

Further Fed tightening and small recession ahead limit equity upside



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2Q would have been another sequentially flat S&P EPS quarter if not for Energy. S&P 500 quarterly EPS has been flattish at \$54-55 from 3Q21-1Q22. 2Q was another sequentially flat EPS quarter with a weak macro backdrop and conservative consensus heading into earnings season. In aggregate, S&P beat on EPS by 4.3%, but only 1.2% ex. Energy. 2Q S&P EPS y/y growth was 9.7%, but down 2.2% y/y ex. Energy. The other two sectors with large EPS estimate beats were Health Care and Utilities, beating by 6.0% and 6.5% respectively. These two sectors are among our most over-weighted sectors, along with Communications and Financials. Investors feared down EPS y/y or q/q, but got mostly flat results and Energy flattered the aggregate figures. But since 2Q end, WTI oil prices fell below \$90/bbl after reaching \$120/bbl in June. Our commodity team forecasts \$100/bbl oil price in 12-months, but sees lower prices near-term. Thus, Energy's boost to S&P EPS is likely to fade and we expect further bottom-up EPS cuts outside Energy. We forecast flattish 4-qtr S&P EPS ahead (\$228 w/downside risk) from trailing 4-qtr EPS (\$221). This is better than in past recessions, which on average cause 20% S&P EPS declines. This is because we see a small and short recession with still elevated inflation and resilient jobs.

DWS CIO Day: Unchanged 3.50-3.75% Fed terminal rate, 4200 S&P 12-month

The theme from our CIO day is that high inflation likely pushes most DM economies into mild recession. US GDP contracted in 1H22 and our economists only see a 40% chance of a soft landing in the next few quarters. Inflation, especially core, remains sticky as rents and higher wages phase in. Our economists increased their US inflation outlook from 3.1% to 3.3% for 2023 and increased the inflation outlook in Europe from 3.7% to 5.0%. 2023 GDP growth is cut marginally from 0.8% to 0.7% in US and from 1.8% to 0.7% in Europe.

We expect the Fed to remain in inflation fighting mode and to not stop hiking the Fed Funds rate until it reaches at least 3.50%-3.75% by 2022 end (additional early 2023 hikes possible). We expect no more hikes in 2023, but also no cuts through September 2023. With this Fed road map in mind, we keep our 10yr Tsy yield forecast at 3.25%; this includes an expectation of a roughly 2.75% 10yr breakeven inflation rate and 0.50% 10yr TIPS yield.

We expect war in Ukraine to continue, but oil prices are unlikely to surge again given rising supply from OPEC (perhaps Iran sanctions lift) and Russian oil finding its way to Asia along with a strong dollar and demand dented from economic slowing and high oil prices. DWS lowered oil targets, but we raised Energy profits on profit beats in 2Q relative to oil prices.

DWS September end 2023 S&P 500 target is 4200 with little return potential from current levels. Near-term, we see downside risk for the S&P 500 as it would be quite uncommon for the market to find its bottom while the Fed is still hiking and EPS growth is stalled. While Fed hikes likely end within 12-months, we might be in a multiyear period of low real returns.

Profit margins likely fall, but sales rise, we keep our 2023E S&P EPS of \$235

We are still worried about unrealistically high S&P EPS expectations for 2023. Corporate margins are likely to suffer, at least a little, not only because they are at record highs now with immediate cyclical risks, but also because of wage, tax, regulation pressures ahead and lingering input cost pressures. While cyclical sectors are obviously most at risk, IT-spending on semiconductors, hardware and perhaps even software likely take hits. The extraordinary USD-strength will add additional earnings pressure to US multinationals, with the negative currency impact doubling from Q1 to Q2. Our FX strategists see sustained strength in the dollar and lower EUR/USD 12-month target from 1.10 to 1.05. We keep our 2023E S&P EPS at \$235, but we added \$5 worth of S&P EPS to 2023E Energy earnings.

High correction risk: Shelter in Health Care, Utilities, Banks and Communications

We think this summer's equity rally from its June low has gone too far and is too early. We see high risk of a 10%+ decline from S&P 4300 given deteriorating macro and earnings rest of this year into next. Just because the S&P suffered a 23% decline in the first half, doesn't make it less likely to suffer a 10%+ decline from recent highs. History shows that corrections tend to come in pairs or bunches with a few within a couple of years and then none for several years. However, we don't think the 3666 low in June will be revisited if no new shocks. We prefer Health Care with its profits supported by innovation in medicine and medical devices. Utilities are an attractive bond substitute with non-cyclical and inflation protected dividend yields. We like Banks as we don't expect a surge in credit costs. We like Communications given its role in digitalization and virtualization and that valuations acknowledge pricing and investment pressures from competition and disruption risks.

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Global Equity Index Forecasts: 12-months			
Index	Sep 2023F	NTM EPS Growth	Target PE
S&P 500	4,200	4.7%	18.0
EuroStoxx 50	3,750	3.6%	12.0
Stoxx 600	445	3.4%	12.7
MSCI Japan	1,250	5.5%	13.0
MSCI Asia xJ	660	3.2%	12.3
MSCI EM	1,030	1.7%	11.7

S&P 500 Outlook at Yearend			
	2021	2022F	2023F
S&P 500	4766	4100	4400
Dividend Yield	1.4%	1.6%	1.6%
S&P EPS	\$210	\$227	\$235
Trailing PE	22.7	18.0	18.7
DPS	\$60.50	\$68	\$72

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

Taxable U.S. Investor Asset Allocations		
Asset Class	Long-term	Current
Fixed Income/Cash	30-35%	38.5%
Equities	55-60%	52.5%
US Equities	40%	37.0%
S&P 500	35%	33.0%
Small Caps	0-10%	4.0%
Foreign DM	10-15%	9.5%
Foreign EM	0-10%	6.0%
Alternatives	10%	9%

Key CIO Views		
Macro signal:	2021	Sep 2023F
U.S. Fed Funds rate	0-0.25%	3.50-3.75%
10yr Treasury yield	1.52%	3.25%
US IG Corp Spreads	100bp	150bp
US High Yield Spreads	340bp	550bp
Crude Oil (WTI) \$/bbl	75	100
EUR / USD FX rate	1.13	1.05

GDP Forecasts			
Region	2021	2022F	2023F
US	5.7%	1.9%	0.7%
World	6.0%	3.1%	2.8%
Euro area	5.2%	3.1%	0.7%
China	8.1%	3.3%	5.3%
Japan	1.7%	1.5%	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 8/22/2022 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.

Little equity upside from here, full impact of Fed tightening has yet to hit economy and earnings

Global equity markets have recovered from recent lows driven by peaking US inflation numbers. These have boosted market confidence that the Fed might stop hiking at around 3.75% in early 2023. From here, we forecast inflation to remain stubbornly high – clearly above the target rate for the coming years. Therefore, market expectations for rate lowering in 2023 will be disappointed, in our view. Quite to the opposite, we believe that the full impact of the Fed's action has yet to hit the economy and corporate earnings. We predict that a modest US recession in H1 23 will be required to tame consumer prices.

The rapid rise of price levels has created some “nominal illusion” in macroeconomic and company data. We are forecasting an earnings progression of 0-5% over the next 12 months. This might appear inconsistent with history as economic downturns have typically produced double-digit EPS declines. In real terms, though, NTM EPS should indeed decline, compatible with our macro scenario.

In addition, commodity and energy prices are likely to remain elevated for an extended period due to the combination of climate change, underinvestment in new capacity and rising geopolitical tensions. As a result, the manufacturing of goods has become more expensive and has triggered a process of changing relative prices throughout the global economy. The required adaption of corporate margins and consumer preferences is far from complete and creates additional uncertainty on our earnings estimates.

Our updated September 2023 index targets (S&P 500: 4,200 / DAX 14,400) show only little return potential from current levels. Near-term, we see downside-risk for the S&P 500 as it would be quite uncommon for the market to find its bottom while the Fed is still hiking. Our market models show that volatility and real rates have already fallen back to normalized levels. As such, we stick to a 18x target PE LTM for the S&P 500, i.e. close to where the market is currently trading. While the looming US recession might be short-lived, we believe it is still too early to look through it. We fear that the following recovery period might be weak and generate only limited earnings growth due to the already high level of profit margins.

As our 12-month house forecast for the EUR/USD moves to 1.05, we have adjusted index targets to the respective currency tail- and headwinds.

We notice that the DAX and Stoxx600 continue to trade at record discounts to the US market, despite considerable progress that has been achieved in Europe to prepare the economy to reduced gas supply from Russia. Valuation seems attractive, however we refrain to becoming too bullish on European equities as higher energy prices, rising interest rates and falling real wages are expected to deteriorate the macro environment over the winter months.

Looking into Japan we notice that the weakening yen has become the key market driver. We would regard the return of domestic investors to the Japanese market and better growth in China as a precondition for a more constructive view.

With respect to China, we are still concerned about the full impact of the housing crisis and see no clear view out of the zero-Covid policy. Flaring US-China tensions pose the long-term question how western economies can reduce their dependence on trade with China.

12-month assumptions for DWS equity index targets:

1. Economy: Slight “technical” recession , but no severe US recession in 2023, no unemployment above NAIRU, peak FED funds below at or below 4%
2. FX: Adjusting earnings forecasts for a stronger USD vs. EUR, JPY, CNY and other EM currencies
3. Earnings: Mid-single-digit EPS growth in 2022, low to no EPS growth in CY 2023, 5-11% below consensus for NTM, implying negative EPS revisions to come and cautious company outlook comments
4. Digitalization: Unlike in the dot.com bubble in 2000, we expect most digital platforms to maintain solid earnings power
5. Valuation: Assuming US real yields not rising above 0.5% and nominal yield to stabilize here, limiting the negative drag on PE multiples
6. Ukraine impact: European (German) economy adapting to gas shortage via high gas price without severe recession
7. EM: Concerns about Chinese growth and Brazilian politics keep international investors waiting and multiples low

DWS September 2023 equity index targets

S&P target unchanged, adjusting other targets for stronger USD

Index	3M View	Current Level	Previous Target CIO Day Jun	Target Sep 23	Chg in Target	Expected Total Return Sep 23	thereof			Assumptions		
							18/08/2022	EPS growth NTM*	LTM multiple impact	Dividend Yield	EPS NTM* (e)	DWS vs. Cons.
S&P 500		4,272	4,200	4,200	0%	-0.1%	USD	4.7%	-5%	1.6%	233	-3.2%
Stoxx 600		441	430	445	3%	4.5%	EUR	3.4%	-2%	3.6%	35.0	-4.1%
Euro Stoxx 50		3,777	3,650	3,750	3%	3.2%	EUR	3.6%	-4%	3.9%	312	-5.7%
DAX40		13,697	13,900	14,400	4%	5.1%	EUR	4.1%	-3%	3.7%	1196	-5.1%
SMI		11,168	11,250	11,150	-1%	2.9%	CHF	2.2%	-2%	3.1%	674	-5.9%
FTSE 100		7,542	7,300	7,350	1%	1.8%	GBP	1.2%	-4%	4.4%		-5.4%
MSCI EM		1,008	1,060	1,030	-3%	5.5%	USD	1.7%	0%	3.3%	88.2	-2.6%
MSCI AC Asia xJ		646	695	660	-5%	5.2%	USD	3.2%	-1%	3.0%	53.6	-1.0%
MSCI Japan		1,224	1,150	1,250	9%	4.7%	YEN	5.5%	-5%	2.6%	92.4	-2.2%
MSCI Australia		1,403	1,350	1,350	0%	0.6%	AUD	-3.0%	0%	4.4%	94.0	-5.6%

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

Overview of Strategic 12-Month Forecasts

Fixed Income		Strategic Forecast Jun-22	Current level	12m forwards	Strategic Forecast Aug-22	Forecast change	Expected 12m Total Return	Long-term 10yr Total Return p.a. ⁴
Market Index	Target Jun-23	18-Aug-22	18-Aug-22	Target Sep-23				
Forecasts - US								
UST 2yr	US 2y yield	3.00%	3.23%	3.28%	3.10%	↗	3.45%	3.14%
UST 10yr	US 10y yield	3.25%	2.85%	2.92%	3.25%	→	0.07%	3.84%
UST 30yr	US 30y yield	3.40%	3.1%	3.1%	3.40%	→	-1.92%	3.83%
Municipals	Muni HY Index OAS	2.50%	2.31%		2.50%	→	0.86%	3.1%
US IG Corp	BarCap US Credit	180 bp	126 bp		150 bp	↘	-1.09%	4.13%
US HY ¹	Barclays US HY	570 bp	419 bp		550 bp	↘	0.27%	6.98%
Securitized / MBS	MBS Index OAS	55 bp	25 bp		40 bp	↘	0.97%	3.50%
Forecasts - Europe								
Schatz 2yr	GER 2y yield	2.00%	0.74%	0.83%	1.65%	↘	-0.01%	1.45%
Bund 10yr	GER 10y yield	2.25%	1.10%	1.19%	1.75%	↘	-3.68%	0.99%
Bund 30yr	GER 30y yield	2.50%	1.29%	1.29%	1.85%	↘	-11.04%	1.34%
Gilt 10yr	UK 10y yield	2.70%	2.32%	2.40%	2.25%	↘	3.67%	3.27%
EUR IG Corp	ICE BofA Bond Index	150 bp	179 bp		150 bp	→	1.07%	3.18%
EUR HY ¹	ML EUR Non-Fin HY Constr. Index	505 bp	533 bp		550 bp	↗	2.43%	6.45%
Securitized / Covered	iBoxx Covered	80 bp	93 bp		80 bp	→	-0.47%	1.99%
Italy 10yr ³	GTTL10Y Corp - GTDEM 10Y Corp	180 bp	222 bp	234 bp	220 bp	↗	-0.80%	n/a
Spain 10yr ³	GTESP10Y Corp - GTDEM 10Y Corp	110 bp	115 bp	125 bp	110 bp	→	-1.89%	n/a
Forecasts - AsiaPac								
JGB 2yr	JPN 2y yield	0.00%	-0.08%	-0.07%	0.00%	→	-0.14%	-0.24%
JGB 10yr	JPN 10y yield	0.20%	0.20%	0.32%	0.20%	→	0.55%	0.69%
Asia Credit	JACI Index	320 bp	347 bp		340 bp	↗	5.51%	-
Forecasts - Global								
EUR vs USD	EUR/USD	1.10	1.01		1.05	↘	1.40%	-
USD vs JPY	USD/JPY	130	135		130	→	-0.42%	-
EUR vs JPY	EUR/JPY	143	137		137	↘	1.21%	-
EUR vs GBP	EUR/GBP	0.92	0.84		0.88	↘	2.14%	-
GBP vs USD	GBP/USD	1.28	1.28		1.28	↔	-0.15%	-
USD vs CNY	USD/CNY	6.75	6.8		6.95	↗	3.32%	-
EM Sovereign ¹	EMBIG Div.	500 bp	491 bp		500 bp	→	3.00%	7.60%
EM Credit ¹	CEMBI Broad	370 bp	395 bp		390 bp	↗	4.66%	7.05%

Benchmark Rates

Benchmark Rates		Strategic Forecast Jun-22	Current Level	Strategic Forecast Aug-22	Forecast change	Expected 12m Total Return	Long-term 10yr Total Return p.a. ⁴
Market Index	Target Jun-23	18-Aug-22	Target Sep-23				
Forecasts – Benchmark rates							
United States	Federal funds rate	3.25-3.50	2.25-2.50	3.50-3.75	↗		
Eurozone	Deposit rate	2.00	0.00	2.00	→		
United Kingdom	Repo rate	2.50	1.75	2.50	→		
Japan	Overnight call rate	0.00	0.00	0.00	→		
China	1year lending rate	3.60	3.70	3.50	↘		

Equities

Equities		Strategic Forecast Jun-22	Current Level	Strategic Forecast Aug-22	Forecast change	Expected 12m Total Return	Long-term 10yr Total Return p.a. ⁴
Market Index	Target Jun-23	18-Aug-22	Target Sep-23				
Forecasts – Equity							
US	S&P 500	4,200	4,267	4,200	→	0.07%	6.70%
Germany	DAX	13,900	13,666	14,400	↗	5.37%	7.34%
Eurozone	Eurostoxx 50	3,650	3,764	3,750	↗	3.57%	6.48%
Europe	Stoxx 600	430	440	445	↗	4.74%	6.10%
Japan	MSCI Japan	1,150	1,235	1,250	↗	3.84%	4.65%
SMI	SMI	11,250	11,158	11,150	↘	3.03%	6.17%
UK	FTSE 100	7,250	7,530	7,350	↗	2.01%	6.38%
Emerging Markets	MSCI EM	1,060	1,016	1,030	↘	4.70%	7.31%
Asia ex Japan	MSCIACAsia ex Japan	695	651	660	↘	4.42%	7.29%
Australia	MSCIAustralia	1,350	1,403	1,350	→	0.70%	9.68%

Alternatives

Alternatives		Strategic Forecast Jun-22	Current Level	Strategic Forecast Aug-22	Forecast change	Expected 12m Total Return	Long-term 10yr Total Return p.a. ⁴
Market Index	Target Jun-23	18-Aug-22	Target Sep-23				
Forecasts – Commodities							
Gold	Gold Spot	1,950	1,764	1,875	↘	6.28%	0.59%
Oil - Spot ²	Brent Spot	110	95	100	↘	-	n/a
Oil - Futures ²	Brent 12m Futures	-	87	-	-	15.04%	2.57%
Real Estate & Infrastructure							
Listed US RE						4.00%	4.56%
Non-Listed US RE						3.00%	5.63%
Listed Global RE						4.50%	4.15%
Non-Listed Global RE						1.50%	n/a
Listed Infrastructure						5.00%	5.86%

¹US HY default rate: 3.5%, 40% recovery, CCC average price of 80 used (instead of par); EUR HY default rate: 3.0%, 40% recovery; EM Sov default rate 6%, 50% recovery; EM Credit default rate 6%, 35% recovery // ²Oil-Forward used to calculate expected TR; forecasts are made on Brent-Spot // ³Total return. Excess return for Italy 10yr and Spain 10yr is 3.74% and 1.49%, respectively // ⁴LTCMA forecasts for Gold and Oil based on futures

DWS Global Macro Forecasts: High Inflation leads to slower growth

GDP Growth Rate

% year-on-year

	2021	2022F	2023F	Consensus 2022 (BBG)
World	6.0	3.1	2.8 (3.1)	
U.S. *	5.7	1.9	0.7 (0.8)	1.7 (2.6)
EUZ	5.2	3.1 (2.9)	0.7 (1.8)	2.7
GER	2.9	1.5 (1.9)	0.0 (2.2)	1.5
UK	7.4	3.5 (3.5)	-0.2 (0.7)	3.4
Japan	1.7	1.5 (1.7)	0.9 (1.8)	1.6
China	8.1	3.3 (3.8)	5.3	4.0 (3.2)

Inflation (CPI, core PCE for the U.S.)

% year-on-year average

	2021	2022F	2023F	Consensus 2022 (BBG)
World				
U.S. **	3.3	4.8	3.3 (3.1)	4.7
EUZ	2.5	8.2 (8.0)	5.0 (3.7)	7.5 (7.1)
GER	3.1	8.4 (8.0)	6.2 (3.7)	7.6 (7.2)
UK	2.6	9.1 (8.7)	6.5 (5.3)	8.5
Japan	-0.2	2.1 (1.9)	1.7 (1.7)	2.0 (1.8)
China	0.9	2.3	2.5 (2.3)	2.3

Unemployment Rate (Annual average)

%

	2021	2022F	2023F	Consensus 2022 (BBG)
U.S.	5.4	3.8	4.3	3.7
EUZ	7.7	7.0	6.8	6.8
GER	5.3	5.0	5.0 (4.9)	5.0
UK	4.5	4.0	4.6 (4.3)	3.9
Japan	2.8	2.5 (2.5)	2.5 (2.5)	2.6 (2.8)
China****	5.1	5.5	5.3	4.4

Fiscal Balance

% of GDP

	2021	2022F	2023F	Consensus 2022 (BBG)
U.S****	-10.8	-4.4	-4.0	-4.1
EUZ	-5.5	-4.1	-3.3	-4.5
GER	-3.7	-3.2	-2.0 (-1.5)	-3.5
UK	-3.2	-4.0	-4.0 (-4.5)	-5.2
Japan	-7.6	-7.5 (-8.0)	-5.0 (-5.0)	-6.7 (-6.5)
China*****	-6.0	-11.0	-7.5	-4.7

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. (...) forecasts from May CIO Day in brackets. BBG = Bloomberg. Sources: DWS Macro Research, World: IMF Data World Economic outlook. (*) For the U.S., GDP growth Q4/Q4 % is 0.6% in 2022 and 1.1% in 2023, (**) Measure is average core PCE - Dec to Dec is 4.3% in 2022 and 2.6% in 2023; headline PCE (Dec/Dec) is 4.9% in 2022 and 2.8% in 2023 - average is 6.0% in 2022 and 3.6% in 2023 (***) Fiscal balance is federal deficit only. (****) Urban unemployment rate (end of period), not comparable to consensus data, (*****). China fiscal balance not comparable to last data due to no comparable definition, not comparable to consensus data. As of August 2022.

S&P 500 Sector and Industry views

	Market	Allocated	Sector	2021	2022	2023	Overweight	2021	2022	2023	Equal weight	2021	2022	2023	Underweight	2021	2022	2023	
Over-weight	15.1%	19.6%	Health Care	17.1	16.3	15.6	Biotechnology Health Care Equipment & Supplies Health Care Technology Life Sciences Tools & Services Pharmaceuticals	11.1 24.5 28.3 25.5 15.3	11.5 23.8 25.9 27.5 13.2	11.3 22.3 23.8 24.5 13.0					Health Care Providers & Services	18.7	17.6	16.6	
	8.9%	10.6%	Communication Services	15.8	17.0	15.8	Diversified Telecommunication Services Entertainment Interactive Media & Services Media	6.7 28.9 18.5 12.2	7.9 24.7 20.5 11.8	7.9 21.8 18.5 11.5	Wireless Telecommunication Services	60.7	57.3	28.6					
	10.8%	11.8%	Financials	11.9	13.5	12.6	Banks Diversified Financial Services Insurance	8.8 25.5 14.6	10.6 21.3 14.0	9.4 20.5 13.3					Capital Markets Consumer Finance	14.3 7.4	17.2 8.9	17.1 9.1	
	3.1%	3.6%	Utilities	23.0	21.7	20.5	Electric Utilities Multi-Utilities	24.7 22.2	22.8 21.7	21.3 20.7	Gas Utilities Independent Power & Renewable E	22.6 8.6	22.5 8.5	19.2 8.5	Water Utilities	39.7	35.8	32.6	
	2.9%	3.4%	Real Estate	22.4	20.6	19.9	Real Estate Mgmt. & Development REITs	15.9 23.2	14.2 20.9	12.9 20.3									
Equal-weight	4.2%	4.2%	Energy	19.2	9.2	11.5	Energy Equipment & Services	30.2	18.0	19.7					Oil Gas & Consumable Fuels	18.8	8.9	30.3	
Under-weight	7.7%	7.4%	Industrials	26.8	20.3	18.9	Aerospace & Defense Electrical Equipment Industrial Conglomerates	31.7 23.3 23.2	24.1 20.7 21.4	21.6 19.2 19.7	Airlines Road & Rail	-5.0 23.5	20.4 19.9	10.2 19.1	Air Freight & Logistics Building Products Commercial Services & Supplies Construction & Engineering Machinery Professional Services Trading Companies & Distributors	15.2 19.8 36.4 24.6 19.5 25.3 23.7	15.2 18.4 32.0 20.8 17.9 24.0 18.6	15.7 18.4 30.3 19.8 17.3 23.2 18.6	
	27.2%	26.0%	Information Technology	26.1	24.2	22.5	Communications Equipment IT Services	17.0 27.6	15.9 23.6	15.0 21.7	Electronic Equipment	23.1	21.6	19.6	Semiconductors Software Technology Hardware Storage & Per	18.3 33.6 27.5	18.9 29.7 25.4	17.4 27.4 24.2	
	10.7%	8.9%	Consumer Discretionary	30.9	28.7	26.6	Auto Components Hotels Restaurants & Leisure Textiles Apparel & Luxury Goods	22.0 875.6 23.5	17.8 47.1 22.3	15.6 28.3 20.5	Household Durables	7.4	6.2	7.2	Automobiles Distributors Internet & Direct Marketing Retail Leisure Products Multiline Retail Specialty Retail	38.9 19.7 56.5 16.1 17.6 19.8	35.8 17.9 54.1 15.5 21.4 18.7	33.7 18.5 48.3 15.5 21.2 18.5	
	6.9%	4.4%	Consumer Staples	22.9	22.4	21.9				Personal Products	39.9	35.5	33.6	Beverages Food Products Food & Staples Retailing Household Products Tobacco	28.2 19.1 25.3 25.8 13.3	26.6 18.8 24.3 25.7 13.7	25.6 18.7 23.8 25.1 13.3		
	2.5%	0.0%	Materials	15.6	13.9	16.2									Chemicals Construction Materials Containers & Packaging Metals & Mining	17.4 32.1 15.7 8.7	15.1 28.8 13.4 8.8	16.7 27.1 13.1 14.5	
	Aggregate PE: DWS View							Overweight	17.9	17.5	16.2	Equalweight	25.1	16.5	15.3	Underweight	22.6	20.1	20.3
S&P 500								4228			2020, 2021 & 2022 EPS	208.21	227.00	235.00	2020, 2021 & 2022 PE	20.3	18.6	18.0	
											Bottom-up Consensus EPS	206.91	227.68	244.42	Bottom-up Cons. PE	20.4	18.6	17.3	
															2020, 2021 & 2022 Ex Energy PE	19.7	19.7	18.6	
															Btm-up Cons. Ex Energy PE	20.3	19.8	18.0	

Sector OW	8.20%
Sector UW	-8.20%
Industry OW	16.75%
Industry UW	-16.75%

Macro tilts:	
Cyclicals	-2.89%
Defensive	3.00%
Value	-5.33%
Growth	5.33%
Consumer Services/experience	-4.33%
Disc. Goods	0.21%
Retailing	-0.63%
Durables	0.87%
Staples Goods/Retail	-1.36%
Commodity	-2.06%
Energy	0.03%
Metals/Chemicals	-2.09%
Capex	3.53%
Capacity additions	1.87%
Productivity	1.66%
Health Care	4.53%
Innovation	2.82%
Marketers	1.76%
Insurers	-0.36%
Financials	1.03%
Up rates/low spreads	1.17%
Capital Markets	-0.87%
Insurance	0.72%
Bond Substitutes	1.39%
Weak FX \$ plays	0.67%
High R&D plays	4.60%
Transports	-0.68%
Geopolitical risk	-0.10%
Weak oil prices	-1.03%
Inflation shock	1.95%
Domestic GDP	-0.86%
Global GDP	-3.25%
Consumer TMT	0.54%
Trade sensitive	-1.14%

Note: Diversified Financial Services, Real Estate Management & Development and REITs moved from EW to OW; Gas Utilities, Wireless Telecommunication Services moved from UW to EW; Auto Components, Road & Rail moved from UW to OW; HC Providers & Services moved from OW to UW; Tobacco moved from EW to UW.

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

Price as of 8/17/2022

Source: DWS Investment Management GmbH

DWS Investment GmbH S&P 500 Annual EPS Outlook

	2014A	2015A	2016A	2017A	2018A	2019A	2020A	2021A	y/y	Bottom-up Consensus (IBES)				DWS View				Normalized 2022	
										2022E	y/y	2023E	y/y	2022E	y/y	2023E	y/y	(\$)	% of 2022
S&P 500 EPS (historical index)	\$118.82	\$117.46	\$118.10	\$132.00	\$161.93	\$162.93	\$139.72	\$208.12	49.0%										
S&P 500 EPS (current constituents)	\$116.42	\$117.06	\$117.26	\$129.35	\$156.10	\$161.45	\$143.40	\$208.21	46.8%	\$227.68	9.4%	\$244.42	7.4%	\$227	8.0%	\$235	3.4%	\$225	99%
Sector (\$ bn)																			
Communication Services	69.3	79.9	92.7	100.3	125.7	133.3	136.4	189.2	38.7%	173.8	-8.1%	193.7	11.4%	176.0	-7.0%	190.0	8.0%	174.0	99%
Consumer Discretionary	64.5	75.3	83.9	88.1	103.8	102.0	79.6	134.9	69.3%	144.3	7.0%	174.1	20.6%	145.0	7.5%	156.5	7.9%	151.3	104%
<i>Automobiles</i>	9.6	15.4	16.0	15.5	14.1	11.5	10.3	22.1	114%	28.1	27.2%	30.5	8.7%	24.0	8.6%	25.5	6.3%		
<i>Internet & Direct Marketing Retail</i>	5.6	6.2	8.1	8.6	16.2	17.7	20.0	23.9	19.9%	21.0	-12.1%	30.1	43.2%	25.0	4.4%	28.0	12.0%		
<i>CD ex Auto & Internet Retail</i>	49.3	53.7	59.8	63.9	73.5	72.8	49.3	88.8	80.0%	95.2	7.2%	113.4	19.2%	96.0	8.1%	103.0	7.3%		
Consumer Staples	77.5	75.9	78.2	82.4	89.2	89.6	93.4	102.7	9.9%	105.3	2.6%	112.0	6.3%	105.0	2.3%	107.5	2.4%	105.0	100%
Energy	95.9	40.0	10.8	37.7	71.1	50.3	-5.7	79.2	1490%	198.3	150.4%	173.0	-12.8%	165.5	108.9%	132.0	-20.2%	117.5	71%
Financials	171.4	186.3	188.0	195.4	242.2	249.2	198.7	328.5	65.4%	287.0	-12.7%	325.3	13.3%	290.0	-11.7%	311.0	7.2%	292.1	101%
Health Care	137.9	153.1	158.1	172.3	189.4	207.5	227.4	294.3	29.4%	308.8	4.9%	308.0	-0.3%	310.0	5.3%	322.5	4.0%	301.2	97%
Industrials	99.9	103.8	97.5	106.1	129.5	123.7	63.4	108.1	70.5%	145.0	34.2%	169.7	17.0%	142.5	31.8%	153.0	7.4%	146.9	103%
<i>Airlines</i>	10.9	17.6	13.3	10.9	11.5	13.2	-28.8	-14.2	50.5%	3.3	123.0%	9.5	190.6%	3.5	124.6%	7.0	100.0%		
Information Technology	177.1	184.3	193.9	228.7	266.8	265.0	297.5	380.7	28.0%	403.5	6.0%	452.3	12.1%	411.5	8.1%	442.5	7.5%	414.5	101%
Materials	24.6	23.7	22.5	28.3	35.2	33.6	31.9	58.2	82.3%	68.1	16.9%	62.7	-7.8%	65.0	11.6%	56.0	-13.8%	55.0	85%
Real Estate	23.1	26.3	29.2	31.6	34.6	36.2	35.6	42.2	18.4%	46.5	10.2%	49.3	5.9%	46.0	9.0%	47.5	3.3%	44.0	96%
Utilities	31.3	31.6	33.8	35.3	38.9	42.9	44.2	47.2	6.8%	49.7	5.2%	52.4	5.6%	50.0	5.9%	53.0	6.0%	50.0	100%
S&P 500 (\$ bn)	972.6	980.1	988.5	1106.3	1326.4	1333.3	1202.5	1765.2	46.8%	1930.3	9.4%	2072.3	7.4%	1906.5	8.0%	1971.5	3.4%	1851.4	97%
S&P ex. Energy (\$bn)	876.7	940.1	977.7	1068.6	1255.3	1283.0	1208.2	1686.0	39.6%	1732.0	2.7%	1899.3	9.7%	1741.0	3.3%	1839.5	5.7%	1733.9	100%
S&P ex. Tech (\$bn)	795.5	795.8	794.6	877.6	1059.6	1068.3	905.0	1384.5	53.0%	1526.9	10.3%	1620.0	6.1%	1495.0	8.0%	1529.0	2.3%	1436.9	96%
S&P 500 Sales/Share (historical index)	\$1,163	\$1,127	\$1,151	\$1,232	\$1,339	\$1,415	\$1,362	\$1,567	15.0%										
S&P 500 Non-GAAP Net Margin	10.2%	10.4%	10.3%	10.7%	12.1%	11.5%	10.3%	13.3%											

S&P 500 EPS	Year	1Q	2Q	3Q	4Q
2019A	163	39	41	41	42
2020A	140	33	28	38	42
2021A	210	49	53	54	54
2022E	227	55	58	56	58
2023E	235	56	58	58	61

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 3/31/2022.

Source: Factset, DWS Investment GmbH as of 8/19/2022. Past performance may not be indicative of future results.

S&P 500 2022 and 2023 EPS outlook scenarios

	<u>Previous S&P EPS outlook</u>				<u>Current S&P EPS outlook</u>				<u>Material possibility</u>			
	Stalled growth or slight recession 4Q22/1Q23				Small recession 4Q22/1Q23				Average US & EU recessions 2023			
	4% CPI 2023, oil \$110/bbl, euro \$1.10				3-4% CPI 2023, oil \$100/bbl, euro \$1.05				3% CPI, oil \$80/bbl, euro \$1.00			
	EPS year	qtrly	annualized	x18.0	EPS year	qtrly	annualized	x18.0	EPS year	qtrly	annualized	x18.5
2022E	225	55	220	3960	227	55	220	3960	222	55	220	4070
		55	220	3960		58	232	4176		58	232	4292
		56	224	4032		56	224	4032		55	220	4070
		59	236	4248		58	232	4176		54	216	3996
2023E	235	57	228	4104	233	56	224	4032	214	50	200	3700
		58	232	4176		58	232	4176		52	208	3848
	3Q23	59	236	4248	3Q23	58	232	4176	3Q23	55	220	4070
		61	244	4392		61	244	4392		57	228	4218

Source: DWS Investment GmbH as of 8/19/2022. Past performance may not be indicative of future results.

DWS Investment GmbH 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 2022 PE	2022E Earnings (\$bn)	Normal Ratio	Normal 2022E Earnings	Accounting Quality Adjustment	Fully Adjusted Earnings	Net Debt / Market Cap	Real CoE	Steady State Value	Growth Premium	2022 Start Fair Value (\$bn)	2021E Dividend Yield	2022 End Fair Value (\$bn)	PE on Normal 2022E EPS	2022 end Upside %
Communication Services	2,999	17.0	176.0	99%	174.0	-8%	160.1	15%	5.50%	2,911	-5%	2,765	1.5%	2,960	17.0	-1%
Consumer Disc.	4,168	28.7	145.0	104%	151.3	-8%	139.2	12%	5.50%	2,530	31%	3,323	0.9%	3,577	23.6	-14%
<i>Automobiles</i>	860	35.8	24.0	110%	26.4	-10%	23.8	19%	6.00%	396	60%	634	0.3%	689	26.1	-20%
<i>Internet & Direct Marketing Retail</i>	1,353	54.1	25.0	100%	25.0	-8%	23.0	1%	5.50%	418	140%	1,004	0.0%	1,089	43.5	-20%
<i>CD ex Auto & Internet Retail</i>	1,956	20.4	96.0	100%	96.0	-8%	88.3	17%	5.50%	1,606	5%	1,686	1.6%	1,802	18.8	-8%
Consumer Staples	2,354	22.4	105.0	100%	105.0	-6%	98.7	13%	4.75%	2,078	0%	2,078	2.4%	2,189	20.8	-7%
Energy	1,525	9.2	165.5	71%	117.5	-10%	105.8	16%	6.00%	1,763	-15%	1,498	3.6%	1,578	13.4	4%
Financials	3,912	13.5	290.0	101%	292.1	-8%	268.7		6.50%	4,134	-5%	3,927	1.9%	4,224	14.5	8%
Banks	1,329	10.6	125.0	105%	131.3	-8%	120.8		7.00%	1,725	-5%	1,639	3.2%	1,750	13.3	32%
Health Care	5,040	16.3	310.0	97%	301.2	-10%	271.1	9%	5.25%	5,164	0%	5,164	1.5%	5,512	18.3	9%
Industrials	2,898	20.3	142.5	103%	146.9	-8%	135.1	18%	5.50%	2,457	0%	2,457	1.3%	2,633	17.9	-9%
Technology	9,938	24.2	411.5	101%	414.5	-6%	389.6	2%	5.50%	7,083	10%	7,792	0.9%	8,382	20.2	-16%
Materials	906	13.9	65.0	85%	55.0	-10%	49.5	17%	5.75%	861	-5%	818	1.9%	874	15.9	-4%
Real Estate	947	20.6	46.0	96%	44.0	-7%	40.9	29%	4.50%	910	0%	910	2.8%	952	21.6	1%
Utilities	1,086	21.7	50.0	100%	50.0	-10%	45.0	60%	4.50%	1,000	0%	1,000	2.8%	1,047	20.9	-4%
S&P 500 (\$ bn)	35,772		1906.5	97%	1851.4	-8.0%	1703.6		5.50%	30889	2.7%	31731	1.5%	33929.0	18.3	-5%
S&P 500 Index (\$/sh)	4228	18.6	227.0	99%	225.0	-8.0%	207.0	11%	5.50%	3764	0.0%	3764	1.5%	4016	17.8	-5%

	>5%
	between -5% and 5%
	<-5%

Source: IBES, DWS Investment GmbH as of 8/19/2022. 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 3/31/2022.

The estimated 2022 year end upside is on absolute valuation basis of each sector, not on relative sector valuation basis.

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 2022E S&P 500 EPS	\$227.00	DWS 2022E S&P 500 DPS	\$68.00	DWS 2022E S&P 500 aggregate ROE	21.6%	Fair long-term nominal return on S&P 500 index	8.50%
		2022E dividend payout ratio	30%	2021E end S&P 500 book value per share	\$1.050	Components of estimated fair S&P 500 return:	
DWS "normal 2022E" S&P 500 EPS	\$225.00	DWS "normal 2022E" S&P 500 DPS	\$68.00	DWS "normal 2022E" S&P 500 aggregate ROE	19.7%	+ Long-term real risk free interest rate	0.50%
"Normal 2022E" EPS / 2022E EPS	99%	Normal dividend payout ratio	33%			+ Long-term fair S&P 500 equity risk premium*	5.00%
						= Long-term real S&P 500 cost of equity	5.50%
Accounting quality adjustment to pro forma EPS	-\$18.00	EPS directed to net share repurchases	\$39.00	S&P EPS retained for true reinvestment	48%	+ Long-term inflation forecast	3.00%
		Normal share repurchase payout ratio	19%	Estimated ROE on reinvested S&P EPS	8.50%	= S&P 500 nominal cost of equity	8.50%
Normal 2022E S&P 500 EPS fair to capitalize	\$207	Total payout of S&P 500 EPS	\$107.00	Economic margin (EM) or ROE-CoE	0.00%	* S&P 500 ERP usually 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	52%	Sources of long-term earnings growth:			
				+ Long-term inflation forecast	3.00%		
<u>S&P 500 EPS Capitalization Valuation</u>		<u>S&P 500 DPS Discount Model</u>		+ Fair return on true reinvestment	2.66%	<u>Fair S&P 500 Market Value and Book Value Multiple</u>	
Normal EPS / (real CoE - (EM/payout) - EM):		Normal DPS / (nominal CoE - DPS growth):		+ Value added return on true reinvestment	0.00%	2021E end S&P 500 book value per share	\$1,050
S&P 500 intrinsic value at 2022 start	3764	S&P 500 intrinsic value at 2022 start	3764	= Long-term earnings growth	5.66%	Fair PB = Fair PE * normal aggregate ROE	3.58
S&P 500 intrinsic value at 2022 end	4016	S&P 500 intrinsic value at 2022 end	4016	+ Growth from net share repurchases	1.04%	Fair PE =(inc ROE-g)/(inc real ROE*(real CoE-real g))	18.2
Implied fair fwd PE in early 2022 on 2022E \$227 EPS	16.6	Implied fair forward yield on 2022E DPS of \$68.0	1.81%	= Long-term S&P 500 EPS/DPS growth	6.69%	Implied S&P 500 fair value of book at 2022 start	3764
Implied fair trailing PE at 2022 end on 2022E \$227 EPS	17.7	Implied fair trailing yield on 2022E DPS of \$68.0	1.69%	+ Fair normal dividend yield	1.81%	Steady-state PB = normal agg. ROE / real CoE	3.58
				= Total long-term return at constant PE	8.50%	Confirmed by fair steady-state PE = 1 / real CoE	18.2

Normal EPS / (real CoE-value added EPS growth)	3764	DPS discount model using true DPS (all payout)	3764	Value added growth premium in fair value est.	0%	Normal 2022E economic profit per share	\$149.25
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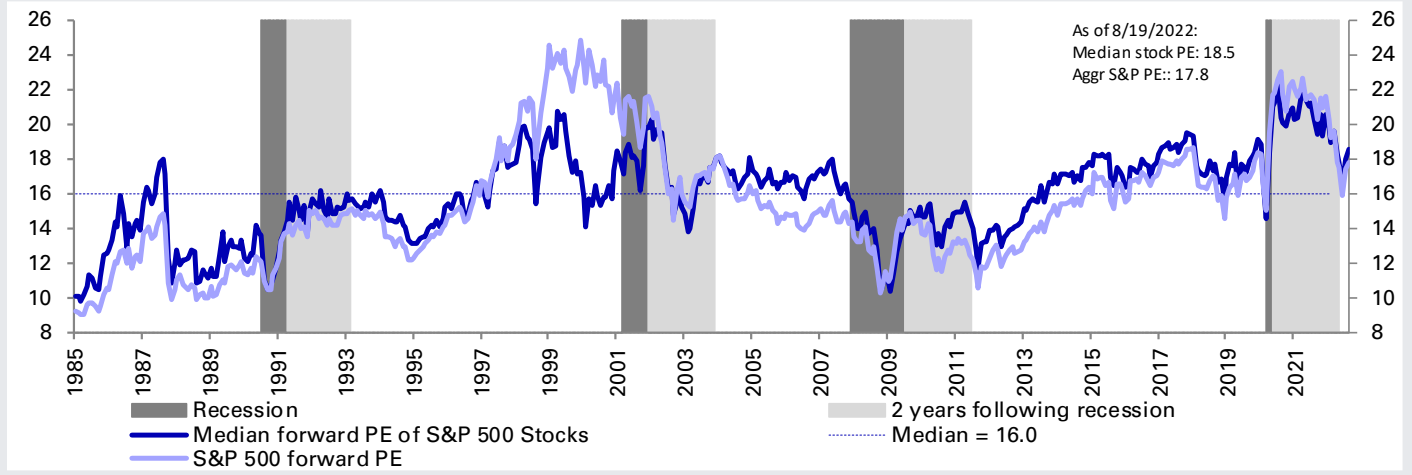
S&P 500 EPS discount model 5 steps to value:

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

		Normal 2022E S&P 500 EPS				
		\$215	\$220	\$225	\$230	\$235
Real	5.00%	4578	4720	4864	5009	5156
cost of	5.25%	4163	4281	4399	4518	4637
equity	5.50%	3818	3917	4016	4114	4213
	5.75%	3526	3610	3694	3777	3861
	6.00%	3276	3349	3421	3492	3563

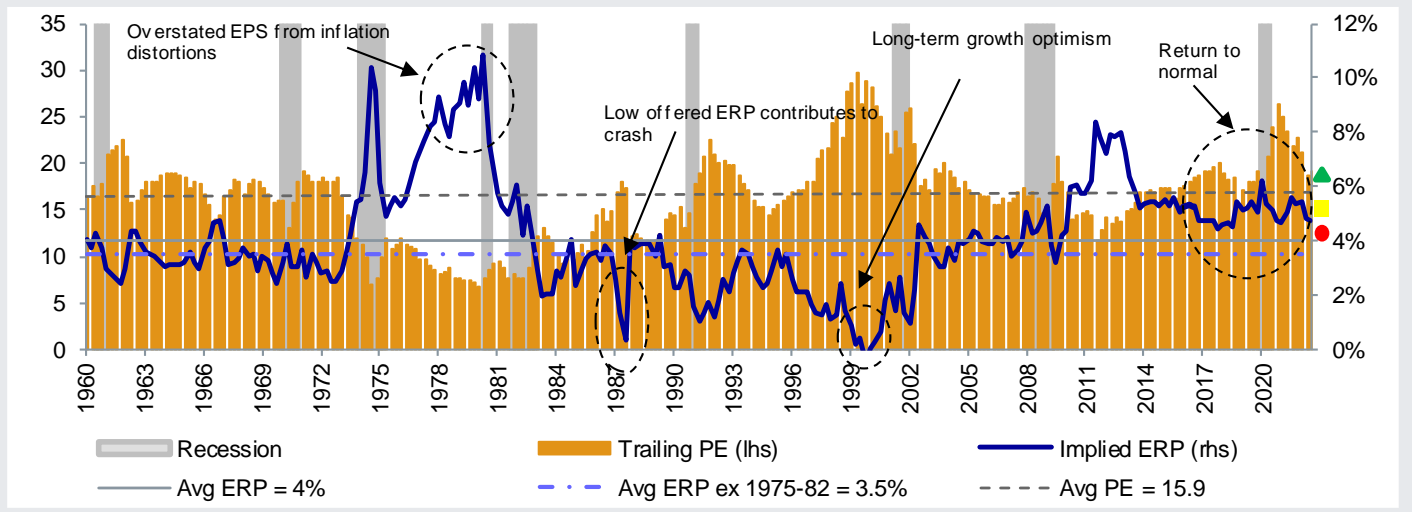
Source: DWS Investment Management GmbH

S&P 500 median stock forward PE vs. aggregate forward PE



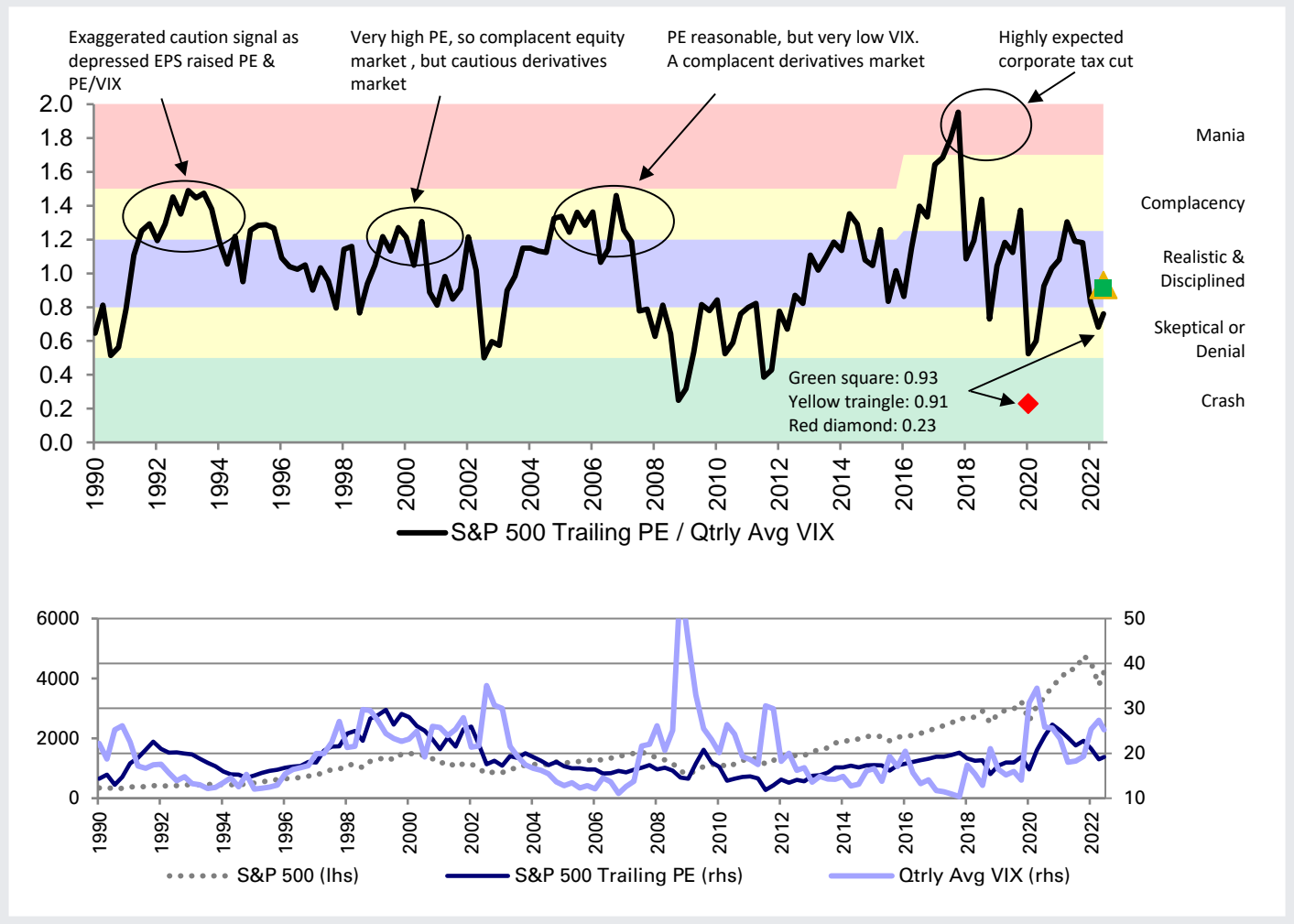
Source: Compustat, Clarifi, DWS Investment GmbH as of 8/19/2022. Past performance may not be indicative of future results.

S&P 500 PE vs. implied ERP



Red circle: ERP=4.4% implied by PE on our 2022 EPS estimate of \$227 and 1% assumed real 10 year interest rate
 Yellow square: ERP=5.4% implied by PE on our 2022 EPS estimate of \$227 and 0% assumed real 10 year interest rate
 Green triangle: ERP=6.4% implied by PE on our 2022 EPS estimate of \$227 and -1% assumed real 10 year interest rate
 Source: IBES, Haver, DWS Investment GmbH as of 8/19/2022. Past performance may not be indicative of future results.

Market emotion: S&P 500 PE / VIX



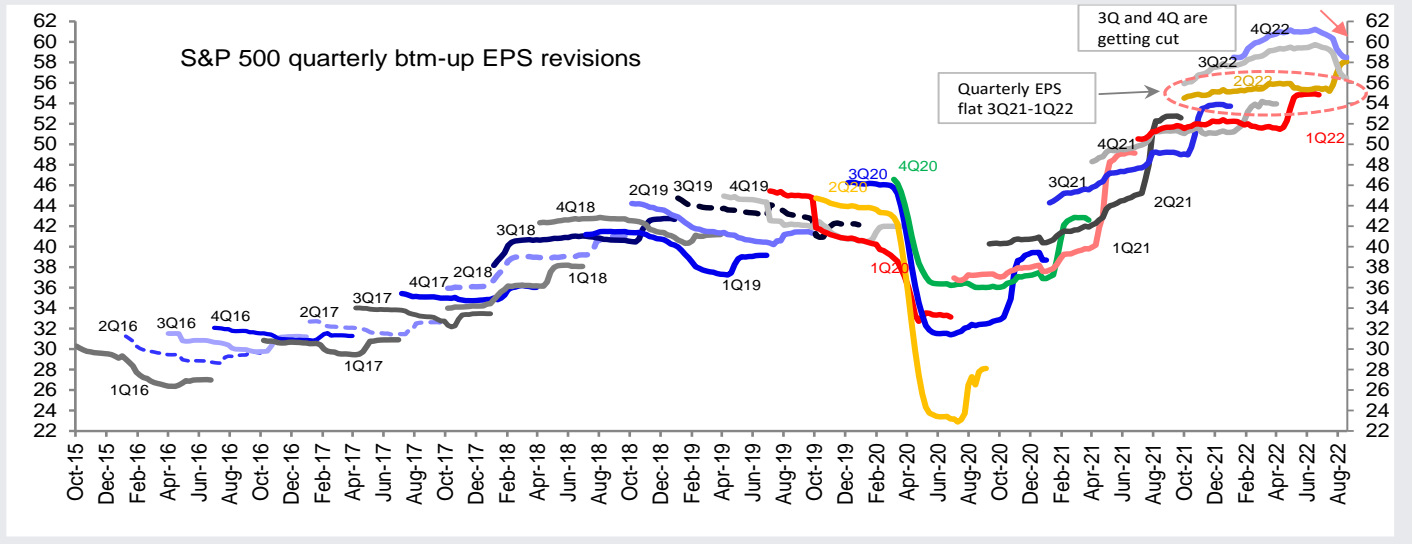
Green square: PE on our 2022E normalized EPS divided by VIX on Aug 19 2022.

Yellow triangle: Trailing PE as of Aug 19 2022 divided by VIX on Aug 19 2022.

Red diamond: Trailing PE as of Mar 23 2020 S&P 500 trough divided by VIX on Mar 23 2020.

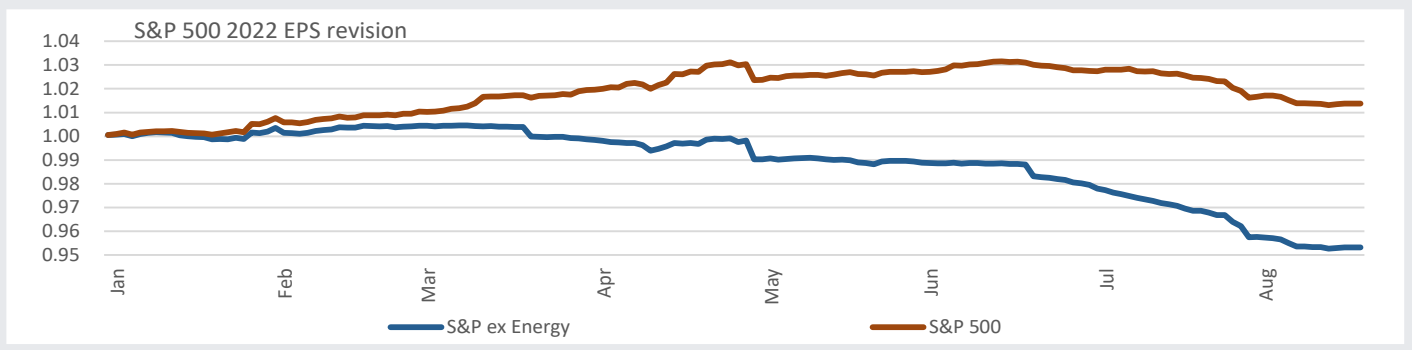
Source: Haver, IBES, DWS Investment GmbH as of 8/19/2022. Past performance may not be indicative of future results.

S&P 500 quarterly EPS revision



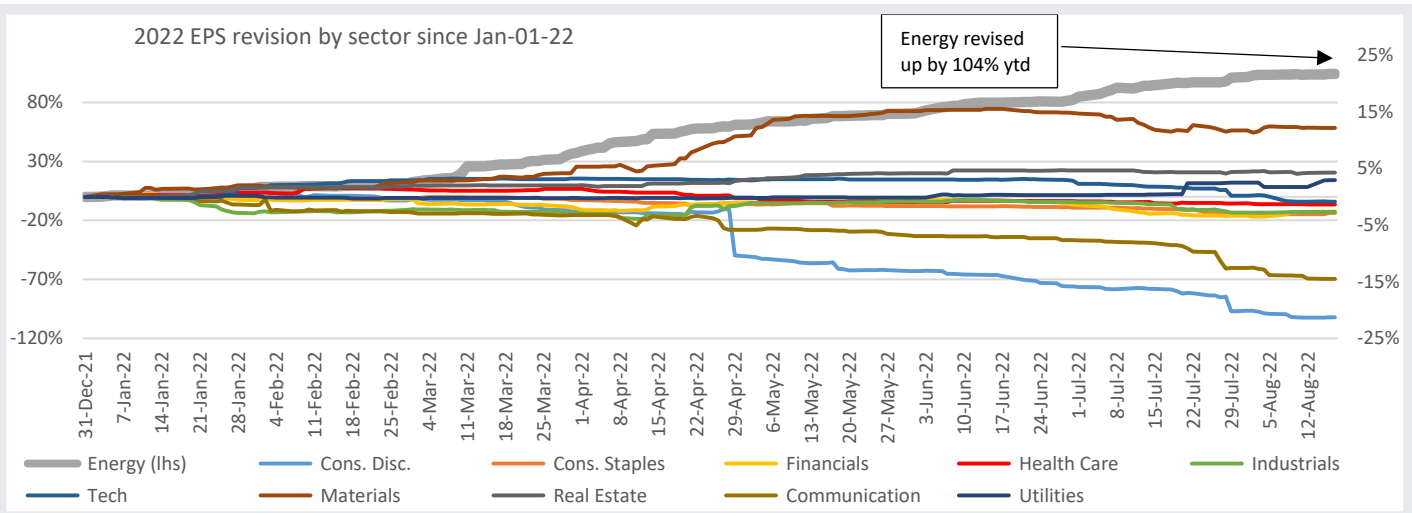
Source: Factset, IBES, DWS Investment GmbH as of 8/18/2022. Past performance may not be indicative of future results.

S&P 500 2022 EPS revision (ex. Energy)



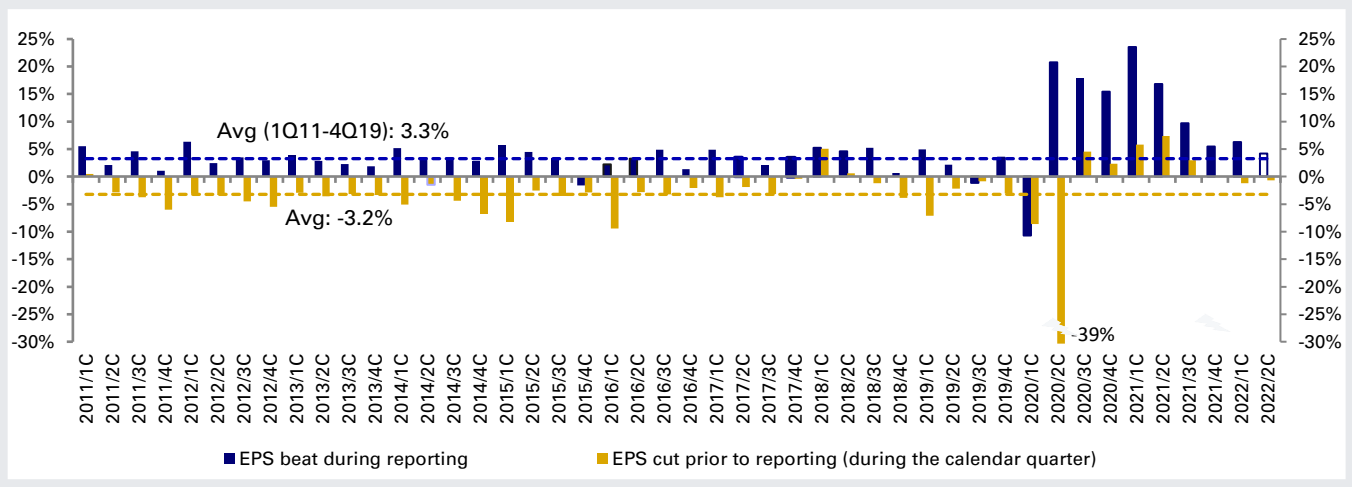
Source: Factset, IBES, DWS Investment GmbH as of 8/18/2022. Past performance may not be indicative of future results.

S&P 500 2022 EPS revision by sector



Source: Factset, IBES, DWS Investment GmbH as of 8/18/2022. Past performance may not be indicative of future results.

S&P 500: EPS cut during the calendar quarter vs. EPS beat during earnings season



Source: Factset, DWS Investment GmbH as of 8/18/2022. Past performance may not be indicative of future results.

S&P 500: 2Q22 earnings season summary statistics

	2Q22 Summary (Based on reported companies)										
	% of EPS reported	# Cos reported	EPS (% of co's)		EPS		Sales (% of co's)		Sales		
			% beat	% miss	surprise (%)	y/y (%)	% beat	% miss	surprise (%)	y/y (%)	
S&P 500	95.8%	468	68%	27%	4.2%	9.2%	53%	25%	3.1%	14.5%	
S&P 500 ex. Financials & Real Est	94.9%	374	69%	26%	4.7%	16.7%	58%	24%	3.3%	16.4%	
S&P 500 ex. Energy	95.1%	447	68%	27%	1.3%	-1.9%	51%	25%	1.7%	8.9%	
S&P ex. Tech	97.9%	403	66%	29%	4.9%	11.3%	53%	27%	3.4%	15.4%	
S&P ex. Energy, Financials & Real Est	94.0%	353	69%	26%	1.1%	2.5%	57%	24%	1.7%	10.0%	
Communication Services	100.0%	27	48%	48%	-3.8%	-14.2%	48%	33%	-0.3%	2.8%	
Consumer Discretionary	91.5%	49	65%	39%	-9.0%	-13.0%	41%	45%	0.5%	11.4%	
Consumer Staples	96.0%	26	69%	23%	3.9%	2.4%	73%	15%	3.4%	8.6%	
Energy	100.0%	21	67%	29%	27.5%	302%	86%	14%	15.3%	79.7%	
Financials	99.8%	65	57%	40%	1.7%	-19.5%	35%	42%	2.0%	1.8%	
Health Care	97.2%	60	70%	27%	5.9%	9.0%	53%	22%	2.7%	10.0%	
Industrials	94.2%	69	78%	16%	4.0%	31.7%	52%	29%	0.3%	12.9%	
Information Technology	87.1%	65	80%	14%	1.0%	0.5%	52%	12%	0.2%	7.1%	
Materials	100.0%	28	61%	32%	-0.9%	18.6%	71%	25%	0.7%	16.4%	
Real Estate	100.0%	29	76%	10%	3.8%	9.9%	24%	3%	1.2%	14.7%	
Utilities	100.0%	29	59%	31%	6.5%	-5.0%	90%	7%	16.4%	23.3%	

Source: Factset, DWS Investment GmbH as of 8/18/2022. Past performance may not be indicative of future results.

S&P 500 EPS & Sales growth and Net Margins by sector (2Q22 is blended with actual for reported and consensus for the rest)

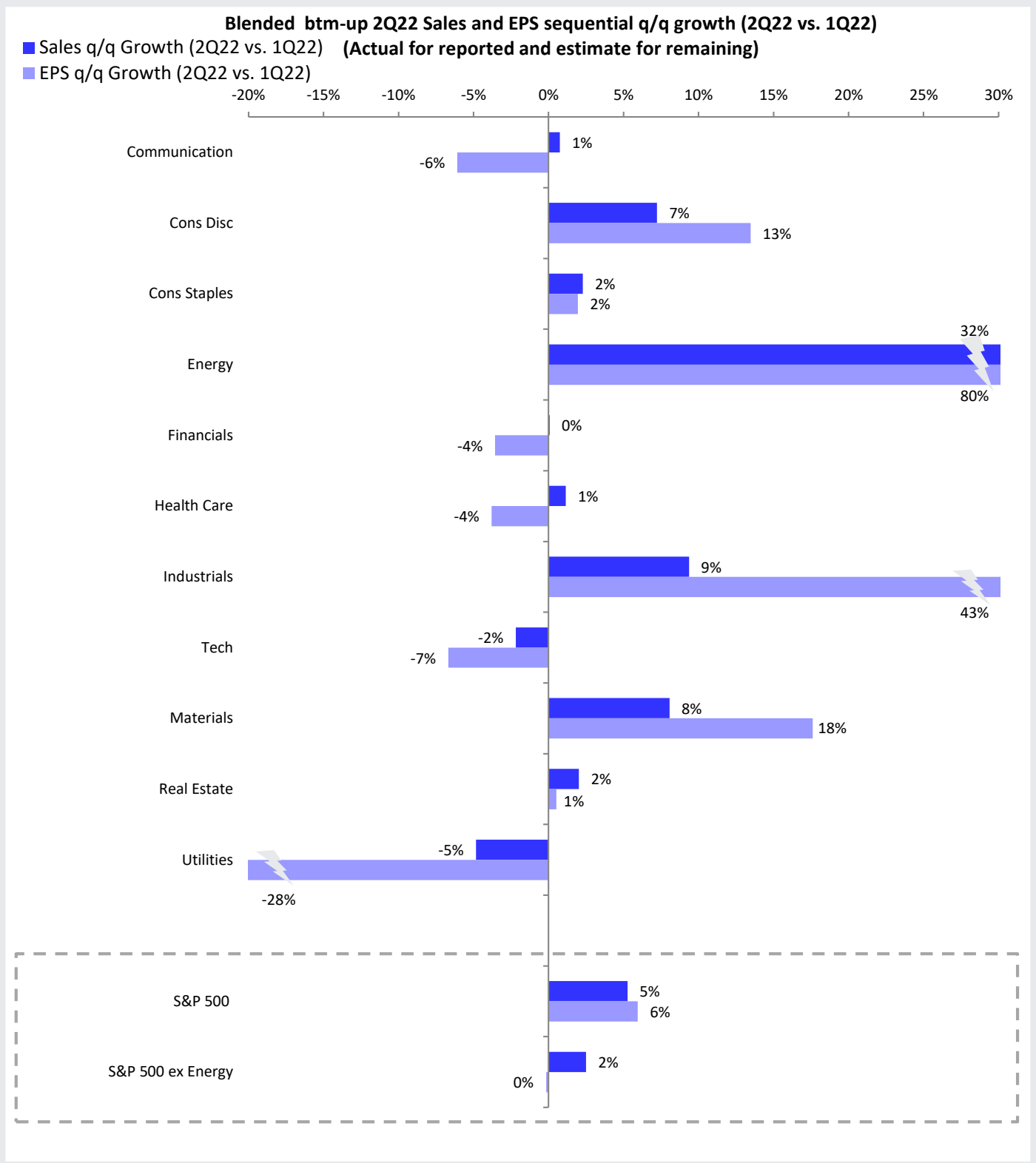
EPS growth (y/y)	2018					2019					2020					2021				2022		
	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22
	S&P 500	27.1%	28.4%	27.6%	15.7%	21.5%	2.2%	1.4%	1.2%	3.5%	2.0%	-12.1%	-31.2%	-7.1%	4.2%	-9.2%	49.5%	91.5%	40.6%	30.2%	47.4%	10.7%

Sales growth (y/y)	2018					2019					2020					2021				2022		
	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22
	S&P 500	9.4%	11.2%	10.7%	4.0%	8.7%	5.8%	5.2%	4.0%	7.8%	5.7%	-1.8%	-10.3%	-2.3%	-0.5%	-3.7%	9.5%	21.8%	13.9%	15.2%	15.0%	13.6%

Net margins	2018					2019					2020					2021				2022		
	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22
	S&P 500	11.7%	12.1%	12.3%	11.9%	11.7%	11.4%	11.7%	12.0%	11.4%	11.3%	10.2%	9.0%	11.3%	11.7%	10.6%	13.5%	13.8%	13.6%	13.0%	13.3%	13.1%

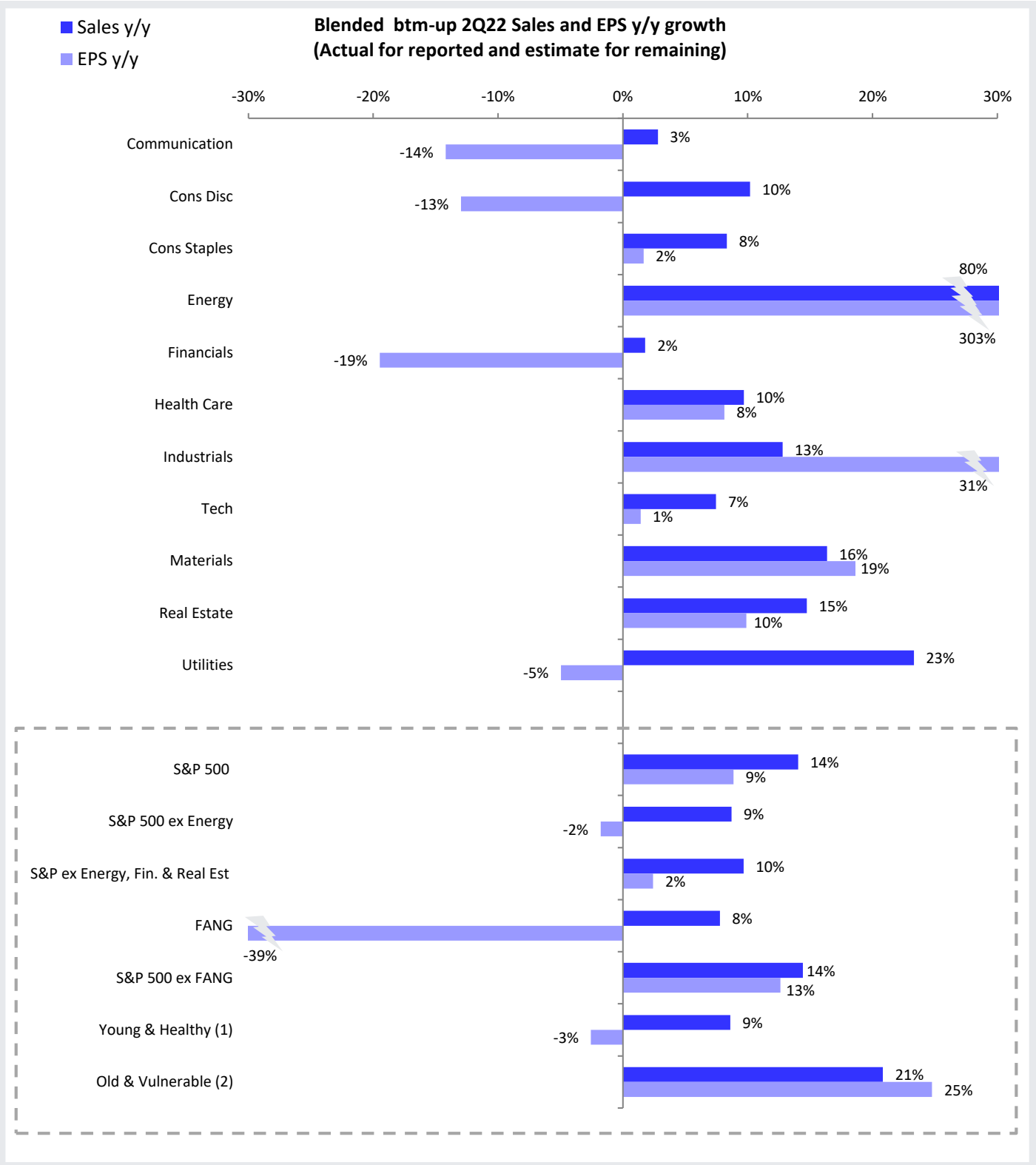
Source: Factset, DWS Investment GmbH as of 8/18/2022. Past performance may not be indicative of future results.

S&P 500: Blended bottom-up 2Q22 Sales and EPS sequential q/q growth by sector: 2Q22 vs. 1Q22



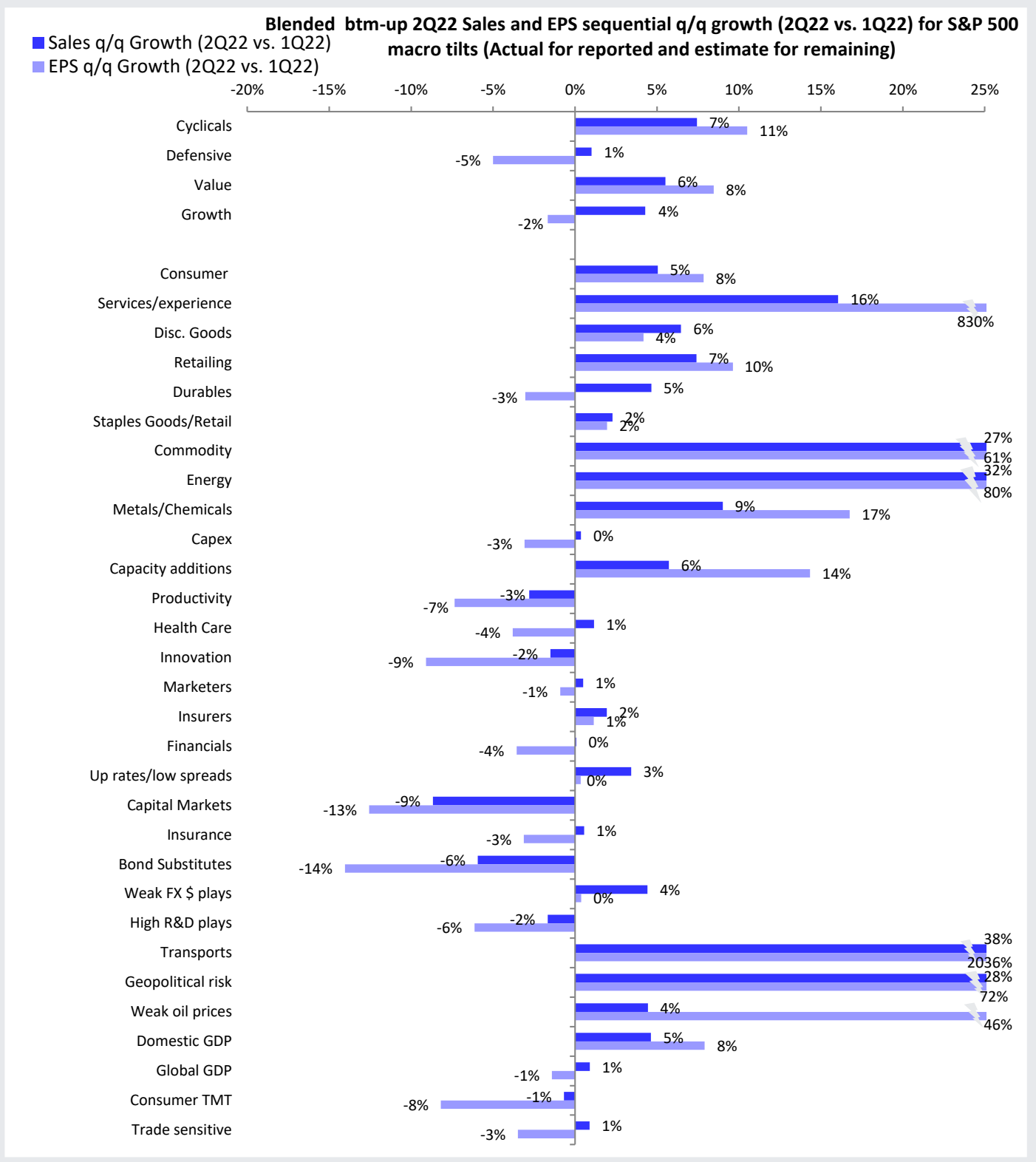
Source: Factset, DWS Investment GmbH as of 8/18/2022. Past performance may not be indicative of future results.

S&P 500: Blended bottom-up 2Q22 Sales and EPS y/y growth by sector: 2Q22 vs. 2Q21



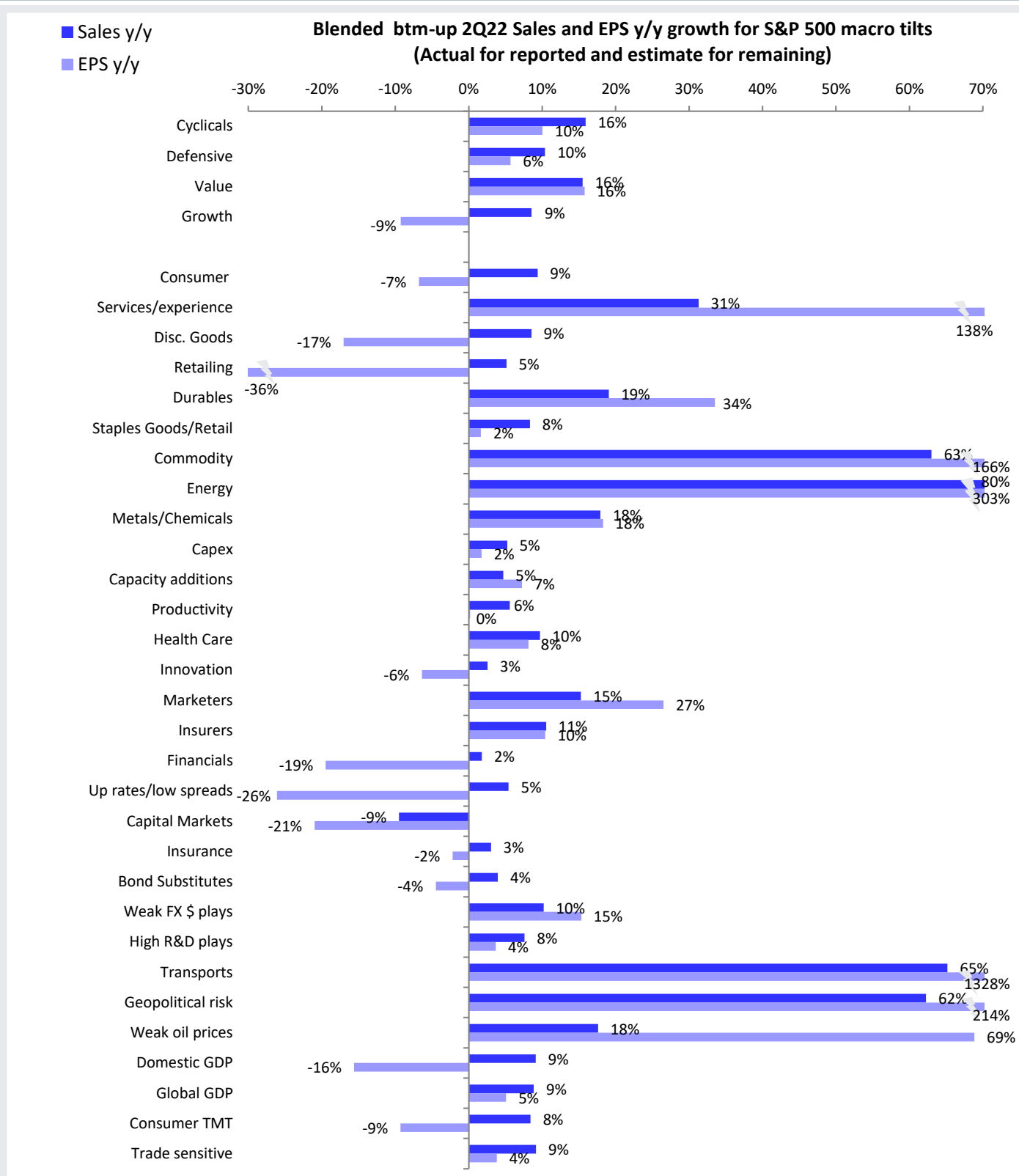
Source: Factset, DWS Investment GmbH as of 8/18/2022. Past performance may not be indicative of future results.

S&P 500: Blended bottom-up 2Q22 Sales and EPS sequential q/q growth for macro tilts: 2Q22 vs. 1Q22



Source: Factset, DWS Investment GmbH as of 8/18/2022. Past performance may not be indicative of future results.

S&P 500: Blended bottom-up 2Q22 Sales and EPS y/y growth for macro tilts: 2Q22 vs. 2Q21

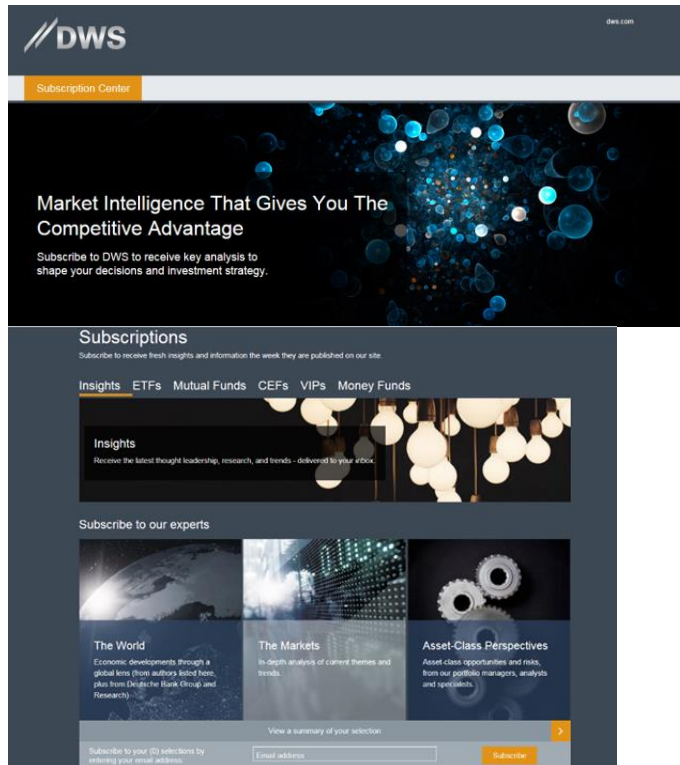


Source: Factset, DWS Investment GmbH as of 8/18/2022. Past performance may not be indicative of future results.

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