

# S&P 500 sector composition: More tech, less energy than ever before



**David Bianco**  
Americas Chief Investment Officer  
DWS

## The S&P 500 remains a broad equity index, but its sector mix has changed

As the S&P sets new record highs this month – led by Tech reaching new highs, while Energy revisits 2016 lows – we decided to reexamine the S&P's sector composition now vs. history. This note presents the percentage share of S&P 500 market cap and net income by sector back to 1967. We point out that while the S&P still represents a well-diversified equity index with broad industry and sector exposure, more of its earnings come from technology related businesses and less from energy related than ever before. While 1999-2000 witnessed a surge in Tech's market cap share of the S&P 500, today's heft of tech is at both S&P market cap and earnings.

## S&P 500 sector composition by market cap and earnings

Compared to 1980, Tech market cap share of the index rose from 9% to 22% and Health Care from 7% to 13%. These two sectors are 35% of the index by market cap and 33% by earnings now, and they are usually high price-to-earnings (PE) sectors. Tech plus Communication Services is about 35% of S&P 500 market cap and 30% of earnings. Share of Energy, Industrials and Materials declined from 46% in 1980 to 15% now.

## It's not 1999: We consider this a structural shift in S&P sector composition

Some investors might consider the record share of S&P market cap and earnings at Technology, Communications and Internet Retailing, indicative of an economic imbalance; which market forces or some form of mean reversion will eventually correct. However, we think today's situation is very different from that of 1999-2000.

First, we point to the alignment of market cap and earnings share this time around. The PE premium of Tech + Communications vs. the S&P 500 is about 20-25% now, whereas in 1999-2000 the PE premium for Tech was over 100% vs. the S&P 500.

Second, we consider earnings conditions across sectors fairly normal. While our 2020 estimates for Energy, Materials and Industrials are likely below their full mid-cycle normalized earning power, we think only moderately so, and we consider earnings at Tech and Communications to be normal or sustainable with healthy growth ahead. We know that Energy profits are 40% of levels in 2011 and a third of 2008, but we think such conditions are unlikely to return. Thus, we don't think a reversion to normal earnings across sectors will reverse today's S&P 500 sector composition.

Third, we see more long-term growth potential at technology related businesses and also at healthcare. We believe earnings reinvestment rates will stay high at these sectors relative to the others. And that the returns on reinvestment will be good. As the US and global economy continue to shift more toward services and knowledge based businesses, we think the potential for new companies to emerge and surge is greater at new economy sectors than old. To be clear, we think competition in new economy sectors is fierce and predicting which individual companies win or lose will be difficult (high idiosyncratic risk). But we think that today's dominant sectors will gain more S&P 500 share over long-term; especially Tech, Communications and Healthcare. Exceptions, probably shrinking Financials and possibly larger Utilities.

## Rising share of S&P makeup is not the same as delivering superior returns

Total return includes both price appreciation and dividend yield. Some sectors might shrink further in size as a share of S&P market cap and net income, but deliver good and possibly superior total returns by raising dividends and repurchasing shares. For the growing sectors to outperform, it's important that reinvested capital earn healthy returns and drive economic profit growth. We consider such prospects encouraging.

## But a changing sector composition influence the fair aggregate S&P PE

Out of recessions, the average trailing S&P PE is 16.5 since 1960 and 18 since 1985. If we apply each sector's average PE from these periods to a weighted sector mix that reflects today's weights, then on an adjusted basis, the historical trailing S&P PE rises to 19.3 since 1960 and 18.8 since 1985. We think compositional shifts and low interest rates support a fair S&P trailing PE of about 20. Assuming healthy earnings per share (EPS) growth and benign U.S. election outcome, a trailing S&P PE of about 20 should hold in 2021.

## Tech's strong 4Q19 EPS and outlook support the S&P, but risks remain

The S&P climbed much faster than we expected the past several months. We stick with our Next 5%+ price move as Down. We think dropping below 3200 is more likely than exceeding 3550 as the next move. We remain concerned about still slow S&P EPS growth, election risk, the virus and the longer stretch of days without a 5%+ dip.

Contributor: Ju Wang, Investment Strategist & Portfolio Analyst

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Global Equity Index Outlook			
Index	Dec 2020F	NTM Earnings Growth	Target PE
S&P 500	3,300	4.9%	19.2
EuroStoxx 50	3,770	7.0%	14.8
Stoxx 600	420	6.0%	15.5
MSCI Japan	1,060	2.3%	14.5
MSCI Asia xJ	700	9.0%	14.7
MSCI EM	1,120	9.0%	13.7

S&P 500 Outlook			
Metric	2018	2019	2020F
S&P 500	2,507	3,231	3,300
Dividend Yield	2%	2%	2%
S&P Total Return	-4.4%	31%	4%
S&P EPS	\$163	\$164	\$172
Trailing PE	15.4	19.7	19.2
DPS	\$54	\$58	\$62

Next 5%+ Price Move  
( Up / Balanced Risk / [Down](#) )

Risk of near-term correction  
( Low / [Moderate](#) / High )

Taxable USD Capital Allocations		
Asset Class	Long-term	Current
Fixed Income	30-35%	36.5%
Equities	55-60%	54%
US Equities	40%	40%
S&P 500	35%	36%
Small Caps	0-10%	4%
Foreign DM	10-15%	9%
Foreign EM	0-10%	5%
Alternatives	10%	9.5%

Key CIO Views		
Macro signal:	2018	Dec 2020F
10yr Treasury	2.70%	1.85%
US IG Corp Spreads	175	110 bp
US HY Spreads	530	400 bp
US Benchmark Rate	2.25-2.50	1.50-1.75
Crude Oil (WTI)	45	54
EUR vs USD	1.15	1.15

GDP Forecasts			
Region	2018	2019F	2020F
US	2.9%*	2.2%	1.6%
World	3.7%	3.1%	3.1%
Euro area	1.9%	1.1%	0.9%
China	6.6%	6.2%	5.8%
Japan	0.8%	0.8%	0.2%

\* Q4/Q4 GDP growth  
Source: DWS Investment Management GmbH. All opinions and claims are based upon data on 2/14/2020 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. All opinions are as of the date of this publication and may not come to pass. It is subject to change at any time, based upon economic, market and other considerations and should not be construed as a recommendation.

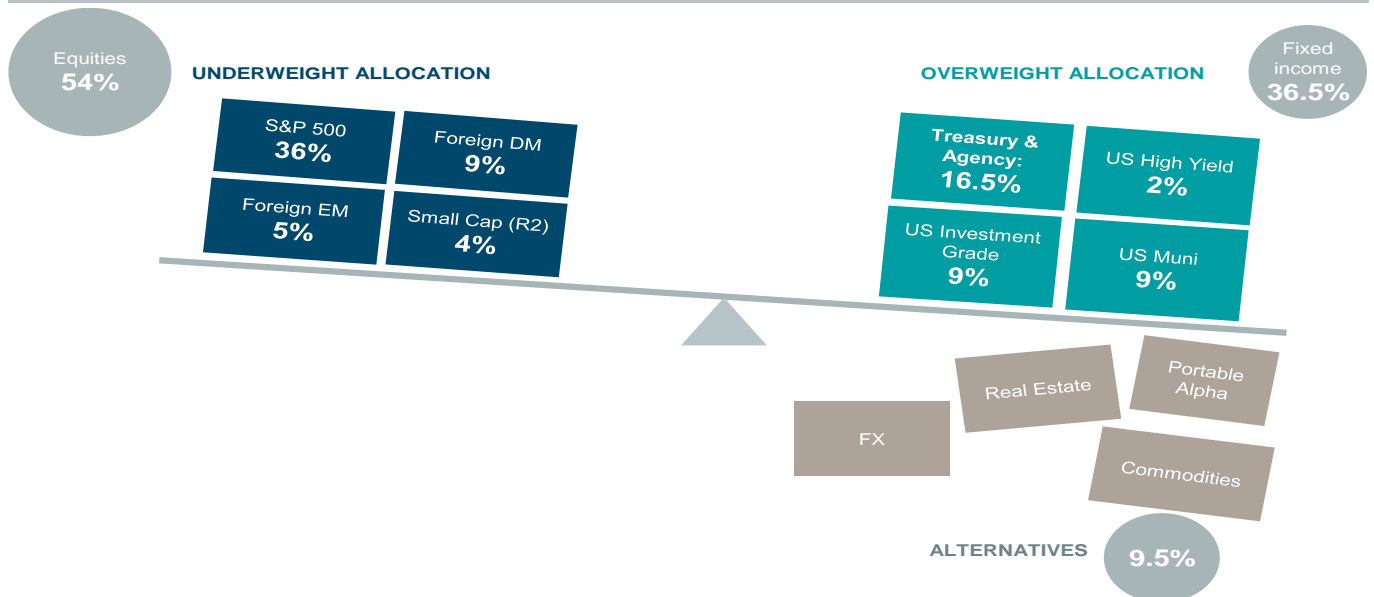
Key Investment Forecast

Economic forecasts	2018	2019E	2020E	Interest rates	2018	2019E	2020E	Equities	2018	2019	2020E
Global GDP	3.7%	3.1%	3.1%	2yr Treasury*	2.48%	1.6%	1.50%	S&P 500	2507	3231	3300
U.S. GDP	2.9%	2.2%	2.2%	10yr Treasury*	2.69%	1.90%	1.85%	price return	-6.3%	29%	2%
Capex	7.5%	2%	4%	10yr TIPS*	0.98%	0.10%	0.00%	div idend yield	2%	2%	2%
								S&P total return estimate	-4.4%	31%	4%
Fed Funds rate*	2.25-2.50	1.50-1.75	1.50-1.75	LT IG Muni*	3.46%	1.80%	1.75%				
DXY	96	97	97					Next 5%+ price move:			Down
Euro*	1.15	1.15	1.15	IG Corp*	4.46%	3.00%	2.95%				
Oil/bbl (WTI)*	45	60	54	HY Corp*	8.01%	6.00%	5.85%	Risk of near-term correction:			Moderate

Source: DWS Investment GmbH as of 2/14/2019. \*Forecasts for December 2020

Allocations for taxable/U.S. dollar capital as of Feb 14, 2020				S&P 500 Outlook					
DWS View	Current	Long-term	Considerations	Consider new normal of modest returns:					
<b>Fixed Income</b>	<b>36.5%</b>	<b>30-35%</b>	Projected return/risk	2018 end: 2507	Why not 3300 for the S&P at 2020 end? 3300 = 19.2 x \$172 S&P EPS in 2020				
Treasury bills	2%	5%	Opportunistic liquidity	2020 end target: 3300					
Treasury notes / Agency	16.5%	10%	Negative correlation	S&P 500 likely to reach 3300 in 2020 on a long expansion of moderate growth.					
Municipals	9%	10%	>after-tax return, <liquid		2018A	2019E	2020E	S&P av g. trailing 4qtr P/E	
Corporate Credit	9%	5-10%		<b>S&amp;P EPS</b>	<b>\$163</b>	<b>\$164</b>	<b>\$172</b>	1960-2019	16.2
<b>Equities</b>	<b>54%</b>	<b>55-60%</b>	Projected return/risk	PE on trailing EPS	15.4	19.7	19.2	1985-2019	17.7
U.S. Equities	40%	40%		DPS	\$54	\$58	\$62	1995-2019	18.6
S&P 500	36%	35%	S&P is global + Tech	DPS/EPS	33%	35.5%	36%	2005-2019	16.7
Small Caps (R2)	4%	0-10%	Beyond beta booster?	"S&P PE stands on the shoulders of bonds"					
Foreign DM Equities	9%	10-15%	Valuation/diversification?	<b>S&amp;P Quarterly EPS:</b>				<b>Most favored sectors:</b>	
Foreign EM	5%	0-10%		1Q19A	\$39.15	1Q20E	\$41.00	Health Care, Financials	
<b>Alternatives</b>	<b>9.5%</b>	<b>10%</b>	Is it truly uncorrelated?	2Q19A	\$41.30	2Q20E	\$43.00	Tech, Communications	
Commodities/FX/Vol/Alpha				3Q19A	\$42.15	3Q20E	\$43.00	<b>Least favored sectors:</b>	
Real Estate/ Private Equity				4Q19E	\$41.75	4Q20E	\$45.00	Energy, Industrials, Materials, Staples and Disc.	
<b>Note: This reflects the DWS U.S. MIC allocation, with adjustment to Municipal Bonds for taxable (U.S. dollar) investors.</b>				Source: DWS Investment GmbH as of 2/14/2020					

DWS view : allocations for taxable / USD capital



Source: DWS Investment GmbH as of 2/14/2020 All opinions are forecasts are subject to change at any time, based upon economic, market and other considerations. Forecasts are based on assumptions, estimates, opinions and hypothetical models that may prove to be incorrect. There is no guarantee objectives will be met.

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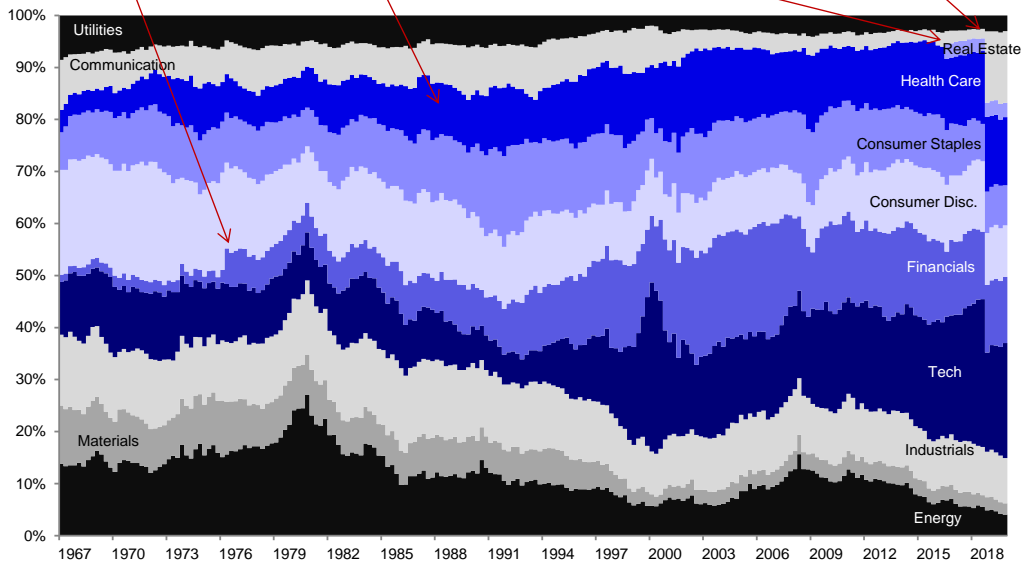
### Sector composition of S&P 500 by market cap

July 1, 1976 S&P 500 is restructured to include Financials and OTC/AMEX traded stocks

April 6, 1988 the limits on number of stocks in 4 major industry groups is removed

August 31, 2016 Real Estate is split from Financials to be a separate sector

September 21, 2018 Communication Services sector is created with Telecom and several industries from Tech and Cons. Disc.



Source: Compustat, DWS Investment GmbH as of 1/31/2020. Past performance may not be indicative of future results.

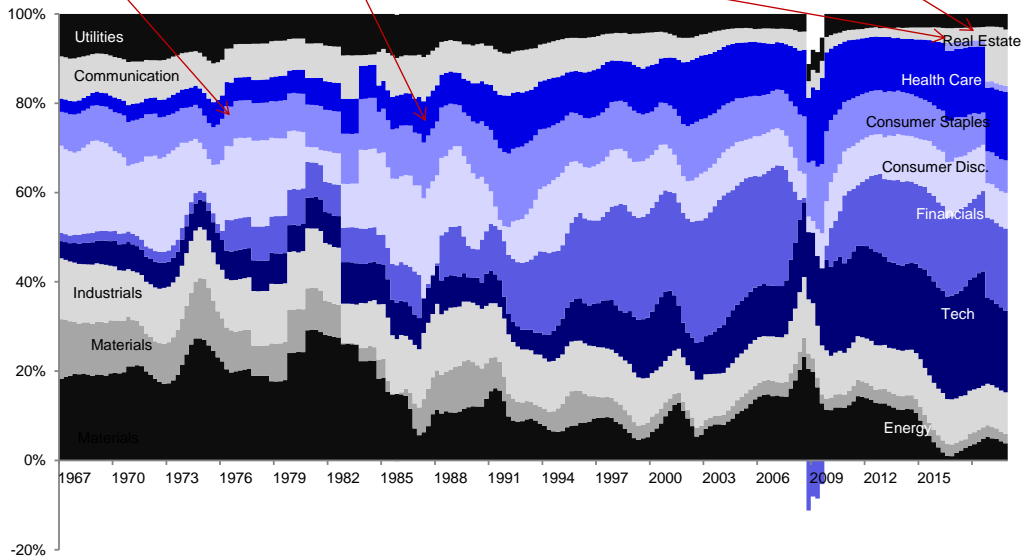
### Sector composition of S&P 500 by earnings

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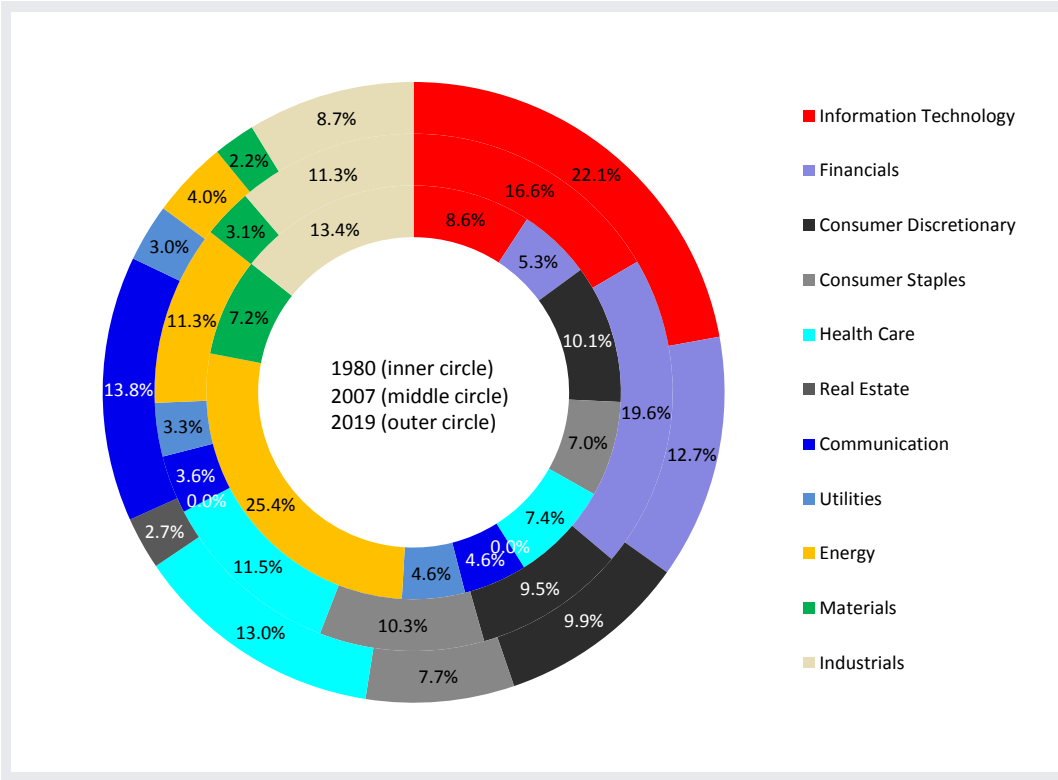
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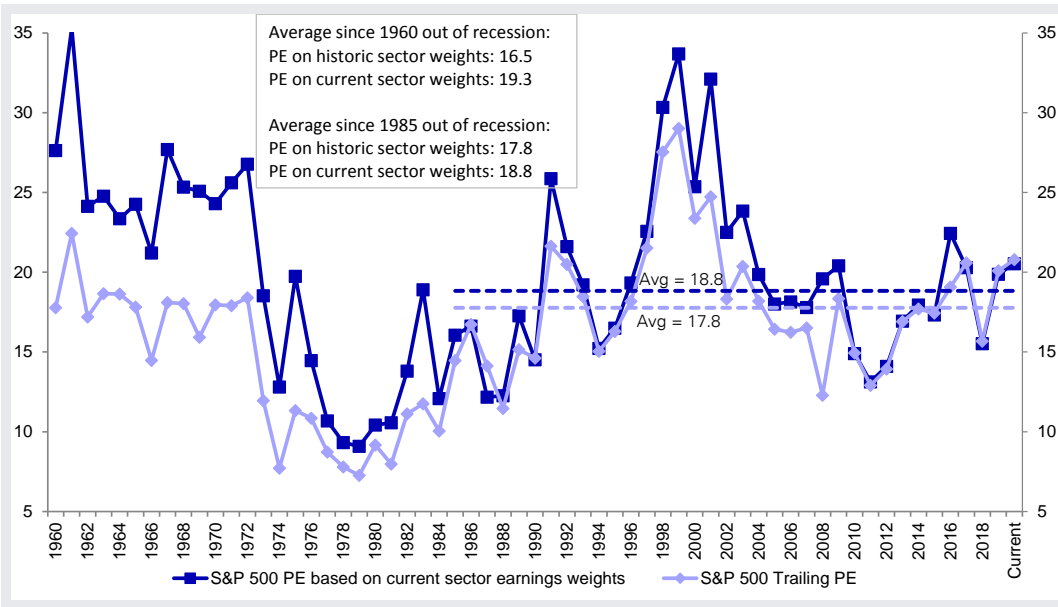
Source: Compustat, DWS Investment GmbH as of 1/31/2020. Past performance may not be indicative of future results.

S&P 500 sector composition by market cap: 1980 vs. 2007 vs. 2019



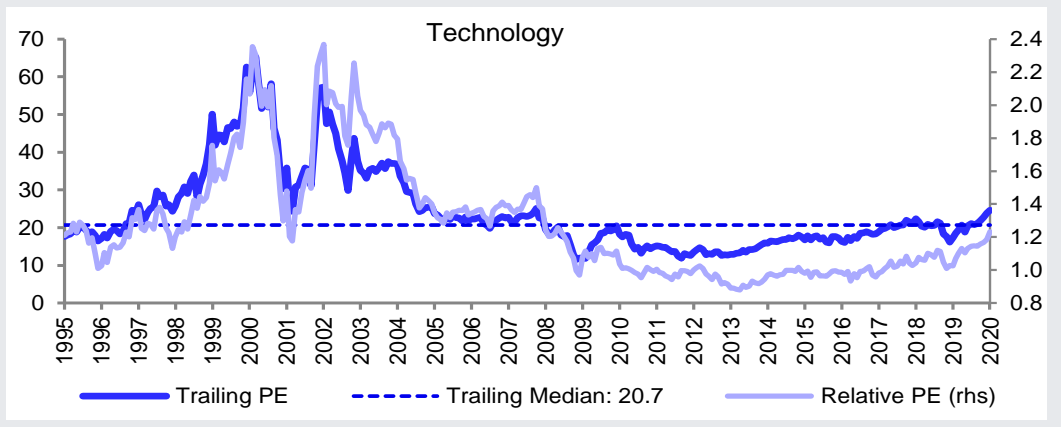
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S&P 500 average PE would have been 1-3 points higher if using today's sector earnings weights



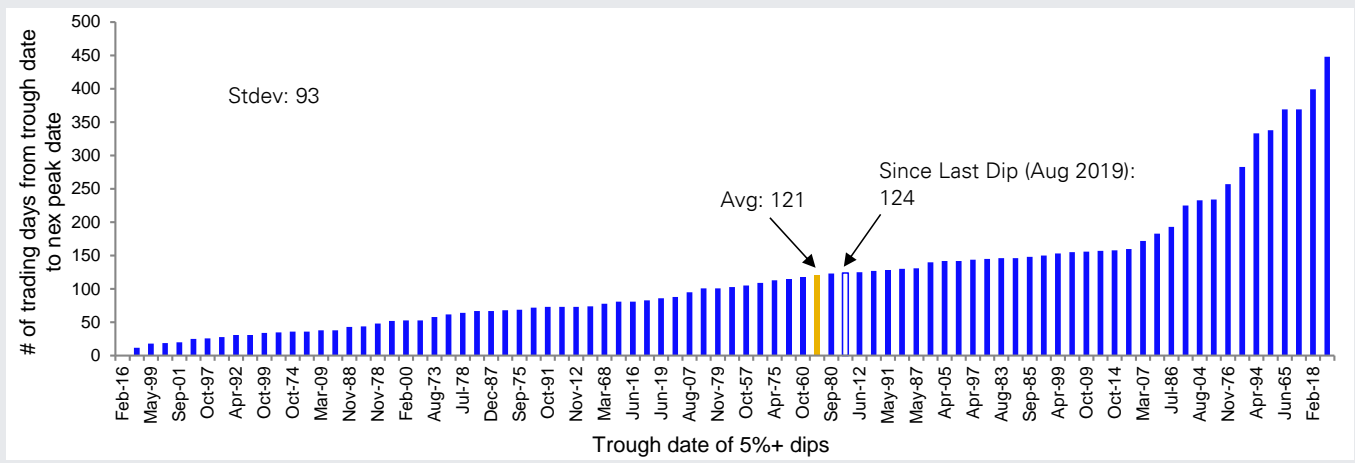
Source: Compustat, DWS Investment GmbH as of 2/11/2020. Past performance may not be indicative of future results.

### Relative trailing PE of Tech vs. S&P 500



Source: Compustat, DWS Investment GmbH as of 2/11/2020. Past performance may not be indicative of future results.

### How often do 5%+ S&P 500 dips happen?



Source: Haver, DWS Investment GmbH as of 2/11/2020. Past performance may not be indicative of future results.

### S&P 500 pullbacks since 1957

From high of:	All time	3yr high	1yr high	6mos high
5% Dips	68	80	90	85
10% Corrections	29	33	34	32
15% Swoons	21	21	21	22
20% Bears	14	10	14	12
25%+ Crash	13	7	7	7

	Count	Avg Sell-off	Avg 3m Return	Avg 6m Return	Avg 12m Return
5%+ Sell-offs	85	-12.0%	11.0%	14.3%	19.7%
5%+ Sell-offs Leading to a 10%+ Correction	30	-20.5%	14.6%	20.1%	26.2%
5%+ Sell-offs not Leading to a 10%+ Correction	56	-7.3%	8.9%	10.9%	15.8%
5% sell-offs without recession in 12m	64	-10.2%	10.4%	13.8%	20.3%
5% sell-offs leading to 10%+ & no recession in 12m	19	-17.0%	13.5%	18.5%	23.4%
5% sell-offs not leading to 10%+ & no recession in 12m	46	-7.1%	8.9%	11.5%	18.5%
10%+ Corrections with a Recession within 12m	11	-26.4%	16.6%	22.9%	31.0%
10%+ Corrections out of Recession	19	-17.0%	13.5%	18.5%	23.4%
10%+ Corrections out of Recession (ex 1987 Crash)	18	-16.1%	13.1%	18.4%	23.5%

Source: Haver, DWS Investment GmbH as of 2/11/2020. Past performance may not be indicative of future results.

4Q earnings season statistics (based on companies that have reported)

	4Q19 Summary (Based on reported companies)											
	% of EPS reported		# Cos reported		EPS (% of co's)		EPS surprise (%)	EPS y/y (%)	Sales (% of co's)		Sales surprise (%)	Sales y/y (%)
	% beat	% miss	% beat	% miss	surprise (%)	y/y (%)	% beat	% miss	surprise (%)	y/y (%)		
<b>S&amp;P 500</b>	<b>88.0%</b>	<b>388</b>	<b>70%</b>	<b>22%</b>	<b>3.4%</b>	<b>3.3%</b>	<b>38%</b>	<b>23%</b>	<b>1.1%</b>	<b>3.4%</b>		
S&P 500 ex. Financials & Real Est	87.9%	300	73%	20%	4.1%	1.1%	39%	27%	0.8%	3.7%		
S&P 500 ex. Energy	88.3%	373	71%	21%	4.0%	6.1%	37%	23%	1.0%	4.2%		
S&P ex. Tech	86.5%	333	68%	23%	1.8%	1.5%	37%	24%	0.9%	2.9%		
S&P ex. Energy, Financials & Real Est	88.3%	285	74%	19%	4.8%	4.4%	38%	27%	0.7%	4.6%		
Communication Services	97.2%	23	78%	13%	7.1%	8.9%	43%	17%	-0.1%	7.8%		
Consumer Discretionary	55.9%	37	73%	24%	11.1%	-9.8%	46%	19%	1.6%	2.0%		
Consumer Staples	85.9%	26	81%	4%	2.6%	3.1%	38%	38%	0.0%	4.4%		
Energy	79.6%	15	47%	47%	-10.8%	-42.8%	60%	33%	2.3%	-3.5%		
Financials	92.7%	66	65%	29%	1.0%	14.0%	42%	12%	2.7%	1.6%		
Health Care	92.3%	50	78%	12%	2.9%	9.5%	52%	18%	1.6%	13.0%		
Industrials	95.2%	60	60%	30%	-4.3%	-9.0%	28%	32%	-0.9%	-2.1%		
Information Technology	92.9%	55	85%	13%	8.8%	9.4%	42%	16%	2.4%	7.5%		
Materials	85.6%	23	65%	30%	2.5%	-12.1%	22%	35%	-0.5%	-19.3%		
Real Estate	59.2%	22	50%	18%	0.7%	2.2%	0%	0%	0.5%	0.0%		
Utilities	58.2%	11	73%	27%	3.8%	20.2%	9%	91%	-5.3%	0.1%		

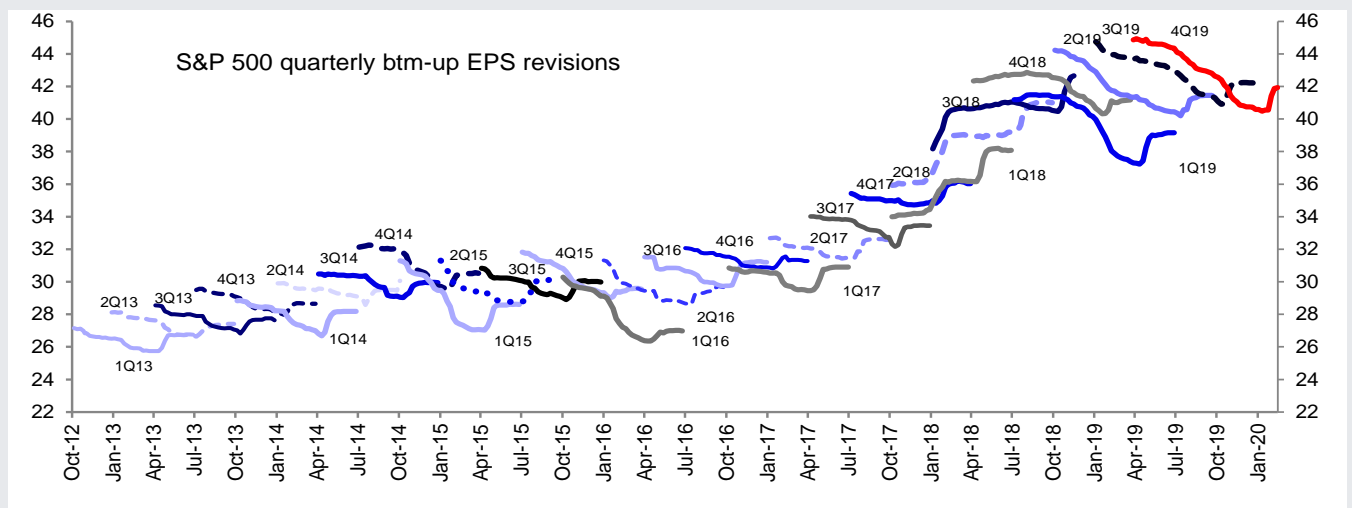
\* # Beat, # miss and weighted surprise % is based on EPS and sales estimate as of 12/31/2019 (as of 12/1/2019 for pre-season reporters)

EPS is considered beat or miss when the difference between actual and estimate as of 12/31/2019 is more than \$0.01 (12/1/2019 for pre-season reporters)

Sales is considered beat or miss when the difference between actual and estimate as of 12/31/2019 is more than \$20 million (12/1/2019 for pre-season reporters)

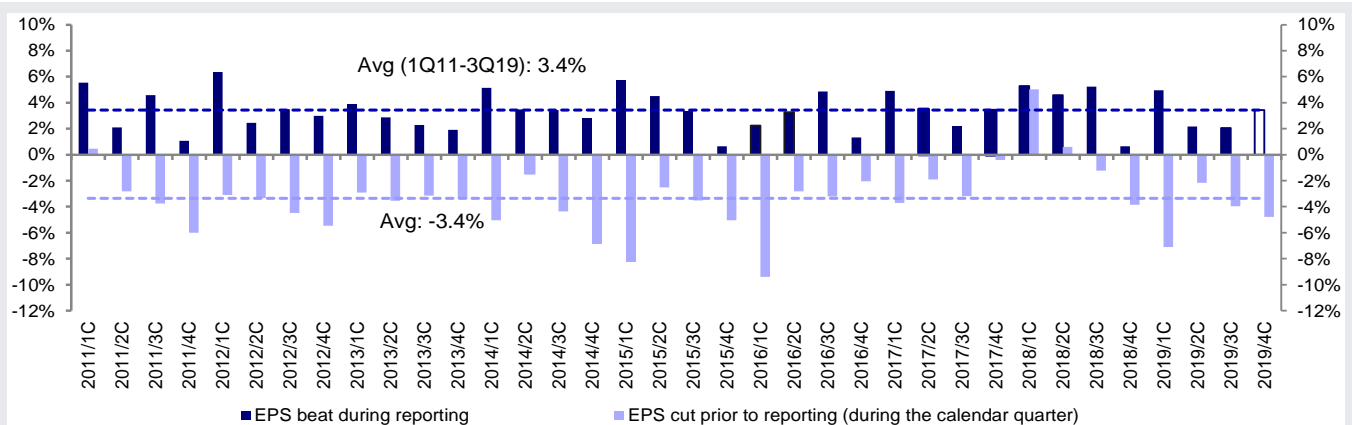
Source: IBES, DWS Investment GmbH as of 2/14/2020. Past performance may not be indicative of future results.

S&P 500 quarterly analyst consensus btm-up EPS revisions



Source: IBES, DWS Investment GmbH as of 2/14/2020. Past performance may not be indicative of future results.

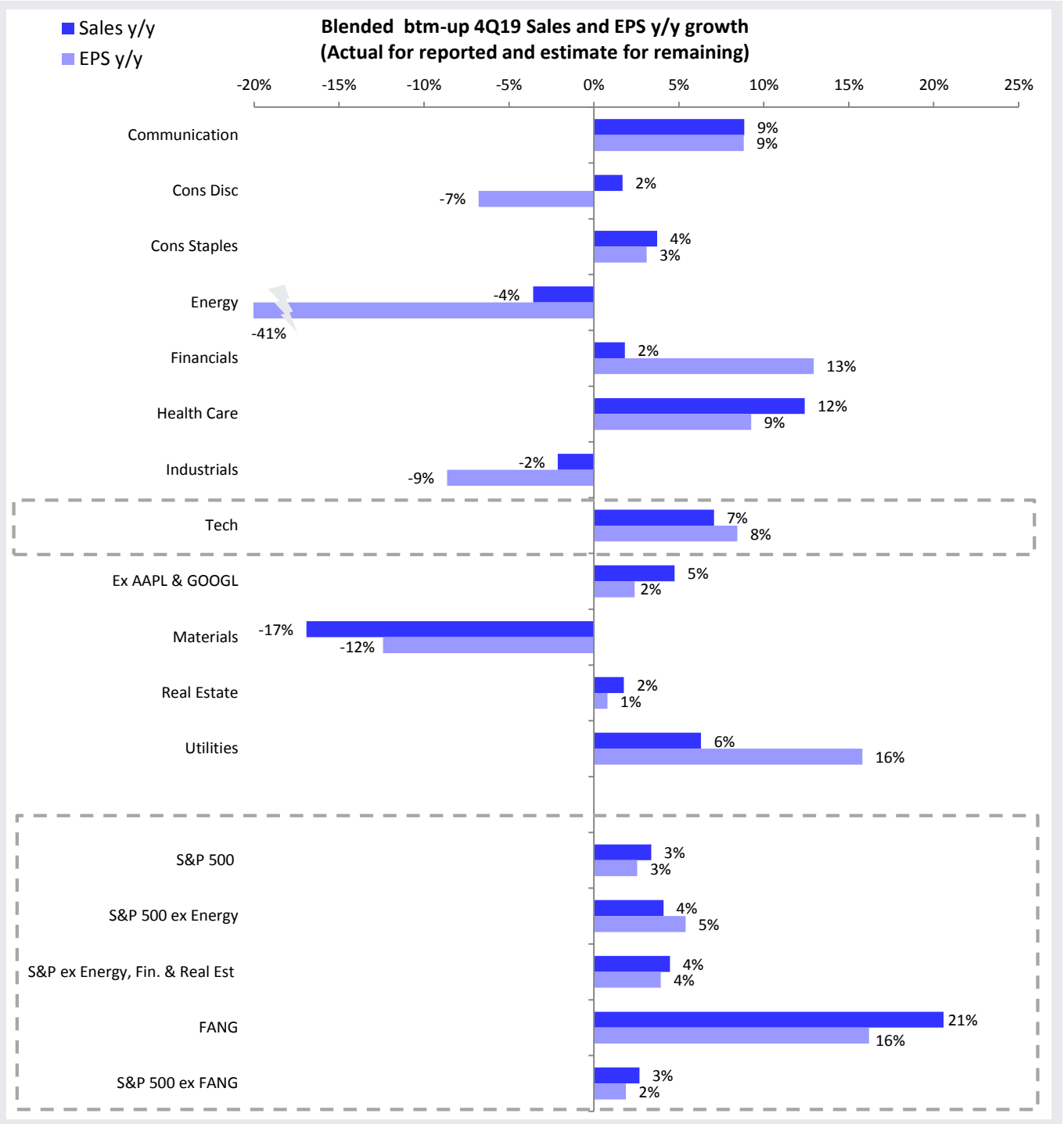
Revision to EPS during the calendar quarter vs. EPS beat during reporting



Source: IBES, DWS Investment GmbH as of 2/14/2020. Past performance may not be indicative of future results.



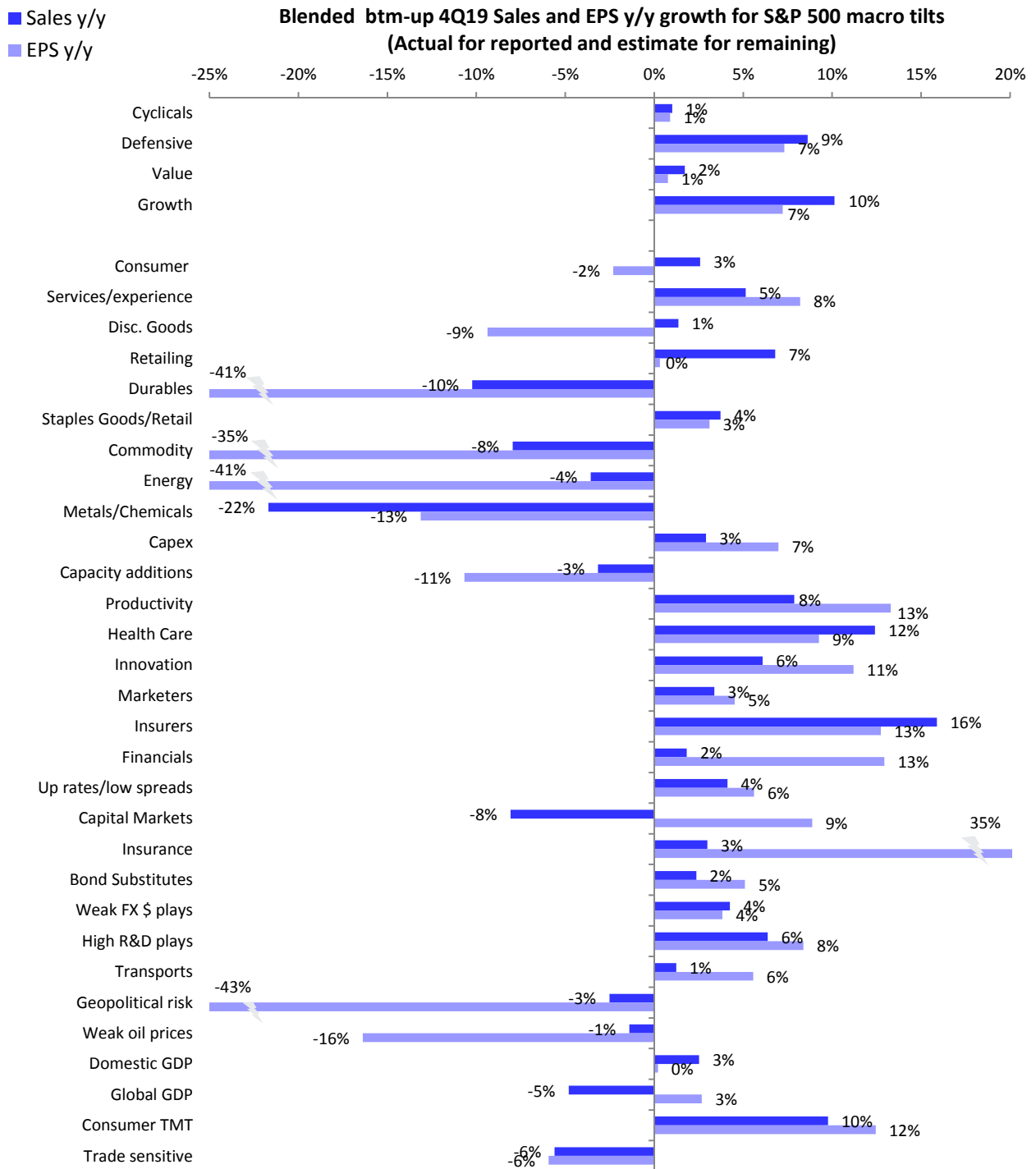
Blended S&P 500 btm-up 4Q19 Sales and EPS growth by sector (blended w with actual for reported and consensus for the rest)



Source: IBES, DWS Investment GmbH as of 2/14/2020. Past performance may not be indicative of future results.



Macro tilts of S&P 500 based on our sector/industry allocation: btm-up 4Q19 Sales and EPS growth



Source: IBES, DWS Investment GmbH as of 2/14/2020. Past performance may not be indicative of future results.

## DWS Investment GmbH S&P 500 Annual EPS Outlook

	2011A	2012A	2013A	2014A	2015A	2016A	2017A	2018A	y/y	Bottom-up Consensus (IBES)				DWS View				Normalized 2020*	
										2019E	y/y	2020E	y/y	2019E	y/y	2020E	y/y	(\$)	% of 2020
S&P 500 EPS (historical constituents)	\$97.82	\$103.75	\$110.39	\$118.82	\$117.46	\$118.10	\$132.00	\$161.93	22.7%	\$162.77	0.5%	\$175.90	8.1%						
S&P 500 EPS (current constituents)	\$100.18	\$103.81	\$111.26	\$116.37	\$116.29	\$117.15	\$132.06	\$161.33	21.2%	\$165.29	2.5%	\$178.44	8.0%	\$163.50	1.4%	\$172.00	5.3%	\$171.4	100%
<b>Sector (\$ bn)</b>																			
Communication Services	45.7	51.1	56.1	68.0	77.7	89.8	100.2	127.3	27.0%	132.4	4.0%	144.5	9.1%	129.5	1.7%	137.9	6.5%	134.5	98%
ex. GOOG & GOOGL	36.9	41.6	46.1	56.6	64.5	73.8	80.8	100.9	24.8%	102.7	1.8%	111.7	8.8%	101.2	0.3%	105.1	3.8%		
Consumer Discretionary	56.9	60.1	67.7	68.4	78.8	86.5	90.4	105.9	17.1%	108.2	2.2%	119.5	10.4%	107.2	1.2%	113.7	6.1%	112.3	99%
ex. AMZN	56.4	60.1	67.4	68.6	78.4	84.5	88.6	97.6	10.2%	98.7	1.2%	107.4	8.8%	98.5	0.9%	102.6	4.2%		
Consumer Staples	73.8	73.6	76.8	78.1	76.5	78.8	83.1	90.1	8.5%	91.6	1.6%	97.1	6.0%	90.0	-0.2%	91.5	1.7%	89.8	98%
Energy	119.7	114.1	104.1	100.9	42.4	10.9	38.8	75.3	94.2%	52.5	-30.3%	61.7	17.6%	53.5	-29.0%	60.7	13.5%	67.0	110%
Financials	126.7	153.3	177.9	171.5	186.5	183.0	194.7	241.3	24.0%	263.5	9.2%	275.2	4.4%	260.5	7.9%	270.3	3.7%	264.5	98%
Health Care	116.4	118.8	124.9	143.5	159.0	167.3	178.4	204.1	14.4%	223.9	9.7%	239.9	7.1%	220.5	8.0%	232.2	5.3%	229.7	99%
Industrials	86.0	93.9	103.7	111.8	110.3	106.7	108.8	130.7	20.1%	127.4	-2.5%	137.3	7.8%	126.4	-3.3%	133.0	5.3%	133.5	100%
Information Technology	147.0	144.7	163.8	176.8	183.8	190.4	228.4	267.1	16.9%	276.8	3.6%	305.7	10.5%	275.0	2.9%	292.3	6.3%	293.5	100%
ex. AAPL	119.5	107.1	128.8	137.1	136.3	147.6	180.9	213.4	18.0%	220.8	3.4%	241.2	9.2%	219.8	3.0%	231.2	5.2%		
Materials	23.1	21.8	21.6	22.7	21.3	20.0	25.4	36.5	43.4%	32.4	-11.1%	34.6	6.5%	32.2	-11.9%	34.2	6.2%	32.6	96%
Real Estate	15.4	18.1	20.8	24.5	27.9	30.9	33.2	36.1	9.0%	36.8	1.8%	38.7	5.3%	37.2	2.9%	38.6	3.8%	38.6	100%
Utilities	28.2	28.7	29.6	31.6	31.9	34.1	35.6	39.2	10.1%	41.4	5.5%	43.2	4.4%	41.3	5.2%	42.1	2.0%	42.1	100%
<b>S&amp;P 500 (\$ bn)</b>	<b>838.9</b>	<b>878.3</b>	<b>946.8</b>	<b>997.8</b>	<b>996.1</b>	<b>998.3</b>	<b>1117.1</b>	<b>1353.7</b>	<b>21.2%</b>	<b>1386.9</b>	<b>2.5%</b>	<b>1497.3</b>	<b>8.0%</b>	<b>1373.1</b>	<b>1.4%</b>	<b>1446.4</b>	<b>5.3%</b>	<b>1438.3</b>	<b>99%</b>
S&P ex. Financials & Real Estate (\$bn)	696.8	706.8	748.1	801.8	781.7	784.5	889.2	1076.2	21.0%	1086.6	1.0%	1183.4	8.9%	1075.4	-0.1%	1137.5	5.8%	1135.2	100%
S&P ex. Energy (\$bn)	719.2	764.2	842.7	896.9	953.7	987.4	1078.3	1278.4	18.6%	1334.4	4.4%	1435.6	7.6%	1319.6	3.2%	1385.7	5.0%	1371.3	99%
S&P ex. Tech (\$bn)	691.8	733.6	783.0	821.0	812.3	808.0	888.6	1086.6	22.3%	1110.1	2.2%	1191.6	7.3%	1098.1	1.1%	1154.1	5.1%	1144.8	99%
Energy & Financials & Real Est (\$bn)	261.8	285.6	302.8	296.8	256.8	224.8	266.7	352.8	32.3%	352.8	0.0%	375.6	6.5%	351.2	-0.5%	369.6	5.2%	370.1	100%
S&P ex. Energy & Financials/RE (\$bn)	577.1	592.7	644.0	701.0	739.3	773.6	850.4	1000.9	17.7%	1034.1	3.3%	1121.7	8.5%	1021.9	2.1%	1076.8	5.4%	1068.2	99%

Source: Bloomberg Finance, DWS Investment GmbH as of 2/13/2020. Past performance may not be indicative of future results.

## DWS Investment GmbH View : S&P 500 fair value by sector: Assuming a -5.00% real cost of equity (CoE) for overall S&P 500

	Market Value (\$bn)	Current 2020 PE	2020E Earnings (\$bn)	Normal Ratio	Normal 2020E Earnings	Accounting Quality Adjustment	Fully Adjusted Earnings	Real CoE	Steady State Value	Growth Premium	2020 Start Fair Value (\$bn)	2020E Dividend Yield	2020 End Fair Value (\$bn)	2020 End Fair Value PE	2020 end Upside %
Communication Services	2,880	20.9	137.9	98%	134.5	-10%	121.1	4.75%	2,549	3%	2,625	1.4%	2,765	20.0	-4%
Consumer Disc.	2,820	24.8	113.7	99%	112.3	-10%	101.1	5.00%	2,022	19%	2,414	1.2%	2,553	22.5	-9%
Ex. AMZN	1,945	18.4	105.5	95%	100.2	-10%	90.2	5.00%	1,804	-3%	1,750	1.8%	1,841	17.4	-5%
Consumer Staples	2,013	22.0	91.5	98%	89.8	-8%	82.6	4.75%	1,739	0%	1,739	2.6%	1,811	19.8	-10%
Energy	1,043	17.2	60.7	110%	67.0	-10%	60.3	6.00%	1,005	0%	1,005	3.5%	1,050	17.3	1%
Financials	3,664	13.6	270.3	98%	264.5	-10%	238.1	6.00%	3,968	0%	3,968	2.4%	4,189	15.5	14%
<b>Banks</b>	<b>1,581</b>	<b>11.7</b>	<b>135.0</b>	<b>100%</b>	<b>135.0</b>	<b>-10%</b>	<b>121.5</b>	<b>6.50%</b>	<b>1,869</b>	<b>0%</b>	<b>1,869</b>	<b>2.5%</b>	<b>1,982</b>	<b>14.7</b>	<b>25%</b>
Health Care	3,928	16.9	232.2	99%	229.7	-10%	206.7	4.75%	4,352	0%	4,352	1.7%	4,571	19.7	16%
Industrials	2,554	19.2	133.0	100%	133.5	-10%	120.2	5.25%	2,289	0%	2,289	1.8%	2,413	18.1	-5%
Technology	7,055	24.1	292.3	100%	293.5	-8%	270.1	5.00%	5,401	10%	5,941	1.3%	6,281	21.5	-11%
Materials	643	18.8	34.2	96%	32.6	-10%	29.4	5.75%	511	0%	511	2.2%	539	15.8	-16%
Real Estate	820	21.2	38.6	100%	38.6	-8%	35.5	4.50%	789	0%	789	3.1%	816	21.1	0%
Utilities	926	22.0	42.1	100%	42.1	-10%	37.9	4.50%	842	0%	842	3.0%	872	20.7	-6%
<b>S&amp;P 500 (\$ bn)</b>	<b>28,346</b>		<b>1446.4</b>	<b>99%</b>	<b>1438.3</b>	<b>-9.4%</b>	<b>1302.9</b>	<b>5.10%</b>	<b>25,468</b>	<b>4%</b>	<b>26,476</b>	<b>1.9%</b>	<b>27,860</b>		<b>-2%</b>
S&P 500 Index (\$/sh)	3373.94	19.6	172.0	100%	171.41	-8.8%	156.4	5.00%	3128.2	0%	3128.2	2.0%	3285.2	19.1	-3%

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

Source: IBES, DWS Investment GmbH as of 2/13/2020. 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 9/30/2019.

The estimated 2020 year end upside is on absolute valuation basis of each sector, not on relative sector valuation basis.

## S&P 500 Sector and Industry views

	Market Weight (%)	Allocated Weight (%)	Sector	2019	2020	Overweight	2019	2020	Equal weight	2019	2020	Underweight	2019	2020	Sector OW	6.00%		
				PE	PE		PE	PE		PE	PE		PE	PE			Sector UW	-6.00%
Over-weight	13.8%	16.8%	Health Care	17.8	16.9	Biotechnology	12.6	11.9	Health Care Technology	27.8	25.5				Industry OW	7.25%		
						Health Care Equipment & Supplies	28.3	26.4	Life Sciences Tools & Services	29.5	27.6							
						Health Care Providers & Services	15.8	15.2										
						Pharmaceuticals	16.4	15.7										
	24.6%	25.6%	Information Technology	25.7	24.1	IT Services	27.7	25.7	Communications Equipment	15.7	15.1				Industry UW	-7.25%		
						Semiconductors	20.3	19.4	Electronic Equipment	21.1	20.0							
	12.5%	13.5%	Financials	14.1	13.6	Software	34.5	31.7	Technology Hardware Storage & Peripherals	24.03	22.82							
						Banks	12.2	11.7										
	10.3%	11.3%	Communication Services	22.2	20.9	Consumer Finance	11.3	10.8	Capital Markets	17.3	16.9							
						Diversified Financial Services	21.8	21.3										
						Insurance	13.8	13.2										
						Entertainment	30.22	27.86	Diversified Telecommunication Services	11.44	11.44							
Interactive Media & Services						31.55	27.95	Media	17.21	16.44								
Ex. GOOGL						19.7	19.7											
Equal-weight	3.0%	3.0%	Real Estate	22.0	21.2			REITs	22.2	21.4								
	3.4%	3.4%	Utilities	22.4	22.0			Real Estate Mgmt. & Development	18.1	16.7								
Under-weight	9.9%	8.9%	Consumer Discretionary	26.3	24.8	Hotels Restaurants & Leisure	25.1	23.9	Diversified Consumer Services	10.3	10.3	Auto Components	15.2	14.9				
						Household Durables	14.2	13.4	Internet & Direct Marketing Retail	60.5	55.6	Automobiles	7.1	6.6				
						Ex. AMZN	19.9	19.9	Specialty Retail	22.7	21.6	Distributors	16.0	15.5				
	7.0%	6.0%	Consumer Staples	22.4	22.0													
	2.5%	0.5%	Materials	20.0	18.8													
	9.0%	8.0%	Industrials	20.2	19.2	Aerospace & Defense	26.1	22.0	Air Freight & Logistics	13.6	13.4	Building Products	19.7	19.2				
						Airlines	8.8	8.7	Commercial Services & Supplies	34.1	32.3	Construction & Engineering	16.8	15.5				
								Professional Services	29.6	27.8	Electrical Equipment	21.4	20.7					
								Road & Rail	20.9	20.7	Industrial Conglomerates	22.0	21.7					
	3.8%	2.8%	Energy	19.5	17.2													
	Aggregate PE: DWS View						Overweight	20.6	19.4	Equalweight	21.0	20.3	Underweight	19.9	18.7			
							3373.94		2019 & 2020 EPS	163.5	172.0	2019 & 2020 PE	20.6	19.6				
									Bottom-up Cons. EPS	165.3	178.4	Bottom-up Cons. PE	20.4	18.9				
												2019 & 2020 Ex Energy PE	20.7	19.7				
												Btm-up Cons. Ex Energy PE	20.5	19.0				

High R&D industries

\* Trade sensitive industries

Price as of 2/13/2020  
Source: DWS Investment Management GmbH

Sector OW	6.00%
Sector UW	-6.00%
Industry OW	7.25%
Industry UW	-7.25%

Macro tilts:	
Cyclicals	-2.00%
Defensive	2.00%
Value	-3.20%
Growth	3.20%
Consumer Services/experience	-2.00%
Disc. Goods	0.00%
Retailing	-1.00%
Durables	-0.90%
Staples Goods/Retail	0.20%
Commodity	-1.00%
Energy	-2.70%
Metals/Chemicals	-1.70%
Capex	-0.55%
Capacity additions	-1.55%
Productivity	1.00%
Health Care	3.00%
Innovation	1.50%
Marketers	1.00%
Insurers	0.50%
Financials	1.00%
Up rates/low spreads	1.00%
Capital Markets	0.00%
Insurance	0.00%
Bond Substitutes	0.00%
Weak FX \$ plays	0.50%
High R&D plays	3.50%
Transports	0.25%
Geopolitical risk	-0.20%
Weak oil prices	-0.85%
Inflation shock	-0.50%
Domestic GDP	-0.50%
Global GDP	-2.95%
Consumer TMT	1.00%
Trade sensitive *	-2.00%

## Contact Information

David Bianco 212 250-8169, [david.bianco@dws.com](mailto:david.bianco@dws.com)

Ju Wang 212 250-7911, [ju.wang@dws.com](mailto:ju.wang@dws.com)

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