

# Stubborn inflation, deteriorating US fiscal health to curb bonds and stocks



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## After the debt deal: US fiscal health to be 2024 focus of bond market and voters

Suspending the debt ceiling until Jan 2025 should make fiscal health a greater concern of the bond market and a key Nov 2023 general election issue. The deficit remains too high at 5%+ for a full employment economy (another strong jobs report today), which risks a continued upward trend in debt/GDP (now 120%) that along with higher refunding interest rates risks a concerning jump in federal interest expense of GDP to late 1980s levels. Higher short and long-term nominal and real interest rates underlies the debt problem.

## DWS CIO Day views: S&P at 4200 June 2024, if Fed cuts, then pivot on election

Quarterly S&P EPS growth likely stays stalled until 2H24, but up about 5% in 2024 & 2025. 2026 is likely flat or down somewhat on household and corporate tax hikes and perhaps another small recession in 2026. We expect very little real S&P EPS growth 2022-2026. If we're surprised to the upside, it's most likely from Tech/Digital and Health Care. Those concerned about growth risks from inflation staying high should not forget that these two sectors provided among the best inflation protection over the past few years. Intangible assets might take the high ground as preferred inflation protections. That said, we prefer Health Care right now and expect Tech to cool the rest of this year as the economy stalls. If inflation requires the Fed to hike further, Tech could sell off sharply.

## Love the 2020s?: Slow global growth, interest rates to pre financial crisis norms

Global growth revised to 2.8% for 2023 and 3.0% for 2024. US to fall into a mild recession in 2H23, Euro area flatlines and China's reopening bounce fades with maybe 6% growth this year, but likely no better than 5% next. For inflation, slowly trending downward but risks remain. We have US and Europe CPI at 4.3% and 5.7% this year and both 2.5% in 2024. The 2024 target includes weak GDP expectations, some job losses and/or more central bank tightening. We expect the Fed to pause in June, because they signaled so and want to watch data, but the most recent inflation and jobs data and suspended debt ceiling suggest at least another hike soon. We kept our Fed Funds peak terminal rate estimate at 5.25-5.5%. It might take 3 years to get to 3.5%

For global equities, we see limited downside as well as limited upside. We expect a 0-10% total return for 12 months. Earnings growth should resume in late 2024, but at a slow pace. Price earnings multiple expansion seems to be capped because of soft GDP outlook and positive real interest rates. We like European small caps, banks and the telecommunication sector. Artificial Intelligence is overpriced short term. In the US, we prefer Communications, Health Care, the biggest Banks and our preferred defensives are Defense, Utilities. Within Real Estate the dramatic rate shock has probably been digested in listed REITS, but still needs to feed through private real estate transactions. Fundamentals are solid with reduced building activity, low vacancy rates and rent hikes across non-office sectors.

On the commodities and currencies front, our 12-month strategic view is for a somewhat weaker dollar as the recession moves into rear view and ECB closes the gap with the Fed Funds rate by hiking to 4.0% and holding. We cut our oil price target from about \$100/bbl to \$85/bbl as Russia supply and penetration into global markets remains resilient so far.

For gold, geopolitical tensions, the end of rate hiking in sight, a somewhat weaker dollar a year from now and further buying by EM central banks will push gold to USD 2200/oz.

We note that our sector strategy has moved to EW Materials from UW, by adding to Metals (copper/gold plays) and Chemicals, but we are still cautious on other parts of Materials and Industrials outside of Aerospace & Defense, Rails and Airlines. In REITs, we are slightly UW, but with preferences in data center and cell tower properties and adding to retail. We have been opportunistically reducing our UW on Retailers in Staples and the Consumer Discretionary sector as most take their turn in lowering guidance and the stocks swooning.

## What's inside Americas CIO View notes? Look inside for key tables and charts

The Americas CIO View is published several times a month and issued in both 1-page text only summary format and also a more detailed multiple page PDF format with numerous tables and charts to support the note's featured topic and our S&P EPS estimates, index targets as well as exhibits featuring our current S&P sector strategy and favored asset class allocations for US taxable investors in collaboration with our US multi-asset team. Look inside for these exhibits in the next pages or ask your DWS contact for access details. Inside, DWS CIO day and debt ceiling update exhibits and non-GAAP S&P EPS quality. Accounting quality tends to be cyclical and seasonal with biggest gaps between GAAP and non-GAAP EPS during recessions and 4th quarters. Quality was poor last year and below par for 1Q. Beyond non-GAAP, we expect cash taxes to rise further relative to provisions and note that high inflation causes inadequate depreciation expense relative to maintenance capex needs.

Contributor: Ju Wang, Portfolio Manager Equity

Global Equity Index Forecasts: 12-months			
Index	Jun 2024F	NTM EPS Growth	Target PE
S&P 500	4,200	1.6%	18.8
EuroStoxx 50	4,450	0.3%	12.9
Stoxx 600	480	0.3%	13.8
MSCI Japan	1,400	3.3%	14.9
MSCI Asia xJ	680	6.3%	14.2
MSCI EM	1,040	4.6%	12.6

S&P 500 Outlook at Yearend			
	2021	2022	2023F
S&P 500	4766	3840	4000
Dividend Yield	1.3%	1.75%	1.75%
S&P EPS	\$210	\$222	\$220
Trailing PE	22.7	17.3	18.2
DPS	\$61	\$67	\$70

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Next 5%+ Price Move	
( Up / Balanced Risk / <b>Down</b> )	
Risk of near-term 10%+ correction	
( Low / Moderate / <b>High</b> )	

Taxable U.S. Investor Asset Allocations		
Asset Class	Long-term	Current
Fixed Income/Cash	30-35%	37.0%
Equities	55-60%	54.0%
US Equities	40%	35%
S&P 500	35%	33.0%
Small Caps	0-10%	2%
Foreign DM	10-15%	11%
Foreign EM	0-10%	8%
Alternatives	10%	9%

Key CIO Views		
Macro signal:	Jun 2023	Jun 2024F
U.S. Fed Funds rate	5.00%-5.25%	4.75%-5.00%
10yr Treasury yield	3.60%	4.20%
US IG Corp Spreads	180bp	110bp
US High Yield Spreads	515bp	450bp
Crude Oil (WTI) \$/bbl	70	85
EUR / USD FX rate	1.07	1.12

GDP Forecasts			
Region	2022	2023F	2024F
US	2.1%	1.0%	0.8%
World	3.4%	2.8%	3.0%
Euro area	3.5%	0.8%	0.9%
China	3.0%	6.0%	5.0%
Japan	1.0%	1.0%	0.9%

\* Q4/Q4 GDP growth.  
EPS = Earnings Per Share  
GDP = Gross Domestic Product  
FX = Foreign Exchange  
TIPS = Treasury Inflation Protected Securities  
Source: DWS Investment Management GmbH. All opinions and claims are based upon data on 6/5/2023 and may not come to pass. This information is subject to change at any time, based upon economic, market and other considerations and should not be construed as a recommendation. All foreign asset exposures are not FX hedged unless otherwise noted. For illustrative purposes only.

## DWS CIO day key views:

- Macro:** High and sticky inflation numbers remain the dominating topic also for this CIO Day, and what they mean for the central banks. We stick to our terminal rate of 5.25-5.50% for the Fed and push back rate cuts into Q2 2024. Therefore, we see Fed funds rate of 4.75-5.00% and for the ECB a deposit rate of 4.00% for June 2024. For the Eurozone we neither expect a recession nor an upswing and for the U.S. we hold on to a mild recession in 2023. For the inflation we foresee 4.3% for the U.S. and 5.7% for the Eurozone. Regarding growth we think that the U.S. economy could grow by 1.0% and the Eurozone by 0.8% in 2023.
- ESG:** Within the ESG session, we received an update on our Net Zero targets and were introduced to our Coal Policy. Furthermore, we talked about our EU carbon price forecasts and learned about physical climate value at risk (Physical CVaR). For example, the top 3 vulnerable sectors to the physical climate risks in terms of financial impact are Real Estate, Energy and Materials. On the other hand, Healthcare, Information Technology and Financials are the 3 least affected sectors. Regarding our outlook for the EU carbon price, we currently forecast a price of EUR 115 for June 2024 as policymakers continue to strengthen rules for the emissions trading market, providing short- and medium-term support for EU carbon prices. We are on track to meet our Net Zero targets and released our Coal Policy in April 2023.
- Fixed Income:** Sticky inflation and further potential rate hikes (mainly in the EUZ) might mean that Treasury yields haven't peaked yet. This also poses a risk for risky assets. Should corporate fundamentals stay sound, we do not expect a dramatic spread widening for credit, but would rather consider wider spreads as buying opportunity. We also think that curves could re-steepen or get less inverse within our strategic forecast horizon. Translated into our forecasts for June 2024 we think that Bund yields will be 2.7% and 2.8% for 2- and 10-years respectively. For the U.S. we changed our forecast to 4.0% and 4.2% for 2- and 10-years respectively. Regarding currencies we think that the hawkish ECB should push the euro to 1.12 USD.
- Equities:** For equities we see 0%-10% upside potential on a 12-month horizon. We expect earnings to grow again from 2024 onwards but U.S. multiples are capped by interest rate and EPS growth should be below historical trend as global economic growth remains shallow and corporate margins leave little room for expansion. While most corporate earnings should grow with inflation, persistent inflation and rising yields remain the key risk factors to equity valuations. We forecast 4,200 points for the S&P 500 by June 2024 and 17,000 for the DAX. We are still positive on European equities, especially the small & mid cap sector and we also like the communications sector.
- Alternatives:** For gold we have a target of \$2,200 per ounce at the end of Q2 2024 as we expect Fed to reach terminal rate by 2H23 and USD to devalue vs. other currencies. For Brent we see a target of \$85 per barrel for June 2024 due to higher Russian output of crude oil and products, as the sanctions still have not yet materially impacted Russian energy flows. Our forecast continues to reflect supply deficits developing towards the end of 2023 just as demand from emerging economies begins to reaccelerate. Defensive characteristics of Infrastructure are now coming into play as economic growth set to slow, with private markets having dealt with higher inflation and rates well in 2022. Fundraising and transaction activity have slowed in Q1 2023, but that is just a reflection of broader market conditions as sentiment towards the asset class is still very strong. Higher interest rates pricing into Real Estate valuations with a 6-12-month lag relative to listed markets but fundamentals remain solid with low vacancy rates and healthy rent growth across most sectors and regions. Recession might dampen leasing, but construction also falling amid labor shortages and lack of financing.

## DWS June 2024 equity index targets

Index	3M relative View	Current Level	Previous Target CIO Day Mar	Target Jun 24	Chg in Target	Expected Total Return Jun 24	----- thereof -----		Assumptions					
							6/2/2023	EPS growth NTM*	LTM multiple impact	Dividend Yield	EPS NTM* (e)	DWS vs. Cons.	Target LTM P/E in Jun 24	Target PE discount to US
S&P 500		4,221	4,100	4,200	2%	1.2%	USD	1.6%	-1%	1.7%	225	-3.7%	18.8x	
Stoxx 600		461	480	480	0%	7.6%	EUR	0.3%	4%	3.4%	34.7	-7.0%	13.8x	-27%
EuroStoxx 50		4,311	4,350	4,450	2%	6.7%	EUR	0.3%	3%	3.5%	345	-6.0%	12.9x	-32%
DAX40		16,019	16,300	17,000	4%	6.1%	EUR	1.5%	1%	3.4%	1363	-7.1%	12.4x	-34%
SMI		11,415	11,100	11,500	4%	3.9%	CHF	14.0%	-11%	3.1%	692	-2.0%	16.7x	-11%
FTSE 100		7,567	8,100	7,700	-5%	5.9%	GBP	-2.6%	4%	4.1%		-7.6%	11.2x	-40%
MSCI EM		983	1,020	1,040	2%	8.9%	USD	4.6%	1%	3.1%	82.8	-0.5%	12.6x	-33%
MSCI AC Asia xJ		632	670	680	1%	10.3%	USD	6.3%	2%	2.7%	48.2	-2.3%	14.2x	-25%
MSCI Japan		1,341	1,250	1,400	12%	6.7%	YEN	3.3%	-1%	2.4%	92.3	-1.7%	14.9x	-21%
MSCI Australia		1,413	1,450	1,450	0%	7.1%	AUD	-3.3%	6%	4.4%	95.0	-4.5%	15.2x	-19%

## DWS Strategic CIO View: Overview of strategic forecasts – Fixed Income, FX, Equity & Commodities

### Overview of Strategic 12-Month Forecasts

Fixed Income		Strategic Forecast Mar-23	Current level	12m forwards	Strategic Forecast Jun-23	Forecast change	Expected 12m Total Return	10yr Total Return (p.a.) <sup>4</sup>
Market Index	Target Mar-24	31-May-23	31-May-23	Target Jun-24				
<b>Forecasts - US</b>								
UST 2yr	US 2y yield	4.40%	4.42%	3.56%	4.00%	↘	4.21%	3.55%
UST 10yr	US 10y yield	4.30%	3.65%	3.56%	4.20%	↘	0.34%	4.36%
UST 30yr	US 30y yield	4.40%	3.87%	3.81%	4.30%	↘	-3.04%	4.47%
Municipals	Muni HY Index OAS	2.50%	2.36%		2.45%	↘	5.84%	3.10%
US IG Corp	BarCap US Credit	110 bp	126 bp		110 bp	→	1.79%	4.73%
US HY <sup>1</sup>	Barclays US HY	450 bp	461 bp		450 bp	→	7.49%	6.40%
Securitized / MBS	MBS Index OAS	35 bp	170 bp		120 bp	↗	5.73%	4.08%
<b>Forecasts - Europe</b>								
Schatz 2yr	GER 2y yield	3.20%	2.72%	2.18%	2.70%	↘	2.37%	2.50%
Bund 10yr	GER 10y yield	2.90%	2.29%	2.25%	2.80%	↘	-0.73%	1.87%
Bund 30yr	GER 30y yield	2.90%	2.46%	2.43%	2.90%	→	-5.84%	2.54%
Gilt 10yr	UK 10y yield	3.60%	4.19%	4.17%	3.80%	↗	7.79%	4.32%
EUR IG Corp	ICE BofA Bond Index	110 bp	167 bp		110 bp	→	5.36%	3.81%
EUR HY <sup>1</sup>	ML EUR Non-Fin HY Constr. Index	420 bp	466 bp		450 bp	↗	6.04%	6.13%
Securitized / Covered	iBoxx Covered	70 bp	89 bp		70 bp	→	3.20%	3.15%
Italy 10yr <sup>3</sup>	GTITL 10Y Corp - GTDEM 10Y Corp	220 bp	180 bp	199 bp	200 bp	↘	-0.10%	n/a
Spain 10yr <sup>3</sup>	GTESP 10Y Corp - GTDEM 10Y Corp	100 bp	105 bp	116 bp	100 bp	→	0.84%	n/a
<b>Forecasts - AsiaPac</b>								
JGB 2yr	JPN 2y yield	0.15%	-0.05%	-0.02%	0.15%	→	-0.17%	0.09%
JGB 10yr	JPN 10y yield	0.75%	0.44%	0.58%	0.75%	→	-1.55%	0.17%
Asia Credit	JACI Index	250 bp	310 bp		280 bp	↗	7.80%	-
<b>Forecasts - Global</b>								
EUR vs USD	EUR/USD	110	107		1.12	↗	3.47%	-
USD vs JPY	USD/JPY	125	140		130	↗	-1.84%	-
EUR vs JPY	EUR/JPY	138	149		147	↗	2.21%	-
EUR vs GBP	EUR/GBP	0.89	0.86		0.88	↘	0.67%	-
GBP vs USD	GBP/USD	125	124		1.32	↗	6.54%	-
USD vs CNY	USD/CNY	6.95	7.1		6.90	↘	-0.33%	-
EM Sovereign <sup>1</sup>	EMBIG Div.	470 bp	476 bp		470 bp	→	3.91%	7.53%
EM Credit <sup>1</sup>	CEMBI Broad	350 bp	374 bp		350 bp	→	7.28%	6.87%

### Benchmark Rates

Market Index	Strategic Forecast Mar-23	Current Level	Strategic Forecast Jun-23	Forecast change	Expected 12m Total Return	10yr Total Return (p.a.) <sup>4</sup>
Market Index	Target Mar-24	31-May-23	Target Jun-24			
<b>Forecasts – Benchmark rates</b>						
United States	Federal funds rate	5.25-5.50	5.00-5.25	4.75-5.00	↘	
Eurozone	Deposit rate	4.00	3.25	4.00	→	
United Kingdom	Repo rate	4.25	4.50	5.00	↗	
Japan	Policy Rate	0.10	-0.10	0.10	↗	
China	1year lending rate	3.65	3.65	3.65	→	

### Equities

Market Index	Strategic Forecast Mar-23	Current Level	Strategic Forecast Jun-23	Forecast change	Expected 12m Total Return	10yr Total Return (p.a.) <sup>4</sup>
Market Index	Target Mar-24	31-May-23	Target Jun-24			
<b>Forecasts – Equity</b>						
US	S&P 500	4,100	4,168	4,200	↗	2.52%
Germany	DAX	16,300	15,643	17,000	↗	8.67%
Eurozone	Eurostoxx 50	4,350	4,213	4,450	↗	9.01%
Europe	Stoxx 600	480	452	480	→	9.71%
Japan	MSCI Japan	1,250	1,326	1,400	↗	8.18%
SMI	SMI	11,100	11,216	11,500	↗	5.79%
UK	FTSE 100	8,100	7,454	7,700	↘	7.36%
Emerging Markets	MSCI EM	1,020	970	1,040	↗	10.36%
Asia ex Japan	MSCI AC Asia ex Japan	670	625	680	↗	11.61%
Australia	MSCI Australia	1,450	1,428	1,450	→	5.94%

### Alternatives

Market Index	Strategic Forecast Mar-23	Current Level	Strategic Forecast Jun-23	Forecast change	Expected 12m Total Return	10yr Total Return (p.a.) <sup>4</sup>
Market Index	Target Mar-24	31-May-23	Target Jun-24			
<b>Forecasts – Commodities</b>						
Gold	Gold Spot	1,940	1,972	2,200	↗	11.55%
Oil - Spot <sup>2</sup>	Brent Spot	100	73	85	↘	-
Oil - Futures <sup>2</sup>	Brent 12m Futures	-	71	-	-	19.80%
Carbon	Carbon 12m Futures	95	79	115	↗	19.79%
<b>Real Estate &amp; Infrastructure</b>						
Listed US RE (LC)						5.00%
Non-Listed US RE (LC)						0.00%
Listed Global RE (LC)						4.50%
Non-Listed Global RE (LC)						4.50%
Listed Infrastructure (LC)						5.00%
Non-Listed Infrastructure (LC)						10.20%

<sup>1</sup>US HY default rate: 3.0%, 40% recovery, CCC average price of 80 used (instead of par); EUR HY default rate: 2.0%, 40% recovery; EM Sov default rate 2%, 50% recovery; EM Credit default rate 3%, 40% recovery // <sup>2</sup>Oil-Futures used to calculate expected TR; forecasts are made on Brent-Spot // <sup>3</sup>Total return. Excess return for Italy 10yr and Spain 10yr is 1.12% and 1.65%, respectively // <sup>4</sup>LTCMA forecasts for Gold and Oil based on futures

## DWS Global Macro Forecasts

### GDP Growth Rate

% year-on-year

	2022	2023F	2024F	Consensus 2023 (BBG)
World	3.4	2.8 (2.7)	3.0 (3.1)	2.1 (2.3)
U.S.	2.1	1.0 (0.7)	0.8 (1.1)	1.1 (0.8)
EUZ	3.5	0.8	0.9 (1.1)	0.6 (0.4)
GER	1.9	0.0 (0.3)	1.2	0.0
UK	4.1	0.2 (-0.5)	1.1 (1.1)	-0.2 (-0.7)
Japan	1.0	1.0 (1.0)	0.9 (0.8)	1.0 (1.1)
China	3.0	6.0 (5.5)	5.0 (5.3)	5.6 (5.2)

### Inflation (CPI)

% year-on-year average

	2022	2023F	2024F	Consensus 2023 (BBG)
World				5.3 (4.8)
U.S.	8.0	4.3 (3.9)	2.5 (2.4)	4.2 (3.9)
EUZ	8.4	5.7	2.5 (2.7)	5.6
GER	8.6	6.0	3.2	6.2 (6.3)
UK	9.1	6.9 (6.4)	2.5 (2.5)	6.6 (6.8)
Japan	2.5	2.9 (2.5)	1.9 (1.7)	2.4 (2.1)
China	2.0	1.5 (2.5)	2.7 (2.5)	2.1 (2.4)

### Unemployment Rate (Annual average)

%

	2022	2023F	2024F	Consensus 2023 (BBG)
U.S.	3.5	3.8 (4.1)	4.7	3.9 (4.1)
EUZ	6.8	6.7	6.7	6.9 (7.1)
GER	5.3	5.4 (5.6)	5.2 (5.5)	5.5
UK	3.7	4.0 (4.2)	4.1 (4.1)	4.2 (4.4)
Japan	2.6	2.6 (2.5)	2.4 (2.4)	2.5
China	5.5	5.2	5.0	4.1 (3.9)

### Fiscal Balance

% of GDP

	2022	2023F	2024F	Consensus 2023 (BBG)
U.S.	-5.4	-4.8 (-4.3)	-5.0 (-4.5)	-5.3 (-4.5)
EUZ	-3.4	-3.7 (-3.6)	-3.3 (-2.9)	-3.6
GER	-2.6	-1.6 (-2.6)	-0.4 (-1.9)	-2.8
UK	-6.3	-5.5 (-6.0)	-4.5 (-4.0)	-5.3 (-5.4)
Japan	-7.8	-6.5 (-6.0)	-4.5 (-3.5)	-5.5 (-5.0)
China	-7.5 (-8.9)	-6.9 (-7.2)	-6.4 (-6.5)	-5.0 (-4.5)

Source: DWS Macro Research. (\*) For the U.S., GDP growth Q4/Q4 % is -0.1% in 2023 and 1.6% in 2023, (\*\*) Measure is CPI, other measures see US part of the presentation (\*\*\*) Fiscal balance is federal deficit only. (\*\*\*\*) Urban unemployment rate (end of period), not comparable to consensus data, (\*\*\*\*\*) China fiscal deficit refers to IMF fiscal monitor, April 2023 and is not comparable to last data and consensus estimate. as of June 2023.



## S&P 500 Sector and Industry views

	Market	Allocated	Sector	2022 PE	2023	2024	Overweight	2022	2023	2024	Equal weight	2022	2023	2024	Underweight	2022	2023	2024
Over-weight	13.7%	18.4%	Health Care	15.7	16.7	15.6	Biotechnology	11.5	14.1	13.2	Health Care Providers & Services	15.7	14.6	13.9	Life Sciences Tools & Services	23.4	24.5	22.5
							Health Care Equipment & Supplies	25.1	23.7	20.9								
							Pharmaceuticals	13.0	14.7	14.0								
	8.8%	11.8%	Communication Services	21.2	18.5	17.4	Diversified Telecommunication Services	6.5	7.3	7.3	Wireless Telecommunication Services	67.4	20.7	19.2				
							Entertainment	53.2	26.8	21.9								
							Interactive Media & Services	28.4	23.4	21.9								
							Media	10.7	11.1	10.9								
	4.2%	5.7%	Energy	7.5	9.4	8.8	Energy Equipment & Services	20.1	14.0	11.9	Oil Gas & Consumable Fuels	7.1	9.1	8.6				
	12.5%	13.2%	Financials	14.6	13.7	13.0	Banks	9.1	8.8	8.6					Capital Markets	16.5	16.9	15.8
							Insurance	15.9	12.9	11.7					Consumer Finance	9.2	10.7	9.4
															Financial Services	23.5	20.9	20.1
	2.6%	3.4%	Utilities	18.4	17.3	16.4	Electric Utilities	19.0	17.4	16.4	Gas Utilities	19.6	18.6	17.6	Water Utilities	32.4	31.5	30.1
											Independent Power & Renewable E	11.9	11.4	10.5				
											Multi-Utilities	16.8	16.8	16.1				
Equal-weight	8.3%	8.3%	Industrials	20.8	18.9	17.7	Aerospace & Defense	32.9	22.4	19.4	Industrial Conglomerates	20.6	22.9	19.9	Air Freight & Logistics	13.0	15.8	15.2
							Passenger Airlines	16.1	7.2	6.5					Building Products	18.9	17.3	16.0
							Electrical Equipment	21.5	21.7	20.1					Commercial Services & Supplies	33.5	32.5	31.3
							Ground Transportation	17.3	17.7	16.1					Construction & Engineering	27.8	25.2	21.0
														Machinery	17.0	15.4	15.8	
														Professional Services	27.8	28.8	27.4	
														Trading Companies & Distributors	17.9	15.7	15.1	
	2.4%	2.4%	Materials	13.5	16.6	15.5	Metals & Mining	8.2	12.9	15.1	Chemicals	15.3	17.4	15.7	Construction Materials	36.1	34.4	28.7
														Containers & Packaging	11.1	13.6	11.8	
Under-weight	6.8%	6.3%	Consumer Staples	20.7	20.2	19.4	Beverages	25.7	23.9	22.6	Consumer Staples Distribution & Retail	21.6	20.7	19.4	Food Products	16.5	17.6	17.2
											Household Products	25.7	24.7	23.7				
											Personal Care Products	30.0	28.4	25.0				
											Tobacco	12.2	11.9	11.9				
	2.4%	1.6%	Real Estate	16.3	16.5	15.8	Specialized REITs	17.6	18.0	17.1	Hotel & Resort REITs	9.4	10.0	10.0	Health Care REITs	17.2	16.9	16.0
											Real Estate Mgmt. & Development	13.2	15.2	13.5	Industrial REITs	23.8	22.3	21.8
											Residential REITs	17.5	16.8	16.3	Office REITs	10.2	10.5	10.5
											Retail REITs	11.4	11.7	11.4				
	10.2%	6.4%	Consumer Discretionary	32.9	26.9	24.8	Automobile Components	17	14.6	12.1	Hotels Restaurants & Leisure	59	25.4	22.4	Automobiles	22.4	27.2	26.1
														Distributors	16.1	15.7	14.7	
														Household Durables	8.0	11.0	11.1	
														Broadline Retail	-1447.6	68.0	52.2	
														Leisure Products	13.5	13.0	13.0	
														Multiline Retail				
														Specialty Retail	17.8	18.1	17.9	
														Textiles Apparel & Luxury Goods	23.9	23.2	21.9	
	28.1%	22.4%	Information Technology	28.4	28.6	26.3	Communications Equipment	16.7	14.9	14.3					Electronic Equipment	19.0	20.5	19.5
							IT Services	20.1	19.3	18.1					Semiconductors	26.8	32.8	29.2
														Software	35.4	31.8	29.2	
														Technology Hardware Storage & Peripherals	27.8	27.5	25.5	
Aggregate PE: DWS View							Overweight	16.5	15.9	14.9	Equalweight	14.2	14.8	13.9	Underweight	25.2	25.1	23.4
	S&P 500							4221			2022, 2023& 2024 EPS	219.79	220.00	235.00	2022, 2023 & 2024 PE	19.2	19.2	18.0
											Bottom-up Consensus EPS	219.79	222.67	247.71	Bottom-up Cons. PE	19.2	19.0	17.0
														2022, 2023 & 2024 Ex Energy PE	20.0	20.0	18.8	
														Btm-up Cons. Ex Energy PE	20.7	19.8	17.6	

Sector OW	11.03%
Sector UW	-11.03%
Industry OW	20.73%
Industry UW	-20.73%

<b>Macro tilts:</b>	
Cyclicals	-4.41%
Defensive	4.42%
Value (Financial+Energy)	1.83%
Growth	0.04%
Growth ex Health Care	-5.06%
Consumer	-4.86%
Services/experience	-0.26%
Disc. Goods	-3.71%
Retailing	-1.72%
Durables	-1.99%
Staples Goods/Retail	-0.89%
Commodity	1.04%
Energy	1.40%
Metals/Chemicals	-0.36%
Capex	2.75%
Capacity additions	1.10%
Productivity	1.65%
Health Care	5.10%
Innovation	2.74%
Marketers	2.43%
Insurers	0.42%
Financials	0.43%
Up rates/low spreads	2.19%
Capital Markets	-2.70%
Insurance	0.94%
Bond Substitutes	0.80%
Weak FX \$ plays	0.28%
High R&D plays	1.77%
Transports	1.00%
Geopolitical risk	2.03%
Weak oil prices	-1.10%
Inflation shock	0.31%
Stagflation Protection	4.21%
Domestic GDP	-1.77%
Global GDP	-5.38%
Consumer TMT	1.65%
Trade sensitive	-2.45%

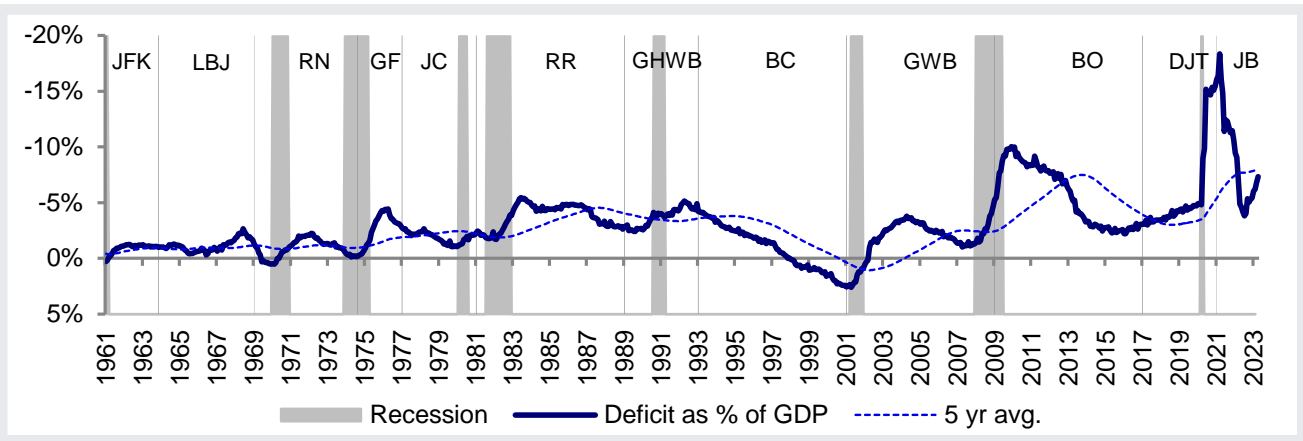
Note: More details on sector earnings forecast and sector intrinsic valuation can be found towards the back of this note.

Price as of 6/1/2023

Source: DWS Investment Management GmbH

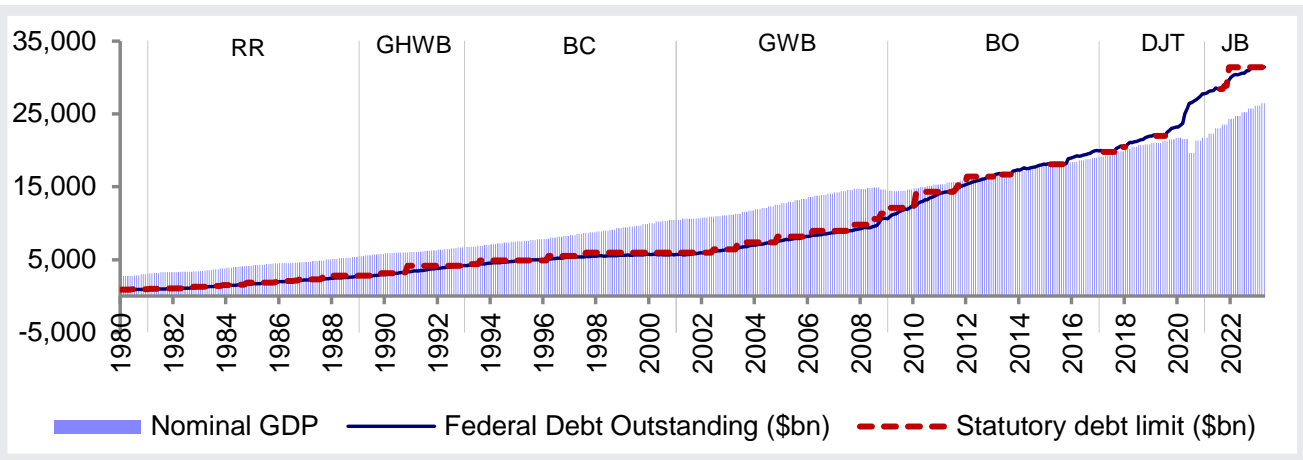
# Debt ceiling

U.S. federal deficit % of GDP



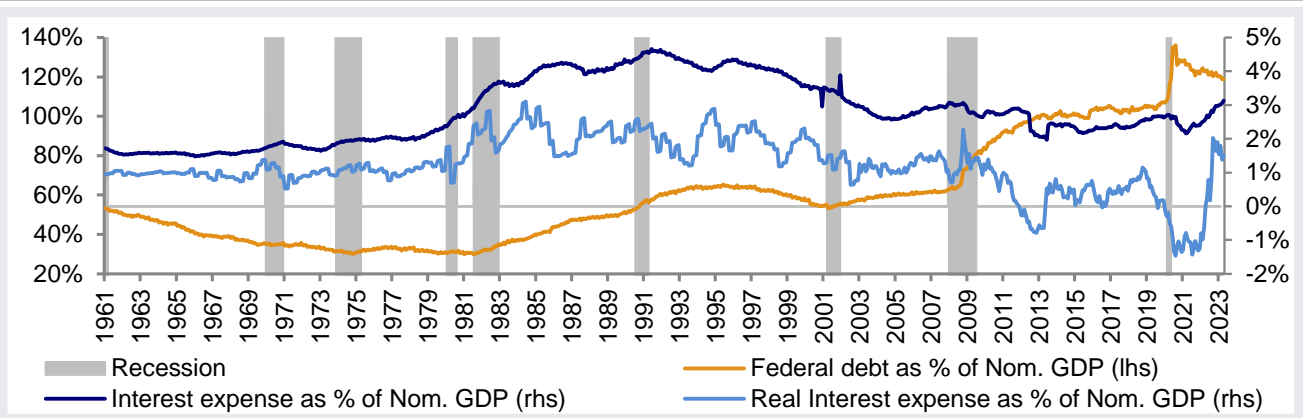
Source: Haver, DWS Investment GmbH as of April 2023.

U.S. federal debt vs. debt ceiling



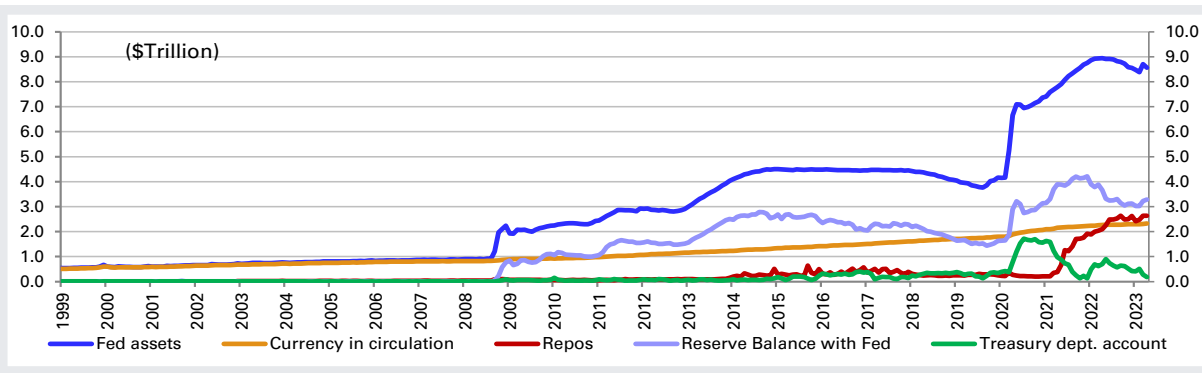
Source: Haver, DWS Investment GmbH as of April 2023.

U.S. federal debt and interest expense as % of GDP



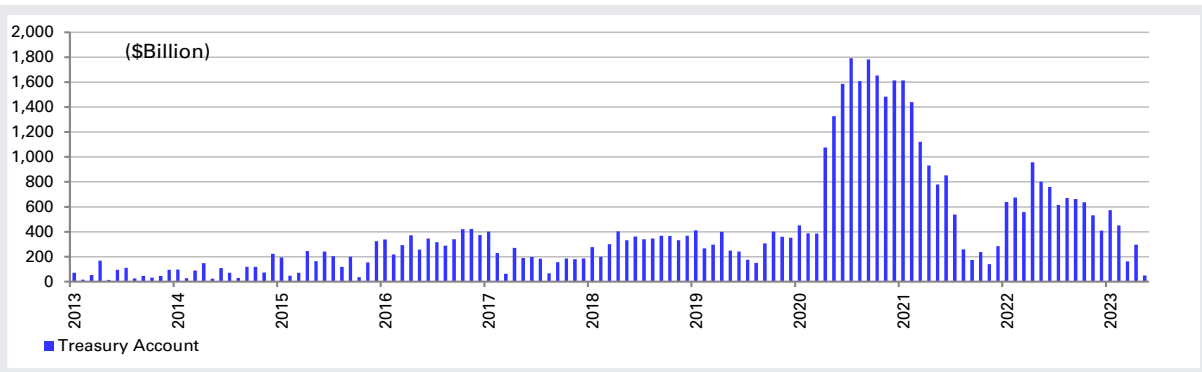
Source: Haver, DWS Investment GmbH as of April 2023.

Fed liabilities: Currency in circulation, Repos, Reserve Balance, and Treasury account



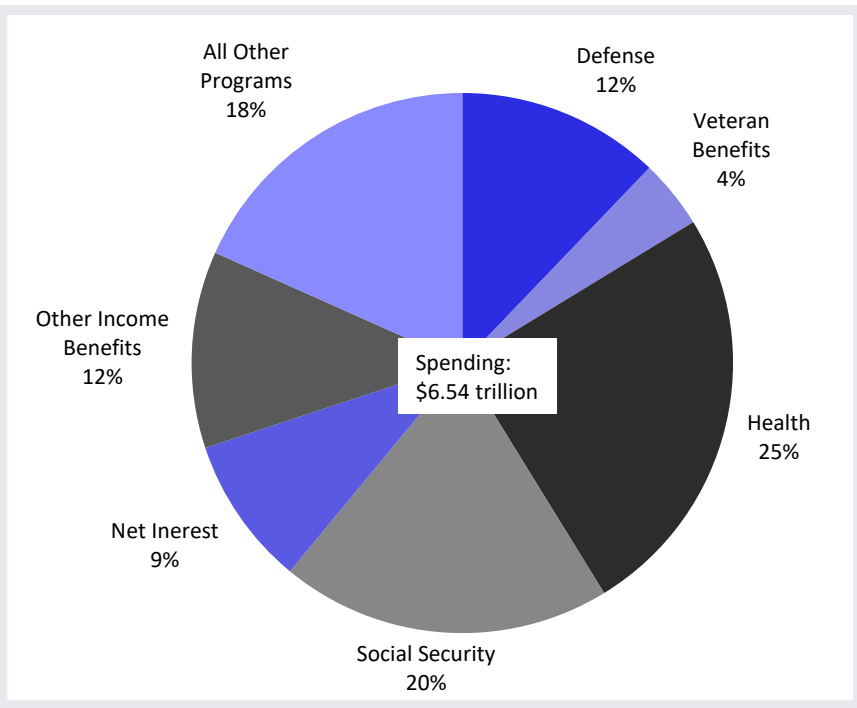
Source: Haver, DWS Investment GmbH as of May 2023.

Fed liabilities: Treasury account



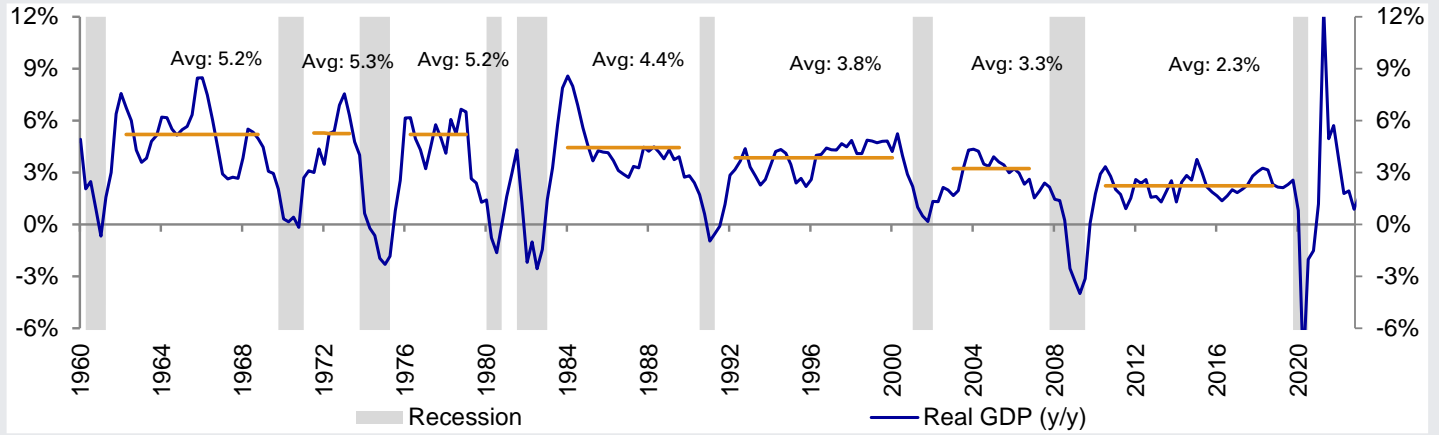
Source: Haver, DWS Investment GmbH as of May 2023.

Federal spending (LTM)



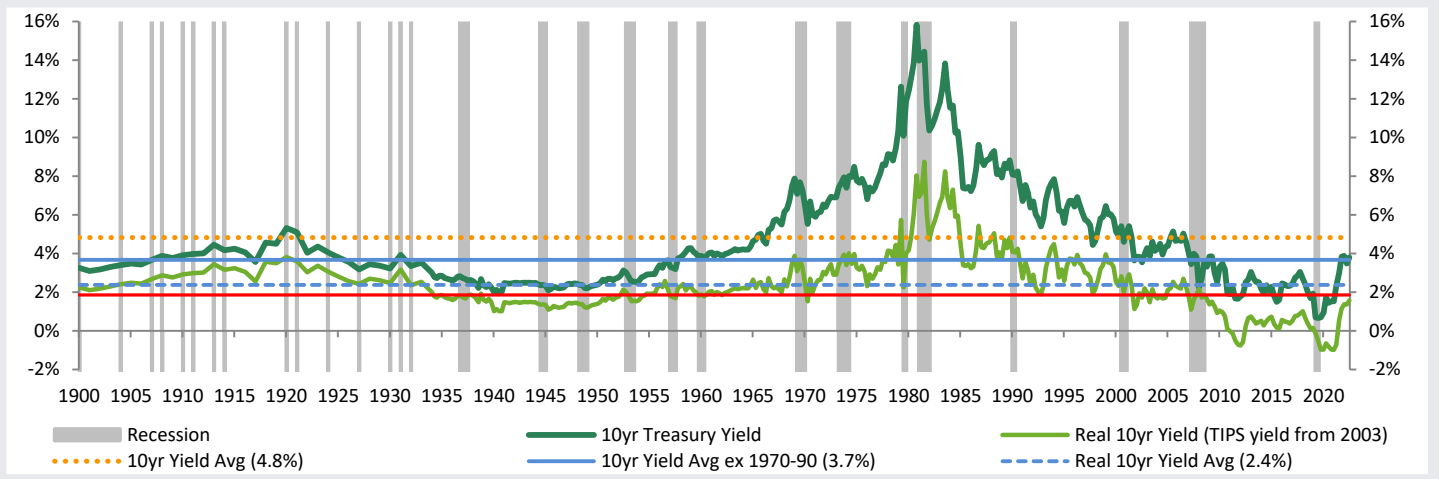
Source: Haver, DWS Investment GmbH as of May 2023.

### US real GDP growth



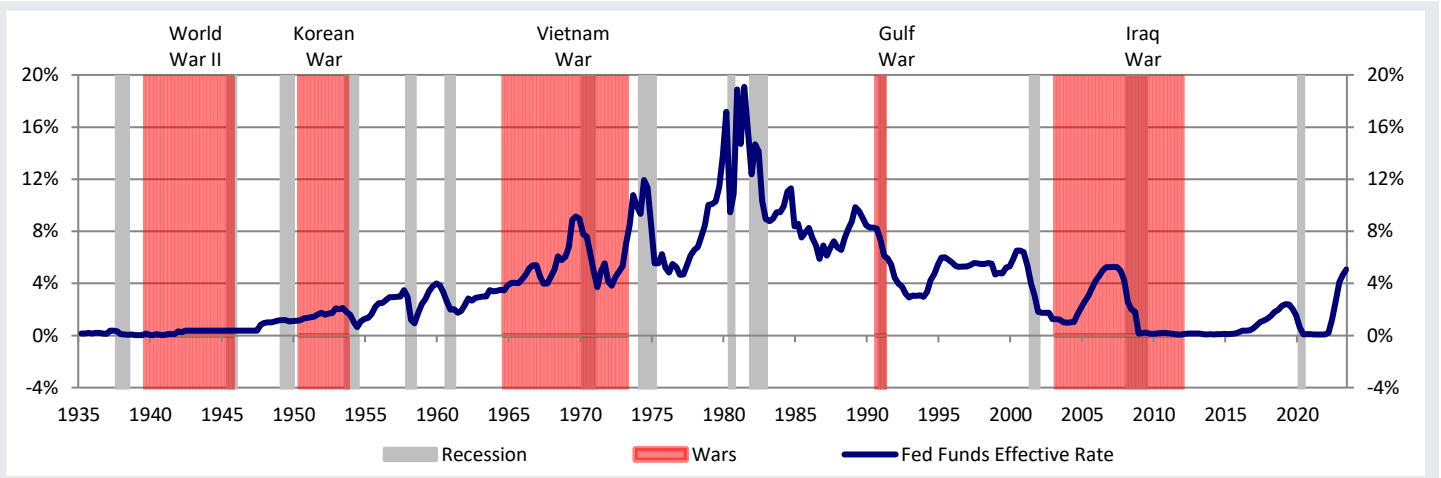
Source: Haver, DWS Investment GmbH as of May 2023.

### US real GDP growth



Source: Haver, DWS Investment GmbH as of May 2023.

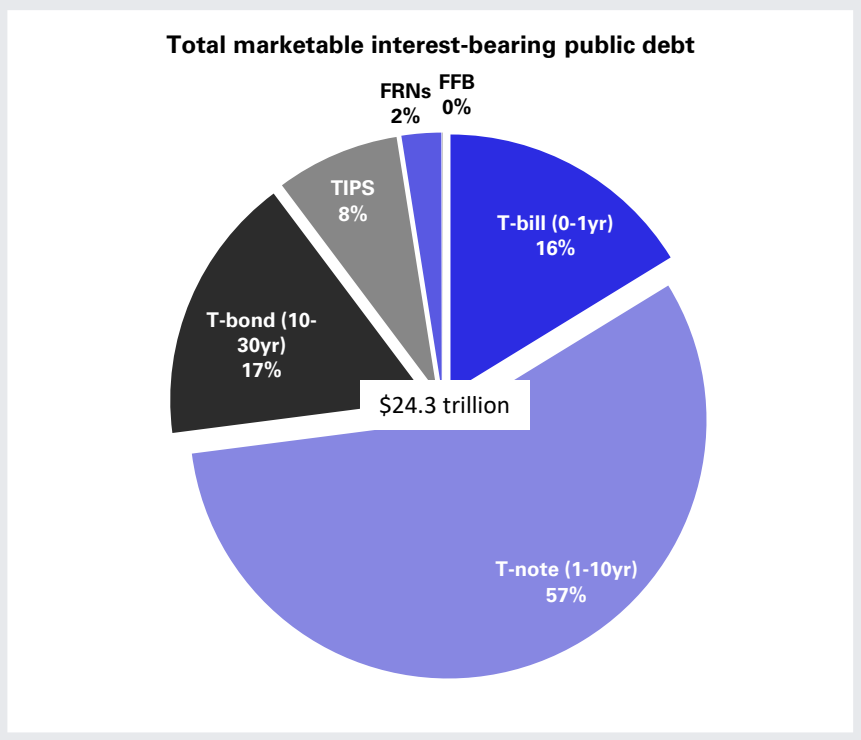
### Fed Funds rate



Source: Haver, DWS Investment GmbH as of May 2023.

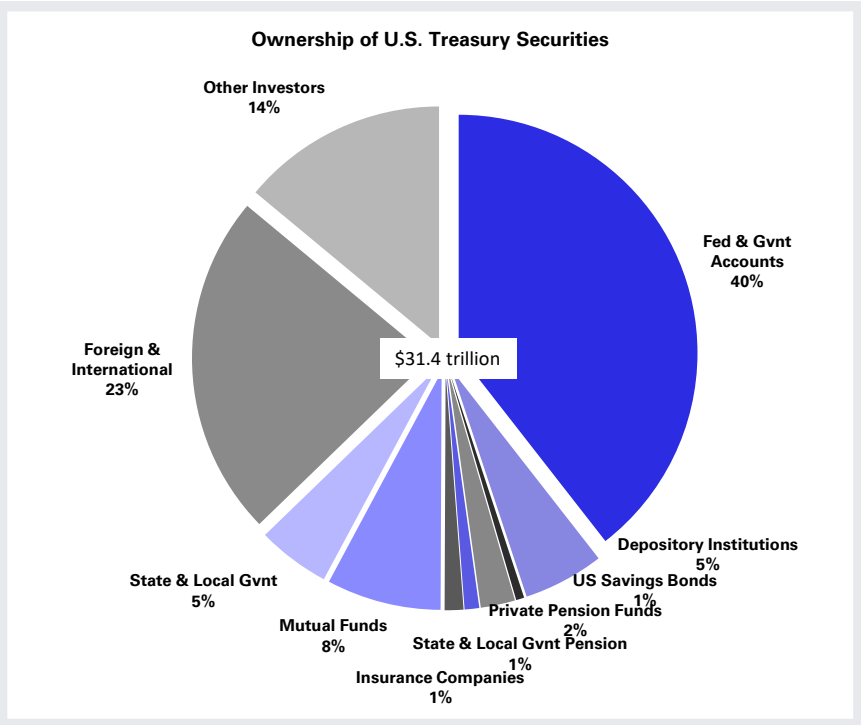


Breakdown of U.S. marketable interest-bearing public debt



Source: Haver, DWS Investment GmbH as of May 2023.

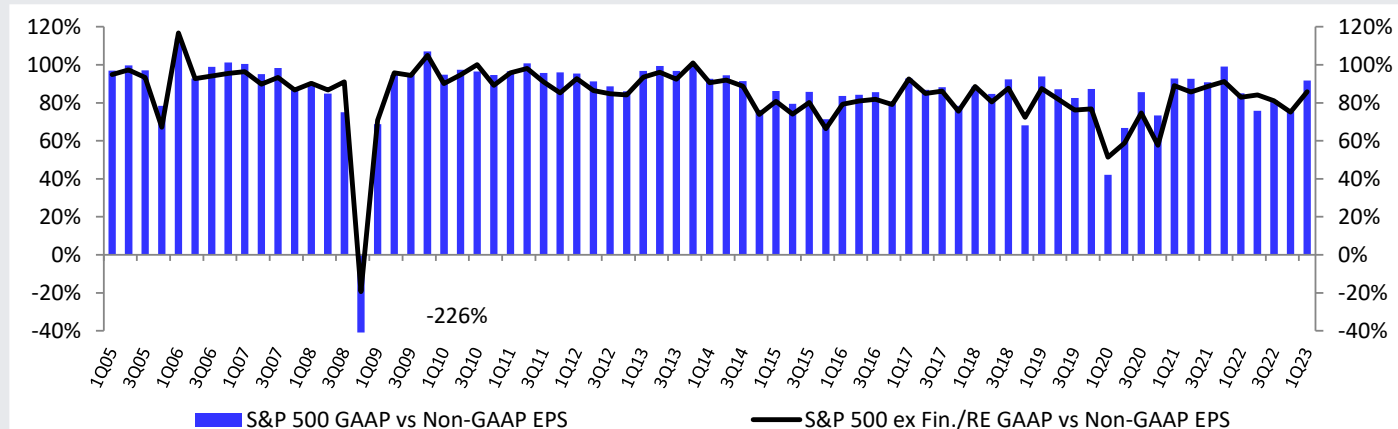
Ownership of U.S. treasury securities



Source: Haver, DWS Investment GmbH as of May 2023.

# Earnings Quality

S&P 500 GAAP vs. non-GAAP EPS ratio (current S&P 500 constituents\*)



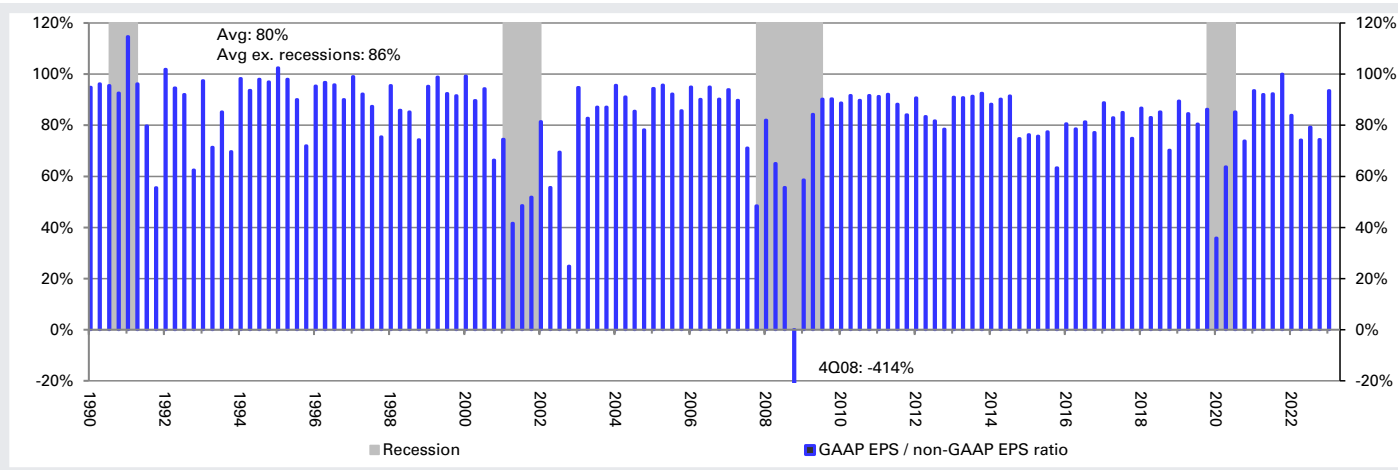
\* S&P 500 EPS current constituents represents the earnings per share of index constituents as of the date the data was compiled 3/31/2023.  
Source: Haver, DWS Investment GmbH as of 1Q2023. Past performance may not be indicative of future results.

S&P 500 GAAP vs. non-GAAP EPS ratio by sector (current S&P 500 constituents\*)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	1Q 2023	2011-2022 Avg ex. Negatives	2011-2022 Avg
Cons Disc	96%	69%	82%	18%	99%	92%	127%	91%	95%	82%	95%	95%	97%	80%	92%	72%	101%	78%	87%	92%	92%
Staples	94%	99%	100%	97%	96%	105%	95%	96%	97%	86%	91%	102%	89%	83%	75%	82%	86%	80%	95%	88%	89%
Energy	104%	101%	101%	58%	88%	103%	102%	102%	100%	90%	-39%	-130%	63%	99%	50%	-2300%	94%	101%	102%	-139%	88%
Financials	109%	121%	104%	356%	57%	90%	109%	88%	95%	98%	101%	97%	97%	89%	119%	98%	119%	78%	118%	99%	97%
Health Care	84%	87%	74%	75%	101%	74%	78%	79%	89%	78%	74%	75%	75%	64%	73%	56%	76%	66%	67%	74%	73%
Industrials	51%	147%	102%	49%	93%	92%	91%	85%	99%	87%	92%	89%	98%	90%	89%	60%	101%	89%	105%	89%	89%
Tech	96%	94%	90%	69%	84%	93%	88%	89%	93%	86%	86%	82%	82%	88%	86%	85%	89%	79%	80%	86%	87%
Materials	98%	98%	75%	-67%	102%	129%	90%	86%	98%	75%	58%	68%	69%	72%	63%	69%	86%	82%	65%	76%	77%
Real Estate	74%	76%	92%	80%	93%	111%	92%	91%	88%	87%	79%	80%	80%	84%	91%	79%	86%	78%	75%	85%	84%
Communication	107%	88%	82%	57%	137%	96%	-82%	-46%	101%	75%	89%	85%	85%	87%	80%	66%	94%	66%	91%	58%	85%
Utilities	80%	93%	97%	97%	87%	93%	93%	67%	80%	87%	65%	75%	97%	87%	100%	72%	74%	77%	110%	81%	77%
<b>S&amp;P 500</b>	<b>94%</b>	<b>104%</b>	<b>93%</b>	<b>50%</b>	<b>93%</b>	<b>93%</b>	<b>84%</b>	<b>79%</b>	<b>95%</b>	<b>86%</b>	<b>82%</b>	<b>85%</b>	<b>86%</b>	<b>84%</b>	<b>88%</b>	<b>68%</b>	<b>94%</b>	<b>79%</b>	<b>92%</b>	<b>84%</b>	<b>84%</b>
S&P 500 ex. Energy	92%	104%	92%	48%	93%	92%	81%	76%	94%	86%	87%	87%	87%	83%	89%	76%	94%	76%	91%	85%	85%

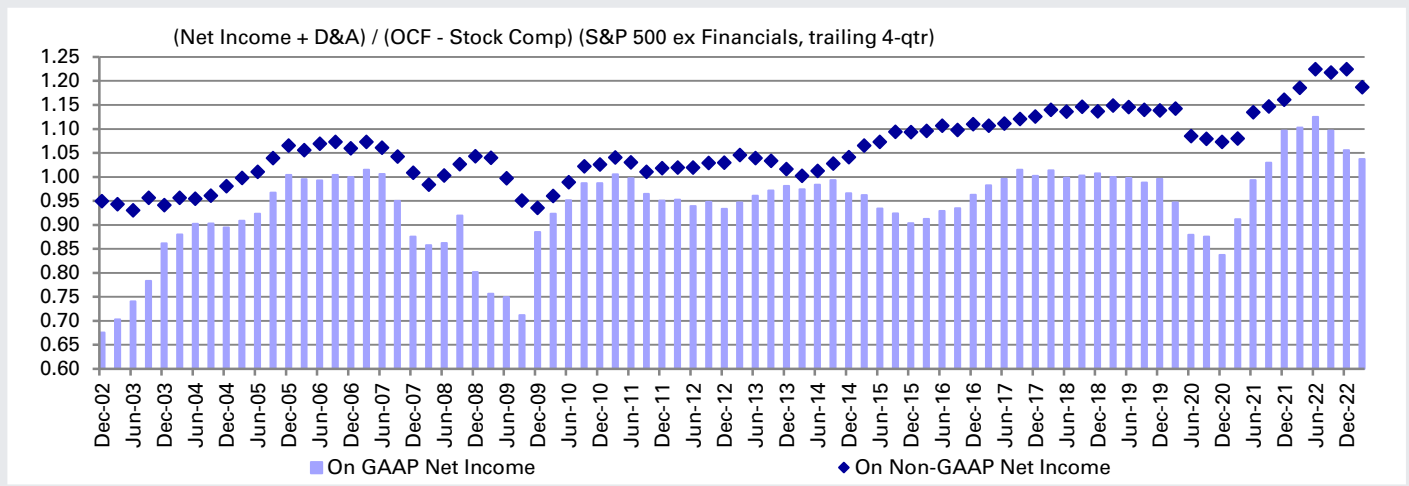
\* S&P 500 EPS current constituents represents the earnings per share of index constituents as of the date the data was compiled 3/31/2023.  
Source: Haver, DWS Investment GmbH as of 1Q2023. Past performance may not be indicative of future results.

S&P 500 GAAP vs. non-GAAP EPS ratio (historic S&P 500 constituents)



Source: Haver, DWS Investment GmbH as of 1Q2023. Past performance may not be indicative of future results.

(Net Income + Depreciation & Amortization) / (Operating Cash flow – Stock Compensation)



Source: Haver, DWS Investment GmbH as of 1Q2023. Past performance may not be indicative of future results.

(Non-GAAP Net Income + Depreciation & Amortization) / (Operating Cash flow – Stock Compensation) by sector

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	1Q23	Aggregate
Communication Services	0.97	0.86	0.98	0.95	1.10	1.05	1.01	0.86	0.83	0.88	0.80	0.80	1.02	0.95	1.21	1.18	1.11	1.13	1.06	1.10	1.10	1.09	0.82
Consumer Discretionary	0.91	0.96	0.97	1.40	1.28	0.89	0.99	0.77	0.98	1.00	1.02	1.08	1.06	1.08	1.01	1.02	0.99	1.05	0.82	1.24	1.45	1.24	0.94
Consumer Staples	0.95	0.95	0.98	1.02	1.03	1.07	1.03	0.92	1.07	1.04	1.03	1.02	0.98	0.99	0.98	1.05	1.10	1.11	0.92	1.01	1.18	1.13	0.88
Energy	0.91	0.94	0.93	0.97	1.01	1.01	1.01	1.03	0.98	1.01	1.03	0.97	1.02	1.20	1.23	1.13	1.03	1.07	1.24	0.96	1.00	1.00	0.91
Financials	0.64	0.97	1.62	2.12	-5.49	-1.02	0.02	0.23	0.56	0.43	0.73	0.47	0.82	0.75	0.93	1.33	0.81	0.96	2.36	1.09	0.82	0.91	0.68
Health Care	1.14	1.09	1.06	1.16	1.10	1.16	1.17	1.11	1.27	1.18	1.20	1.22	1.23	1.30	1.29	1.32	1.35	1.28	1.20	1.24	1.37	1.27	1.02
Industrials	0.86	0.85	0.94	0.91	0.99	0.90	0.96	0.88	0.96	1.00	1.06	0.99	1.04	1.03	1.17	1.17	1.16	1.12	1.11	1.09	1.15	1.15	0.95
Information Technology	0.85	0.99	0.94	0.97	1.07	1.00	1.02	1.00	1.06	1.00	1.03	1.01	0.98	1.13	1.06	1.10	1.13	1.13	1.10	1.19	1.28	1.32	0.89
Materials	1.05	0.92	1.24	1.38	1.10	1.07	1.25	0.88	1.07	1.09	1.07	1.06	1.13	1.06	0.98	1.14	1.26	1.15	0.97	1.16	1.23	1.24	0.93
Real Estate															1.28	1.08	1.10	1.09	1.07	1.19	1.12	1.06	0.94
Utilities	1.08	0.89	0.96	1.25	0.88	1.09	1.07	0.81	0.90	0.84	0.84	0.84	0.91	0.82	0.89	0.89	0.97	1.09	1.65	1.43	1.34	1.33	0.92
<b>S&amp;P 500</b>	<b>0.86</b>	<b>0.94</b>	<b>1.07</b>	<b>1.19</b>	<b>1.43</b>	<b>1.42</b>	<b>0.79</b>	<b>0.76</b>	<b>0.92</b>	<b>0.86</b>	<b>0.97</b>	<b>0.85</b>	<b>1.00</b>	<b>1.02</b>	<b>1.07</b>	<b>1.14</b>	<b>1.06</b>	<b>1.10</b>	<b>1.15</b>	<b>1.14</b>	<b>1.14</b>	<b>1.13</b>	<b>1.02</b>
<b>S&amp;P 500 ex Financials</b>	<b>0.95</b>	<b>0.94</b>	<b>0.98</b>	<b>1.07</b>	<b>1.06</b>	<b>1.01</b>	<b>1.04</b>	<b>0.94</b>	<b>1.03</b>	<b>1.02</b>	<b>1.03</b>	<b>1.02</b>	<b>1.04</b>	<b>1.09</b>	<b>1.11</b>	<b>1.13</b>	<b>1.14</b>	<b>1.14</b>	<b>1.07</b>	<b>1.16</b>	<b>1.22</b>	<b>1.19</b>	<b>1.08</b>

Source: Haver, DWS Investment GmbH as of 1Q2023. Past performance may not be indicative of future results.

(GAAP Net Income + Depreciation & Amortization) / (Operating Cash flow – Stock Compensation) by sector

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	1Q23	Aggregate
Communication Services	0.64	0.78	0.82	0.85	0.97	0.57	0.91	0.81	0.83	0.68	0.63	0.88	0.85	0.97	1.09	1.56	1.11	1.04	0.92	1.10	0.92	0.92	0.78
Consumer Discretionary	0.50	0.97	0.78	1.19	1.17	0.56	0.24	0.79	0.98	1.08	1.02	1.08	1.09	1.06	0.95	1.08	0.88	1.02	0.71	1.33	1.24	1.13	0.92
Consumer Staples	0.93	0.88	0.97	1.02	0.99	1.02	0.87	0.86	1.07	0.98	0.99	1.01	0.90	0.94	1.01	1.01	0.92	0.90	0.80	0.91	0.99	0.94	0.82
Energy	0.69	0.97	0.93	0.99	1.04	1.03	0.79	0.89	0.98	0.94	1.01	0.95	0.92	0.47	0.78	1.20	1.01	0.81	-0.21	0.94	1.03	1.02	0.75
Financials	0.64	0.99	1.53	2.14	-5.58	-1.04	-0.23	0.37	0.62	0.49	0.71	0.47	0.82	0.79	0.96	1.36	0.77	1.15	2.46	1.33	0.70	0.79	0.71
Health Care	0.96	0.77	0.84	0.96	0.88	0.90	0.91	1.04	1.02	0.96	0.93	1.01	1.00	0.97	0.98	0.88	0.96	0.98	0.80	1.02	1.03	0.95	0.78
Industrials	0.75	0.83	0.88	0.89	0.96	0.85	0.88	0.85	0.95	0.97	0.98	1.00	0.95	0.93	1.06	1.05	0.97	0.99	0.90	1.12	1.08	1.09	0.87
Information Technology	0.29	0.81	0.86	0.91	1.00	0.92	0.82	0.94	1.02	0.94	0.88	0.97	0.96	0.97	0.94	0.81	1.03	1.03	1.00	1.11	1.08	1.12	0.80
Materials	0.90	0.88	1.21	1.41	1.10	0.99	0.61	0.85	1.04	1.00	0.91	0.92	0.99	0.75	0.85	1.02	1.07	0.89	0.82	1.07	1.11	1.08	0.80
Real Estate															1.28	1.11	1.13	1.17	1.06	1.21	1.16	1.12	0.95
Utilities	0.80	0.77	0.99	1.19	0.83	1.11	1.04	0.82	0.85	0.79	0.77	0.77	0.86	0.69	0.71	0.82	0.82	0.96	1.40	1.22	1.20	1.30	0.82
<b>S&amp;P 500</b>	<b>0.66</b>	<b>0.88</b>	<b>0.98</b>	<b>1.13</b>	<b>1.37</b>	<b>1.26</b>	<b>0.55</b>	<b>0.75</b>	<b>0.90</b>	<b>0.82</b>	<b>0.88</b>	<b>0.82</b>	<b>0.93</b>	<b>0.87</b>	<b>0.96</b>	<b>1.04</b>	<b>0.95</b>	<b>1.02</b>	<b>0.95</b>	<b>1.13</b>	<b>0.99</b>	<b>0.99</b>	<b>0.93</b>
<b>S&amp;P 500 ex Financials</b>	<b>0.68</b>	<b>0.86</b>	<b>0.89</b>	<b>1.00</b>	<b>1.00</b>	<b>0.88</b>	<b>0.80</b>	<b>0.89</b>	<b>0.99</b>	<b>0.95</b>	<b>0.93</b>	<b>0.98</b>	<b>0.97</b>	<b>0.90</b>	<b>0.96</b>	<b>1.00</b>	<b>1.01</b>	<b>1.00</b>	<b>0.84</b>	<b>1.10</b>	<b>1.06</b>	<b>1.04</b>	<b>0.95</b>

Source: Haver, DWS Investment GmbH as of 1Q2023. Past performance may not be indicative of future results.

DWS Investment GmbH S&P 500 Annual EPS Outlook

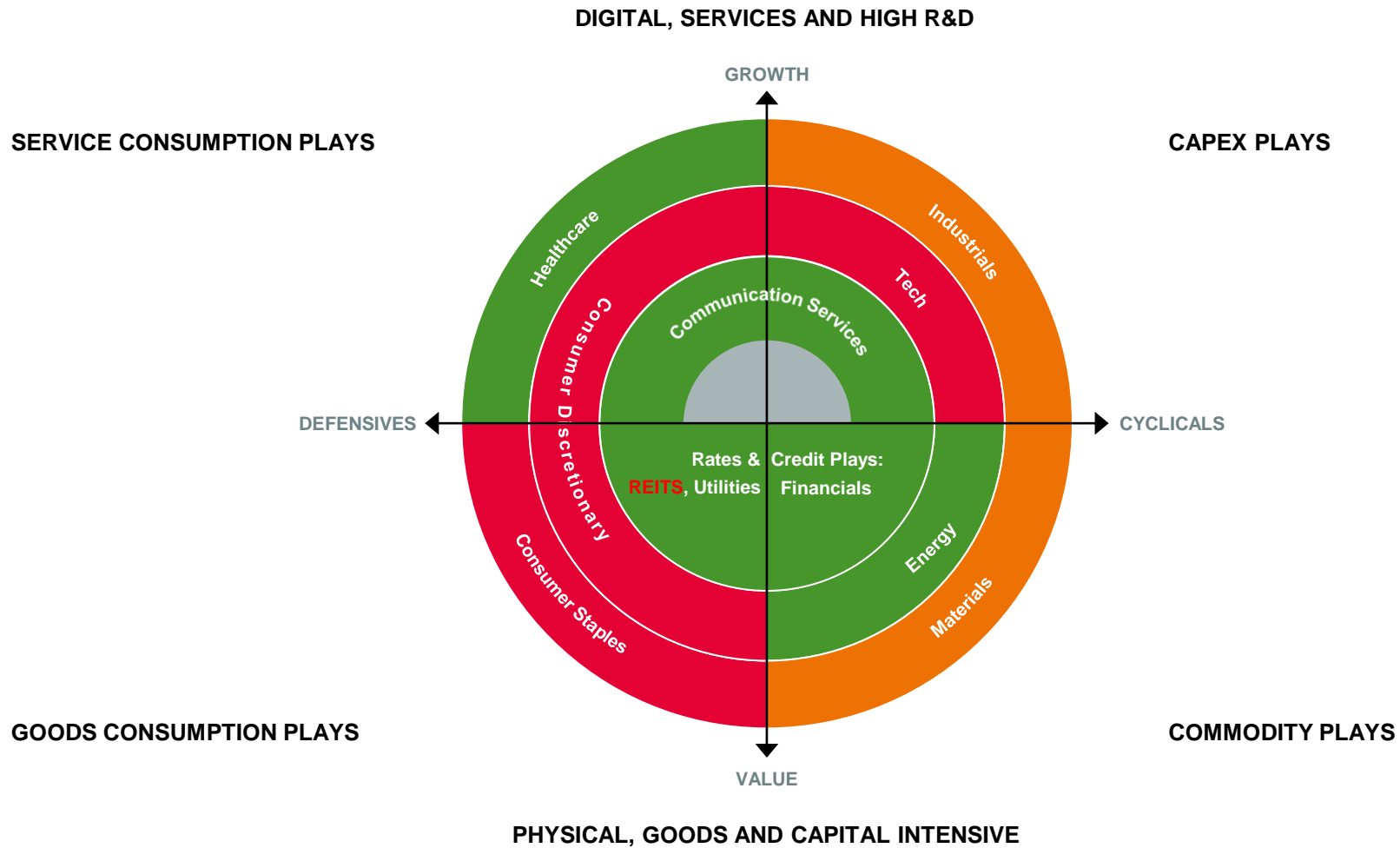
	2014A	2015A	2016A	2017A	2018A	2019A	2020A	2021A	2022A	y/y	Bottom-up Consensus (IBES)				DWS View				Normalized 2023		
											2023E	y/y	2024E	y/y	2023E	y/y	2024E	y/y	(\$)	% of 2023	
<b>S&amp;P 500 EPS (historical index)</b>	<b>\$118.82</b>	<b>\$117.46</b>	<b>\$118.10</b>	<b>\$132.00</b>	<b>\$161.93</b>	<b>\$162.93</b>	<b>\$139.72</b>	<b>\$208.12</b>	<b>\$218.09</b>	<b>4.8%</b>											
<b>S&amp;P 500 EPS (current constituents)</b>	<b>\$116.65</b>	<b>\$117.27</b>	<b>\$117.34</b>	<b>\$129.30</b>	<b>\$155.67</b>	<b>\$161.41</b>	<b>\$144.04</b>	<b>\$207.87</b>	<b>\$219.79</b>	<b>4.7%</b>	\$223	1.3%	\$248	11.2%	\$220	0.1%	\$235	6.8%	\$220	100%	
<b>Sector (\$ bn)</b>																					
Communication Services	67.8	78.4	91.3	99.3	124.2	130.6	135.8	188.4	148.9	-21.0%	172.0	15.5%	201.3	17.0%	171.0	14.8%	182.0	6.4%	166.2	97%	
Consumer Discretionary	59.7	70.0	78.4	82.5	97.6	95.2	70.7	114.6	110.1	-4.0%	137.9	25.3%	163.1	18.3%	134.5	22.2%	146.0	8.6%	141.2	105%	
Consumer Staples	83.6	82.4	85.1	89.4	96.4	97.4	104.8	117.2	117.0	-0.1%	120.6	3.1%	131.5	9.1%	120.0	2.6%	125.0	4.2%	120.0	100%	
Energy	94.6	39.6	10.4	37.1	69.8	49.2	-6.7	79.1	201.3	154.6%	151.4	-24.8%	151.9	0.3%	160.0	-20.5%	170.0	6.3%	138.1	86%	
Financials	184.4	200.6	203.1	212.5	262.6	276.5	224.7	362.3	305.0	-15.8%	336.7	10.4%	367.1	9.0%	324.0	6.2%	342.5	5.7%	320.4	99%	
Health Care	137.2	152.1	157.1	171.4	188.2	206.1	226.2	293.3	308.0	5.0%	279.8	-9.2%	304.7	8.9%	290.0	-5.8%	310.0	6.9%	288.4	99%	
Industrials	100.5	104.0	98.4	107.3	130.6	125.2	66.7	111.8	140.4	25.6%	159.9	13.8%	181.3	13.4%	154.5	10.0%	165.0	6.8%	155.7	101%	
Information Technology	162.5	168.1	176.4	207.8	239.5	233.2	264.5	345.4	352.6	2.1%	357.1	1.3%	414.7	16.1%	350.0	-0.7%	381.0	8.9%	362.0	103%	
Materials	24.8	23.7	22.8	28.7	36.1	34.1	32.4	61.3	64.0	4.4%	53.2	-16.8%	55.8	4.9%	52.0	-18.7%	55.5	6.7%	51.3	99%	
Real Estate	22.3	25.5	28.0	31.5	35.1	36.5	36.4	43.5	50.5	16.2%	50.4	-0.3%	53.4	6.1%	50.0	-1.0%	52.0	4.0%	48.4	97%	
Utilities	32.6	32.8	35.3	36.7	40.5	44.5	45.9	49.0	50.4	2.9%	53.6	6.4%	58.1	8.4%	53.5	6.3%	56.5	5.6%	55.3	103%	
<b>S&amp;P 500</b>	<b>969.9</b>	<b>977.2</b>	<b>986.2</b>	<b>1104.1</b>	<b>1320.6</b>	<b>1328.6</b>	<b>1201.3</b>	<b>1765.9</b>	<b>1848.2</b>	<b>4.7%</b>	<b>1872.4</b>	<b>1.3%</b>	<b>2083.0</b>	<b>11.2%</b>	<b>1859.5</b>	<b>0.6%</b>	<b>1985.5</b>	<b>6.8%</b>	<b>1847.0</b>	<b>99%</b>	
S&P ex. Energy (\$bn)	875.3	937.6	975.8	1067.0	1250.7	1279.4	1208.0	1686.9	1646.9	-2.4%	1721.0	4.5%	1931.0	12.2%	1699.5	3.2%	1815.5	6.8%	1708.8	101%	
S&P ex. Tech (\$bn)	807.4	809.1	809.8	896.3	1081.1	1095.4	936.8	1420.5	1495.6	5.3%	1515.4	1.3%	1668.3	10.1%	1509.5	0.9%	1604.5	6.3%	1485.0	98%	
S&P 500 Sales/Share (historical index)	\$1,163	\$1,127	\$1,151	\$1,232	\$1,339	\$1,415	\$1,362	\$1,567	\$1,753	11.9%											
S&P 500 Non-GAAP Net Margin	10.2%	10.4%	10.3%	10.7%	12.1%	11.5%	10.3%	13.3%	12.4%												

<b>S&amp;P 500 EPS</b>	<b>Year</b>	<b>1Q</b>	<b>2Q</b>	<b>3Q</b>	<b>4Q</b>
<b>2019A</b>	<b>163</b>	<b>39</b>	<b>41</b>	<b>41</b>	<b>42</b>
<b>2020A</b>	<b>140</b>	<b>33</b>	<b>28</b>	<b>38</b>	<b>42</b>
<b>2021A</b>	<b>210</b>	<b>49</b>	<b>53</b>	<b>54</b>	<b>54</b>
<b>2022A</b>	<b>222</b>	<b>55</b>	<b>58</b>	<b>56</b>	<b>53</b>
<b>2023E</b>	<b>220</b>	<b>53</b>	<b>55</b>	<b>55</b>	<b>57</b>

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 3/31/2023.

Source: Factset, DWS Investment GmbH as of 6/1/2023. Past performance may not be indicative of future results.

Sector Strategy: Per Key Macro Plays



Source: DWS Investment GmbH as of June 2023. Past performance may not be indicative of future results.

DWS Investment GmbH View: S&P 500 fair value by sector: Assuming a ~5.60% real cost of equity (CoE) for overall S&P 500

	Market Value (\$bn)	Current 2023 PE	2023E Earnings (\$bn)	Normal Ratio	Normal 2023E Earnings	Accounting Quality Adjustment	Fully Adjusted Earnings	Net Debt / Market Cap	Real CoE	Steady State Value	Growth Premium	2023 Start Fair Value (\$bn)	2023E Dividend Yield	2023 End Fair Value (\$bn)	PE on Normal 2023E EPS	2023 End Upside %	2023 End Upside vs. S&P 500
Communication Services	3,164	18.5	171.0	97%	166.2	-8%	152.9	15%	5.60%	2,731	0%	2,731	1.0%	2,939	17.7	-7%	1%
Consumer Discretionary	3,622	26.9	134.5	105%	141.2	-8%	129.9	12%	5.50%	2,362	15%	2,725	1.1%	2,926	20.7	-19%	-11%
<i>Automobiles</i>	652	27.2	24.0	100%	24.0	-12%	21.1	19%	6.50%	325	30%	422	0.4%	461	19.2	-29%	-21%
<i>Broadline (Internet) Retail</i>	1,122	68.0	16.5	150%	24.8	-7%	23.0	1%	5.50%	419	50%	628	0.0%	681	27.5	-39%	-31%
<i>ex. Auto &amp; Broadline (Internet) Retail</i>	1,848	19.7	94.0	98%	92.4	-7%	85.7	17%	5.30%	1,618	3%	1,674	1.6%	1,786	19.3	-3%	5%
Consumer Staples	2,424	20.2	120.0	100%	120.0	-7%	111.6	13%	5.00%	2,232	0%	2,232	2.9%	2,346	19.6	-3%	5%
Energy	1,502	9.4	160.0	86%	138.1	-15%	117.4	16%	6.00%	1,957	-20%	1,565	3.2%	1,657	12.0	10%	19%
Financials	4,439	13.7	324.0	99%	320.4	-9%	291.5		6.40%	4,555	-8%	4,191	2.2%	4,491	14.0	1%	9%
<i>Banks</i>	1,069	8.8	122.0	100%	122.0	-10%	109.8		7.50%	1,464	-15%	1,244	3.9%	1,327	10.9	24%	32%
Health Care	4,838	16.7	290.0	99%	288.4	-8%	265.4	9%	5.40%	4,914	0%	4,914	1.7%	5,245	18.2	8%	17%
Industrials	2,926	18.9	154.5	101%	155.7	-8%	143.3	18%	5.60%	2,558	0%	2,558	2.0%	2,728	17.5	-7%	1%
Information Technology	10,023	28.6	350.0	103%	362.0	-5%	343.9	2%	5.40%	6,369	10%	7,005	0.9%	7,530	20.8	-25%	-17%
Materials	861	16.6	52.0	99%	51.3	-10%	46.1	17%	5.75%	802	0%	802	1.9%	857	16.7	0%	8%
Real Estate	823	16.5	50.0	97%	48.4	-8%	44.5	29%	5.25%	848	0%	848	4.0%	885	18.3	7%	16%
Utilities	928	17.3	53.5	103%	55.3	-8%	50.9	60%	5.25%	969	0%	969	3.6%	1,014	18.3	9%	17%
S&P 500 (\$ bn)	35,551	19.1	1859.5	99%	1847.0	-8.1%	1697.4		5.57%	30,296	0.8%	30540	1.7%	32,617	17.7	-8%	0%
S&P 500 Index (\$/sh)	4221	19.2	220.0	100%	220.0	-8.2%	202.0	11%	5.60%	3607	0.0%	3607	1.7%	3847	17.5	-9%	0%



Source: IBES, DWS Investment GmbH as of 6/1/2023. Past performance may not be indicative of future results.

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 3/31/2023.

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



S&P 500 industry monitor (1 of 2)

Sector	Industry	PE on 2022	PE on 2023 Consensus	2023 Consensus EPS Growth	2024 Consensus EPS Growth	2023 EPS 3m Revision	3m Total Return Momentum	2023 End Upside (Intrinsic Valuation)	Combined Signal
<b>Consumer Discretionary</b>		31.7	22.3	19.9%	18.5%	1.9%	6.2%	-16.0%	1
	Automobile Components	19.9	11.6	33.4%	28.5%	0.3%	-20.7%	29.9%	0
	Automobiles	25.2	22.8	-0.6%	11.3%	1.1%	1.8%	-15.2%	0
	Household Durables	7.7	9.8	-26.4%	6.1%	13.8%	7.7%	-4.0%	1
	Leisure Products	13.8	12.0	2.1%	12.6%	-8.4%	9.2%	-13.3%	0
	Textiles Apparel & Luxury Goods	23.2	19.0	3.3%	18.3%	0.6%	-14.9%	-25.8%	0
	Hotels Restaurants & Leisure	80.1	19.9	225.9%	23.6%	6.6%	1.6%	-8.0%	1
	Distributors	16.1	14.7	-0.1%	9.4%	-0.6%	-11.9%	-2.1%	0
	Broadline Retail	107.1	43.8	57.6%	55.2%	9.1%	27.3%	-32.9%	1
	Specialty Retail	18.1	17.0	-1.3%	7.8%	-5.9%	-2.9%	-4.9%	0
<b>Consumer Staples</b>		20.9	18.4	3.8%	9.1%	-1.7%	0.6%	-8.8%	0
	Consumer Staples Distribution & Retail	22.0	18.8	5.8%	10.8%	-4.5%	-1.6%	-4.3%	0
	Food Products	16.4	16.3	-6.0%	6.6%	-2.0%	3.2%	-0.1%	0
	Beverages	25.9	21.9	8.8%	8.7%	0.9%	4.4%	-10.0%	1
	Tobacco	12.4	11.0	5.5%	7.2%	-1.0%	-5.8%	5.5%	0
	Household Products	25.8	21.7	8.4%	9.6%	1.3%	3.4%	-23.7%	1
	Personal Care Products	27.3	29.3	-34.5%	42.3%	-28.3%	-27.5%	-20.5%	-1
<b>Energy</b>		8.2	9.9	-17.6%	0.6%	-10.9%	-9.9%	8.3%	-1
	Energy Equipment & Services	23.6	11.2	70.2%	23.8%	0.0%	-18.5%	36.2%	0
	Oil Gas & Consumable Fuels	7.8	9.8	-20.1%	-0.9%	-11.5%	-9.1%	5.8%	-1
<b>Financials</b>		14.3	12.1	8.7%	8.9%	-0.8%	-7.6%	1.7%	0
	Banks	9.0	8.3	9.4%	-1.6%	2.3%	-15.5%	29.2%	1
	Financial Services	23.7	18.3	13.6%	14.2%	2.2%	0.4%	-7.9%	1
	Consumer Finance	8.7	9.5	-17.7%	11.7%	-6.4%	-7.6%	11.6%	-1
	Capital Markets	16.1	13.7	3.6%	13.9%	-5.7%	-9.5%	-19.8%	-1
	Insurance	15.4	10.8	18.3%	20.4%	-4.1%	-7.7%	9.8%	-1
<b>Health Care</b>		15.7	15.9	-9.4%	9.0%	-0.8%	0.0%	5.4%	0
	Health Care Providers & Services	15.8	13.3	7.9%	10.4%	0.1%	0.1%	15.2%	0
	Health Care Equipment & Supplies	26.2	23.6	1.0%	9.7%	0.3%	3.7%	-3.9%	0
	Life Sciences Tools & Services	23.1	21.7	-6.2%	13.1%	-2.4%	-9.1%	-11.9%	-1
	Biotechnology	11.2	14.3	-23.9%	3.1%	-4.0%	-6.9%	18.0%	-1
	Pharmaceuticals	13.0	14.1	-16.0%	9.5%	0.1%	5.3%	11.3%	0
<b>Industrials</b>		22.2	16.2	20.7%	13.5%	2.5%	-4.9%	-7.3%	1
	Aerospace & Defense	43.1	18.6	82.7%	26.6%	-2.4%	-5.8%	-4.1%	0
	Building Products	19.4	15.4	14.7%	10.2%	1.8%	-10.5%	-9.1%	0
	Trading Companies & Distributors	18.9	14.2	23.8%	7.5%	0.8%	-11.7%	12.3%	0
	Electrical Equipment	21.5	19.0	2.7%	10.1%	2.9%	-2.5%	-7.4%	0
	Construction & Engineering	28.3	21.3	13.8%	16.6%	1.4%	8.0%	-23.6%	1
	Industrial Conglomerates	21.0	18.1	-7.1%	25.0%	1.3%	3.5%	-17.7%	0

Combined signal rules: Green – at least 2 of the following 3 must be green: EPS growth, EPS revision, price momentum

Red – at least 2 of the following 3 must be red: EPS growth, EPS revision, price momentum

Source: Factset, DWS Investment GmbH as of 6/1/2023. Past performance may not be indicative of future results.

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S&P 500 industry monitor (2 of 2)

Sector	Industry	PE on 2022 EPS	PE on 2023 Consensus EPS	2023 EPS Growth	2024 Consensus EPS Growth	2023 EPS 3m Revision	3m Total Return Momentum	2023 End Upside (Intrinsic Valuation)	Combined Signal
	Machinery	18.0	13.9	24.6%	3.5%	8.9%	-11.6%	3.3%	1
	Commercial Services & Supplies	34.2	27.1	12.2%	12.3%	2.4%	12.2%	-37.9%	1
	Professional Services	28.3	23.1	8.1%	13.4%	-1.5%	-1.8%	-32.2%	0
	Air Freight & Logistics	12.5	13.6	-18.4%	12.8%	-2.2%	-4.6%	-13.2%	-1
	Passenger Airlines	25.6	5.4	288.7%	22.0%	12.2%	-9.9%	62.6%	1
	Ground Transportation	17.6	16.2	-0.4%	9.0%	-1.8%	-5.1%	4.5%	0
<b>Information Technology</b>		<b>27.8</b>	<b>24.2</b>	<b>-0.8%</b>	<b>16.1%</b>	<b>2.0%</b>	<b>21.6%</b>	<b>-17.1%</b>	<b>1</b>
	IT Services	20.2	17.7	5.1%	8.7%	-0.6%	6.6%	-1.2%	0
	Software	36.0	27.4	14.7%	14.5%	3.4%	25.1%	-16.4%	1
	Communications Equipment	17.5	14.0	17.5%	6.6%	1.7%	4.2%	16.3%	1
	Technology Hardware Storage & Peripherals	27.3	25.6	-3.9%	10.9%	-1.0%	18.8%	-18.6%	0
	Electronic Equipment Instruments & Components	19.0	17.3	-2.1%	12.6%	-3.8%	-7.4%	-17.8%	0
	Semiconductors & Semiconductor Equipment	24.7	23.1	-16.7%	28.4%	5.0%	28.5%	-21.6%	1
<b>Materials</b>		<b>12.9</b>	<b>15.5</b>	<b>-20.6%</b>	<b>5.1%</b>	<b>-1.3%</b>	<b>-9.8%</b>	<b>-3.4%</b>	<b>-1</b>
	Chemicals	14.9	15.9	-15.3%	10.8%	-6.4%	-8.2%	-3.8%	-1
	Construction Materials	34.9	23.7	25.2%	17.5%	4.8%	10.0%	-40.4%	1
	Metals & Mining	7.5	13.6	-35.1%	-15.3%	20.7%	-18.9%	7.0%	-1
	Containers & Packaging	10.7	12.7	-22.9%	9.2%	-7.9%	-14.2%	1.7%	-1
<b>Real Estate</b>		<b>27.2</b>	<b>31.8</b>	<b>-21.2%</b>	<b>8.7%</b>	<b>-0.5%</b>	<b>-6.2%</b>	<b>4.5%</b>	<b>0</b>
	Industrial REITs	28.2	42.1	-34.3%	1.9%	2.0%	-2.7%	-15.4%	0
	Hotel & Resort REITs	14.8	17.8	-7.7%	-9.9%	14.6%	-1.2%	68.4%	0
	Office REITs	18.2	27.4	-33.0%	-0.6%	6.3%	-22.3%	23.0%	-1
	Health Care REITs	91.3	66.2	-8.3%	50.5%	6.2%	-5.8%	2.4%	0
	Residential REITs	28.6	40.4	-31.2%	3.0%	0.3%	-1.5%	1.6%	0
	Retail REITs	26.9	24.1	7.6%	3.9%	2.9%	-11.4%	17.8%	0
	Specialized REITs	27.0	31.1	-22.1%	11.4%	-3.5%	-5.9%	3.4%	-1
Real Estate Management & Development	12.2	13.0	-21.6%	19.7%	-4.4%	-12.7%	28.0%	-1	
<b>Communication Services</b>		<b>18.8</b>	<b>15.8</b>	<b>1.6%</b>	<b>17.4%</b>	<b>3.3%</b>	<b>20.0%</b>	<b>-2.2%</b>	<b>1</b>
	Diversified Telecommunication Services	6.1	7.0	-13.6%	1.2%	-0.5%	-9.3%	1.6%	-1
	Wireless Telecommunication Services	79.8	14.4	310.1%	34.7%	3.9%	-2.1%	11.8%	1
	Media	11.0	10.0	-2.6%	12.8%	-1.9%	-0.2%	-4.5%	0
	Entertainment	29.2	20.3	0.0%	44.0%	-8.6%	3.4%	-2.0%	0
	Interactive Media & Services	25.0	19.4	7.3%	19.6%	9.4%	36.1%	0.5%	1
<b>Utilities</b>		<b>18.3</b>	<b>16.0</b>	<b>5.4%</b>	<b>8.3%</b>	<b>-0.7%</b>	<b>-2.0%</b>	<b>2.0%</b>	<b>0</b>
	Multi-Utilities	17.1	15.9	2.5%	5.1%	-0.5%	-3.2%	-3.8%	0
	Water Utilities	33.5	28.1	11.3%	7.2%	-0.5%	3.3%	-24.0%	1
	Gas Utilities	19.8	17.1	8.3%	6.6%	0.2%	0.1%	-6.5%	0
	Electric Utilities	18.6	15.9	6.5%	9.8%	-0.7%	-1.2%	8.9%	0
	Independent Power and Renewable Electricity Producers	12.2	10.3	5.5%	11.8%	-0.6%	-20.1%	2.4%	0
<b>S&amp;P 500</b>		<b>19.3</b>	<b>17.3</b>	<b>0.1%</b>	<b>11.4%</b>	<b>-0.4%</b>	<b>4.8%</b>	<b>-6.7%</b>	<b>0</b>

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## 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	
<b>DWS 2023E S&amp;P 500 EPS</b>	<b>\$220.00</b>	<b>DWS 2023E S&amp;P 500 DPS</b>	<b>\$70.00</b>	DWS 2023E S&P 500 aggregate ROE	21.8%	Fair long-term nominal return on S&P 500 index	8.60%
		2023E dividend payout ratio	32%	2022E end S&P 500 book value per share	\$1,007	Components of estimated fair S&P 500 return:	
<b>DWS "normal 2023E" S&amp;P 500 EPS</b>	<b>\$220.00</b>	<b>DWS "normal 2023E" S&amp;P 500 DPS</b>	<b>\$70.00</b>	DWS "normal 2023E" S&P 500 aggregate ROE	20.1%	+ Long-term real risk free interest rate	1.60%
"Normal 2023E" EPS / 2023E EPS	100%	Normal dividend payout ratio	35%			+ Long-term fair S&P 500 equity risk premium*	4.00%
				<b>S&amp;P EPS retained for true reinvestment</b>	<b>47%</b>	<b>= Long-term real S&amp;P 500 cost of equity</b>	<b>5.60%</b>
Accounting quality adjustment to pro forma EPS	-\$18.00	EPS directed to net share repurchases	\$38.00	<b>Estimated ROE on reinvested S&amp;P EPS</b>	<b>8.60%</b>	+ Long-term inflation forecast	3.00%
		Normal share repurchase payout ratio	19%	<b>Economic margin (EM) or ROE-CoE</b>	<b>0.00%</b>	<b>= S&amp;P 500 nominal cost of equity</b>	<b>8.60%</b>
<b>Normal 2023E S&amp;P 500 EPS fair to capitalize</b>	<b>\$202</b>	Total payout of S&P 500 EPS	\$108.00	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	53%	+ Long-term inflation forecast	3.00%	<b>Fair S&amp;P 500 Market Value and Book Value Multiple</b>	
				+ Fair return on true reinvestment	2.61%	2022E end S&P 500 book value per share	\$1,007
<u>S&amp;P 500 EPS Capitalization Valuation</u>		<u>S&amp;P 500 DPS Discount Model</u>		+ Value added return on true reinvestment	0.00%	Fair PB = Fair PE * normal aggregate ROE	3.58
Normal EPS / (real CoE - (EM/payout) - EM):		Normal DPS / (nominal CoE - DPS growth):		= Long-term earnings growth	5.61%	Fair PE =(inc ROE-g)/(inc real ROE*(real CoE-real g))	17.9
S&P 500 intrinsic value at 2023 start	3607	S&P 500 intrinsic value at 2023 start	3607	+ Growth from net share repurchases	1.05%	Implied S&P 500 fair value of book at 2023 start	3607
<b>S&amp;P 500 intrinsic value at 2023 end</b>	<b>3847</b>	<b>S&amp;P 500 intrinsic value at 2023 end</b>	<b>3847</b>	<b>= Long-term S&amp;P 500 EPS/DPS growth</b>	<b>6.66%</b>	Steady-state PB = normal agg. ROE / real CoE	3.58
Implied fair fwd PE in early 2023 on 2023E \$220 EPS	16.4	Implied fair forward yield on 2023E DPS of \$70.0	1.94%	+ Fair normal dividend yield	1.94%	Confirmed by fair steady-state PE = 1 / real CoE	17.9
Implied fair trailing PE at 2023 end on 2023E \$220 EPS	17.5	Implied fair trailing yield on 2023E DPS of \$70.0	1.82%	<b>= Total long-term return at constant PE</b>	<b>8.60%</b>		
Normal EPS / (real CoE-value added EPS growth)	3607	DPS discount model using true DPS (all payout)	3607	Value added growth premium in fair value est.	0%	Normal 2023E economic profit per share	\$145.61

### 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

		Normal 2023E S&P 500 EPS				
		\$210	\$215	\$220	\$225	\$230
Real	5.10%	4336	4473	4611	4751	4892
cost of	5.35%	3965	4079	4194	4310	4426
equity	5.60%	3653	3750	3847	3944	4041
	5.85%	3388	3471	3554	3636	3719
	6.10%	3158	3230	3302	3374	3444

Source: DWS Investment Management GmbH

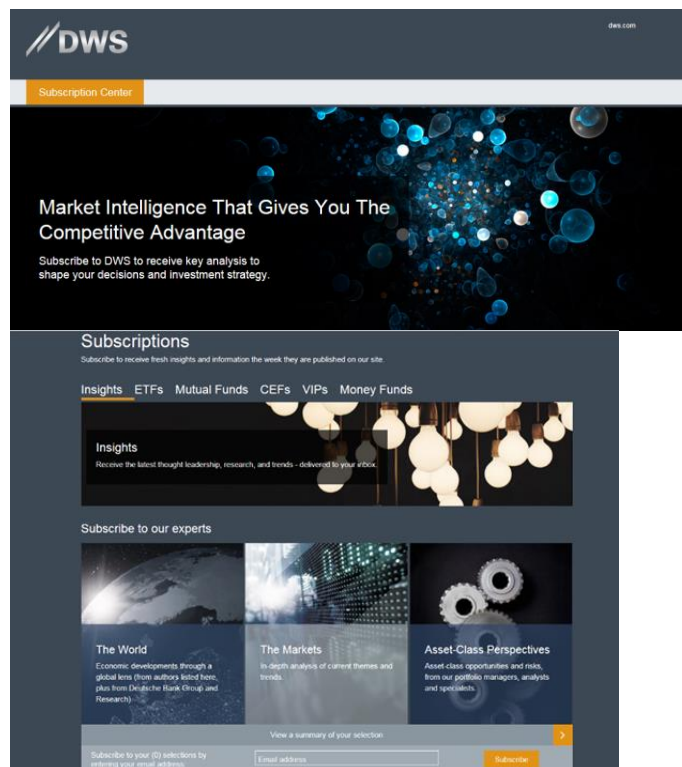
Optimistic 2023 end 10yr yield outlook: 2.5% inflation expectation + 1% overnight real rate + 0.75% inflation risk premium - 0.5% risk asset hedge = 3.75%

Pessimistic 2023 end 10yr yield outlook: 2.5% inflation expectation + 1% overnight real rate + 1.5% inflation risk premium - 0% risk asset hedge = 5.00%

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