

## US Macroscope: Equal-weight S&P 500 P/E appears stretched but is not an imminent cause for concern

The equal-weight S&P 500 (“SPW”) P/E has expanded to 17x, which ranks in the 92<sup>nd</sup> percentile since 1985. Based on our top-down model, the SPW P/E trades 13% above our estimate of fair value (15x). However, following past periods when SPW has been similarly overvalued, the equal-weight S&P 500 has typically continued to rise over the subsequent 3-, 6-, and 12-month periods, albeit with below-average returns. The economic growth environment dictates return outcomes, and our economists expect a strong growth backdrop. However, for investors concerned about overvaluation or risks to the economic outlook, our options strategists note that downside protection appears attractively priced.

### Equity valuations have expanded and driven 70% of the S&P 500’s YTD return.

The aggregate P/E has increased from 17x in late October to 21x and currently ranks in the 90<sup>th</sup> percentile since 1985. However, the latest leg of valuation expansion has not been confined to the mega-cap stocks. The equal-weight S&P 500 (“SPW”) P/E has also increased from 14x to 17x and now ranks in the 92<sup>nd</sup> percentile.

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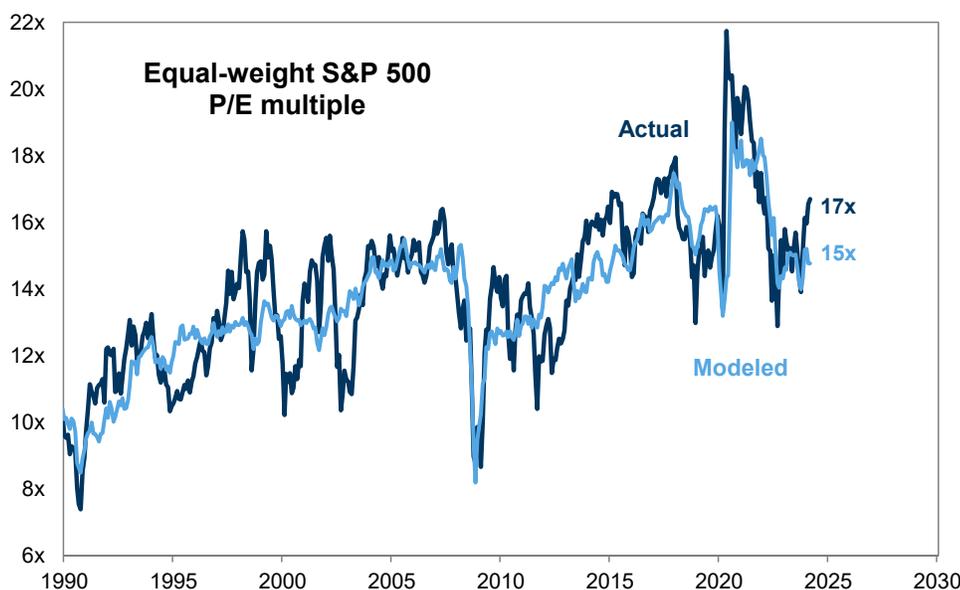
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**Exhibit 1: Equal-weight S&P 500 P/E has expanded to 17x**



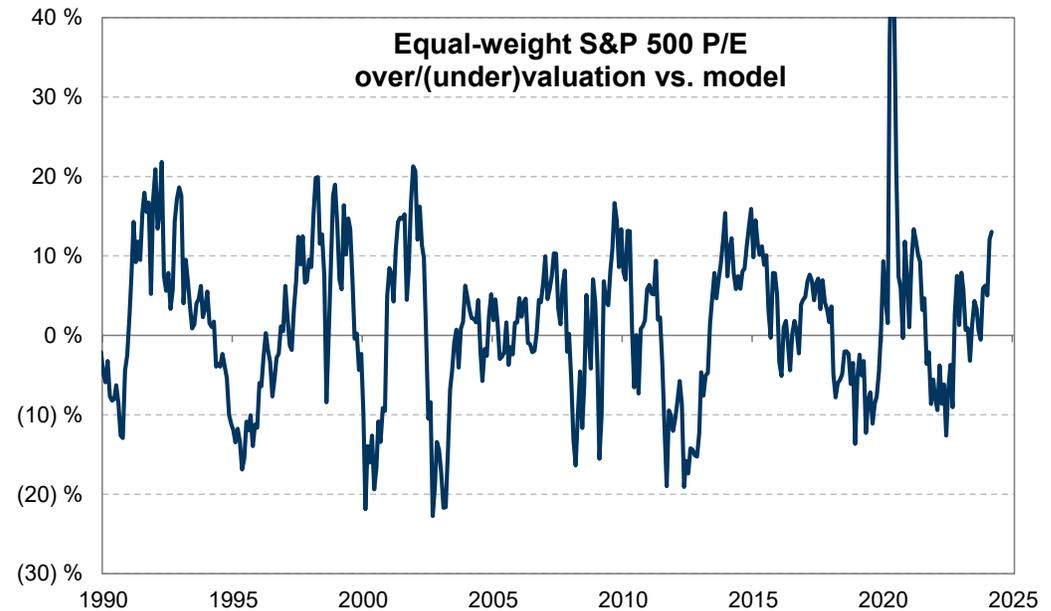
Source: FactSet, Goldman Sachs Global Investment Research

**Based on our valuation model, the equal-weight P/E trades 13% above our estimate of “fair value.”** Our SPW macro valuation model is based on real 10-year

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US Treasury yields, expected earnings growth, the distance of expected inflation from 2%, the tightness of the labor market, and demographics. Based on the current macro backdrop, our model implies a fair value SPW P/E of 15x. To support an SPW P/E multiple close to the current 17x, equity investors would need to be assuming real yields of roughly 0.5% (vs. 1.9% today), a 1.5 pp decline in the unemployment rate from the current rate of 3.9%, a 15% increase in current NTM EPS estimates, or some combination of these outcomes. The tax reform experience in late 2017 provides one recent example with similar dynamics.

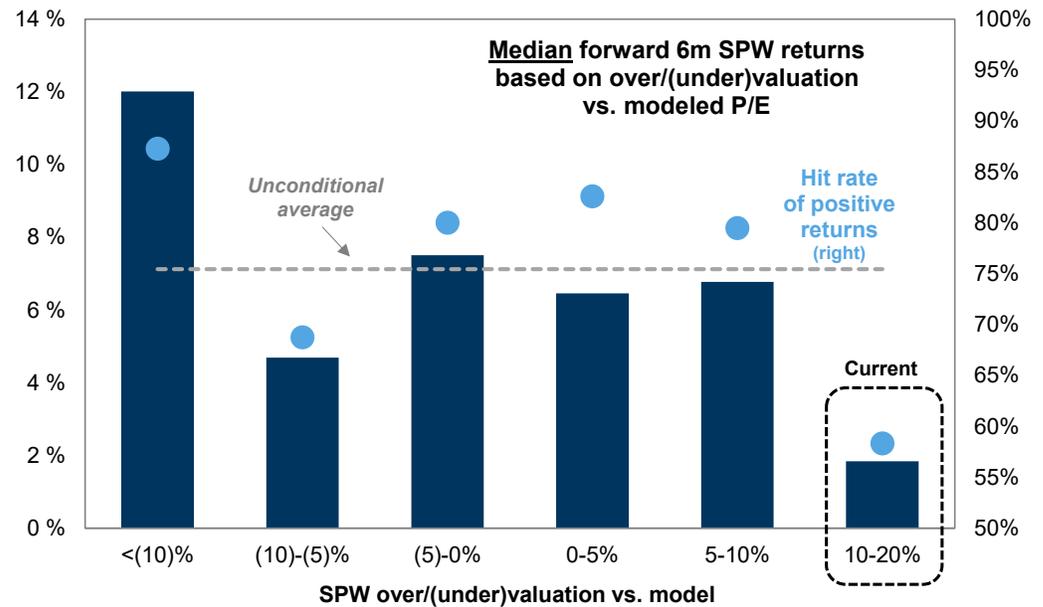
**Exhibit 2: Our top-down model suggests the SPW P/E is 13% above fair value**



Source: Goldman Sachs Global Investment Research

**Overvaluation alone has not historically been cause for imminent concern (Exhibit 3): Since 1990, when the SPW P/E was 10-20% above modeled fair value, the median forward 6-month return was still positive, albeit below the unconditional average.** In 15% of months when the SPW traded 10-20% above modeled fair value, the SPW went on to return 2% in the subsequent 6-month period, compared with the average 6-month return of 7%. The hit rate of positive returns dropped to 58%. The forward signal for the cap-weighted S&P 500 is consistent with the equal-weighted S&P 500.

**Exhibit 3: Returns are typically positive but below average during periods when SPW is 10-20% overvalued monthly, 1990-2024**



Source: Goldman Sachs Global Investment Research

**Periods of overvaluation often persist for nearly a year and are typically benign if the subsequent economic growth environment is healthy.** The SPW P/E crossed the 10% overvalued threshold in February. During the 9 previous episodes since 1990 in which the SPW first crossed the 10% overvalued threshold, it typically took 4 months to reach peak overvaluation. The two episodes with negative 6-month and 12-month forward returns occurred in 2001 and 2007. During these periods, economic growth averaged less than 1% in the following 12 months and the economy ultimately entered a recession. In other episodes, such as 2020, the macro environment eventually “caught up” with valuations. Returns over a 6-month horizon were similar for the cap-weighted S&P 500.

**However, on average, the deviations from fair value eventually close more from the decrease in the *actual* P/E rather than the increase in the *modeled* P/E.** The time between crossing the 10% overvaluation threshold and a convergence to or below fair value took 10 months on average. During 6 of the 9 episodes, the actual P/E fell by more than the change in the modeled P/E. Some of these instances were associated with a broader market sell-off, while in other instances the equal-weight S&P 500 “grew into” the multiple via better earnings.

**Exhibit 4: Episodes in which SPW P/E first crossed the 10% overvaluation threshold**

economic growth based on GS US Current Activity Indicator, maximum drawdown relative to price at first date of 10%+ overvaluation

First date of 10%+ overvaluation	Months to		Forward SPW returns			Average economic growth (12m ahead)	Maximum drawdown in subseq. 6 months	6-month implied SPX volatility
	Peak overvaluation	No overvaluation	3m	6m	12m			
	3/31/1991	13	39	1 %	5 %			
7/31/1997	9	13	(2)	2	9	4.4	(6)	20
11/30/1998	1	10	2	14	10	4.3	(3)	21
4/30/2001	8	15	(1)	(14)	(3)	0.6	(22)	21
5/31/2007	0	6	(6)	(7)	(10)	0.7	(12)	13
8/31/2009	1	10	7	13	11	3.1	(3)	26
11/30/2013	13	22	5	9	17	3.4	(3)	14
4/30/2020	1	6	12	13	57	8.6	(7)	28
11/30/2020	4	10	10	24	27	5.3	0	20
<b>Median</b>	<b>4</b>	<b>10</b>	<b>2 %</b>	<b>9 %</b>	<b>11 %</b>	<b>3.4 %</b>	<b>(3)%</b>	<b>21</b>
<i>Unconditional</i>			4	7	14		(4)%	17

Source: Goldman Sachs Global Investment Research

**Equity investors are pricing a strong economic growth environment.** The relative performance of cyclical stocks vs. defensive stocks has surged in recent months as investors have become more confident in the strength of the US economy. Similar to investor expectations, our economists’ forecast of real US GDP growth is above consensus in 2024 (2.8% annual average). This baseline forecast suggests little cause for immediate concern despite the overvaluation of SPW. However, a negative growth shock would put this view under stress and could be exacerbated by stretched investor positioning.

**Exhibit 5: Equities are pricing optimism about the growth backdrop**

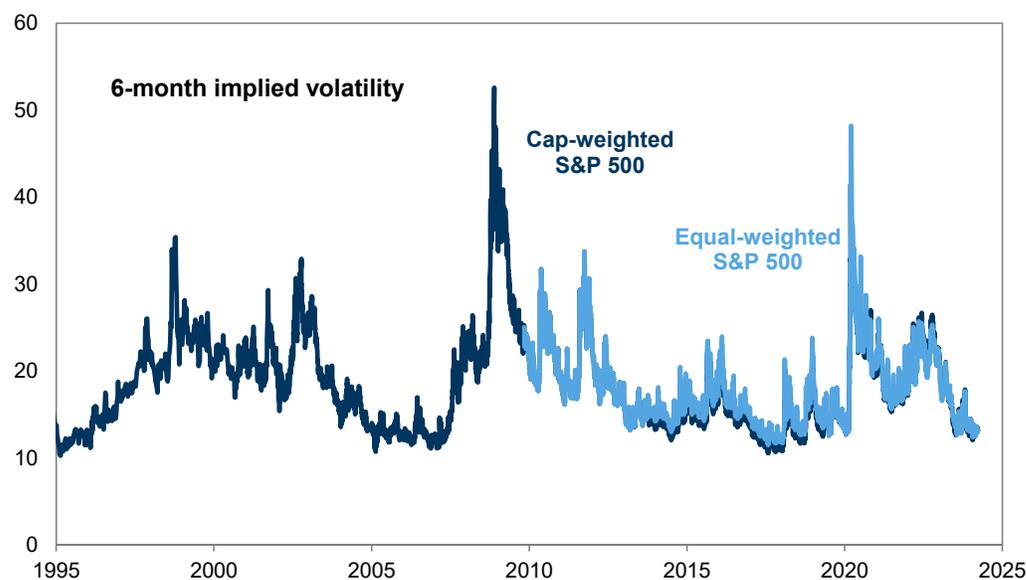


Source: Goldman Sachs Global Investment Research

**However, for investors concerned about overvaluation or risks to the economic outlook, downside protection appears attractively priced.** Implied 6-month volatility currently equals 13, ranking in the 18<sup>th</sup> percentile relative to the past 30 years. While

technical factors may be contributing to the low volatility regime today, the current level of implied volatility is 35% lower than the typical episode where the SPW crossed the 10% overvalued threshold (Exhibit 4). Implied volatility for the equal-weighted S&P 500 is similarly low relative to the past 15 years. Our options strategists believe that both upside and downside asymmetry are underpriced. Their model suggests there is a 25% probability of a 5%+ up move in the S&P 500 over the next month, while options are only pricing a 6% probability of that happening. Similarly, the model-implied 24% probability of a 5%+ down move is an even more unusual reading.

**Exhibit 6: Current implied volatility is low by historical standards**



Source: Goldman Sachs Global Investment Research

**In our baseline, we expect the equal-weight S&P 500 P/E to end the year at 15x.** In our model, real yields and the stage of the economic cycle, as measured by the gap between the current and natural rate of unemployment, are the two most important drivers of the equal-weight P/E. Our baseline forecast for the equal-weight P/E assumes a tight labor market, inflation converging back towards 2%, solid earnings growth, and real yields that remain close to current levels. In contrast with the equal-weight S&P 500, the aggregate S&P 500 trades close to our estimate fair value, as the largest stocks support a substantial valuation premium. In our baseline, we forecast the aggregate S&P 500 P/E will end the year at roughly 20x.

**The interest rate outlook will be key to a sustained move above or below our baseline SPW P/E forecast.** We outlined various scenarios around our baseline in our [US Weekly Kickstart](#). In one upside scenario for the equal-weight P/E, a meaningful shift in the Fed outlook could lead real yields lower and a “catch up” in the SPW P/E. On the other hand, a policy-driven increase in bond yields could lead to valuation contraction. With real yields settling above the levels from the past cycle, the higher cost of capital has led investors to scrutinize unprofitable or highly levered equities. We therefore expect investors will remain skeptical of the longest duration, unprofitable pockets of the equity market. Our Long Duration basket (GSTHLDUR) has returned 3% YTD,

compared with 3% for our Short Duration basket (GSTHSDUR) and 6% for the equal-weight S&P 500. We rebalance GSTHLDUR and GSTHSDUR in this report (see Appendix).

## Appendix

### Exhibit 7: Long Duration basket (GSTHLDUR)

new stocks in basket listed in bold

Ticker	Company	Market Cap (bn)	YTD Return	Sales Growth 2024	Sales Growth 2025	EPS 2024	NTM EV/ Sales	Equity duration (years)
<b>Consumer Discretionary</b>								
RIVN	Rivian Automotive, Inc.	\$ 10	(55)%	10 %	56 %	\$(4.2)	1 x	<b>31.8</b>
LCID	Lucid Group, Inc.	7	(31)	30	134	(1.1)	4	<b>28.4</b>
BKNG	Booking Holdings Inc.	124	3	8	9	175.0	6	<b>24.8</b>
MAR	Marriott International, Inc.	73	12	7	7	9.5	3	<b>24.8</b>
CCL	Carnival Corp.	<b>19</b>	<b>(8)</b>	<b>13</b>	<b>5</b>	<b>1.0</b>	<b>2</b>	<b>24.7</b>
DKNG	DraftKings, Inc.	22	34	31	20	(0.1)	4	<b>24.5</b>
<b>Consumer Staples</b>								
CLX	Clorox Company	19	6	1	3	6.0	3	<b>23.9</b>
FRPT	Freshpet Inc	6	32	25	24	(0.0)	6	<b>23.5</b>
SPB	Spectrum Brands Holdings, Inc.	3	<b>11</b>	<b>(0)</b>	<b>2</b>	<b>4.2</b>	<b>1</b>	<b>23.2</b>
COST	Costco Wholesale Corp.	<b>324</b>	<b>11</b>	<b>6</b>	<b>7</b>	<b>16.5</b>	<b>1</b>	<b>23.1</b>
<b>Energy</b>								
TPL	Texas Pacific Land Corp.	13	10	10	18	60.7	17	<b>22.6</b>
FTI	TechnipFMC plc	11	26	11	13	1.2	1	<b>22.5</b>
<b>Health Care</b>								
ROIV	Roivant Sciences Ltd.	8	(11)	(40)	13	0.5	12	<b>44.6</b>
TDOC	Teladoc Health, Inc.	3	(30)	3	4	(1.0)	1	<b>44.4</b>
MTD	Mettler-Toledo International Inc.	28	9	1	5	39.9	8	<b>27.6</b>
APLS	Apellis Pharmaceuticals, Inc.	7	(7)	97	49	(1.0)	8	<b>26.8</b>
SRPT	Sarepta Therapeutics, Inc.	12	33	50	59	2.5	6	<b>26.3</b>
RARE	Ultragenyx Pharmaceutical, Inc.	4	<b>(5)</b>	<b>18</b>	<b>22</b>	<b>(6.5)</b>	<b>7</b>	<b>26.2</b>
NTRA	Natera, Inc.	11	46	24	18	(2.3)	7	<b>25.0</b>
<b>Industrials</b>								
CHPT	ChargePoint Holdings, Inc.	1	(26)	8	29	(0.7)	1	<b>31.9</b>
LYFT	Lyft, Inc.	8	30	16	12	0.6	1	<b>28.1</b>
PLUG	Plug Power Inc.	2	(26)	18	51	(1.0)	2	<b>25.8</b>
VRSK	Verisk Analytics Inc	<b>33</b>	<b>(3)</b>	<b>7</b>	<b>7</b>	<b>6.5</b>	<b>13</b>	<b>23.8</b>
AXON	Axon Enterprise Inc	<b>24</b>	<b>22</b>	<b>23</b>	<b>21</b>	<b>4.4</b>	<b>12</b>	<b>23.5</b>
BAH	Booz Allen Hamilton Holding Corp.	<b>19</b>	<b>15</b>	<b>10</b>	<b>6</b>	<b>5.8</b>	<b>2</b>	<b>23.4</b>
<b>Information Technology</b>								
WOLF	Wolfspeed Inc	\$ 3	(37)%	16 %	46 %	\$(2.1)	6 x	<b>24.2</b>
GTLB	Giltilab, Inc.	6	(7)	27	25	0.2	11	<b>23.8</b>
S	SentinelOne, Inc.	6	(18)	33	28	(0.0)	7	<b>23.8</b>
VYX	NCR Voyix Corp.	<b>2</b>	<b>(26)</b>	<b>(5)</b>	<b>3</b>	<b>1.0</b>	<b>1</b>	<b>23.8</b>
CFLT	Confluent Inc	7	31	22	24	0.2	8	<b>23.7</b>
NET	Cloudflare Inc	29	15	28	28	0.6	18	<b>23.7</b>
SNOW	Snowflake, Inc.	52	(21)	23	24	0.9	14	<b>23.6</b>
PCOR	Procore Technologies Inc	12	18	20	21	0.7	9	<b>23.6</b>
TEAM	Atlassian Corp	<b>30</b>	<b>(19)</b>	<b>21</b>	<b>22</b>	<b>2.8</b>	<b>10</b>	<b>23.6</b>
MDB	MongoDB, Inc.	26	(14)	17	21	2.6	12	<b>23.6</b>
HUBS	HubSpot, Inc.	32	8	18	19	7.0	11	<b>23.6</b>
CRWD	CrowdStrike Holdings, Inc.	<b>74</b>	<b>27</b>	<b>30</b>	<b>27</b>	<b>3.9</b>	<b>19</b>	<b>23.6</b>
ZS	Zscaler, Inc.	<b>29</b>	<b>(12)</b>	<b>29</b>	<b>25</b>	<b>3.0</b>	<b>11</b>	<b>23.5</b>
MANH	Manhattan Associates, Inc.	15	15	10	12	3.8	15	<b>23.5</b>
APP	AppLovin Corp.	<b>20</b>	<b>82</b>	<b>24</b>	<b>10</b>	<b>2.5</b>	<b>7</b>	<b>23.5</b>
DDOG	Datadog Inc	<b>38</b>	<b>1</b>	<b>21</b>	<b>23</b>	<b>1.4</b>	<b>15</b>	<b>23.5</b>
NVDA	NVIDIA Corp.	2375	92	82	25	24.1	21	<b>23.4</b>
<b>Materials</b>								
SMG	Scotts Miracle-Gro Company	4	15	2	2	3.0	2	<b>26.9</b>
DNA	Ginkgo Bioworks Holdings, Inc.	2	(36)	(11)	39	(0.3)	6	<b>25.2</b>
<b>Communication Services</b>								
RBLX	Roblox Corp.	21	(20)	20	19	(2.1)	5	<b>24.1</b>
SPOT	Spotify Technology SA	52	39	18	13	3.9	3	<b>24.1</b>
TTD	Trade Desk, Inc.	39	22	23	19	1.5	17	<b>23.6</b>
NFLX	Netflix, Inc.	<b>272</b>	<b>29</b>	<b>15</b>	<b>12</b>	<b>17.2</b>	<b>7</b>	<b>23.2</b>
META	Meta Platforms Inc	<b>1107</b>	<b>42</b>	<b>17</b>	<b>12</b>	<b>20.1</b>	<b>8</b>	<b>22.7</b>
<b>Utilities</b>								
AES	AES Corp.	12	(14)	1	5	1.9	3	<b>24.3</b>
GSTHLDUR median		\$ 17	9 %	17 %	19 %	\$ 1.5	7 x	<b>23.8</b>
Russell 1000 median		15	5	4	6	4.6	3	<b>21.9</b>

Source: FactSet, Goldman Sachs Global Investment Research

**Exhibit 8: Short Duration basket (GSTHSDUR)**

new stocks in basket listed in bold

Ticker	Company	Market Cap (bn)	YTD Return	Sales Growth		EPS 2024	NTM EV/ Sales	Equity duration (years)	Ticker	Company	Market Cap (bn)	YTD Return	Sales Growth		EPS 2024	NTM EV/ Sales	Equity duration (years)		
				2024	2025								2024	2025					
<b>Consumer Discretionary</b>																			
GM	General Motors Company	\$ 50	22 %	0 %	2 %	\$ 8.7	1 x	14.7	AVT	Avnet, Inc.	\$ 4	(3)%	(4)%	4 %	\$ 5.7	0 x	15.4		
F	Ford Motor Company	50	9	2	2	1.8	1	17.2	ARW	Arrow Electronics, Inc.	7	3	(10)	6	12.0	0	16.1		
M	Macy's, Inc.	5	(2)	(3)	(2)	2.7	0	17.5	HPE	Hewlett Packard Enterprise Co.	23	3	1	4	1.9	1	16.7		
HOG	Harley-Davidson, Inc.	6	18	(5)	9	4.2	3	17.7	VSAT	ViaSat, Inc.	2	(38)	18	9	(0.5)	2	16.9		
NWL	Newell Brands Inc	3	(11)	(6)	1	0.6	1	18.4	SNX	TD SYNNEX Corp.	9	(2)	2	5	11.9	0	17.7		
LAD	Lithia Motors, Inc.	8	(10)	17	9	35.9	1	18.4	DXC	DXC Technology Co.	4	(10)	(3)	(2)	3.4	1	18.5		
<b>Consumer Staples</b>																			
ACI	Albertsons Companies, Inc.	12	(8)	2	2	2.7	0	14.4	MSI	Motorola Solutions, Inc.	58	11	6	6	12.7	6	19.5		
BG	Bunge Global SA	14	(0)	(5)	1	9.4	0	16.2	COHR	Coherent Corp.	9	43	3	14	2.3	3	20.1		
WBA	Walgreens Boots Alliance, Inc.	18	(20)	4	4	3.3	0	17.3	CRUS	Cirrus Logic, Inc.	5	9	1	3	6.2	3	20.5		
ADM	Archer-Daniels-Midland Company	32	(13)	(2)	3	5.7	0	17.7	ZM	Zoom Video Communications, Inc.	17	(7)	2	4	5.0	3	20.6		
<b>Energy</b>																			
APA	APA Corp.	10	(3)	6	11	4.3	2	4.5	SWKS	Skyworks Solutions, Inc.	17	(6)	(3)	8	7.3	4	20.6		
CHK	Chesapeake Energy Corp.	11	14	11	67	3.3	1	7.2	GEN	Gen Digital Inc.	14	(4)	6	3	2.2	6	20.7		
<b>Health Care</b>																			
VTRS	Viatis, Inc.	14	10	(1)	(2)	2.8	2	13.4	TWLO	Twilio, Inc.	11	(18)	6	9	2.7	2	20.8		
QDEL	QuidelOrtho Corp.	3	(36)	(6)	4	2.6	2	18.0	VNT	Vontier Corp	7	29	0	5	3.1	3	20.8		
PINC	Premier, Inc.	3	(3)	0	3	2.3	2	18.0	GLW	Corning Inc	28	8	0	6	1.9	3	21.0		
RPRX	Royalty Pharma Plc	14	9	(9)	10	3.9	10	18.2	INTC	Intel Corp.	177	(17)	6	11	1.4	3	21.0		
NVST	Envista Holdings Corp.	4	(13)	1	4	1.4	2	18.5	LFUS	Littelfuse, Inc.	6	(13)	(6)	8	9.3	3	21.1		
PRGO	Perrigo Co. Plc	4	(3)	(0)	5	2.6	2	18.5	<b>Materials</b>										
MRVI	Maravai Lifesciences Holdings, Inc.	1	30	(6)	11	(0.0)	5	18.6	MOS	Mosaic Company	10	(12)	(9)	(2)	3.1	1	14.7		
<b>Industrials</b>																			
HTZ	Hertz Global Holdings Inc	2	(26)	3	4	0.5	2	13.9	ALB	Albemarle Corp.	14	(18)	(39)	18	4.4	3	16.5		
UAL	United Airlines Holdings, Inc.	15	9	7	6	9.6	1	15.4	<b>Communication Services</b>										
AL	Air Lease Corp.	5	18	7	10	4.6	8	16.6	PARA	Paramount Global	8	(22)	4	1	1.1	1	13.7		
DAL	Delta Air Lines, Inc.	29	13	4	5	6.5	1	17.3	TKO	TKO Group Holdings, Inc.	7	5	2	12	2.2	5	19.6		
ALK	Alaska Air Group, Inc.	5	2	2	7	4.4	1	17.8	VZ	Verizon Communications Inc.	172	10	1	1	4.6	3	19.6		
CNHI	CNH Industrial NV	16	3	(14)	1	1.6	2	18.8	FYBR	Frontier Communications Parent, Inc.	6	(6)	0	2	(0.1)	3	20.0		
<b>Utilities</b>																			
											HE	Hawaiian Electric Industries, Inc.	1	(22)	6	1	2.1	1	14.6
											<b>GSTHSDUR median</b>		\$ 10	(2)%	1 %	4 %	\$ 3.2	2 x	17.9
											<b>Russell 1000 median</b>		15	5	4	6	4.6	3	21.9

Source: FactSet, Goldman Sachs Global Investment Research

# Disclosure Appendix

## Reg AC

We, Ryan Hammond, David J. Kostin, Ben Snider, Cormac Connors, Jenny Ma and Daniel Chavez, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

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