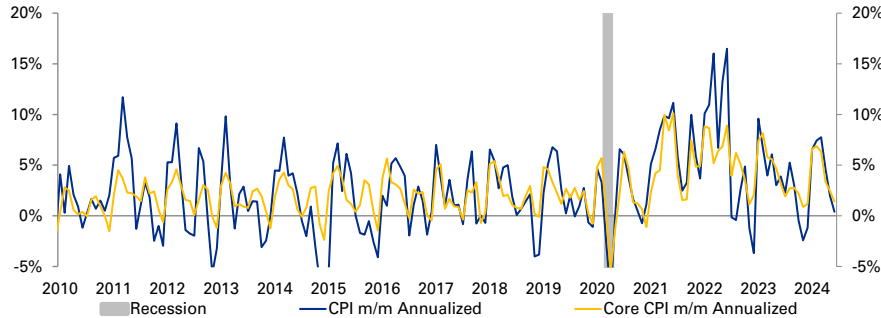
REAL GROSS DOMESTIC PRODUCT (GDP) GROWTH



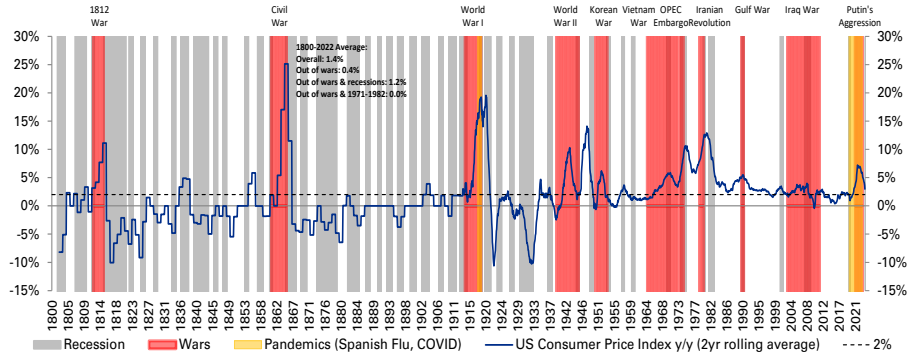
UNEMPLOYMENT RATE



CONSUMER PRICE INDEX (CPI)



LONG HISTORY OF INFLATION



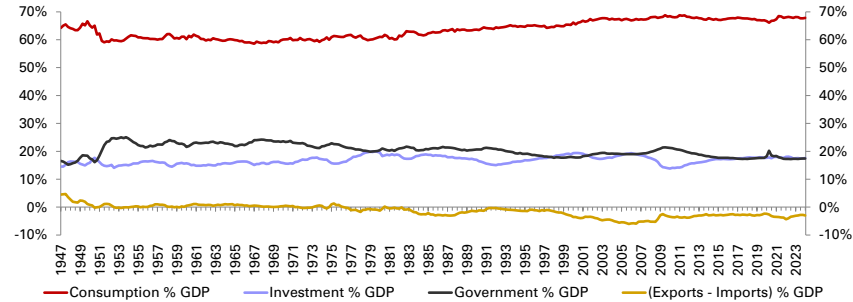
Source: Haver, DWS Investment GmbH as of July 2024, for illustrative purposes only.

For institutional use and registered representative use only. Not for public viewing or distribution.

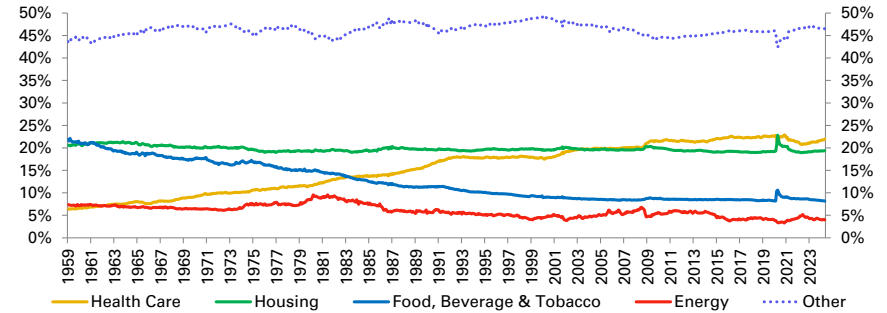
U.S. GDP COMPOSITION



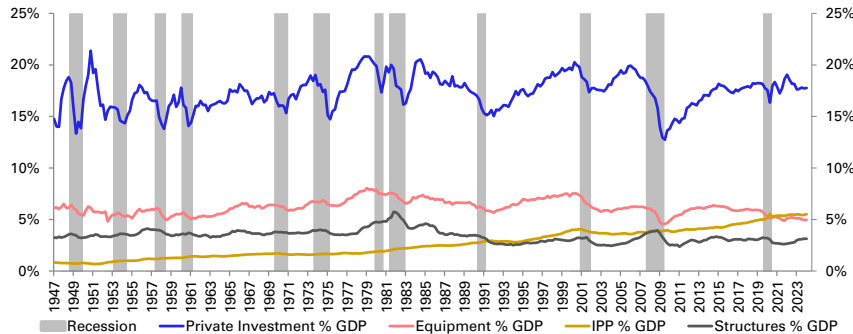
U.S. GDP COMPOSITION: CONSUMPTION + INVESTMENT + GOVERNMENT + (EXPORTS - IMPORTS)



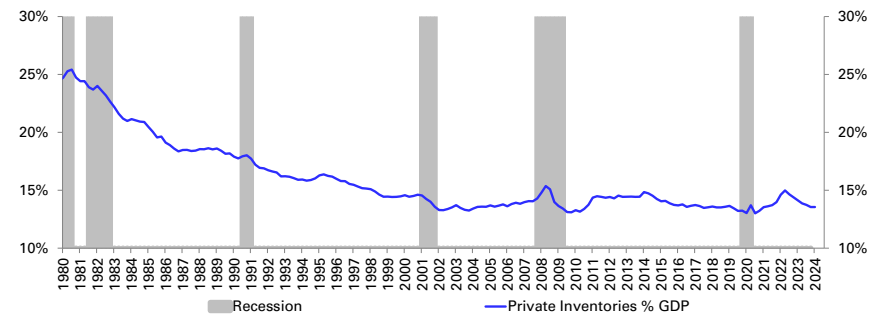
U.S. CONSUMPTION: MORE SERVICES & HEALTHCARE



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



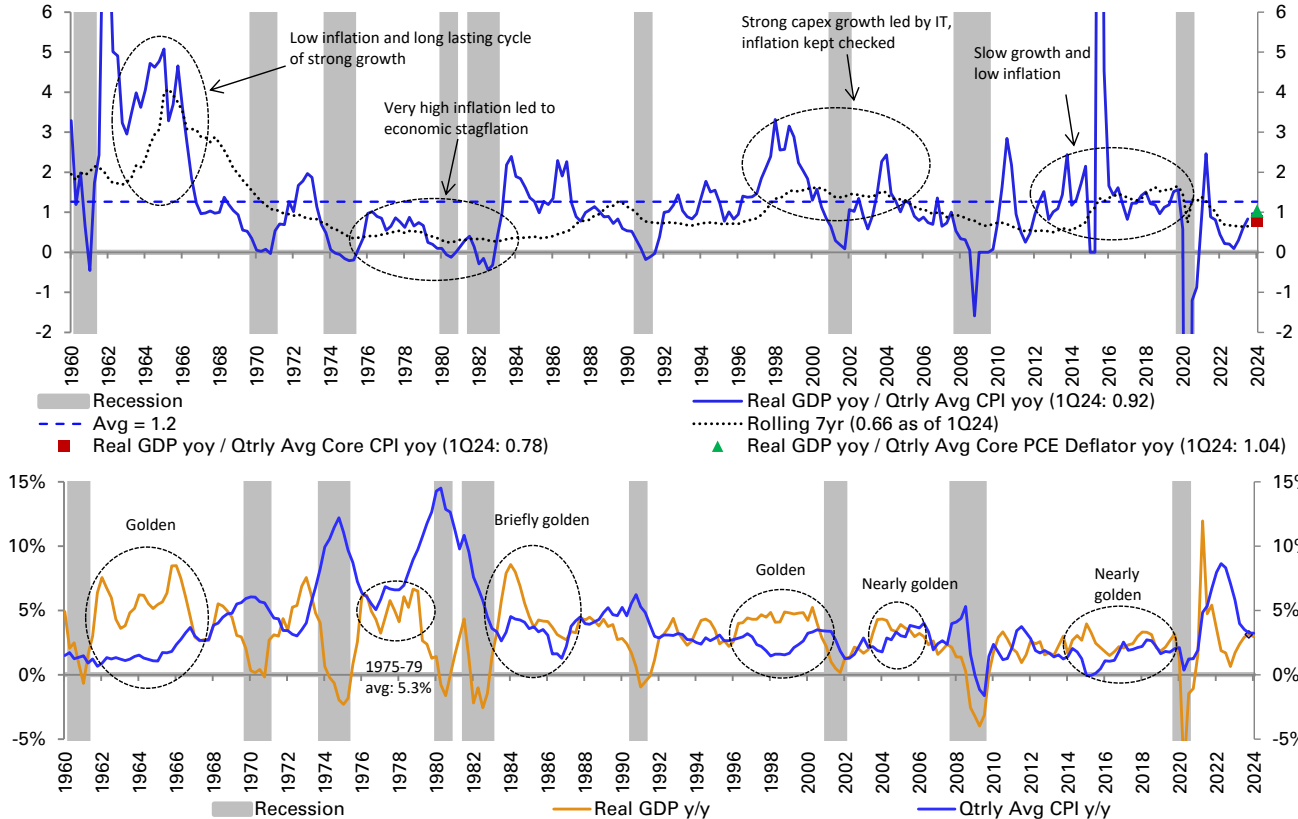
INVENTORY AS % OF U.S. GDP



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

For institutional use and registered representative use only. Not for public viewing or distribution.

THE GOLDEN RATIO: REAL GDP GROWTH / CPI



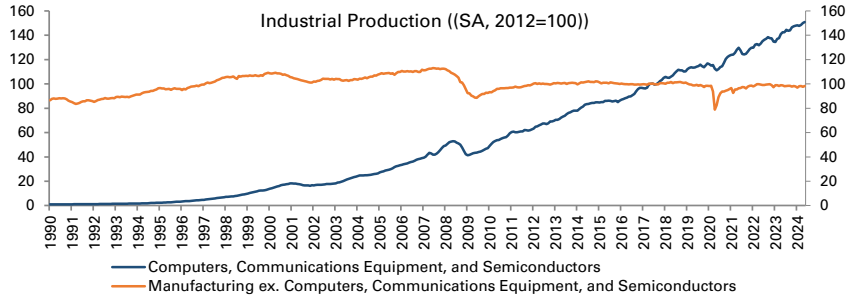
Source: Haver, DWS Investment GmbH as of 1Q2024, for illustrative purposes only.

For institutional use and registered representative use only. Not for public viewing or distribution.

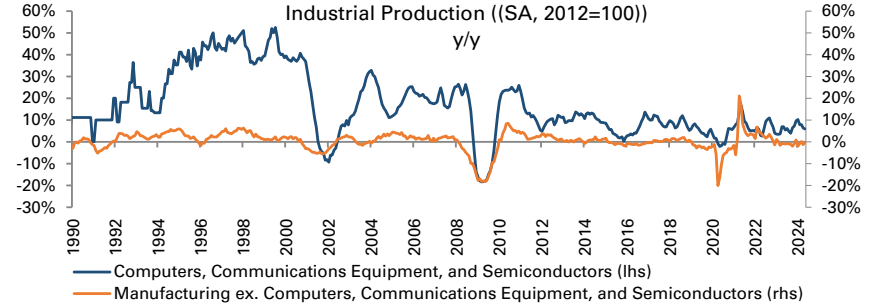
PRODUCTIVITY AND CAPACITY UTILIZATION



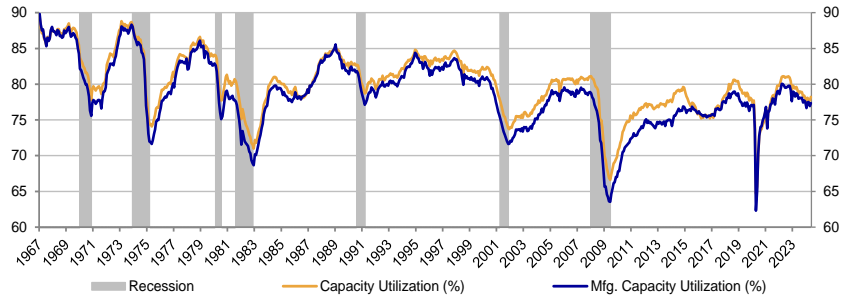
INDUSTRIAL PRODUCTION: MANUFACTURING



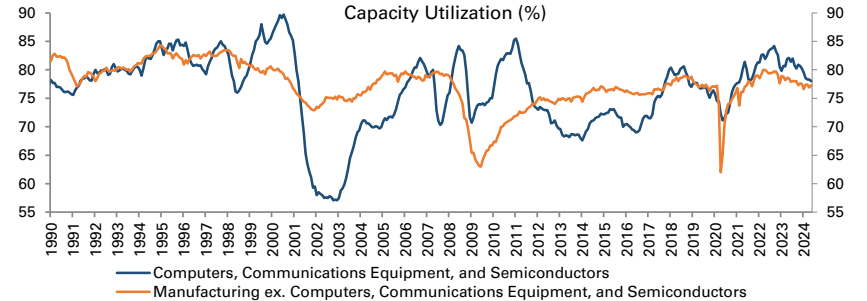
INDUSTRIAL PRODUCTION Y/Y: MANUFACTURING



U.S. CAPACITY UTILIZATION



U.S. MANUFACTURING CAPACITY UTILIZATION



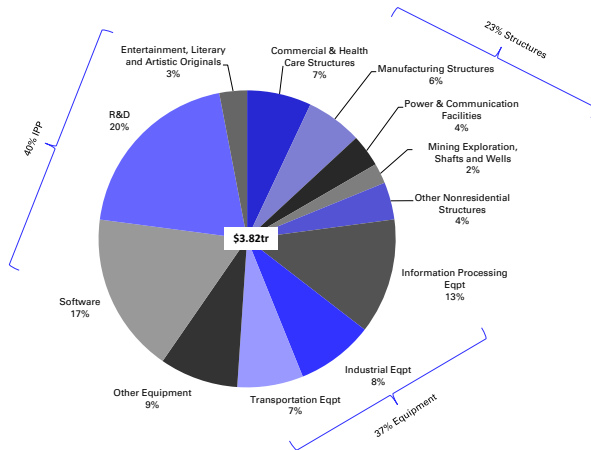
Source: Haver, DWS Investment GmbH as of July 2024, for illustrative purposes only.

For institutional use and registered representative use only. Not for public viewing or distribution.

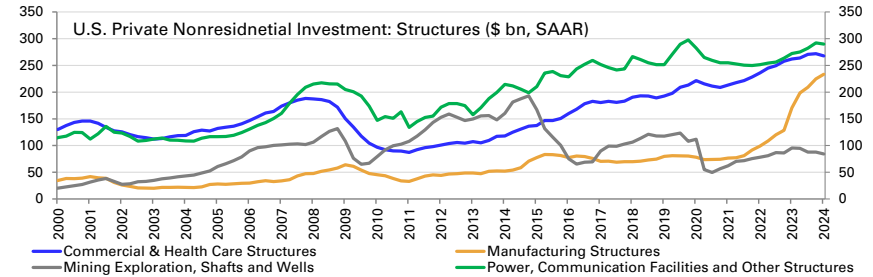
U.S. PRIVATE NONRESIDENTIAL INVESTMENT



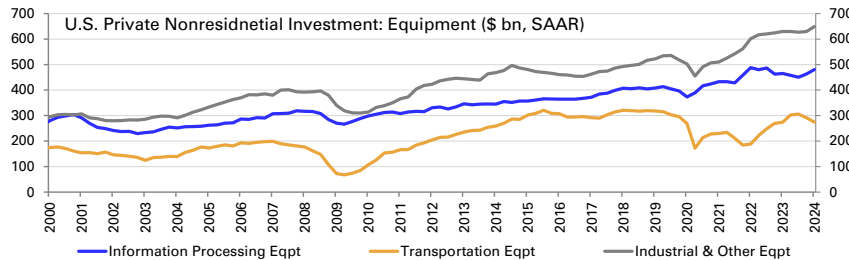
U.S. PRIVATE NON-RES FIXED INVESTMENT BY CATEGORY



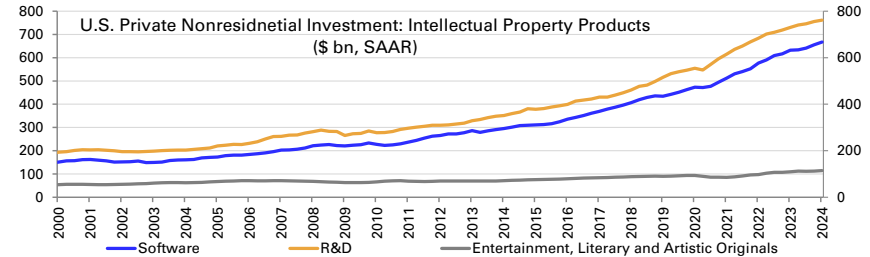
STRUCTURES



EQUIPMENT



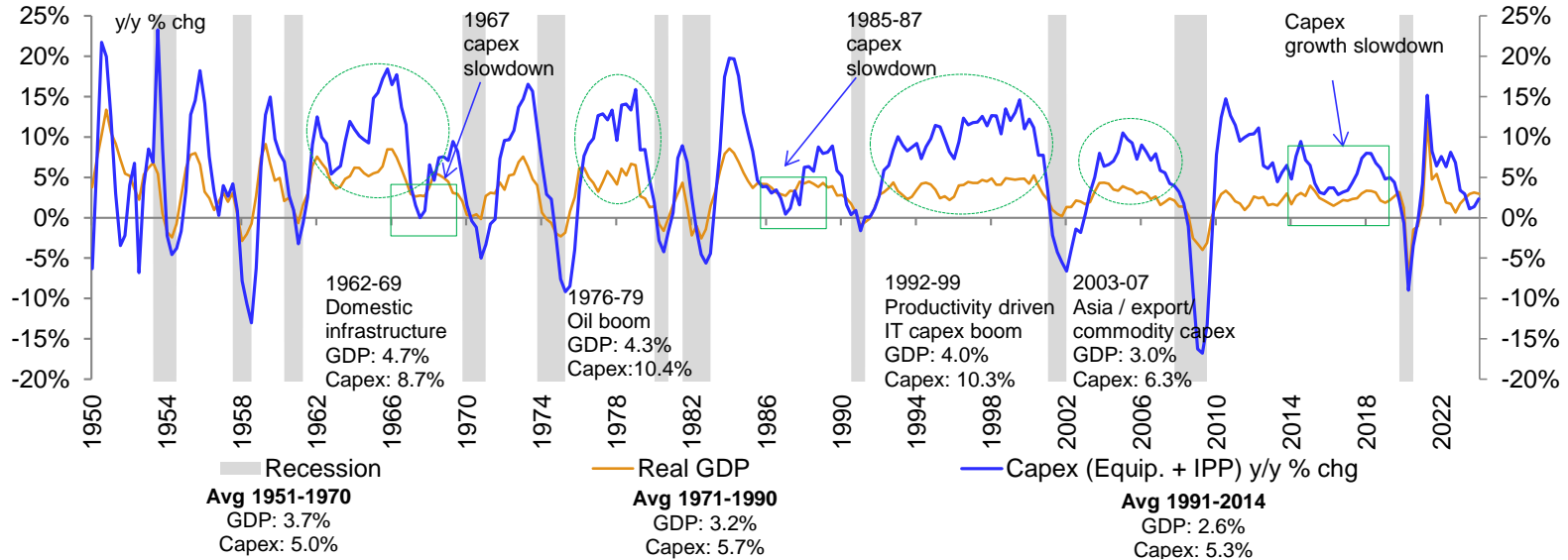
INTELLECTUAL PROPERTY PRODUCTS



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

For institutional use and registered representative use only. Not for public viewing or distribution.

U.S. EQUIP, SOFTWARE AND R&D CAPEX VS. GDP



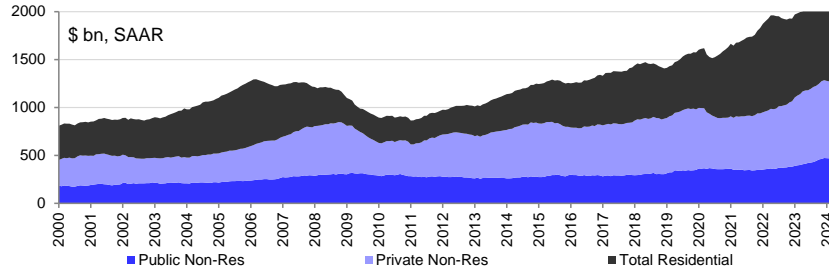
Source: Haver, DWS Investment GmbH as of 1Q2024, for illustrative purposes only.

For institutional use and registered representative use only. Not for public viewing or distribution.

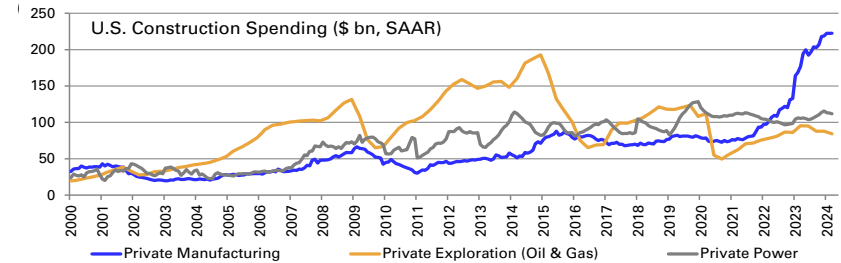
U.S. CONSTRUCTION SPENDING



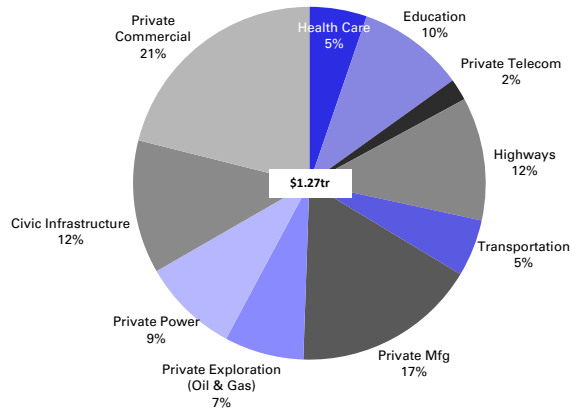
U.S. CONSTRUCTION SPENDING



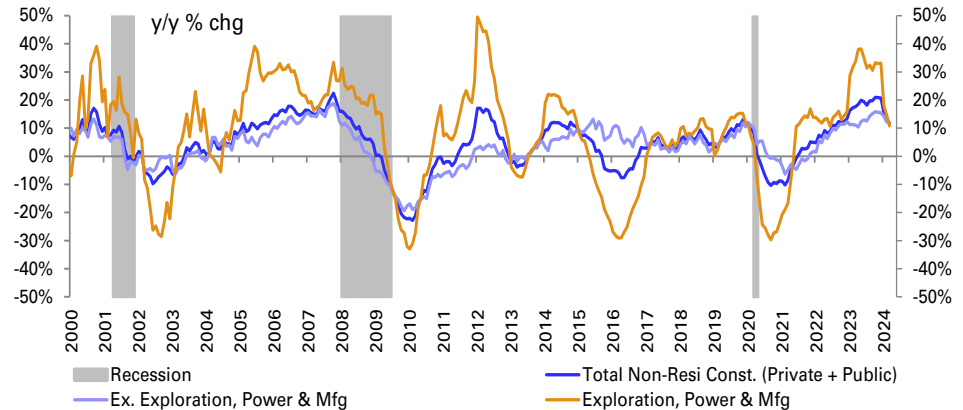
U.S. PRIVATE CONSTRUCTION SPENDING: TOP THREE



U.S. NON-RESIDENTIAL CONSTRUCTION BY CATEGORY



U.S. NON-RESIDENTIAL CONSTRUCTION GROWTH



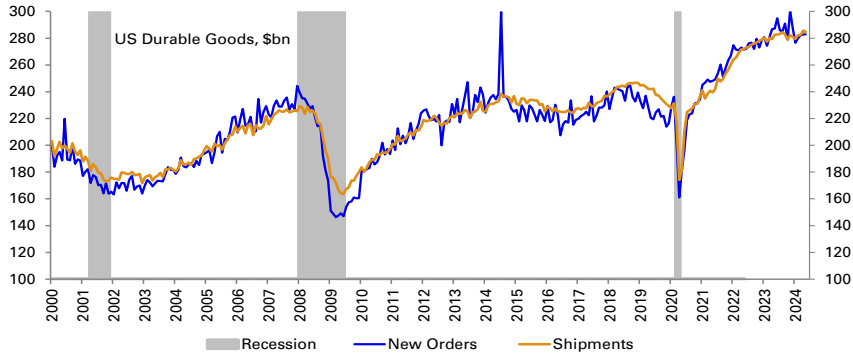
Source: Haver, DWS Investment GmbH as of July 2024, for illustrative purposes only.

For institutional use and registered representative use only. Not for public viewing or distribution.

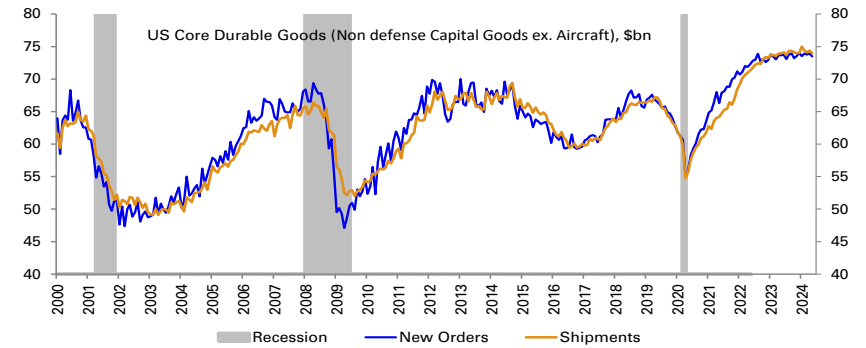
U.S. DURABLE GOODS



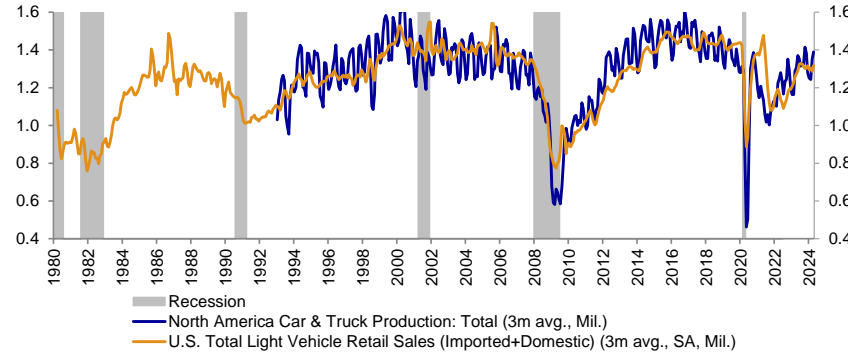
U.S. DURABLE GOODS: NEW ORDERS AND SHIPMENTS



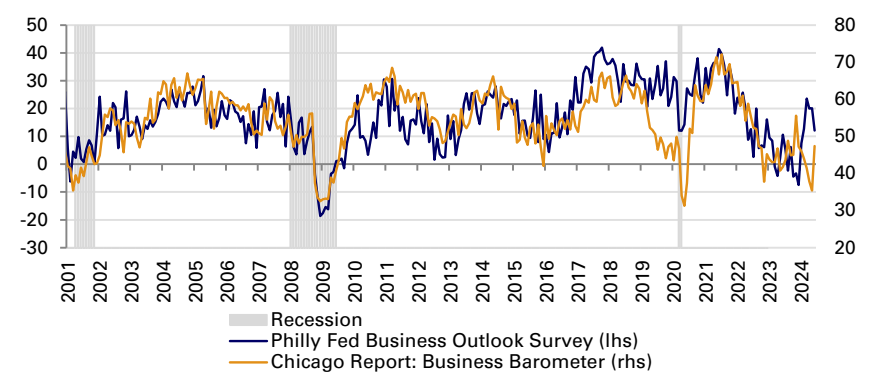
U.S. CORE DURABLE GOODS: NEW ORDERS AND SHIPMENTS



U.S. CAR PRODUCTION



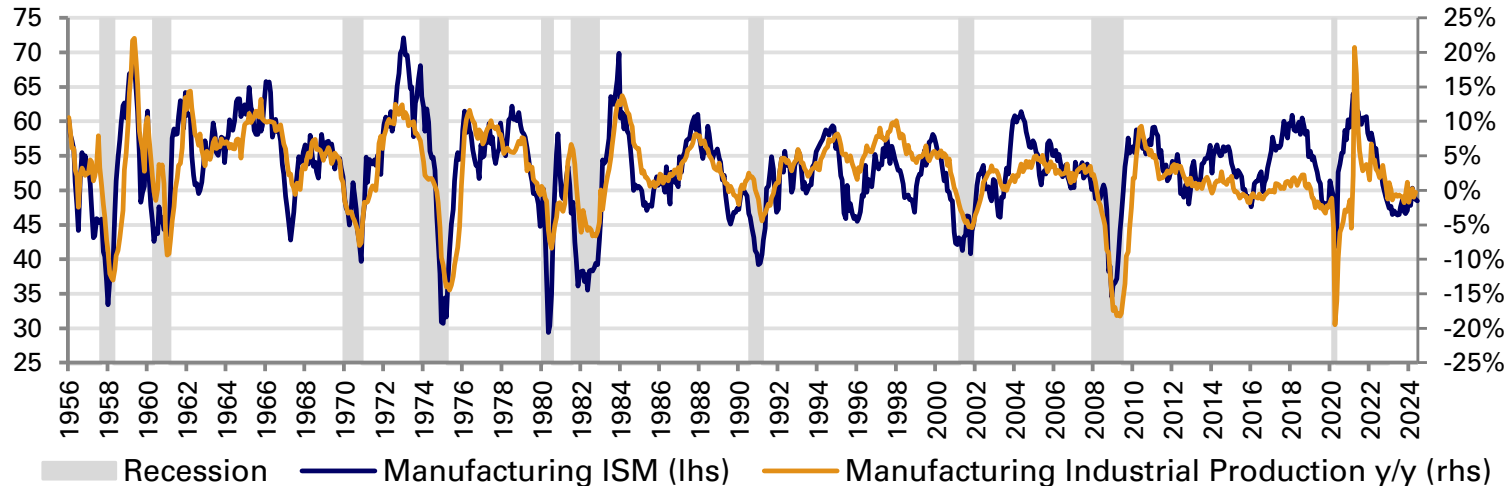
PHILLY AND CHICAGO REGIONAL FED SURVEYS



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

For institutional use and registered representative use only. Not for public viewing or distribution.

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

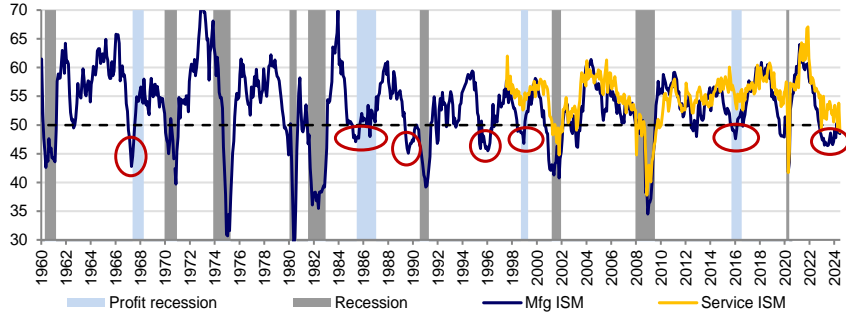
IP: Industrial Production

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

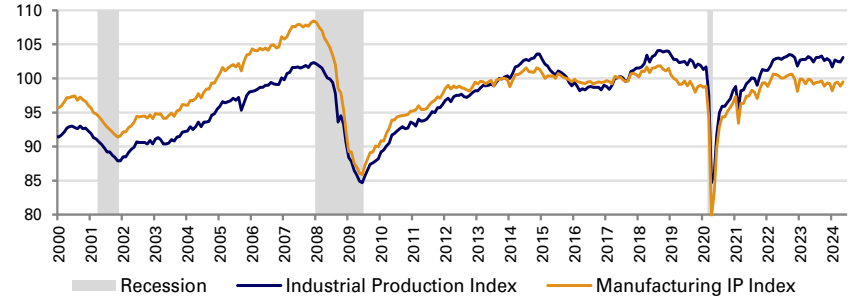
U.S. MANUFACTURING



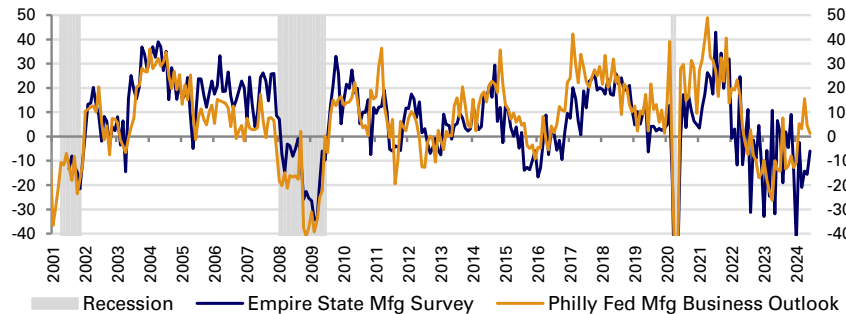
U.S. MANUFACTURING AND SERVICE ISM



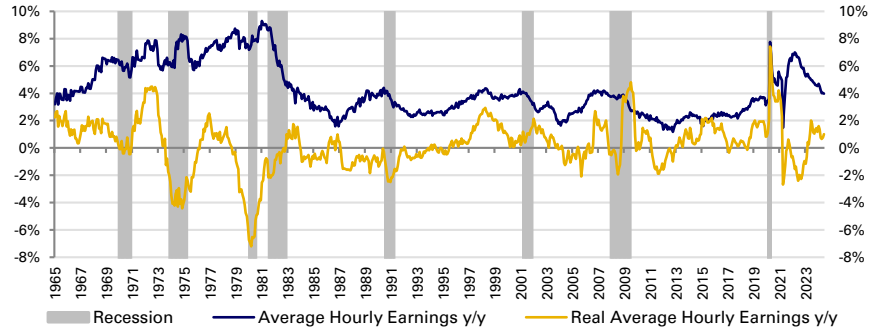
INDUSTRIAL PRODUCTION: WHEN WILL THE U.S. MANUFACTURING RENAISSANCE BEGIN?



EMPIRE STATE AND PHILLY FED MANUFACTURING SURVEY



AVERAGE HOURLY EARNINGS GROWTH

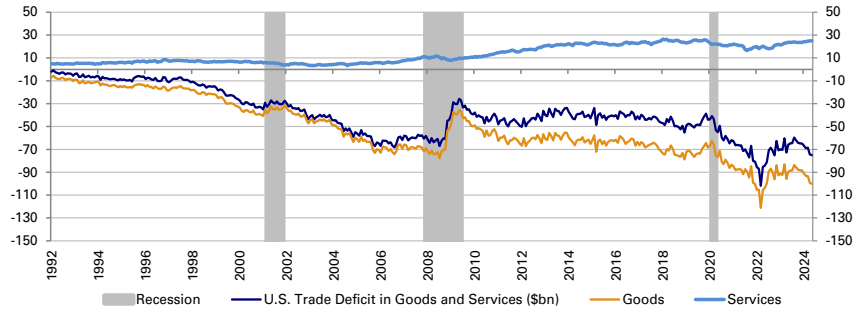


Source: Haver, DWS Investment GmbH as of July 2024, for illustrative purposes only.

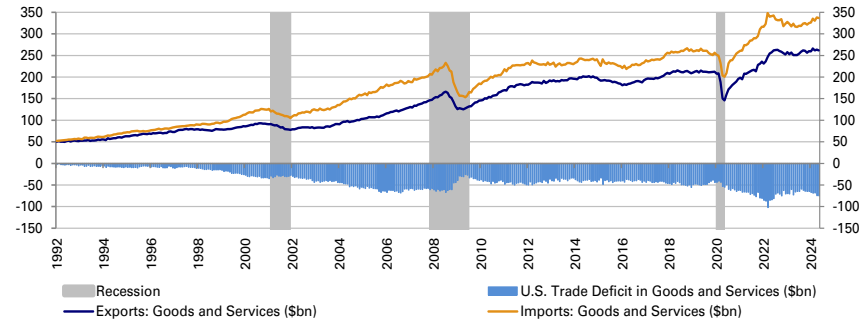
For institutional use and registered representative use only. Not for public viewing or distribution.

U.S. TRADE DEFICIT

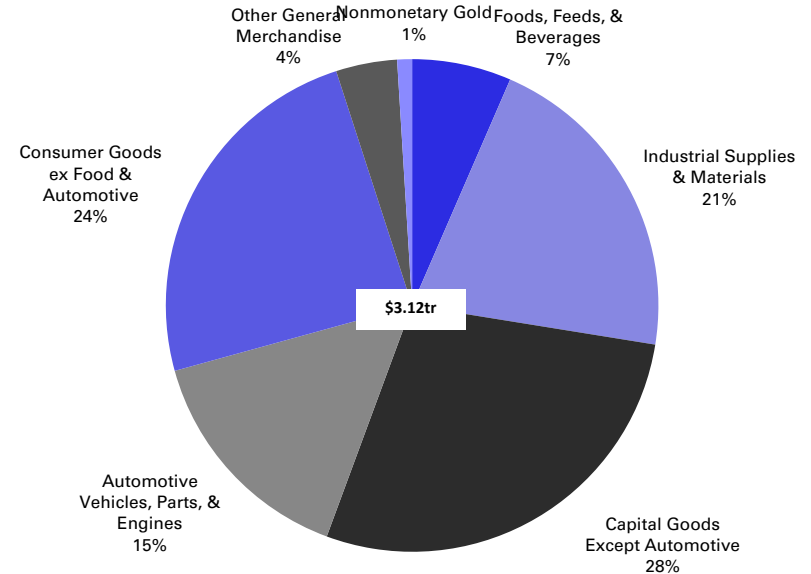
U.S. TRADE DEFICIT IN GOODS AND SERVICES



U.S. IMPORTS, EXPORTS AND TRADE DEFICIT

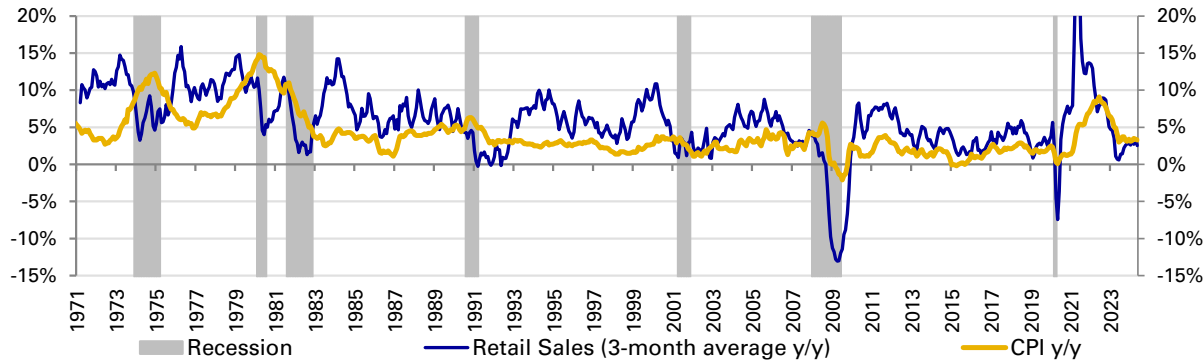
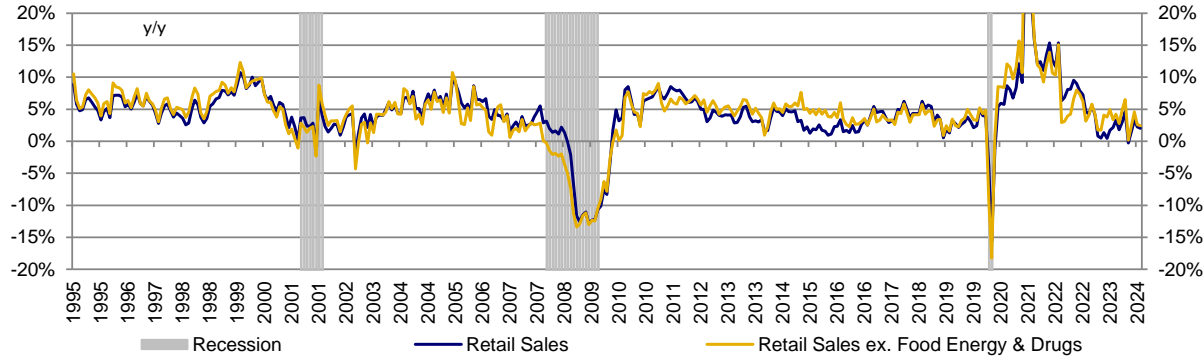


U.S. IMPORTS OF GOODS (TRAILING 4-QUARTER 2Q2023-1Q2024)



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

U.S. RETAIL SALES



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

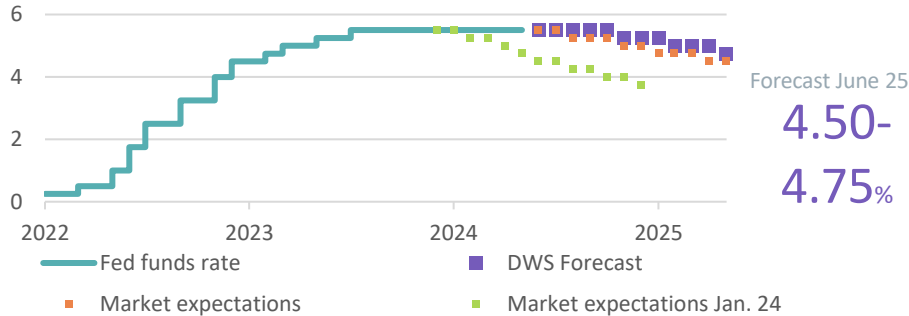
For institutional use and registered representative use only. Not for public viewing or distribution.

CENTRAL BANKS: DATA REMAINS KEY

Further rate cuts seem to be consensus, timing remains the big question

Fed

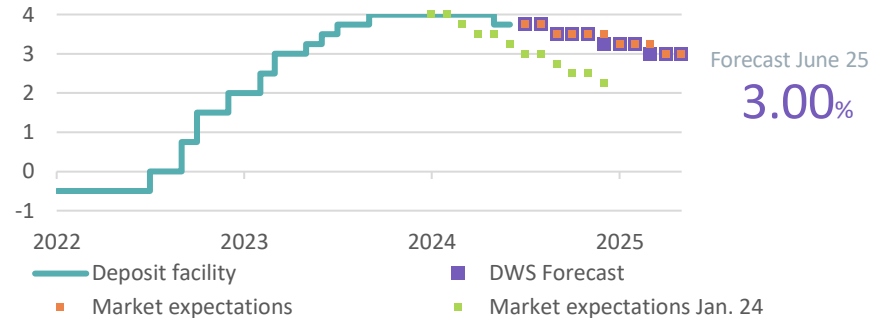
Fed funds rate (%)



- We expect the FED to **cut 3 times** over our investment horizon until June 2025
- Fed considers the current policy as restrictive enough and sees balanced risks
- Expect the Fed to stay **data dependent, evolution of inflation rates is key**
- Market pricing volatile: from **6 cuts in January to 2 cuts for 2024** as priced today

ECB

Deposit facility rate (%)



- We expect **3 rate cuts by the ECB** by June 2025
- First rate cut by the ECB in June, one more this year, two in 2025
- The ECB is likely to stick to a **gradual, data-dependent rate adjustment**
- We expect the ECB to refrain from giving too much forward guidance

We expect central banks to stay well in restrictive territory despite first cuts

Source: Bloomberg Finance L.P.; DWS Investment GmbH; as of: July 2024. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect

For institutional use and registered representative use only. Not for public viewing or distribution.

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....

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

FED HIKES SINCE 1960



Start Date of Rate Hike *	Date of Reaching Cycle **	Late Cycle Signals **	End Date of Fed Rate Hike	Fed Funds Effective Rate (%)	Durati on of Rate Hike (Mont hs)	Peak Fed Rate	Total Rate	1yr Yield (%)	10yr Yield (%)	CPI y/y	Unit Labor Cost y/y (%)	PE at Start of Hike	PE at End of Hike	PE Chg	10yr - 10yr -		Chg in 10yr-1yr (%)	Before Reachin g Late Cycle (ar)	After Reachin g Late Cycle (ar)	3m before Hike	Initial Reactio n ***	1m	3m	6m	12m	Date of First Hike		
															Start of Hike (%)	End of 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	-14.1%	0.6%	0%	-3%	-8%	-13%			
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%	-0.6%	0.9%	3%	0%	-5%	6%		
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	-13.5%	0.5%	-4%	-8%	-9%	4%			
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.

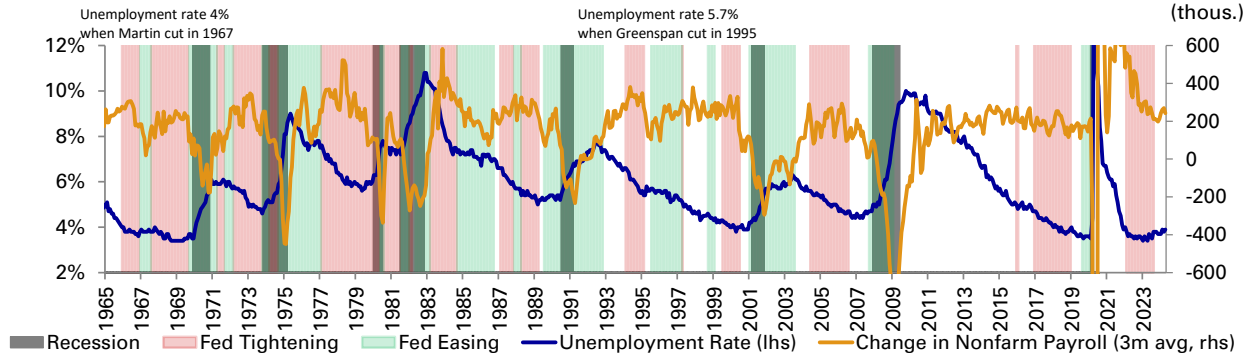
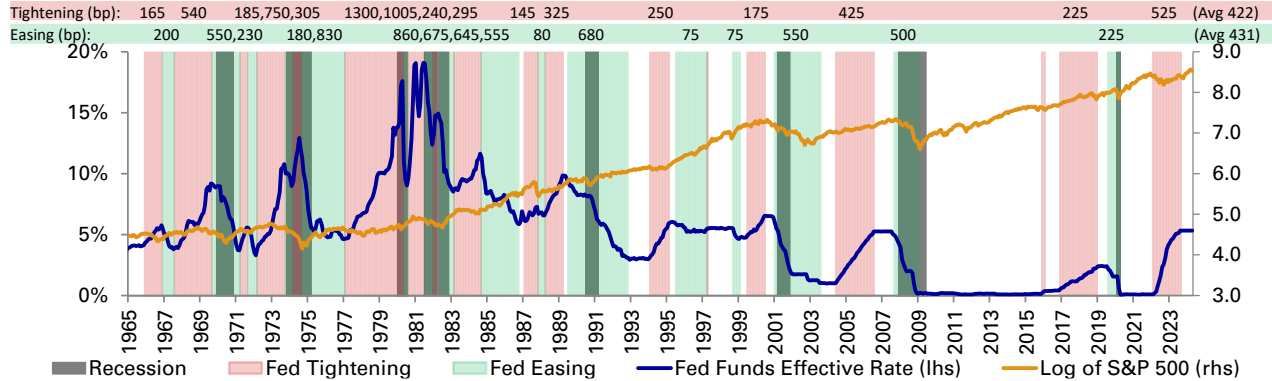
1995, 1985, 1967 are accepted by economists as soft landings. Equities performed well in these soft landing.

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 July 2024, for illustrative purposes only.

FED TIGHTENING AND EASING CYCLES SINCE 1960



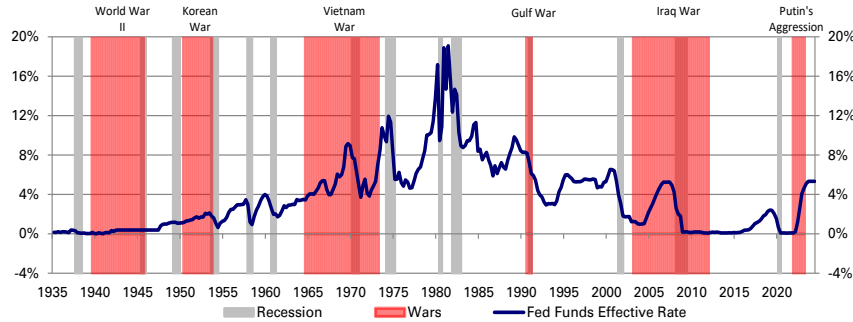
Source: Haver, Factset, DWS Investment GmbH as of July 2024, for illustrative purposes only.

For institutional use and registered representative use only. Not for public viewing or distribution.

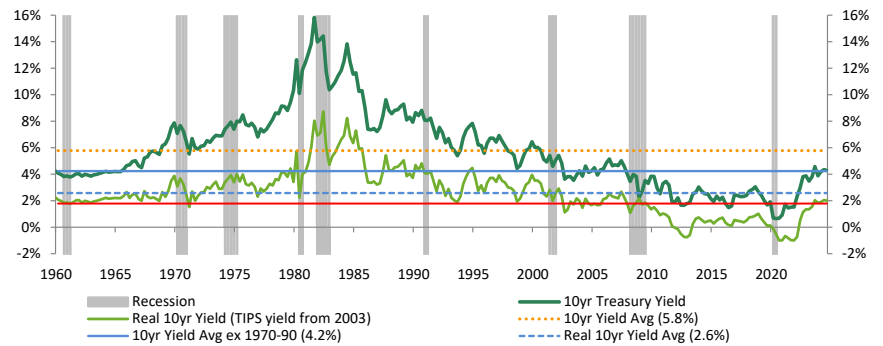
INTEREST RATES



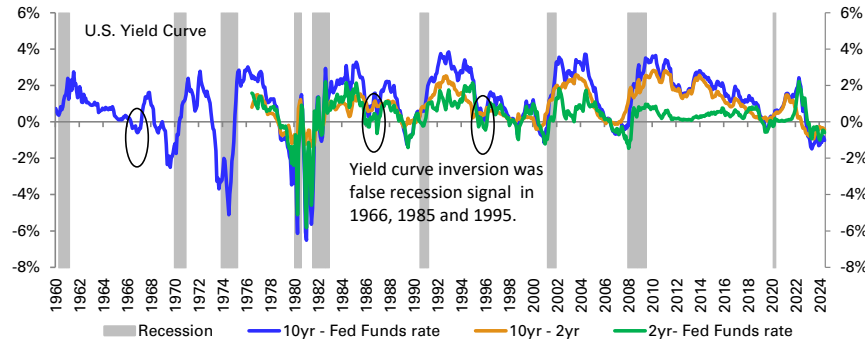
FED FUNDS RATE



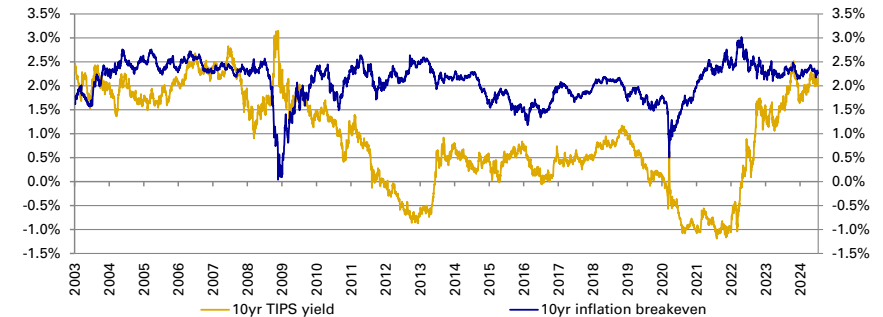
10-YEAR TREASURY YIELDS



YIELD CURVE



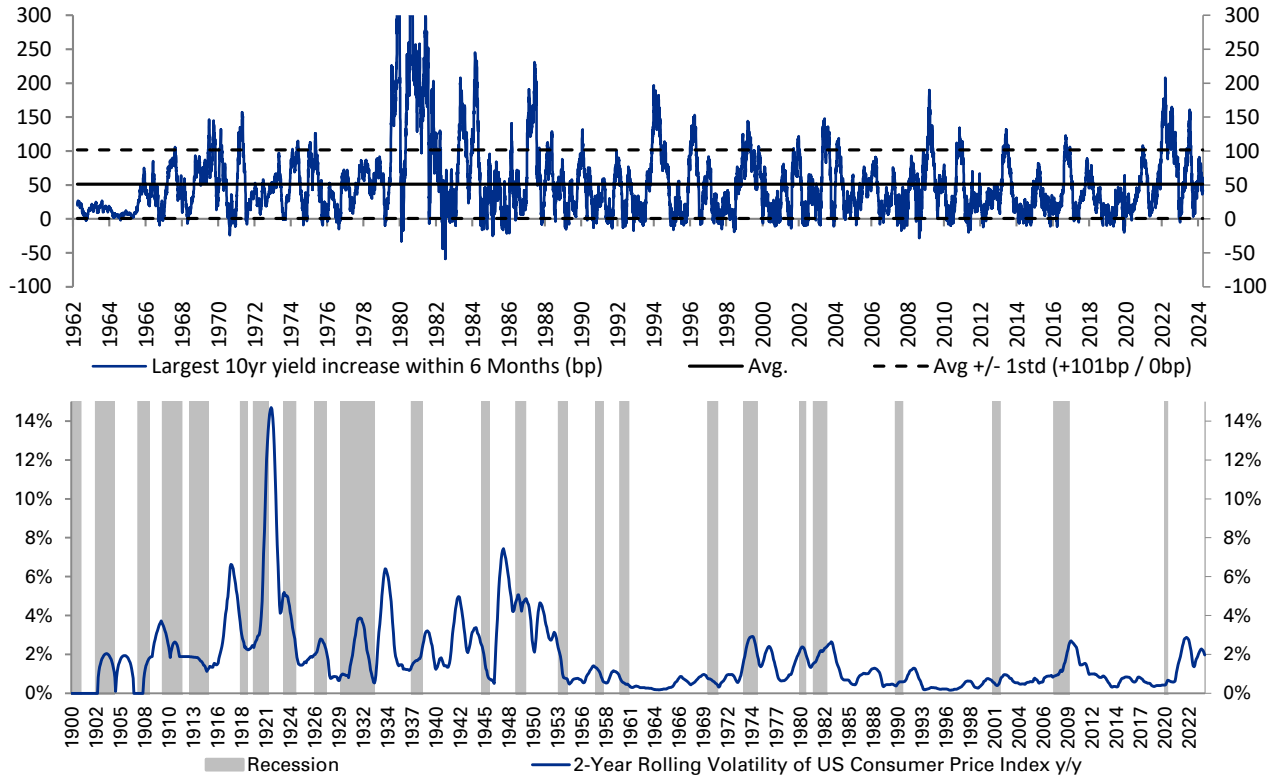
TREASURY INFLATION-PROTECTED SECURITIES (TIPS) YIELDS AND BREAKEVENS



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

For institutional use and registered representative use only. Not for public viewing or distribution.

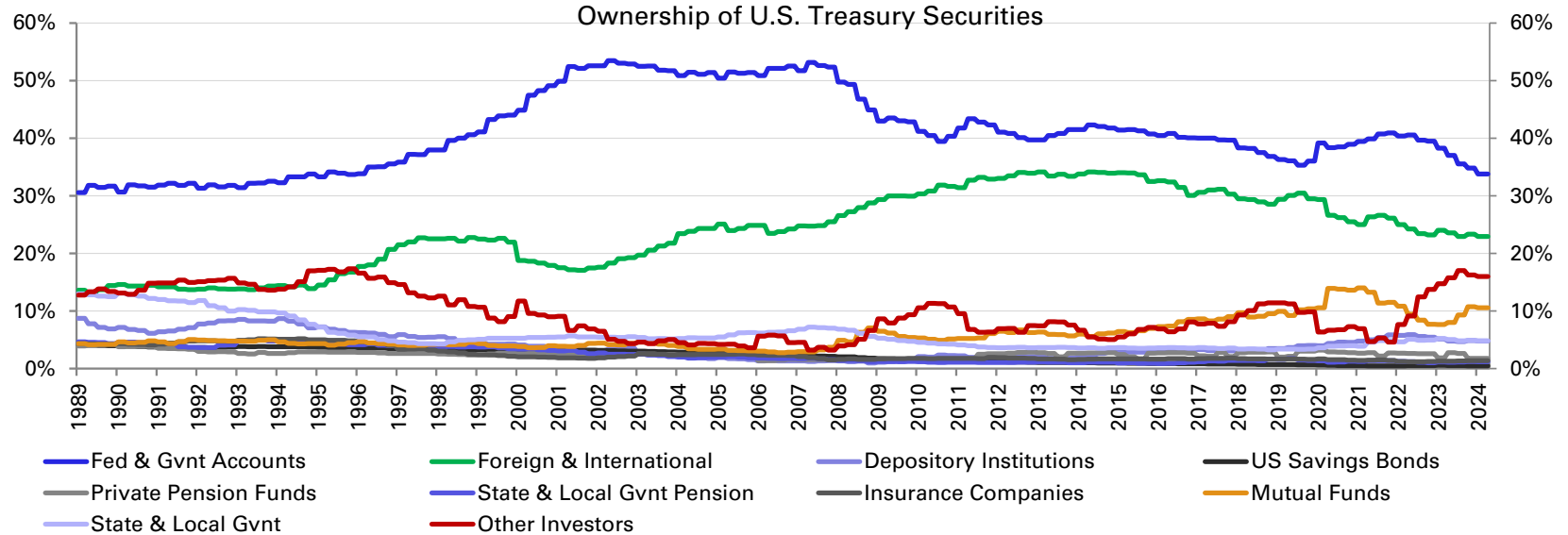
INTEREST RATE AND INFLATION VOLATILITY



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

For institutional use and registered representative use only. Not for public viewing or distribution.

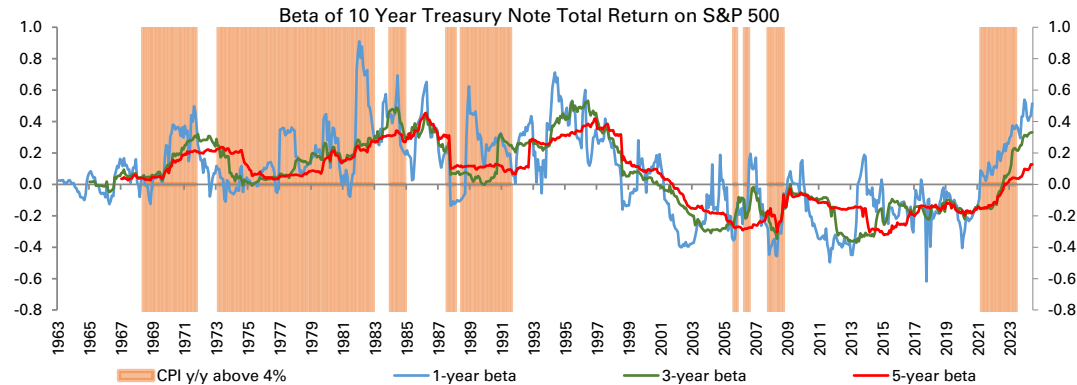
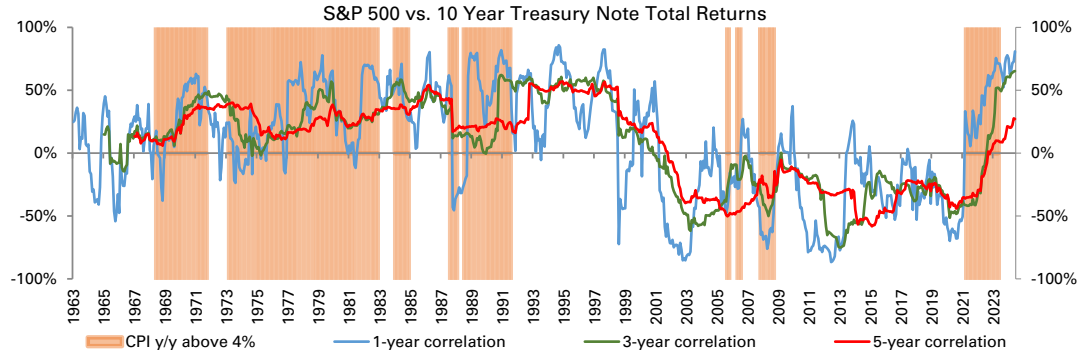
OWNERSHIP OF U.S. TREASURY SECURITIES



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

For institutional use and registered representative use only. Not for public viewing or distribution.

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



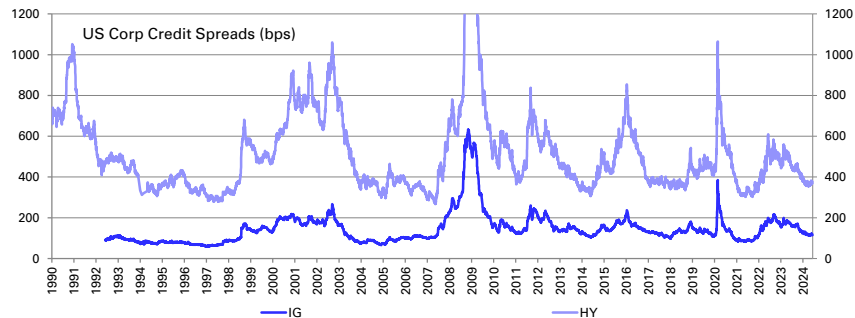
Source: Haver, DWS Investment GmbH as of July 2024, for illustrative purposes only. Past performance is not a guarantee of future results.

For institutional use and registered representative use only. Not for public viewing or distribution.

FIXED INCOME

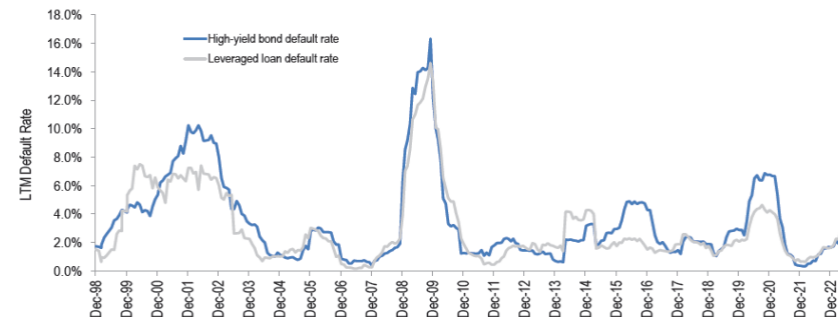


INVESTMENT GRADE (IG) AND HIGH YIELD (HY) SPREADS

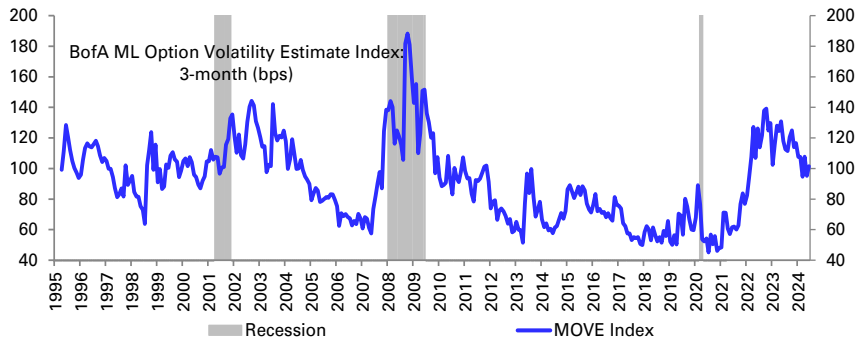


HIGH YIELD BOND AND LEVERAGED LOAN DEFAULT RATES

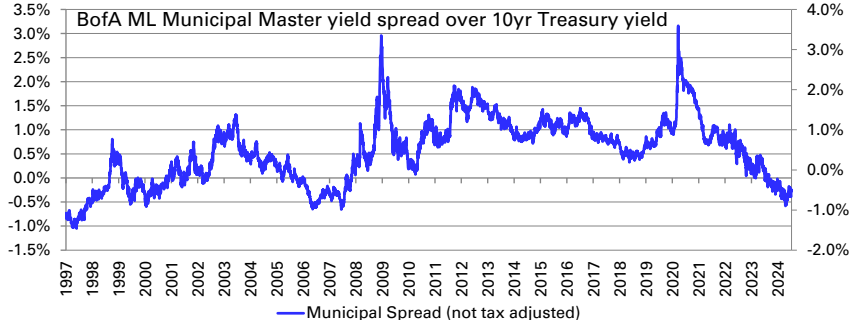
High-yield bond and loan par-weighted default rates



INTEREST RATE VOLATILITY – MOVE INDEX



MUNICIPAL BOND SPREAD (NOT TAX ADJUSTED)



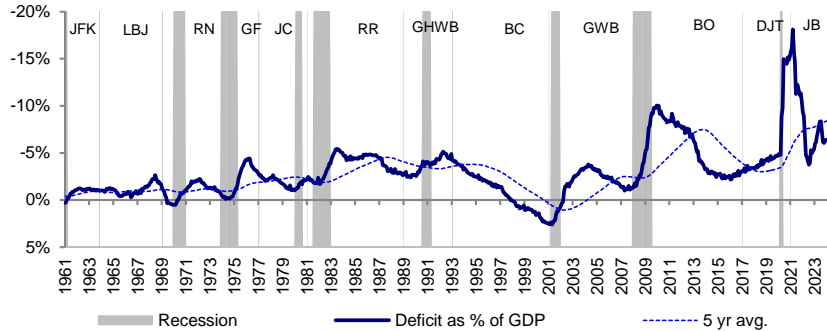
Source: Haver, J.P.Morgan, DWS Investment GmbH as of July 2024, for illustrative purposes only. Past performance may not be indicative of future results

For institutional use and registered representative use only. Not for public viewing or distribution.

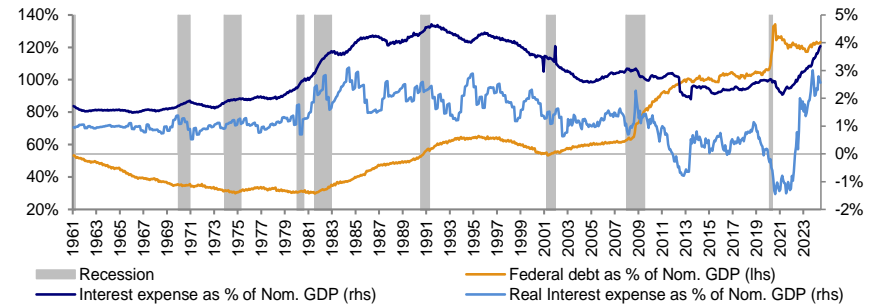
U.S. FISCAL AND FED BALANCE SHEET



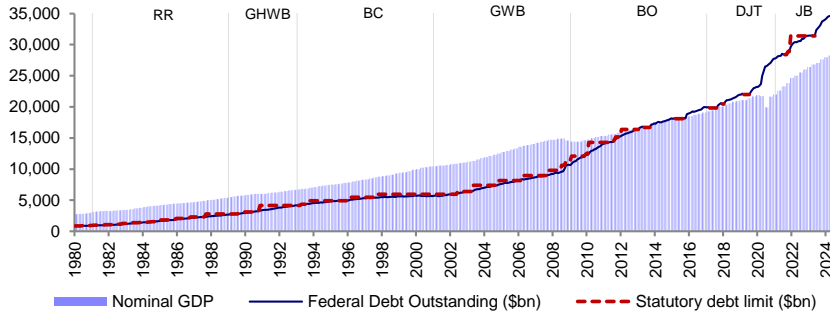
U.S. GOVERNMENT DEFICIT



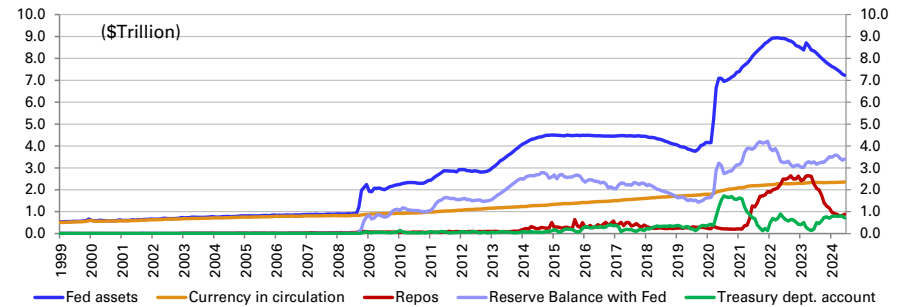
U.S. FEDERAL RESERVE (FED) DEBT / GDP, INTEREST / GDP



DEBT CEILING



FEDERAL RESERVE ASSETS & LIABILITIES



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

For institutional use and registered representative use only. Not for public viewing or distribution.

GEOPOLITICS: TENSIONS AND UNCERTAINTY

Continued tensions around China, Ukraine & Middle East, coupled with biggest election year in history

Geopolitical hotspots

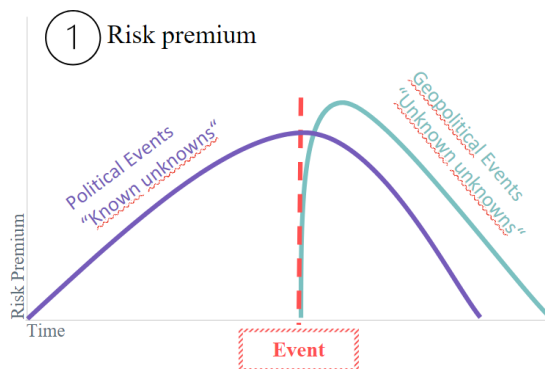
China/Taiwan

- **Fight for the** technology leadership
- **Sanctions** are hurting the Chinese tech sector
- **Tech supply chains** vulnerable to escalation
- **Two possible escalation scenarios:**
 - U.S. is drawn into a local conflict
 - China blockades Taiwan (no U.S. involvement)

Other geopolitical hotspots

- **Ukraine/Russia:** evolving into war of attrition; conflict & sanctions expected to continue
- **Middle East:** escalation risk if Iran & U.S. get involved; **energy supply** risk for global economy

Impact of (geo-) political events¹

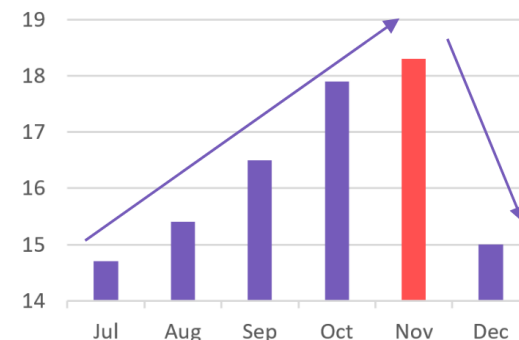


② Fundamental Changes

- Potential impact of **political events:** regulation, tax policies and trade agreements
- Potential impact of **geopolitical events:** supply chains, energy supply and migration

History: Political risk premium²

Average monthly volatility for U.S. elections years since 1928



- Volatility of the S&P 500 is building up in the months before a U.S. election
- Right after the outcome is known, volatility historically comes back down again
- **2024 might see a similar pattern**

Geopolitical tensions and elections around the globe might increase volatility in 2024

1) Schematic representation, 2) VIX 1990-present, monthly average of daily S&P 500 return volatility 1928-1989 // Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect // Sources: Factset, BofA, Bloomberg Finance L.P.; DWS Investment GmbH; as of: July 2024

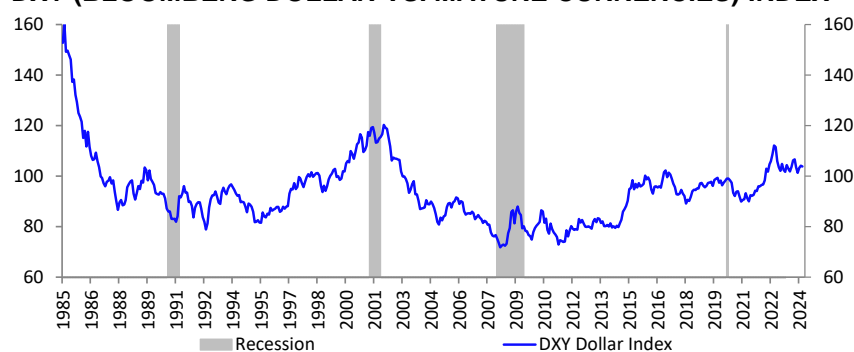
CURRENCY



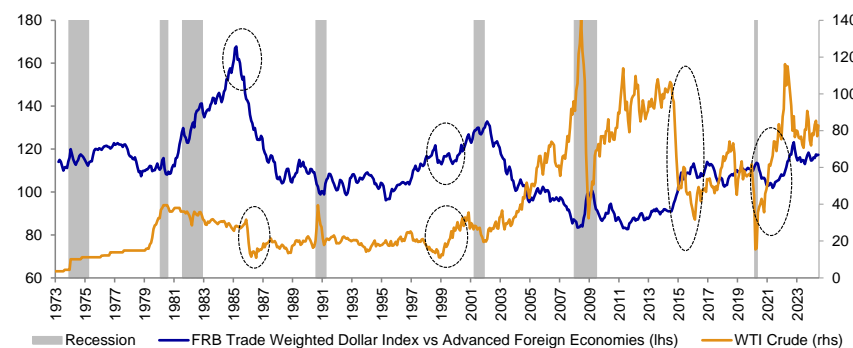
EUR/USD AND USD/JPY



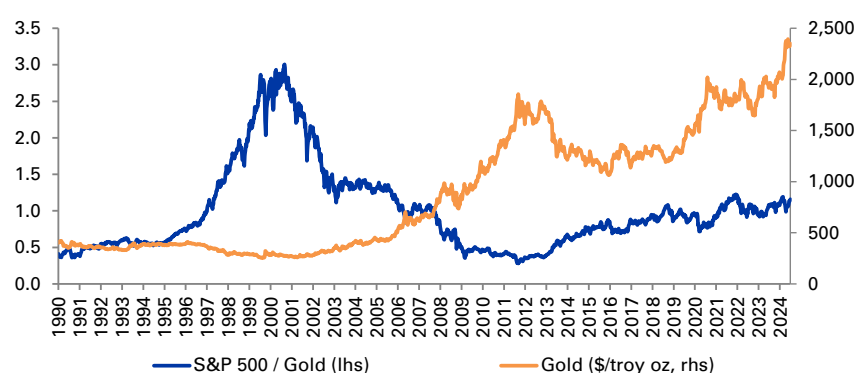
DXY (BLOOMBERG DOLLAR VS. MATURE CURRENCIES) INDEX



U.S. DOLLAR VS. OIL



GOLD



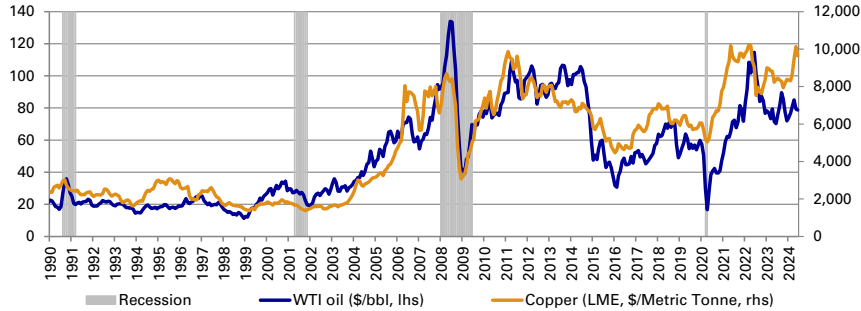
Source: Haver, DWS Investment GmbH as of July 2024, for illustrative purposes only.

For institutional use and registered representative use only. Not for public viewing or distribution.

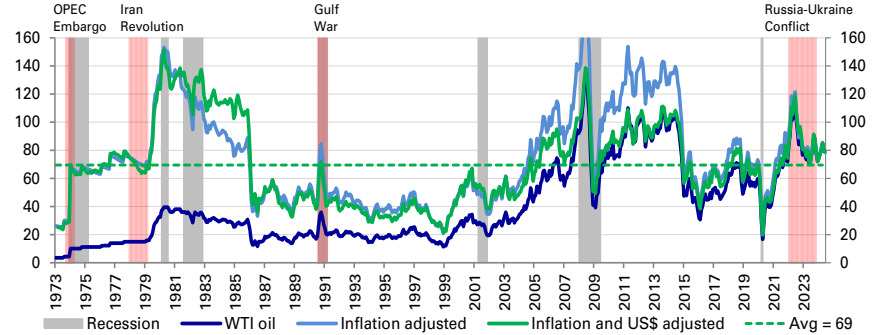
COMMODITY



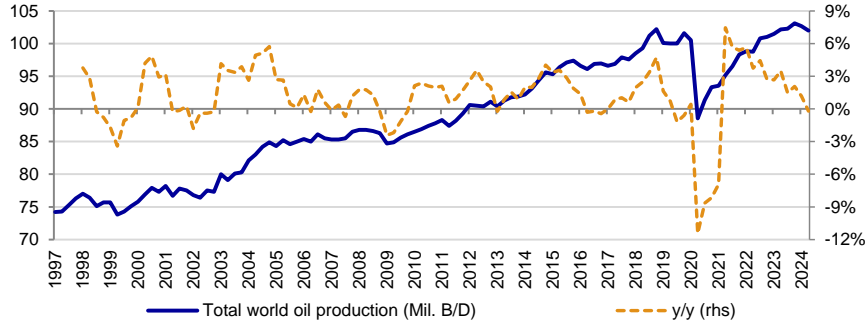
WEST TEXAS INTERMEDIATE (WTI) CRUDE OIL AND COPPER



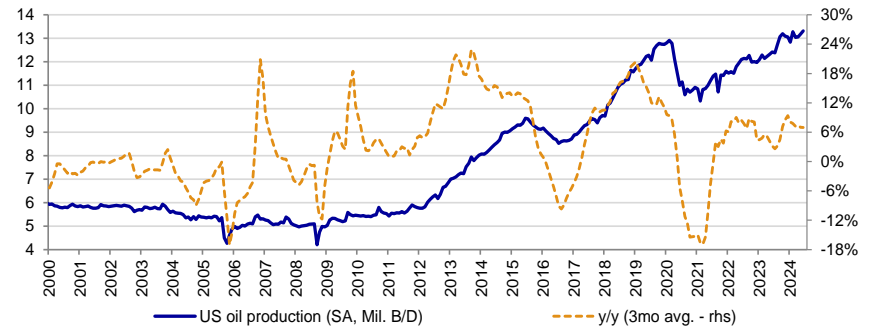
INFLATION AND U.S. DOLLAR ADJUSTED WTI OIL PRICE



GLOBAL OIL PRODUCTION



U.S. OIL PRODUCTION



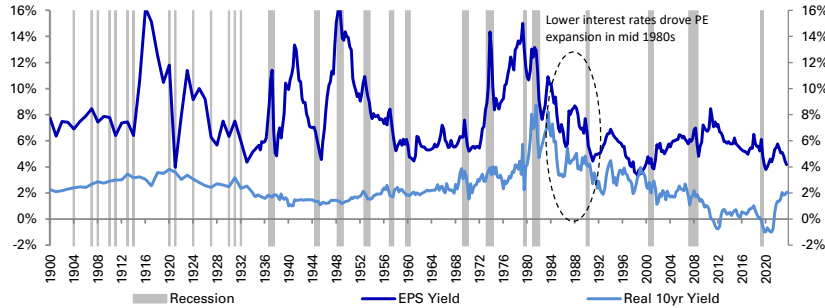
Source: Haver, EIA, DWS Investment GmbH as of July 2024, for illustrative purposes only.

For institutional use and registered representative use only. Not for public viewing or distribution.

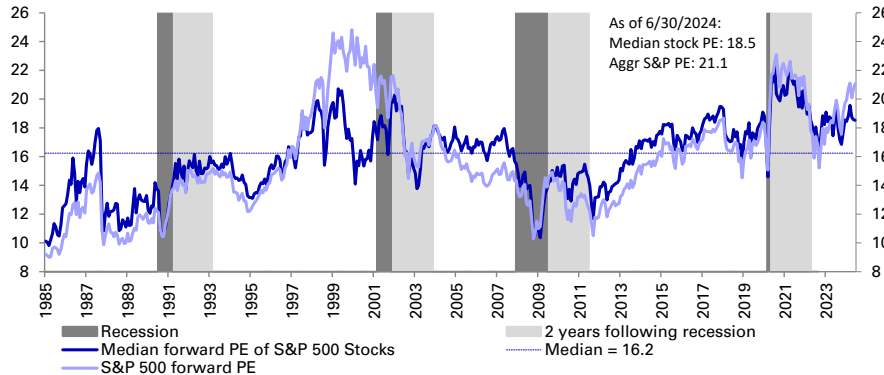
EQUITY



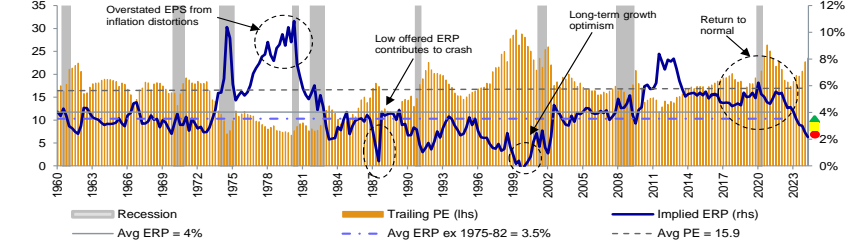
S&P 500 EARNINGS PER SHARE (EPS) YIELD



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



S&P 500 IMPLIED EQUITY RISK PREMIUM (ERP)

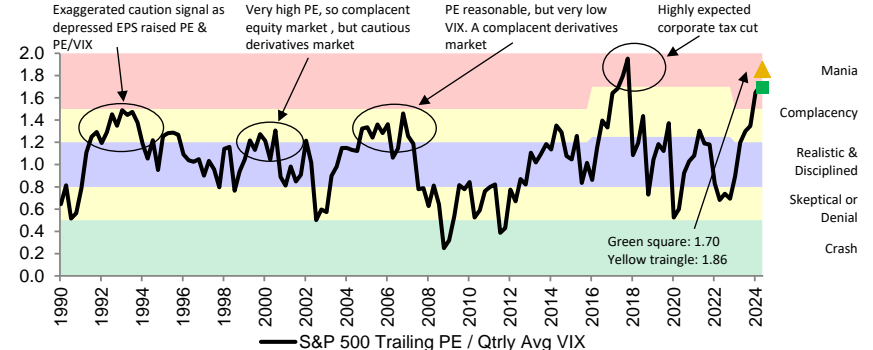


Red circle: ERP=2.8% implied by PE on our 2024 EPS estimate of \$245 and 2% assumed real 10 year interest rate

Yellow square: ERP=3.0% implied by PE on our 2024 EPS estimate of \$245 and 1.75% assumed real 10 year interest rate

Green triangle: ERP=3.3% implied by PE on our 2024 EPS estimate of \$245 and 1.5% assumed real 10 year interest rate

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

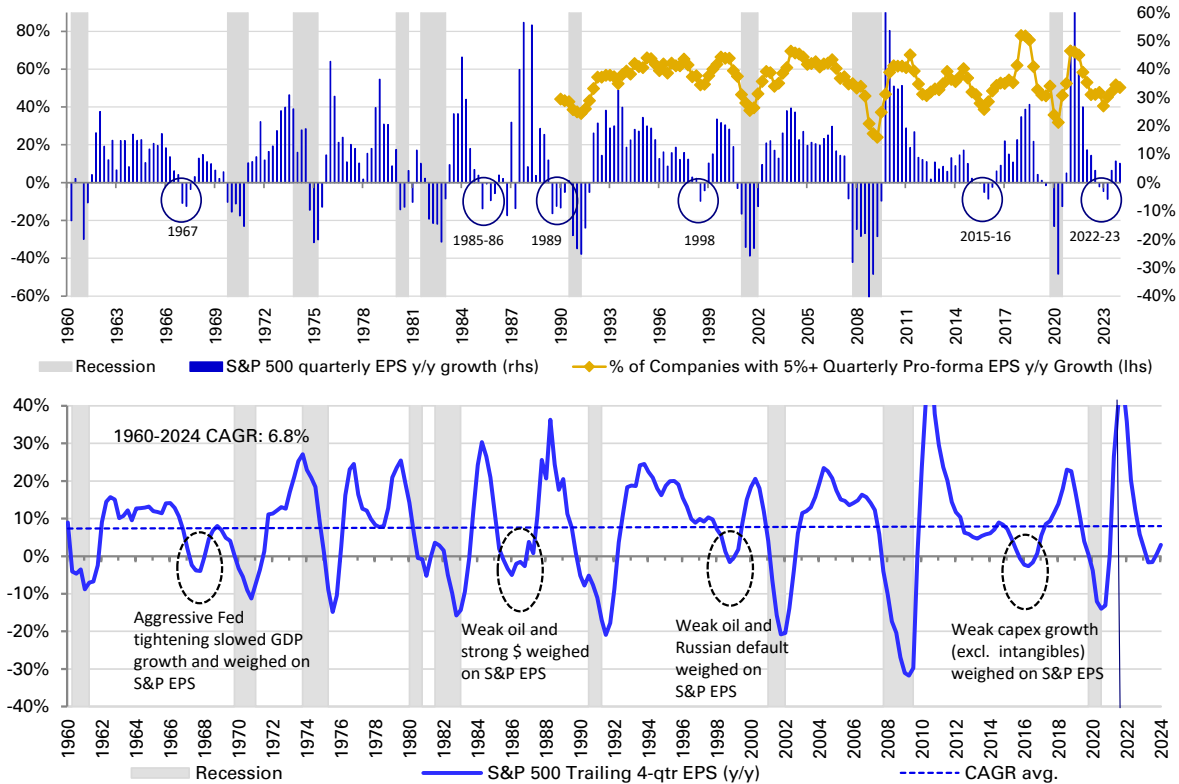


Green square: PE on our 2024 normalized EPS divided by VIX on Jul 11 2024.

Yellow triangle: Trailing PE as of Jul 11 2024 divided by VIX on Jul 11 2024.

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

S&P 500 EPS GROWTH



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

For institutional use and registered representative use only. Not for public viewing or distribution.

S&P 500 PE BY SECTOR



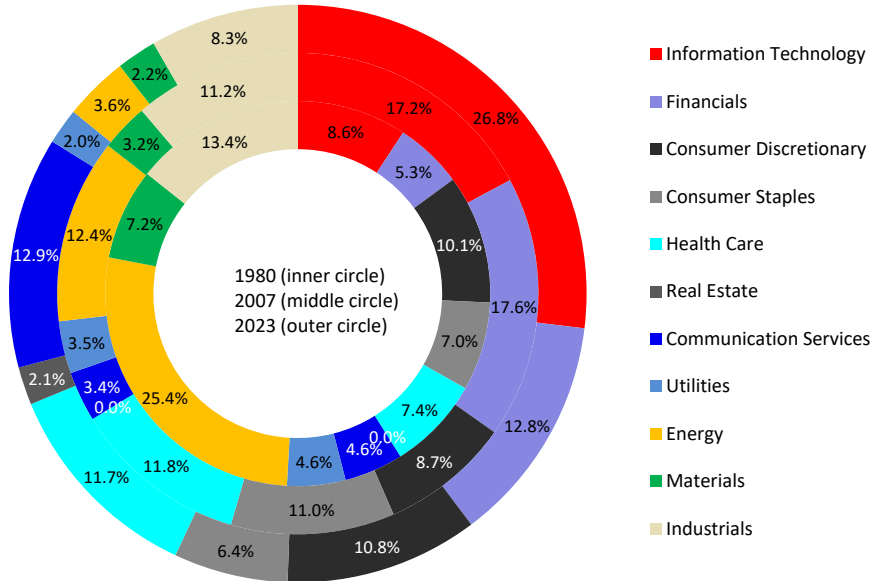
	Financials	Energy	Materials	Industrials	Tech	Cons. Disc.	Cons. Staples	Health Care	Utilities	Communication Services	Real Estate	S&P 500
1991	14.8	18.0	22.3	30.1	42.8	23.0	20.7	25.3	17.9	31.9	N/A	25.6
1992	14.7	18.6	42.0	106.9	164.2	36.2	20.9	19.6	15.1	16.3	N/A	23.1
1993	10.9	20.2	31.7	27.7	112.5	16.9	21.6	20.5	20.6	23.8	N/A	21.3
1994	9.4	18.4	18.8	15.6	19.2	11.0	17.2	16.7	13.1	14.9	N/A	15.0
1995	12.3	17.6	11.7	16.5	16.4	16.3	19.6	21.8	13.3	16.4	N/A	16.3
1996	13.8	17.8	18.2	18.8	23.7	17.3	22.0	22.5	12.7	15.1	N/A	18.2
1997	18.2	19.2	19.4	20.9	24.3	20.9	26.2	28.7	15.3	22.1	N/A	21.5
1998	18.9	28.9	20.3	22.7	42.1	28.9	28.7	35.9	17.4	33.5	N/A	27.5
1999	16.0	30.4	23.8	25.3	62.6	29.7	22.8	28.1	14.3	32.8	N/A	29.0
2000	18.2	16.6	15.9	24.1	30.3	22.7	23.9	35.2	19.6	21.9	N/A	23.4
2001	18.0	14.1	33.4	25.3	57.1	34.2	20.9	27.6	12.1	24.6	N/A	24.7
2002	13.2	19.2	25.5	18.5	37.7	20.0	17.6	20.6	10.0	15.7	N/A	18.3
2003	14.5	14.8	31.6	22.9	37.0	23.9	20.5	21.3	14.4	16.5	N/A	20.4
2004	13.7	12.6	18.8	21.9	25.5	21.5	19.8	19.3	16.7	18.1	N/A	18.2
2005	13.6	10.9	15.7	18.3	21.9	19.8	18.5	18.8	16.2	15.3	N/A	16.4
2006	13.2	10.7	14.1	17.6	22.6	20.6	19.5	18.5	17.1	16.3	N/A	16.2
2007	12.8	13.5	16.7	17.2	22.6	18.7	19.5	16.7	17.9	16.3	N/A	16.5
2008	46.6	7.1	9.5	10.1	11.9	23.4	13.8	11.7	11.8	11.3	N/A	12.3
2009	30.7	18.7	29.8	17.9	20.4	20.6	15.0	12.8	13.2	15.8	N/A	18.4
2010	14.5	14.7	19.0	17.5	14.8	16.9	15.4	11.8	12.4	18.1	N/A	14.9
2011	11.8	10.4	12.4	13.9	12.6	15.3	15.7	11.9	14.3	18.0	N/A	12.9
2012	13.1	11.6	15.8	14.2	12.7	17.0	16.4	13.4	14.4	20.5	N/A	13.9
2013	14.8	14.7	19.1	18.3	16.0	20.7	18.8	18.0	15.4	16.2	N/A	16.9
2014	16.7	13.2	18.3	17.8	17.5	21.5	20.3	19.0	17.8	14.1	N/A	17.7
2015	14.4	25.5	17.2	16.1	17.3	20.7	21.1	17.4	16.0	12.6	N/A	17.5
2016	15.6	146.0	20.0	18.6	18.3	19.8	20.6	15.5	17.2	14.6	18.5	19.1
2017	17.4	35.6	22.4	21.3	21.1	23.0	21.4	17.7	18.2	13.5	19.1	20.6
2018	11.4	14.6	14.5	15.0	16.1	20.0	17.6	15.9	17.0	16.6	17.1	15.7
2019	14.0	21.3	20.8	19.2	23.8	25.0	21.5	17.5	20.9	20.9	21.0	20.1
2020	18.1	-174.6	27.4	42.7	31.6	48.8	22.4	18.2	19.7	26.5	21.5	27.4
2021	13.4	14.0	17.7	28.2	30.9	40.3	23.2	18.5	21.4	22.0	26.2	23.4
2022	13.7	8.4	14.5	20.6	20.8	27.0	21.8	16.8	20.2	15.0	16.8	17.6
2023	15.6	11.0	19.9	21.5	31.2	28.4	20.3	21.0	17.1	20.0	18.0	21.9
6/28/2024	16.3	12.3	20.8	22.6	36.0	27.7	21.1	21.4	18.0	22.5	17.0	23.8
Avg	13.8	13.3	17.6	19.9	30.4	22.1	19.3	20.5	14.2	15.6	20.0	16.3
Avg (ex. 74-82)	15.0	14.3	18.9	21.5	32.9	23.1	19.8	21.5	15.4	17.0	20.0	17.7
Avg (ex. 74-82, 97-00)	14.7	13.6	18.8	21.3	32.4	22.9	19.4	20.7	15.3	16.1	20.0	16.9
Avg (ex. 74-82, 97-00, 08-09)	13.7	13.6	18.8	21.6	33.0	23.0	19.6	21.0	15.4	16.2	20.0	17.0

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

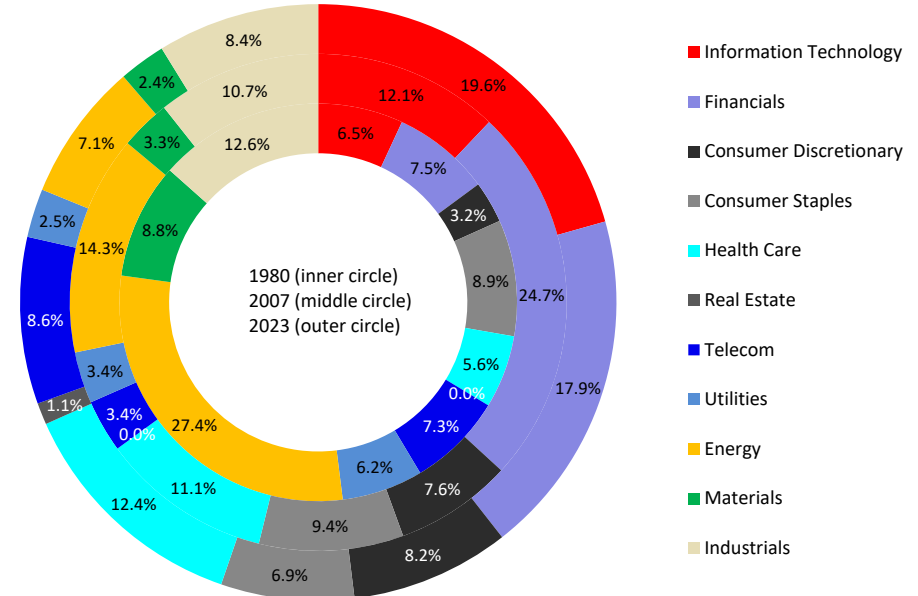
S&P 500 SECTOR COMPOSITION



S&P 500 SECTOR COMPOSITION BY MARKET CAP



S&P 500 SECTOR COMPOSITION BY EARNINGS



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

For institutional use and registered representative use only. Not for public viewing or distribution.

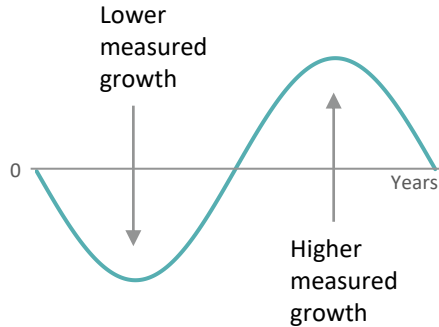
ARTIFICIAL INTELLIGENCE: A NEW SOURCE OF GROWTH?



Impact on growth and productivity

Solow's productivity paradox

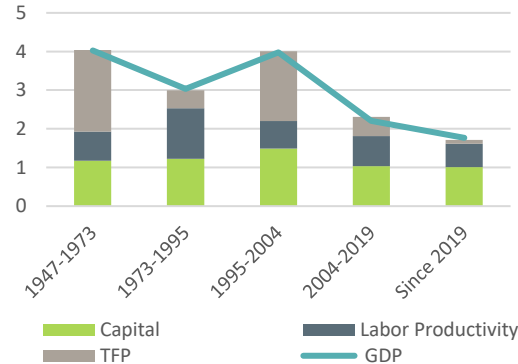
Growth versus expectation



- Often no immediate effect of new technology
- Overestimated in the ST, underestimated in the LT
- Investments pay out over the longer-term

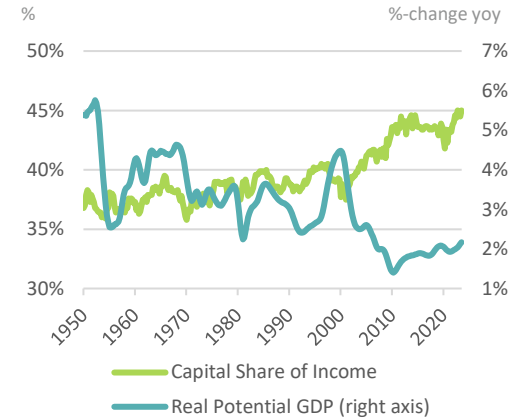
AI as the next TFP boost?

Contribution to U.S. GDP (%)



- Total factor productivity as a proxy for innovation
- TFP spiked after WWII & introduction of internet
- AI might bring the next GDP boost (innovation)

Even more room for automation



- AI could automate non-routine/high skilled tasks
- Like steam engine → automated manufacturing
- After investment, automation benefits harvested

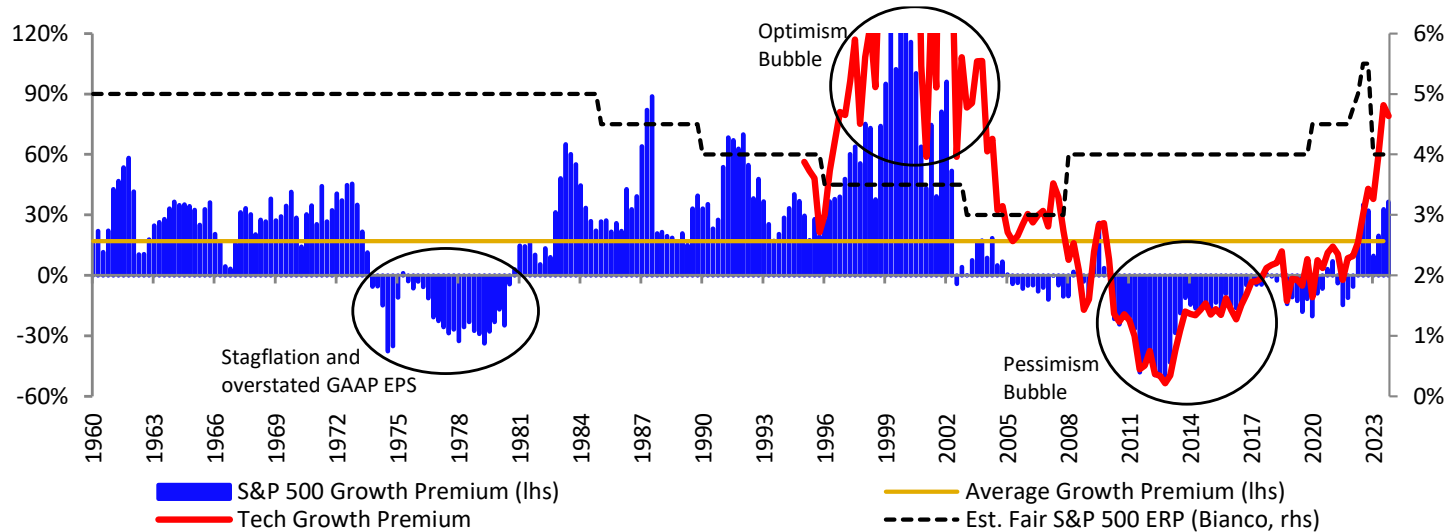
AI & Generative AI to further increase automation, increase potential GDP & strengthen productivity

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

Source: Fed San Francisco, John Fernald, Haver Analytics Inc., DWS Investment GmbH; as of: July 2024

For institutional use and registered representative use only. Not for public viewing or distribution.

S&P 500 AND TECH SECTOR GROWTH PREMIUM



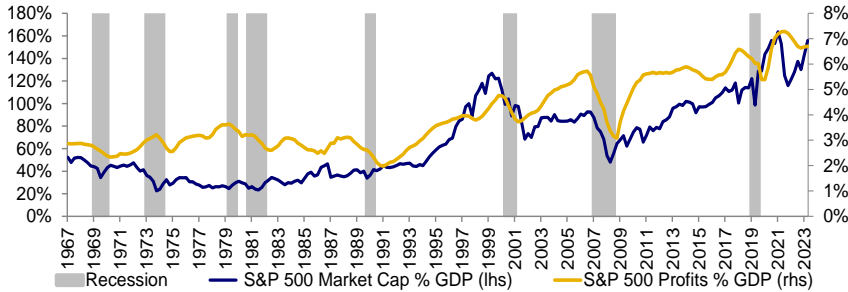
Source: Haver, S&P, DWS Investment GmbH as of 1Q2024, for illustrative purposes only. Past performance is not a guarantee of future results.

For institutional use and registered representative use only. Not for public viewing or distribution.

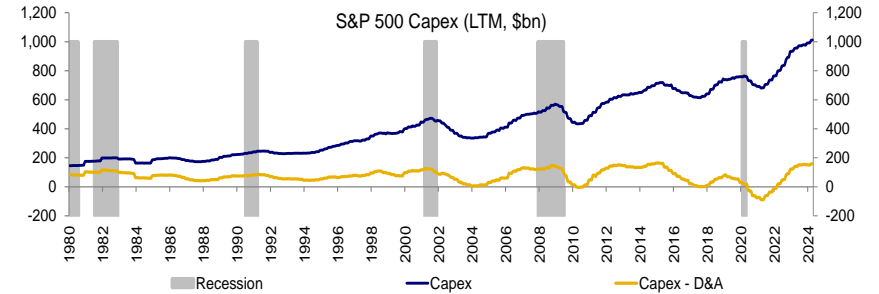
S&P 500 CAPEX



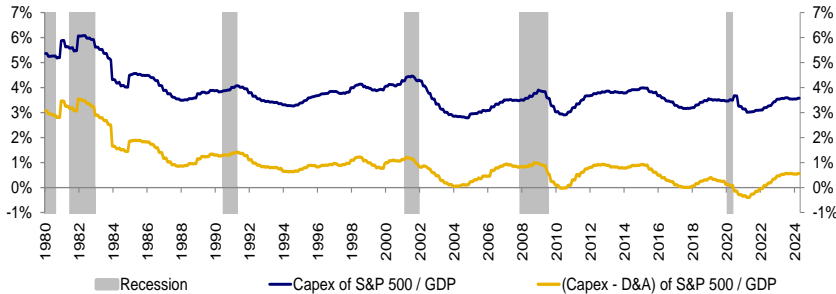
S&P 500 MARKET CAP AND PROFITS % OF U.S. GDP



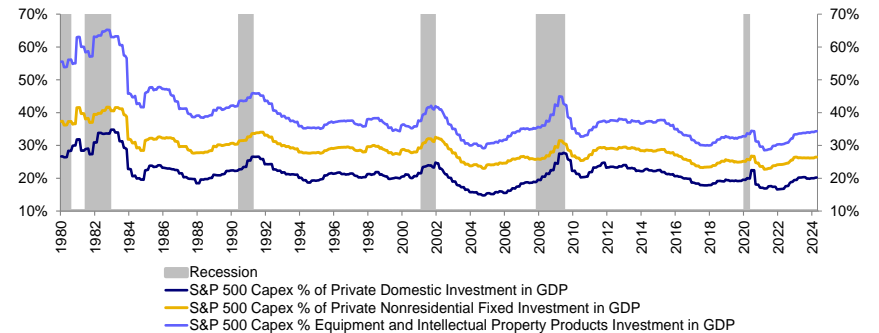
S&P 500 CAPEX



S&P 500 CAPEX % OF U.S. GDP



S&P 500 CAPEX AS % OF CAPEX FROM GDP ACCOUNTS

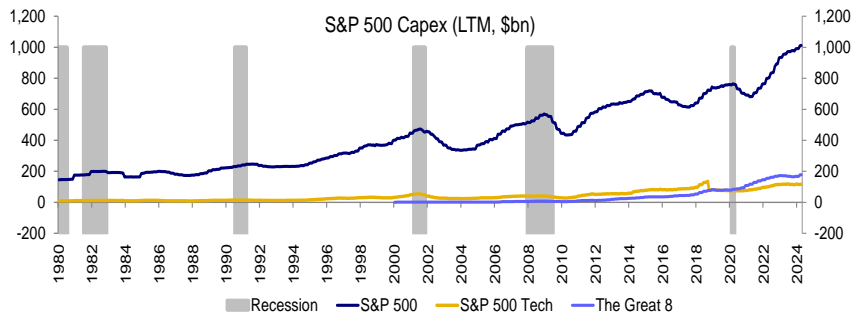


Source: Haver, DWS Investment GmbH as of 1Q2024, for illustrative purposes only.

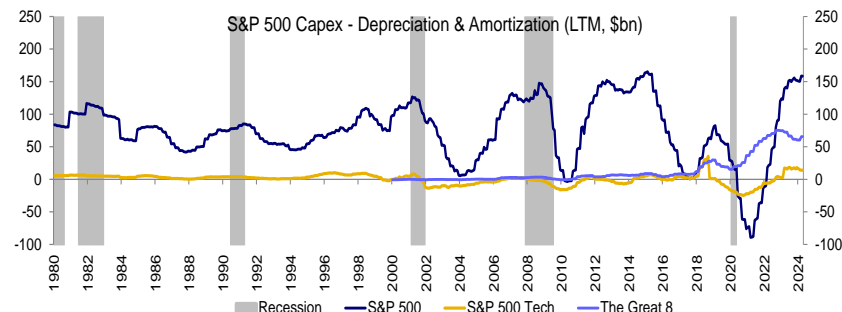
For institutional use and registered representative use only. Not for public viewing or distribution.

CAPEX AT THE GREAT 8

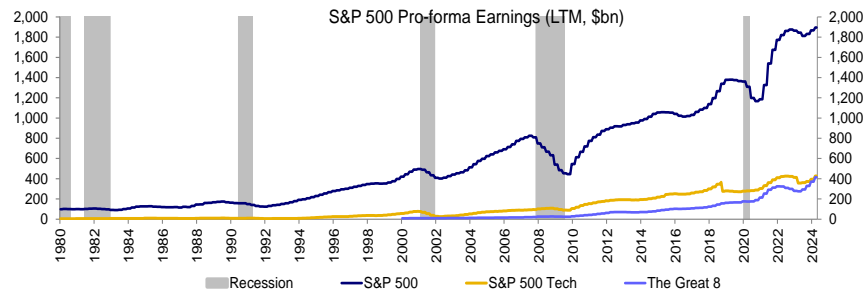
S&P 500, TECH AND THE GREAT 8 CAPEX



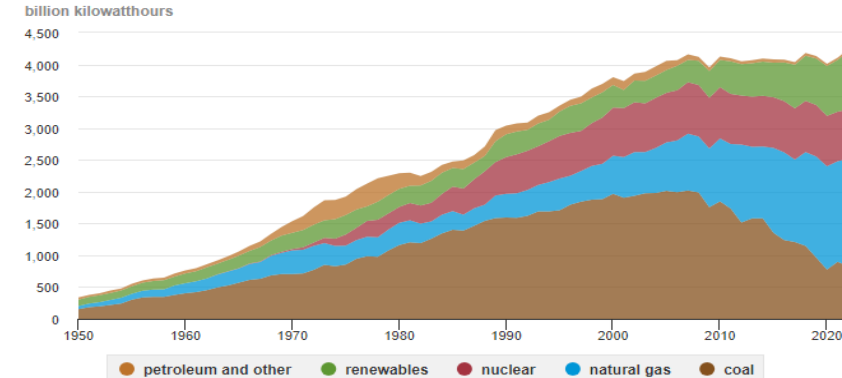
S&P 500, TECH AND THE GREAT 8 CAPEX – D&A



S&P 500, TECH AND THE GREAT 8 PROFITS



U.S. ELECTRICITY PRODUCTION



The Great 8: AAPL, AMZN, GOOG/GOOGL, META, MSFT, NFLX, NVDA, TSLA
 Source: Haver, DWS Investment GmbH as of 1Q2024, for illustrative purposes only.

TOP 10 S&P 500 COMPANIES WITH THE LARGEST CAPEX

Non-Energy, Industrials, Materials, Utilities and Financials sectors



Total			59,338	52,162	14%	58,426	256,249	210,690	22%	215,754	217,866	129,970	350,786	36%
Company Name	Sector	Industry	1Q24			Consensus Capex 2024			Capex LTM (2Q23-1Q24)		Consensus Net Income		(Capex - D&A) / Net Income	
			Capex 1Q24	Capex 1Q23	vs. 1Q23	Capex 4Q23	Consensus Capex 2024	Capex 2023	vs. Capex 2023	Capex 2022	D&A 2023	2024		
AMAZON.COM INC	Consumer Discretionary	Broadline Retail	14,925	14,207	5%	14,588	62,478	52,729	18%	63,645	53,447	48,663	41,463	33%
ALPHABET INC	Communication Services	Interactive Media & Services	12,012	6,289	91%	11,019	47,670	32,251	48%	31,485	37,974	11,946	44,581	80%
MICROSOFT CORP	Information Technology	Software	10,952	6,607	66%	9,735	43,430	35,202	23%	24,768	39,547	17,303	93,070	28%
META PLATFORMS INC	Communication Services	Interactive Media & Services	6,400	6,842	-6%	7,665	36,991	27,266	36%	31,431	26,824	11,178	44,327	58%
INTEL CORP	Information Technology	Semiconductors & Semiconductor Equipment	5,970	7,413	-19%	6,696	22,765	25,750	-12%	24,844	24,307	9,602	4,647	283%
TESLA INC	Consumer Discretionary	Automobiles	2,777	2,073	34%	2,307	10,938	8,899	23%	7,163	9,603	4,667	7,057	89%
APPLE INC	Information Technology	Technology Hardware, Storage & Peripherals	1,996	2,916	-32%	2,392	9,551	9,564	0%	11,692	8,644	11,451	97,971	-2%
ORACLE CORP	Information Technology	Software	1,674	2,628	-36%	1,080	9,615	6,935	39%	6,678	5,981	6,172	9,503	36%
MICRON TECHNOLOGIES	Information Technology	Semiconductors & Semiconductor Equipment	1,384	2,205	-37%	1,796	7,802	7,023	11%	11,251	6,202	7,750	3,472	2%
TEXAS INSTRUMENTS	Information Technology	Semiconductors & Semiconductor Equipment	1,248	982	27%	1,148	5,008	5,071	-1%	2,797	5,337	1,238	4,696	80%

Source: Clarifi, DWS Investment GmbH as of 1Q2024, for illustrative purposes only.

For institutional use and registered representative use only. Not for public viewing or distribution.

S&P 500 CAPEX BY SECTOR

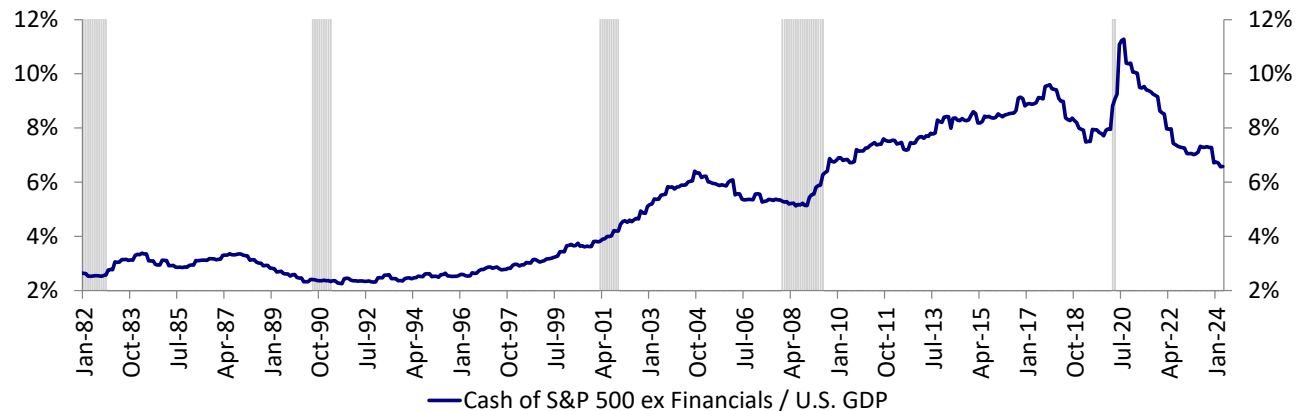
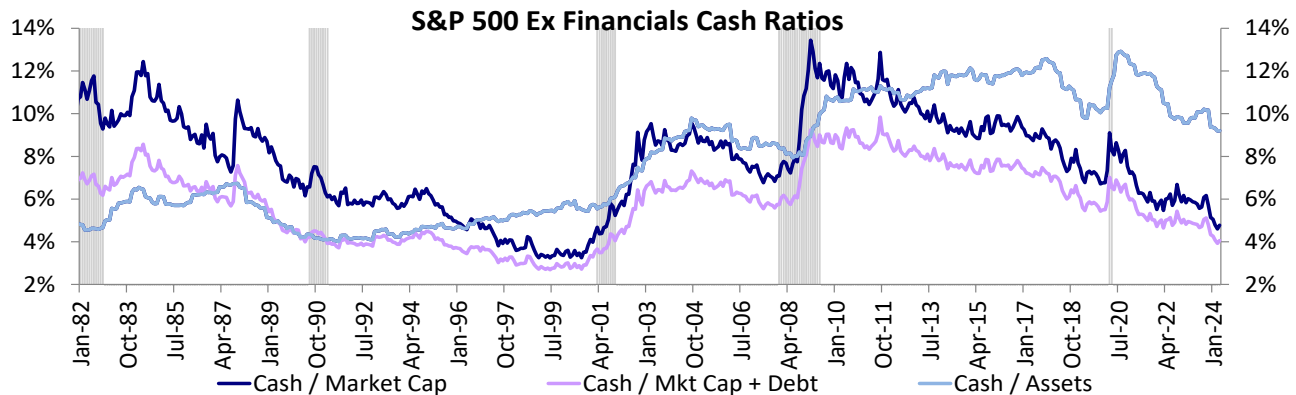


	Capex 1Q24	Capex 1Q23	1Q24 vs. 1Q23	Capex 4Q23	Consensus Capex 2024	Capex 2023	Consensus vs. Capex 2023	Capex 2022	Capex LTM (2Q23- 1Q24)	D&A 2023	Consensus Net Income 2024	(Capex - D&A) / Net Income
Communication Services	48,990	40,350	21%	49,139	214,057	171,627	25%	181,034	180,298	126,951	210,691	41%
Consumer Discretionary	36,379	31,997	14%	38,535	133,260	134,943	-1%	133,826	138,683	101,729	175,678	18%
Consumer Staples	17,161	15,268	12%	20,100	68,637	70,237	-2%	60,172	70,799	45,427	127,929	18%
Energy	26,380	25,188	5%	29,080	109,615	106,735	3%	89,391	107,927	91,929	134,623	13%
Financials	11,520	10,612	9%	13,659	47,537	49,260	-3%	46,387	50,098	83,134	362,348	-10%
Health Care	13,115	14,058	-7%	16,411	57,573	58,339	-1%	53,582	57,539	98,141	262,106	-15%
Industrials	20,054	17,781	13%	24,233	80,457	83,712	-4%	78,061	86,444	68,460	172,372	7%
Information Technology	29,259	29,400	0%	28,985	124,985	116,642	7%	109,678	116,550	100,237	444,334	6%
Materials	10,979	8,940	23%	11,480	42,001	39,868	5%	32,718	41,906	30,423	47,552	24%
Real Estate	2,422	1,852	31%	3,085	20,314	9,149	122%	7,981	9,719	29,350	54,387	-17%
Utilities	37,289	34,967	7%	40,153	167,656	150,023	12%	131,201	152,345	58,734	58,831	185%
S&P 500	253,548	230,414	10%	274,860	1,066,091	990,536	8%	924,030	1,012,308	834,515	2,050,850	11%

Source: Clarifi, DWS Investment GmbH as of 1Q2024, for illustrative purposes only.

For institutional use and registered representative use only. Not for public viewing or distribution.

S&P 500 EX FINANCIALS: CASH



Source: Haver, DWS Investment GmbH as of 1Q2024, for illustrative purposes only.

For institutional use and registered representative use only. Not for public viewing or distribution.

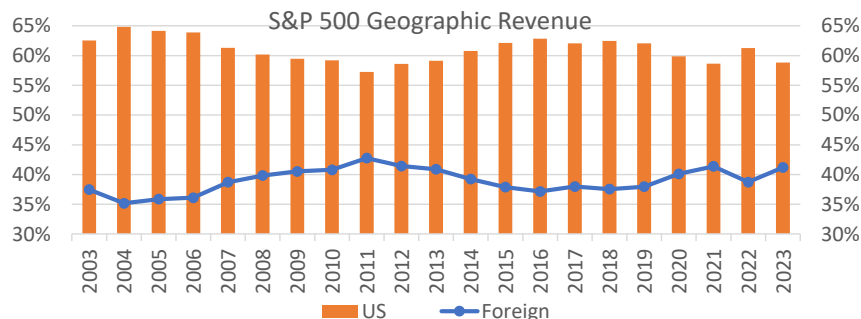
S&P 500 REVENUE GEOGRAPHIC DISTRIBUTION



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	2023
US	62.5%	64.8%	64.1%	63.9%	61.3%	60.2%	59.5%	59.2%	57.2%	58.6%	59.1%	60.8%	62.1%	62.8%	62.0%	62.5%	62.0%	59.9%	58.6%	61.3%	58.8%
Foreign	37.5%	35.2%	35.9%	36.1%	38.7%	39.8%	40.5%	40.8%	42.8%	41.4%	40.9%	39.2%	37.9%	37.2%	38.0%	37.5%	38.0%	40.1%	41.4%	38.7%	41.2%
Europe	16.7%	15.6%	15.6%	15.5%	17.0%	17.7%	16.7%	16.0%	15.9%	15.0%	15.2%	14.6%	13.9%	13.4%	13.6%	13.9%	13.8%	14.5%	14.5%	13.3%	13.8%
UK	2.9%	2.9%	2.7%	2.7%	3.0%	2.9%	2.7%	2.7%	2.8%	2.6%	2.7%	2.6%	2.8%	2.6%	2.3%	2.4%	2.4%	2.5%	2.4%	2.3%	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%	14.0%	14.9%	14.8%	15.3%	17.0%	18.3%	16.2%	18.0%
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%	5.9%	5.9%	6.8%	7.9%	6.9%	7.5%
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%	2.6%	2.9%	2.9%	2.8%	2.9%	3.1%	3.1%	2.6%	2.6%
LatAm	3.0%	3.2%	3.4%	3.5%	3.7%	3.9%	4.0%	4.3%	4.8%	4.6%	4.6%	4.2%	3.9%	3.5%	3.6%	3.4%	3.4%	3.1%	3.2%	3.4%	3.7%

S&P 500 REVENUE GEOGRAPHIC DISTRIBUTION



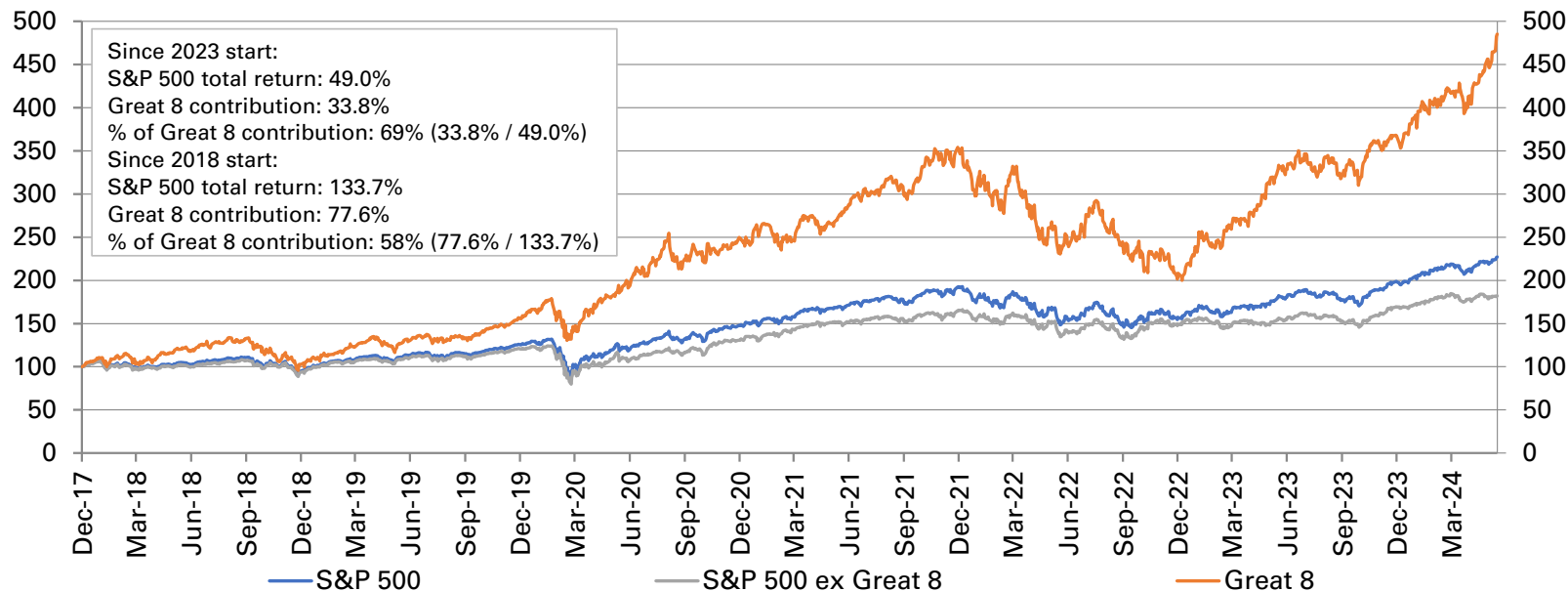
S&P 500 2023 REVENUE GEOGRAPHIC DISTRIBUTION BY

	US	Foreign	Europe	UK	Asia	China	Japan	LatAm
S&P 500	58.6%	41.4%	13.6%	2.2%	17.9%	7.4%	2.6%	4.0%
Communication	51.9%	48.1%	16.5%	2.1%	14.6%	4.5%	2.3%	8.3%
Cons. Disc.	66.8%	33.2%	14.9%	3.6%	11.9%	5.5%	2.3%	2.1%
Cons. Staples	60.2%	39.8%	13.6%	1.6%	12.3%	4.3%	2.2%	5.2%
Energy	61.0%	39.0%	12.6%	3.9%	14.1%	5.6%	0.8%	4.1%
Financials	71.9%	28.1%	11.1%	2.4%	9.8%	3.0%	1.8%	2.1%
Health Care	65.7%	34.3%	15.7%	1.7%	12.4%	4.5%	2.6%	2.2%
Industrials	66.8%	33.2%	11.2%	2.0%	10.7%	3.3%	1.8%	5.4%
Tech	42.6%	57.4%	14.8%	1.7%	34.1%	14.9%	4.0%	2.0%
Materials	48.1%	51.9%	19.0%	5.1%	20.1%	6.0%	3.0%	6.2%
Real Estate	82.5%	17.5%	6.4%	2.5%	4.5%	1.6%	0.7%	2.6%
Utilities	98.7%	1.3%	0.1%	0.0%	0.0%	0.0%	0.0%	1.2%

Source: Factset, DWS Investment GmbH as of July 2024, for illustrative purposes only. Past performance is not a guarantee of future results.

For institutional use and registered representative use only. Not for public viewing or distribution.

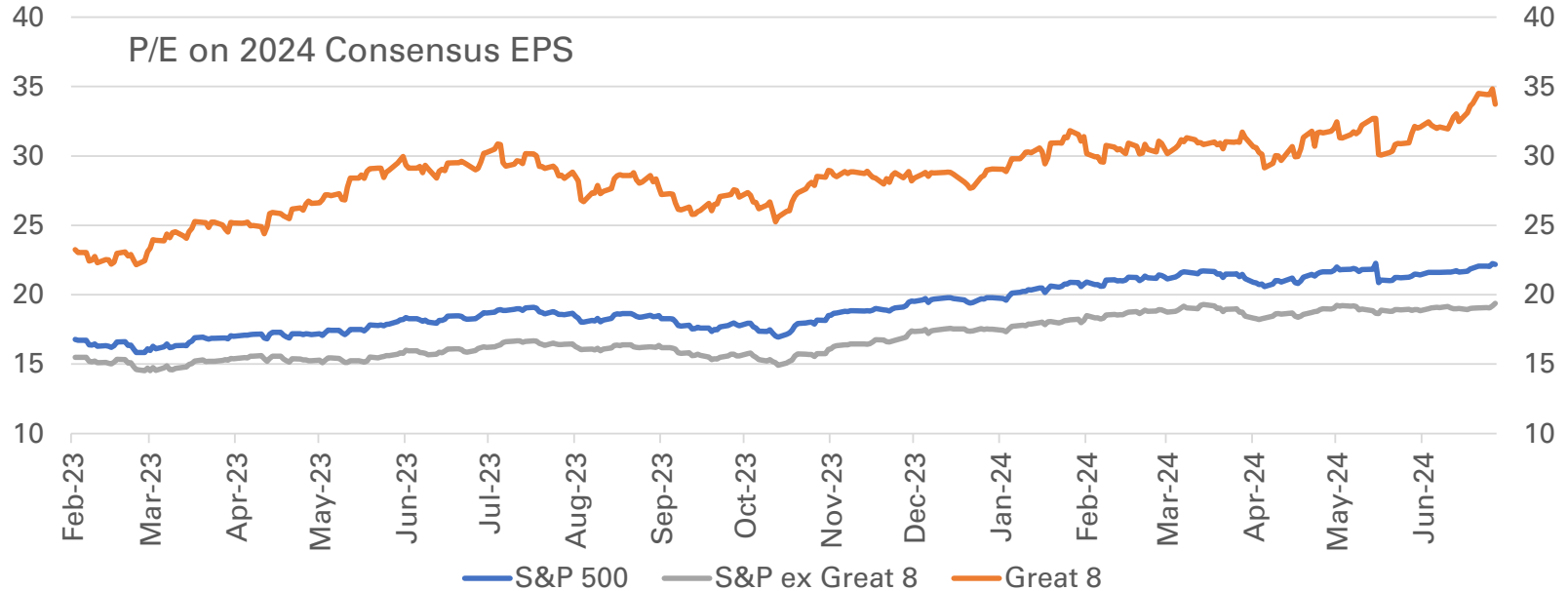
S&P 500 AND THE GREAT 8 TOTAL RETURN



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

Source: IBES, Factset, DWS Investment GmbH as of 7/11/2024. Past performance may not be indicative of future results. It is not possible to invest directly in an index.

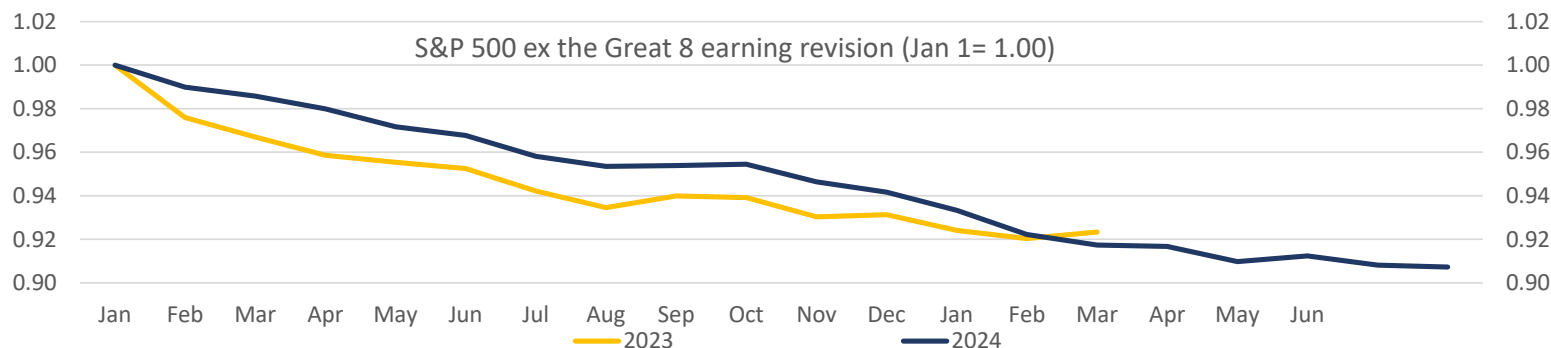
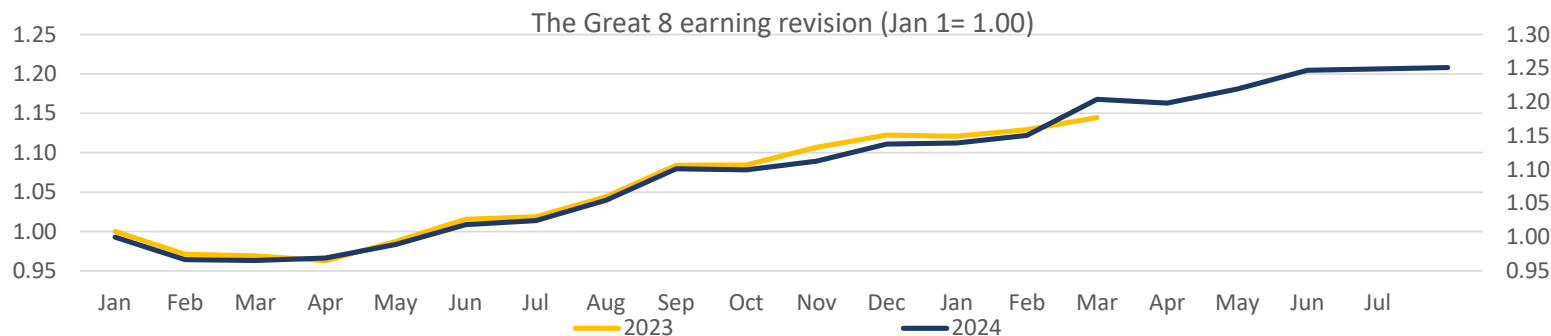
S&P 500 AND THE GREAT 8 P/E RATIO



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

Source: IBES, Factset, DWS Investment GmbH as of 7/11/2024. Past performance may not be indicative of future results. It is not possible to invest directly in an index.

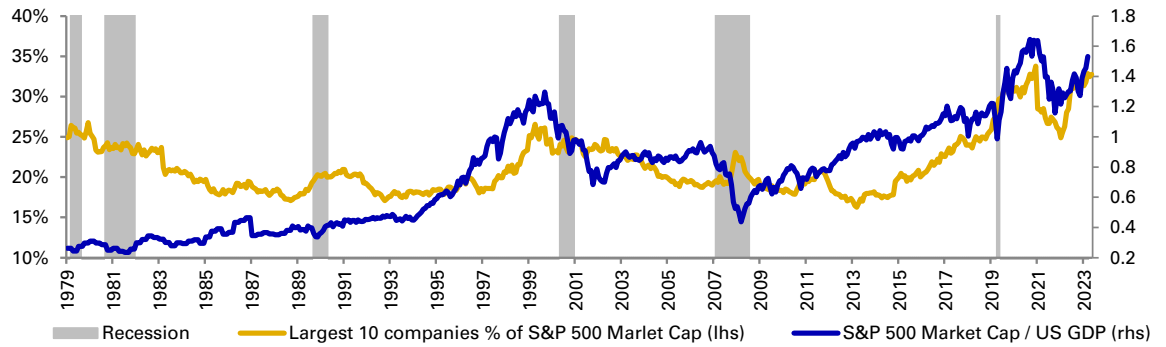
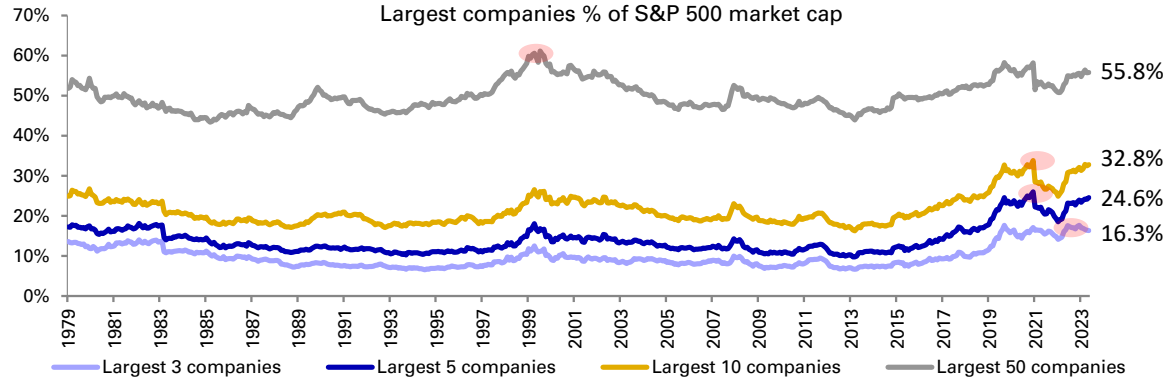
S&P 500 AND THE GREAT 8 EPS REVISIONS



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

Source: IBES, Factset, DWS Investment GmbH as of 7/11/2024. Past performance may not be indicative of future results. It is not possible to invest directly in an index.

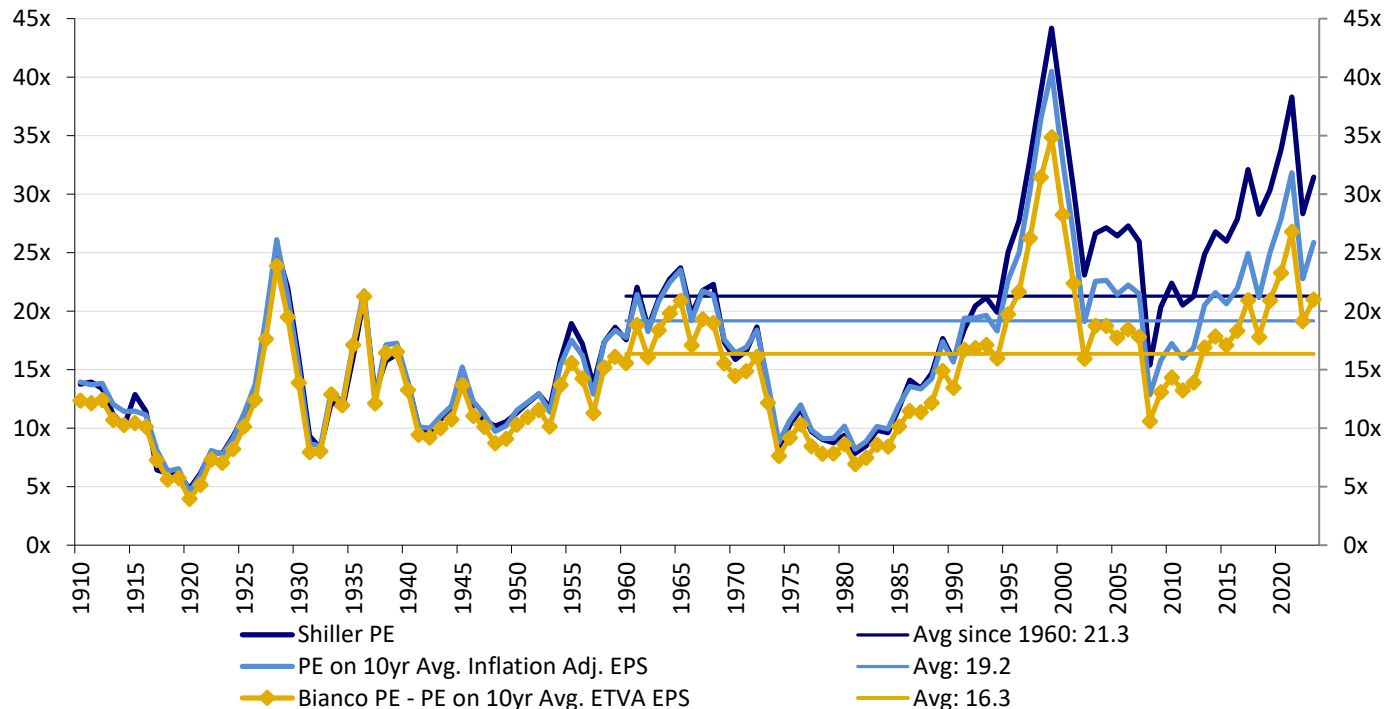
S&P 500 CONCENTRATION



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

For institutional use and registered representative use only. Not for public viewing or distribution.

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 12/31/2023, 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. Past performance is not a guarantee of future results.

S&P 500 5%+ PULLBACKS

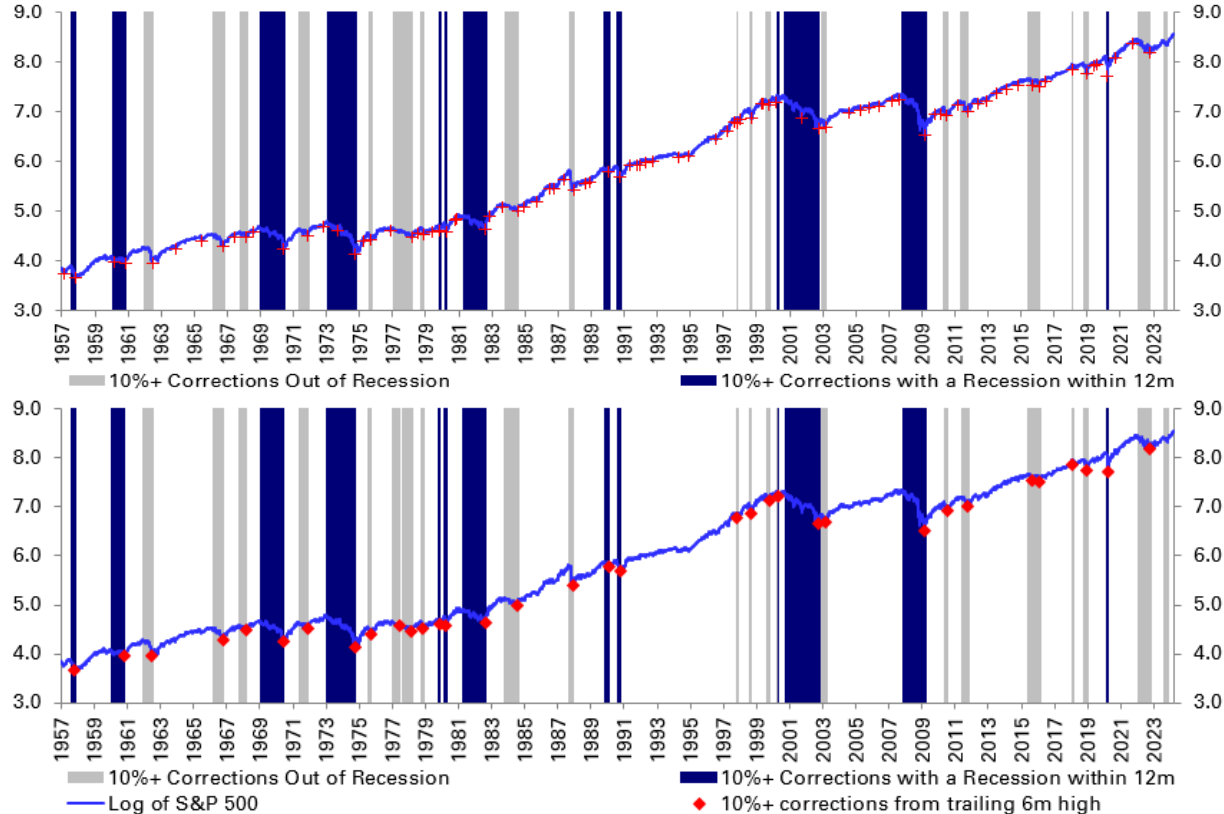


From high of:	All time	3yr high	1yr high	6mos high
5% Dips	68	84	94	89
10% Corrections	29	34	35	34
15% Swoons	21	22	22	24
20% Bears	14	11	15	13
25%+ Crash	13	8	8	8

	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%

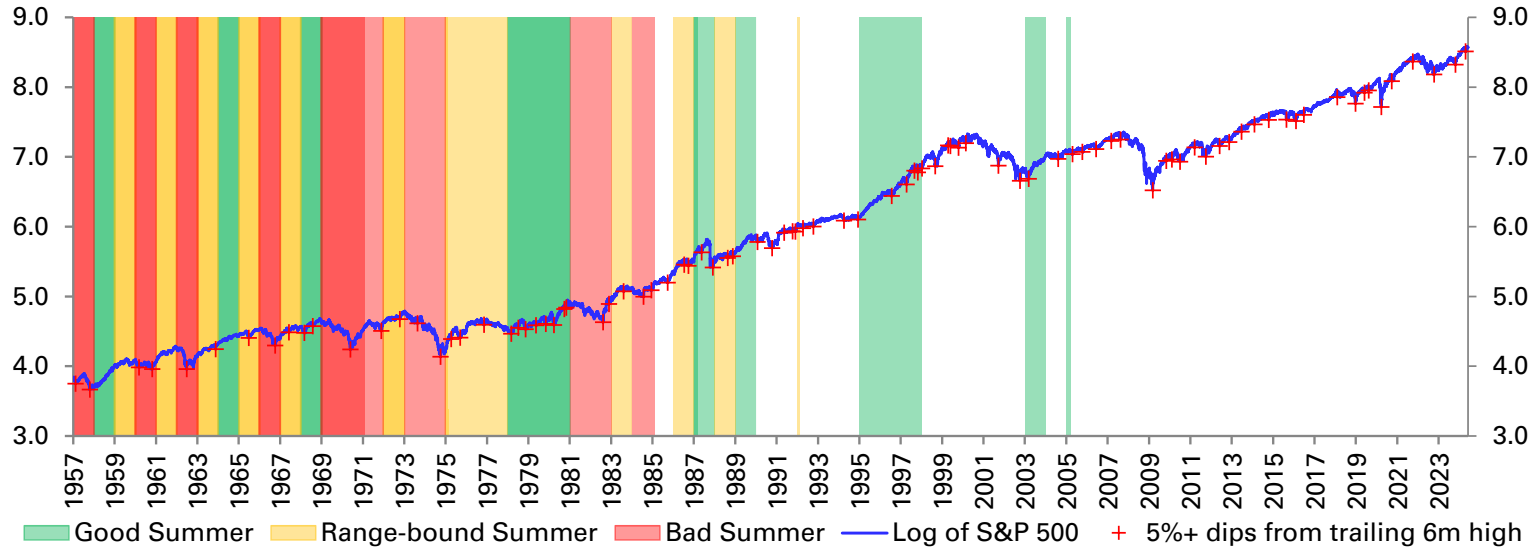
Source: Haver, Haver, DWS Investment GmbH as of March 2024. Past performance may not be indicative of future results. For illustrative purposes only.

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: GOOD SUMMERS AND BAD SUMMERS



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

For institutional use and registered representative use only. Not for public viewing or distribution.

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	Sector OW	8.89%
Over-weight	11.7%	16.4%	Health Care	17.9	22.3	19.8	Biotechnology	14.5	19.8	19.8	Health Care Providers & Services	16.8	15.6	15.0	Life Sciences Tools & Services	24.0	28.1	28.1	Sector UW	-8.89%
							Health Care Equipment & Supplies	26.7	26.8	25.0									Industry OW	18.05%
							Pharmaceuticals	15.9	26.9	19.6									Industry UW	-18.05%
	12.3%	14.1%	Financials	19.4	17.5	16.6	Banks	13.8	11.9	12.6	Financial Services	28.5	24.8	23.1	Capital Markets	21.4	22.2	19.4		
							Insurance	20.7	17.1	14.4						Consumer Finance	12.8	14.6	14.2	
9.5%	10.7%	Communication Services	31.2	24.6	21.1	Entertainment	85.3	34.2	28.4	Diversified Telecommunication Ser	7.7	8.3	9.0	Media	10.8	10.5	10.5	Macro tilts:		
							Interactive Media & Services	45.9	32.6	25.4	Wireless Telecommunication Servi	86.8	25.6	20.7					Cyclicals	-4.57%
3.6%	4.6%	Energy	8.7	11.7	12.9	Energy Equipment & Services	21.9	14.7	13.0	Oil Gas & Consumable Fuels	8.3	11.5	12.9					Defensive	4.57%	
							Electric Utilities	21.6	19.5	17.5	Gas Utilities	20.9	18.8	16.9					Value (Financial+Energy)	2.59%
2.3%	3.0%	Utilities	20.3	19.1	17.3													Growth	-0.32%	
																			Growth ex Health Care	-4.15%
																			Consumer	-3.45%
																			Services/experience	0.02%
																			Disc. Goods	-3.53%
																			Retailing	-2.27%
																			Durables	-1.26%
																			Staples Goods/Retail	0.06%
																			Commodity	1.13%
																			Energy	1.02%
																			Metals/Chemicals	0.11%
																			Capex	6.71%
																			Capacity additions	3.58%
																			Productivity	3.13%
																			Health Care	3.83%
																			Innovation	3.45%
																			Marketers	1.86%
																			Insurers	-0.10%
																			Financials	1.57%
																			Up rates/low spreads	0.66%
																			Capital Markets	-0.53%
																			Insurance	1.44%
																			Bond Substitutes	0.73%
																			Weak FX \$ plays	0.15%
																			High R&D plays	1.80%
																			Transports	-0.78%
																			Geopolitical risk	1.89%
																			Weak oil prices	-0.12%
																			Inflation shock	-0.04%
																			Stagflation Protection	4.08%
																			Domestic GDP	-3.04%
																			Global GDP	-5.74%
																			Consumer TMT	-0.28%
																			Trade sensitive	-2.38%

Source: Factset, DWS Investment GmbH as of 7/11/2024, for illustrative purposes only. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect. Past performance is not a guarantee of future results. Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index.

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)	Fair PE on Normal 2024E EPS	2024 End Upside %	2024 End Upside vs. S&P 500
Communication Services	4,492	21.1	213.0	102%	216.8	-5%	206.0	11%	0.83	5.50%	3,745	20%	4,494	0.8%	4,817	22.2	7%	13%
Consumer Discretionary	4,693	26.9	174.2	103%	178.7	-7%	166.2	10%	0.76	5.50%	3,022	36%	4,115	1.0%	4,403	24.6	-6%	0%
<i>Automobiles</i>	778	31.1	25.0	100%	25.0	-10%	22.5	32%	0.99	6.00%	375	40%	525	0.4%	568	22.7	-27%	-21%
<i>Broadline (Internet) Retail</i>	1,759	41.4	42.5	115%	48.9	-5%	46.4	0%	0.18	5.25%	884	75%	1,548	0.0%	1,667	34.1	-5%	1%
<i>ex. Auto & Broadline (Internet) Retail</i>	2,155	20.2	106.7	98%	104.9	-7%	97.3	13%	0.78	5.52%	1,763	16%	2,042	1.6%	2,174	20.7	1%	7%
Consumer Staples	2,494	20.0	125.0	97%	121.1	-6%	113.8	14%	0.84	5.25%	2,167	5%	2,276	2.8%	2,388	19.7	-4%	2%
Energy	1,746	12.9	135.0	91%	123.0	-10%	110.7	14%	0.90	6.20%	1,785	-15%	1,518	2.2%	1,617	13.1	-7%	-1%
Financials	5,984	16.6	360.0	97%	348.1	-7%	322.0		1.11	6.00%	5,367	-2%	5,260	1.7%	5,615	16.1	-6%	0%
<i>Banks</i>	1,591	12.6	126.5	95%	120.2	-7%	111.8		1.11	7.00%	1,597	-10%	1,437	2.6%	1,536	12.8	-3%	3%
Health Care	5,518	19.8	278.5	100%	277.3	-8%	255.1	10%	1.14	5.40%	4,725	15%	5,433	1.3%	5,791	20.9	5%	11%
Industrials	3,782	22.0	172.3	101%	174.0	-5%	165.3	15%	0.88	5.50%	3,006	10%	3,307	1.6%	3,519	20.2	-7%	-1%
Information Technology	15,428	34.7	445.0	110%	489.4	-2%	479.6	2%	0.95	5.25%	9,136	35%	12,334	0.7%	13,204	27.0	-14%	-8%
Materials	1,025	21.6	47.5	99%	46.9	-7%	43.6	16%	0.90	5.75%	759	10%	834	1.4%	892	19.0	-13%	-7%
Real Estate	952	17.4	54.7	96%	52.6	-10%	47.3	35%	1.79	5.60%	845	0%	845	3.6%	882	16.8	-7%	-1%
Utilities	1,032	17.3	59.5	107%	63.5	-7%	59.1	79%	-0.81	5.50%	1,074	5%	1,128	3.4%	1,179	18.6	14%	20%
S&P 500 (\$ bn)	47,147	22.8	2064.7	101%	2091.4	-5.9%	1968.8			5.49%	35,632	16.6%	41543	1.3%	44,308	21.2	-6%	0%
S&P 500 Index (\$/sh)	5585	22.8	245.0	102%	250.0	-6.0%	235.0	10%	0.93	5.50%	4273	16.7%	4988	1.3%	5311	21.2	-5%	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 3/31/2024.

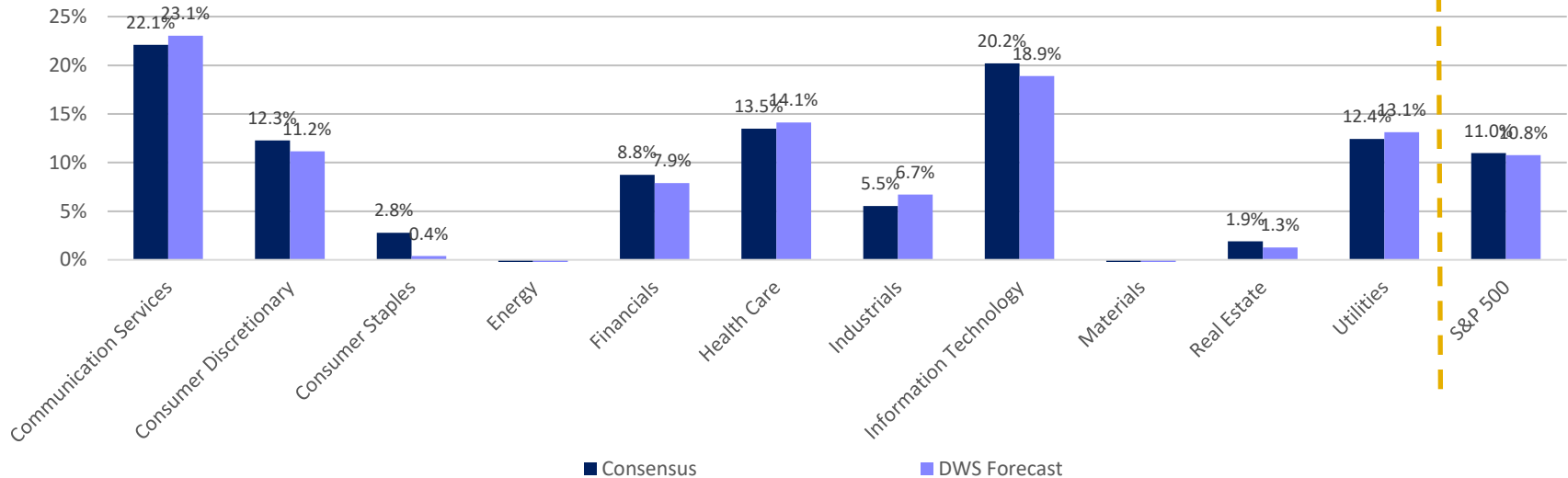
The estimated 2024 yearend upside is on absolute valuation basis of each sector, not on relative sector valuation basis.

Source: IBES, DWS Investment GmbH as of 7/11/2024, for illustrative purposes only. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect. Past performance is not a guarantee of future results. Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index.

DWS S&P 500 EPS OUTLOOK



S&P 500 2024 EPS y/y Growth: Consensus vs. DWS Forecast



Source: DWS Investment GmbH as of 7/11/2024, for illustrative purposes only. Forecasts are based on assumptions, estimates, opinions and hypothetical models that may prove to be incorrect. Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index.

DWS S&P 500 ANNUAL EPS OUTLOOK

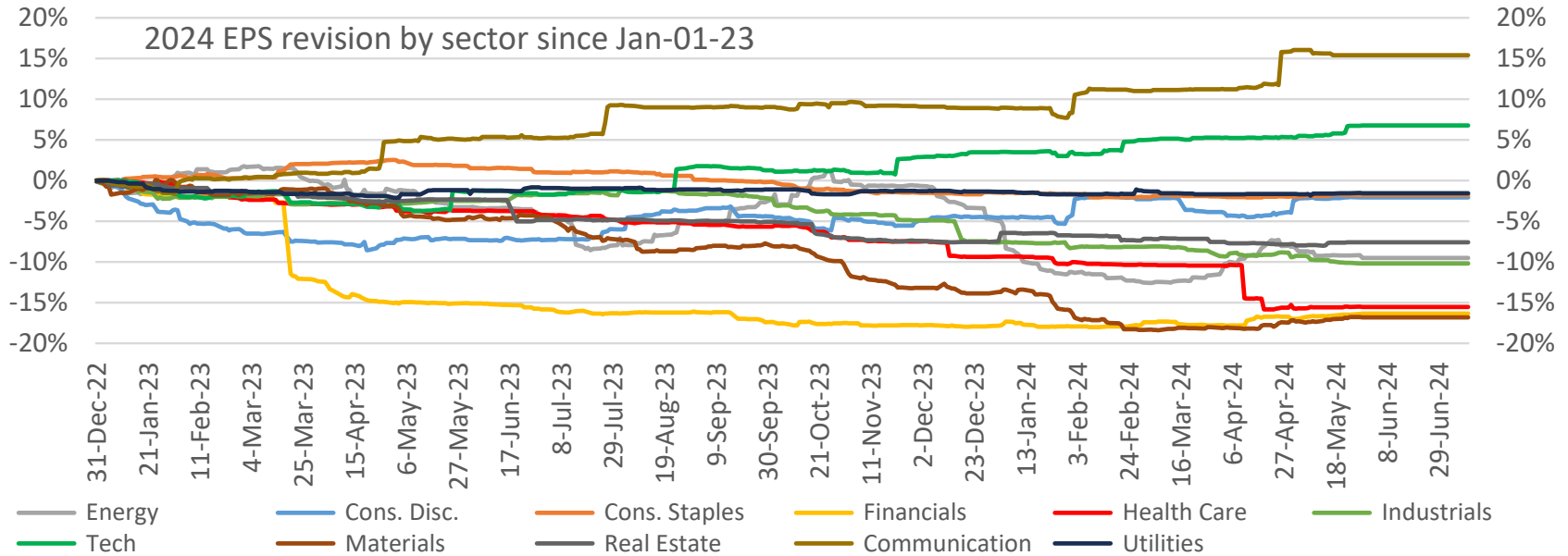


	2014A	2015A	2016A	2017A	2018A	2019A	2020A	2021A	2022A	2023A	y/y	Bottom-up Consensus (IBES)				DWS View				Normalized 2024		
												2024E	y/y	2025E	y/y	2024E	y/y	2025E	y/y	(\$)	% of 2023	
S&P 500 EPS (historical index)	\$118.82	\$117.46	\$118.10	\$132.00	\$161.93	\$162.93	\$139.72	\$208.12	\$218.09	\$221.36	1.5%											
S&P 500 EPS (current constituents)	\$116.69	\$117.11	\$117.57	\$131.02	\$157.80	\$159.37	\$141.81	\$217.71	\$218.45	\$222.30	1.8%	\$247	11.0%	\$280	13.7%	\$245	10.2%	\$270	10.2%	\$250	102%	
Sector (\$ bn)																						
Communication Services	66.3	76.8	88.9	96.9	121.2	127.9	131.9	183.9	143.9	173.1	20.3%	211.4	22.1%	237.7	12.5%	213.0	23.1%	238.5	12.0%	216.8	102%	
Consumer Discretionary	57.7	67.6	75.3	79.6	94.8	93.1	62.3	121.6	110.5	156.7	41.8%	176.0	12.3%	201.3	14.4%	174.2	11.2%	190.0	9.1%	178.7	103%	
Consumer Staples	84.0	82.8	85.5	89.8	96.9	98.0	105.3	118.0	111.9	124.5	11.3%	128.0	2.8%	137.4	7.3%	125.0	0.4%	131.2	5.0%	121.1	97%	
Energy	94.2	39.5	10.4	36.9	69.5	49.1	-6.6	78.7	200.4	141.5	-29.4%	131.8	-6.8%	146.8	11.4%	135.0	-4.6%	143.0	5.9%	123.0	91%	
Financials	184.3	200.0	203.8	213.3	262.6	276.6	225.6	363.2	308.5	333.7	8.2%	362.9	8.8%	402.1	10.8%	360.0	7.9%	383.5	6.5%	348.1	97%	
Health Care	137.9	152.9	157.8	172.2	189.0	207.0	227.0	293.1	308.5	244.0	-20.9%	277.0	13.5%	312.5	12.8%	278.5	14.1%	302.0	8.4%	277.3	100%	
Industrials	100.6	104.1	98.1	107.1	130.8	113.9	61.2	112.2	135.9	161.5	18.8%	170.4	5.5%	195.7	14.8%	172.3	6.7%	184.8	7.3%	174.0	101%	
Information Technology	159.3	165.3	170.6	204.5	236.9	231.3	263.6	436.7	363.5	374.3	3.0%	449.9	20.2%	540.8	20.2%	445.0	18.9%	505.0	13.5%	489.4	110%	
Materials	24.6	23.4	22.5	28.7	36.2	34.1	32.5	61.5	63.9	48.4	-24.3%	47.4	-2.0%	55.6	17.3%	47.5	-1.8%	50.0	5.3%	46.9	99%	
Real Estate	22.9	24.2	28.4	31.7	35.7	37.1	37.0	44.0	51.6	54.0	4.6%	55.0	1.9%	58.2	5.7%	54.7	1.3%	56.0	2.3%	52.6	96%	
Utilities	32.9	33.1	35.7	37.1	40.9	45.0	46.9	49.6	50.9	52.6	3.3%	59.1	12.4%	63.9	8.1%	59.5	13.1%	65.0	9.3%	63.5	107%	
S&P 500	964.8	969.5	977.1	1097.8	1314.4	1313.1	1186.7	1862.5	1849.4	1864.2	0.8%	2068.8	11.0%	2351.9	13.7%	2064.7	10.8%	2249.0	8.9%	2091.4	101%	
S&P ex. Energy (\$bn)	870.6	930.0	966.6	1060.9	1244.9	1264.0	1193.3	1783.7	1649.1	1722.8	4.5%	1937.0	12.4%	2205.1	13.8%	1929.7	12.0%	2106.0	9.1%	1968.4	102%	
S&P ex. Tech (\$bn)	805.5	804.2	806.4	893.3	1077.5	1081.7	923.2	1425.7	1485.9	1489.9	0.3%	1618.9	8.7%	1811.1	11.9%	1619.7	8.7%	1744.0	7.7%	1602.0	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	\$1,872	6.8%											
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%	11.8%												

S&P 500 EPS	Whole Year	1Q	2Q	3Q	4Q	S&P 500 Trailing PE	Average	Stdev	3yr Avg High	3yr Avg Low
2019A	163	39	41	41	42	1960 – 2023	16.5	4.6	26.3	7.9
2020A	140	33	28	38	42	1985 – 2023	18.1	3.9	26.3	13.0
2021A	210	49	53	54	54	1995 – 2023	18.9	3.8	26.3	14.2
2022A	222	55	58	56	53	2005 – 2023	17.6	2.8	21.8	14.2
2023A	223	53.00	54.25	58.5	57.25	2005 – 2019	16.7	1.9	18.8	14.2
2024E	245	58.00	60.00	62.00	65.00	(pre-pandemic)				

Source: Factset, DWS Investment GmbH as of 7/11/2024, for illustrative purposes only. Forecasts are based on assumptions, estimates, opinions and hypothetical models that may prove to be incorrect. Past performance is not a guarantee of future results. Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index.

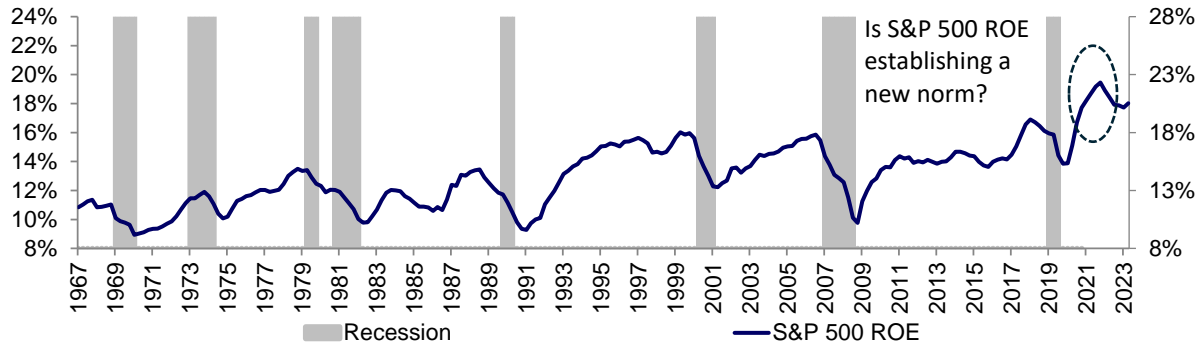
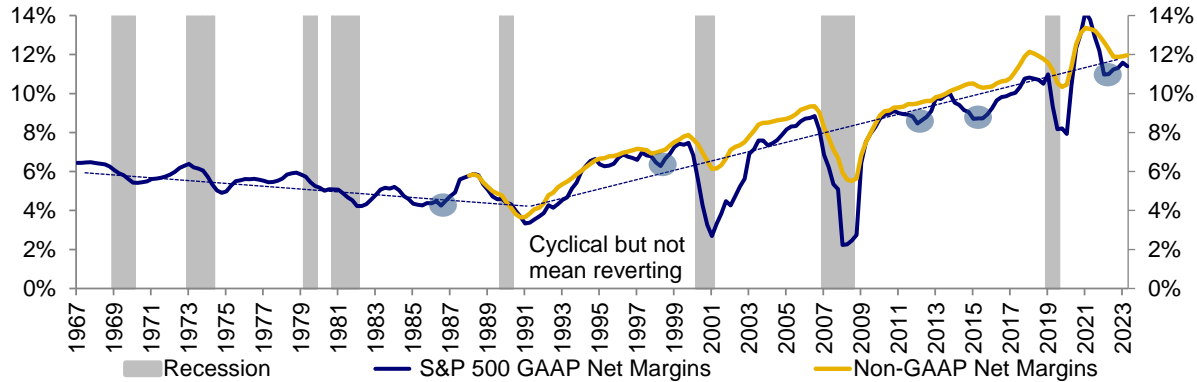
S&P 500 2024 EPS REVISION BY SECTOR



Source: IBES, Factset, DWS Investment GmbH as of 7/11/2024. Past performance may not be indicative of future results. It is not possible to invest directly in an index.

For institutional use and registered representative use only. Not for public viewing or distribution.

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



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

For institutional use and registered representative use only. Not for public viewing or distribution.

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	\$245.00	DWS 2024E S&P 500 DPS	\$76.00	DWS 2024E S&P 500 aggregate ROE	22.3%	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	\$250.00	DWS "normal 2024E" S&P 500 DPS	\$76.00	DWS "normal 2024E" S&P 500 aggregate ROE	21.4%	+ Long-term real risk free interest rate	1.75%
"Normal 2024E" EPS / 2024 EPS	102%	Normal dividend payout ratio	32%			+ Long-term fair S&P 500 equity risk premium*	3.75%
				S&P EPS retained for operating reinvestment	34%	= Long-term real S&P 500 cost of equity	
Accounting quality adjustment to pro forma EPS	-\$15.00	EPS directed to net share repurchases	\$78.00	Estimated ROE on reinvested S&P EPS	9.50%	+ Long-term inflation forecast	2.50%
		Normal share repurchase payout ratio	33%	Economic margin (EM) or ROE-CoE	1.50%	= S&P 500 nominal cost of equity	
Normal 2024E S&P 500 EPS fair to capitalize	\$235	Total payout of S&P 500 EPS	\$154.00	Sources of long-term earnings growth:		* S&P 500 ERP history 300-400bps, w/ real CoE @ 5% - 6.5%	
Key principle: steady-state value = normal EPS / real CoE		Total payout ratio of normal and quality adj. EPS	66%	+ Long-term inflation forecast	2.50%	Fair S&P 500 Market Value and Book Value Multiple	
				+ Fair return on operating reinvestment	1.90%	2023E end S&P 500 book value per share	
<u>S&P 500 EPS Capitalization Valuation</u>		<u>S&P 500 DPS Discount Model</u>		+ Value added earnings growth on op. reinvestment	0.52%	Fair PB = Fair PE * normal aggregate ROE	
Normal EPS / (real CoE - (EM/payout) - EM):		Normal DPS / (nominal CoE - DPS growth):		= Long-term earnings growth	4.91%	Fair PE = (inc ROE-g)/(inc real ROE*(real CoE-real g))	
S&P 500 intrinsic value at 2024 start	4988	S&P 500 intrinsic value at 2024 start	4988	+ Growth from net share repurchases	1.56%	Implied S&P 500 fair value of book at 2024 start	
S&P 500 intrinsic value at 2024 end	5311	S&P 500 intrinsic value at 2024 end	5311	= Long-term S&P 500 EPS/DPS growth	6.48%	Steady-state PB = normal agg. ROE / real CoE	
Implied fair fwd PE in early 2024 on 2024E \$245 EPS	20.4	Implied fair forward yield on 2024E DPS of \$76.0	1.52%	+ Fair normal dividend yield	1.52%	Confirmed by fair steady-state PE = 1 / real CoE	
Implied fair trailing PE at 2024 end on 2024E \$245 EPS	21.7	Implied fair trailing yield on 2024E DPS of \$76.0	1.43%	= Total long-term return at constant PE	8.00%		

Normal EPS / (real CoE - value added EPS growth)	502	DPS discount model using true DPS (all payout)	5311	Value added growth premium in fair value est.	17%	Normal 2024E economic profit per share	\$174.50
--	-----	--	------	---	-----	--	----------

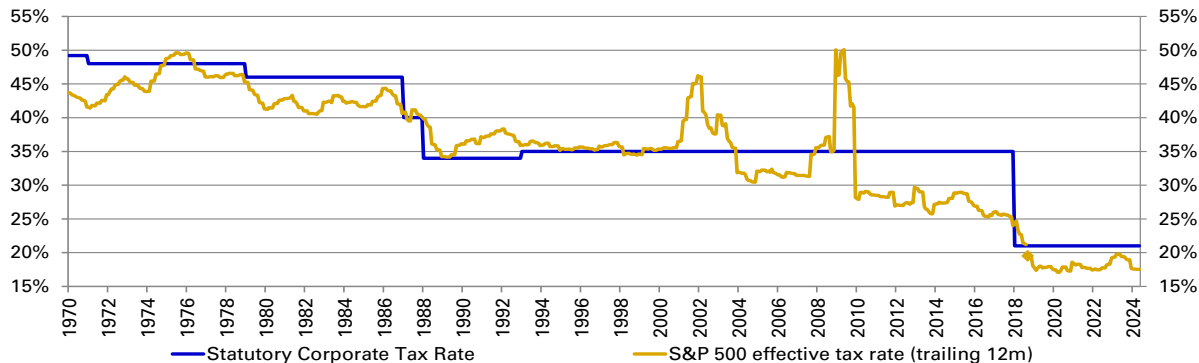
S&P 500 EPS discount model 5 steps to value:

- 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				
	\$240	\$245	\$250	\$255	\$260
5.00%	5855	6085	6323	6568	6822
5.25%	5380	5574	5772	5976	6186
5.50%	4978	5143	5311	5483	5659
5.75%	4632	4774	4919	5067	5216
6.00%	4331	4456	4582	4709	4838

Source: DWS Investment GmbH as of July 2024, for illustrative purposes only. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect. Past performance is not a guarantee of future results. Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index.

S&P 500 TAX RATE



	Effective Tax Rate	Current Tax Rate	Cash Paid Tax Rate	US Effective Rate	Foreign Effective Rate	Pretax Domestic Income % of Total	Pretax Foreign Income % of Total	Domestic Pretax Margin	Foreign Pretax Margin
Consumer Discretionary	13.1%	25.3%	25.8%	13.8%	13.8%	66.5%	33.5%	8.5%	12.2%
Consumer Staples	22.8%	23.7%	23.1%	21.8%	28.6%	64.7%	35.3%	4.8%	11.3%
Energy	25.1%	21.3%	23.5%	22.8%	28.1%	50.0%	50.0%	11.2%	23.9%
Financials	17.8%	23.8%	15.9%	28.5%	8.0%	52.2%	47.8%	12.3%	44.5%
Health Care	17.1%	33.1%	37.8%	26.0%	10.2%	29.9%	70.1%	2.1%	33.5%
Industrials	20.2%	22.0%	24.6%	22.2%	17.5%	57.7%	42.3%	8.8%	14.9%
Information Technology	14.0%	22.1%	21.7%	14.1%	15.1%	47.7%	52.3%	27.5%	22.2%
Materials	18.0%	27.3%	25.7%	22.0%	17.8%	46.0%	54.0%	7.4%	11.8%
Communication Services	17.7%	21.9%	19.1%	28.1%	26.5%	88.0%	12.0%	26.3%	6.9%
Real Estate	5.1%	6.4%	6.0%	10.2%	-4.1%	88.0%	12.0%	20.1%	11.2%
Utilities	9.3%	4.2%	4.9%	35.0%	-78.7%	99.3%	1.4%	13.4%	7.7%
S&P 500	17.5%	23.2%	21.8%	23.2%	15.3%	58.1%	41.8%	10.2%	20.4%
S&P 500 ex. Fin.	17.4%	23.1%	23.5%	22.0%	17.7%	59.8%	40.1%		

Source: Clarifi, S&P, Factset, DWS Investment GmbH as of July 2024. for illustrative purposes only. Past performance may not be indicative of future results. Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index.

MULTI-ASSET SUMMARY STATISTICS (2 OF 2)



	7/8/2024		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 <i>Corresponding Index</i>																				
Alternatives																				
Commodities	Bloomberg Commodity Index																			
Infrastructure (EV/EBITDA)	10.93	10.85	10.92	10.80	11.07	11.38	11.38	11.33	11.95	11.87	-1.44	-1.33	4.3%	-0.9%	6.8%	6.0%	7.7%	-1.1%	-0.05	19.3%
US REITs 3	17.97	17.97	17.97	19.58	19.63	17.62	21.64	19.19	21.89				4.2%	2.2%	-0.3%	6.3%	3.4%	5.8%	0.33	16.5%
REITs	S&P Dev. REIT USD TR																			
Non-Listed Real Estate	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	2.0%	2.0%	2.0%	1.9%	2.0%	2.7%	6.2%	3.7%	4.1%	4.0%	-1.01	-1.13	2.0%	0.0%	0.9%	4.7%	8.7%	8.0%	0.22	18.2%
Loans (Yield)	9.2%	9.3%	9.3%	9.4%	9.4%	9.1%	7.0%	5.24	6.0%	5.9%	1.77	1.95	9.2%	0.3%	4.6%	10.9%	5.5%	4.6%	0.54	5.1%
U.S. Economic Indicators																				
Headline CPI	3.30%	3.30%	3.30%	3.20%	3.10%	7.10%	1.90%	1.50%	2.70%	2.60%										
Core CPI	3.40%	3.40%	3.40%	3.80%	4.00%	6.00%	2.20%	1.70%	2.80%	2.42%										
Core PCE	2.57%	2.57%	2.57%	2.83%	3.18%	5.09%	2.04%	1.55%	2.39%	2.11%										
GDP	2.90%	2.90%	2.90%	2.90%	2.90%	#VALUE!	3.20%	3.00%	2.30%	2.07%										
Unemployment Rate	4.10%	4.00%	4.00%	3.90%	3.70%	3.60%	3.90%	6.70%	5.20%	5.85%										
Change in Nonfarm Payrolls	206.0	218.0	2.2	236.0	182.0	258.0	182.0	55.0	166.1	111.4										
Fixed Income and Rates																				
3-month LIBOR	5.57%	5.59%	5.60%	5.56%	5.59%	4.77%	2.81%	0.25%	1.84%	1.93%										
3-month T-Bill	5.28%	5.27%	5.31%	5.26%	5.26%	4.31%	2.37%	0.05%	1.52%	1.51%										
US 10-Year Treasury	4.28%	4.40%	4.50%	4.20%	3.88%	3.88%	2.69%	3.03%	2.39%	2.90%										
Yield Curve (10 YR - 2 YR in bps)	(34)	(36)	(37)	(42)	(37)	(55)	20	265												
Yield Curve (10 YR - 3 mo in bps)	(100)	(88)	(81)	(106)	(138)	(43)	31	298												
Yield Curve (10 YR - Fed Funds in bps)	(122)	(110)	(100)	(130)	(162)	(63)	18	278												
30-Year Fixed Rate Mortgage	7.21%	7.21%	7.26%	7.08%	6.94%	4.77%	4.97%	4.80%	4.56%	5.04%										
Commodities Indicators																				
Baltic Dry Index	1,966	2,050	1,815	1,821	2,094	1,515	1,271	2,277	1,399	2,299										
Dow Jones Transport Index	26,031	26,511	26,171	27,769	27,119	22,488	14,544	10,944	18,232	12,332										
Gold 200-Day Moving Average	2,134	2,327	2,081	1,988	1,961	1,781	1,251	1,343	1,536	1,283	5.33	4.06	2.0%	14.3%	22.5%	69.0%	78.7%	0.35	11.8%	
Oil 200-Day Moving Average	79	82	80	79	78	95	65	99	63	71	2.79	1.58	9.2%	15.1%	11.7%	43.0%	-20.2%	0.09	48.1%	
Currencies																				
Euro (USD/EUR)	1.08	1.07	1.08	1.08	1.10	1.07	1.15	1.37	1.13	1.23										
Sterling (USD/GBP)	1.28	1.26	1.27	1.26	1.27	1.21	1.28	1.66	1.34	1.53										
Yen (JPY/USD)	160.74	160.88	157.31	151.35	141.04	131.12	109.69	105.31	118.05	108.60										
Australian Dollar (USD/AUD)	0.67	0.67	0.67	0.65	0.68	0.68	0.70	0.89	0.73	0.80										
Canadian Dollar (CAD/USD)	1.36	1.37	1.36	1.35	1.32	1.36	1.36	1.06	1.30	1.19										
Swiss Franc (CHF/USD)	0.90	0.90	0.90	0.90	0.84	0.92	0.98	0.89	0.95	1.01										
Brazilian Real (BRL/USD)	5.46	5.59	5.25	5.01	4.86	#N/A	N/A	3.87	#N/A	N/A	4.20	3.12								

Source: Bloomberg, NCREIF, DWS Investment GmbH as of July 2024, for illustrative purposes only. Past performance may not be indicative of future results. . Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index.

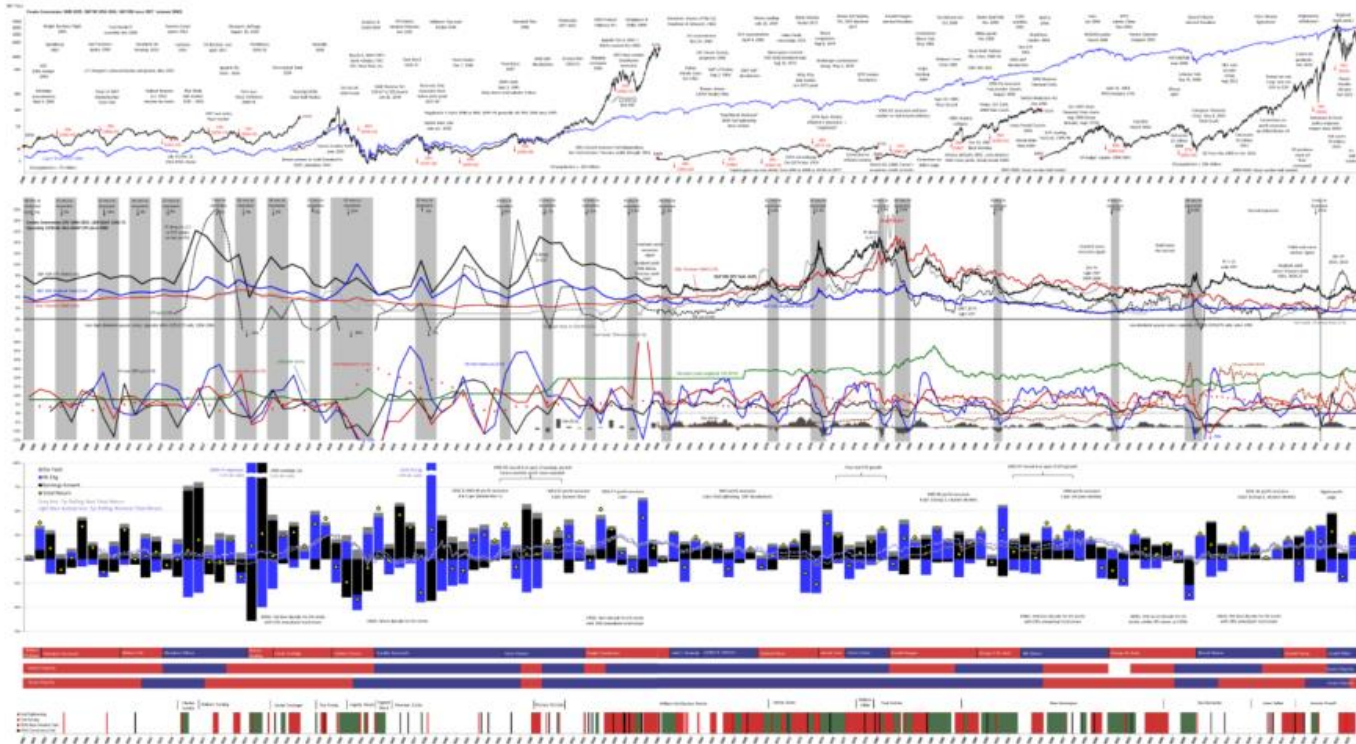
20 INVESTMENT STRATEGY PRINCIPLES



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, $EPS = FCF/sh. = DPS$. 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 $EPS=DPS$ (dividend per share). A fair PE on normalized steady-state $EPS = 1/$ 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 $1/$ 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.

Source: DWS Investment GmbH, for illustrative purposes only.

U.S. stock market since 1900



Contact your DWS representative for wall poster size prints.

David Bianco, Americas CIO
david.bianco@dws.com

Source: DWS (December 2023)
© 2024 DWS Group GmbH & Co. KGaA. All rights reserved. I-099321_1 (2/24)

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.

DISCLOSURE



The comments, opinions and estimates contained herein are based on or derived from publicly available information from sources that we believe to be reliable. We do not guarantee their accuracy. This material is for informational purposes only and sets forth our views as of date of this presentation and it is not intended to be a solicitation or recommendation. The underlying assumptions and these views are subject to change without notice.

Past performance is not indicative of future returns. Any mentions of specific securities are for illustrative purposes only and should not be considered a recommendation.

DWS does not intend to promote a particular outcome to the U.S. election (or other countries' elections) due to take place. Readers should, of course, vote in the election as they personally see fit.

Forecasts are based on assumptions, estimates, opinions and hypothetical models that may prove to be incorrect. Investments come with risk. The value of an investment can fall as well as rise and capital may be at risk. You might not get back the amount originally invested at any point in time.

War, terrorism, sanctions, economic uncertainty, trade disputes, public health crises and related geopolitical events have led, and, in the future, may lead to significant disruptions in U.S. and world economies and markets, which lead to increased market volatility and may have significant adverse effects on the fund and its investments.

The brand DWS represents DWS Group GmbH & Co. KGaA and any of its subsidiaries such as DWS Distributors, Inc. which offers investment products or DWS Investment Management Americas Inc. and RREEF America L.L.C. which offer advisory services, in addition to the regional entities in the DWS Group.

© 2024 DWS Group GmbH & Co. KGaA. All rights reserved. I- 101932_1 (7/24)