US WEEKLY KICKSTART

The impact of higher interest rates on equities in charts

Ben Snider
+1(212)357-1744 | ben.snider@gs.com
Goldman Sachs & Co. LLC

Ryan Hammond
+1(212)902-5625 |
ryan.hammond@gs.com
Goldman Sachs & Co. LLC

Daniel Chavez
+1(212)357-7657 |
daniel.chavez@gs.com
Goldman Sachs & Co. LLC

Kartik Jayachandran
+1(212)855-7744 |
kartik.jayachandran@gs.com
Goldman Sachs & Co. LLC

Christophe Sung
+1(212)902-3841 |
christophe.sung@gs.com
Goldman Sachs & Co. LLC

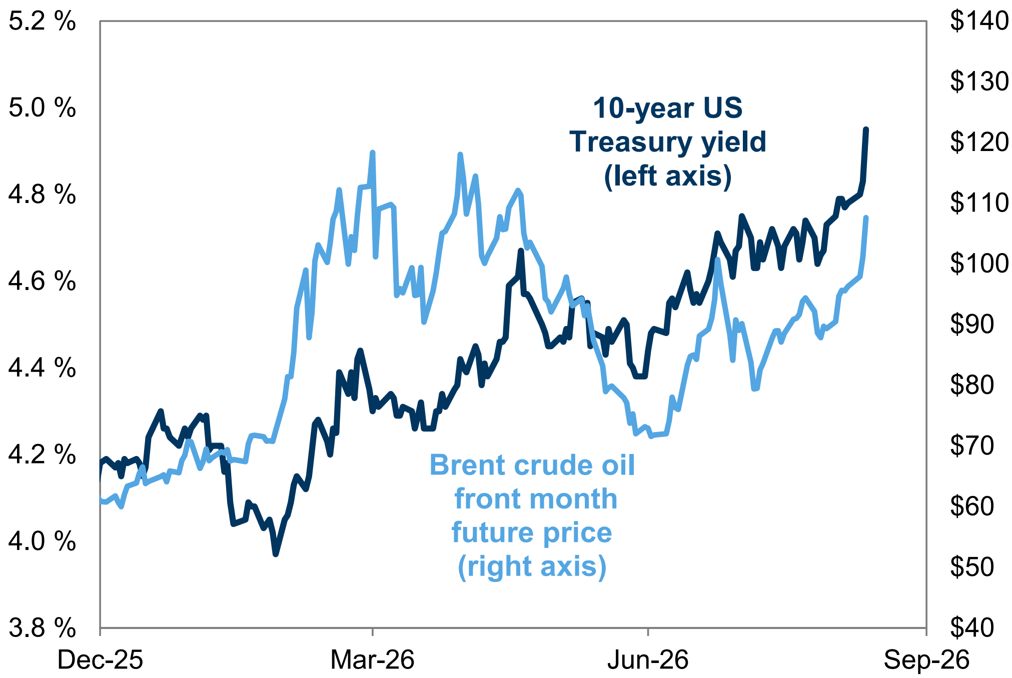
- Our recent conversations with both corporate executives and portfolio managers have focused on the impact of higher rates on equities. The 30-year US Treasury yield has climbed to 5.3%, the highest level in nearly 20 years. Our economists expect the Fed to hike the funds rate by 25 bp next week.
- Rising interest rates are a headwind for equity valuations, but earnings are the most important driver of stocks. The S&P 500 forward P/E has declined from 22x at the start of the year to 19x today, but the index nonetheless sits within 2% of its record high.
- While the S&P 500 P/E multiple has declined this year, valuations relative to bonds have been roughly unchanged. The equity risk premium is currently 3% and has been fairly stable during the last two years. Regardless of the level of rates, elevated interest rate volatility also creates a challenge for stocks.
- Equities typically struggle when the Fed starts to hike rates, but we expect the bull market to continue. The S&P 500 has generated an average 3-month return of -2% at the start of seven hiking cycles during the last few decades, and Fed tightening is one of the dynamics that has characterized the end of other major bull markets during the past century. However, equities have often performed well during tightening cycles. The S&P 500 has generated an average return of +9% during the 12 months following the first hike. Today, the market is already pricing more than three hikes within the next year, and corporate earnings and balance sheets are both robust.
- Higher interest rates have varying effects on stocks via valuations, balance sheets, and earnings. For investors, stocks involved in home construction are one of the most sensitive parts of the equity market to long-term interest rates. The stocks have underperformed the equal-weight S&P 500 by 16 pp since June. In contrast, Financials typically outperform as rates rise.
- A company can maintain its valuation in the face of rising interest rates if its risk premium falls or its growth rate rises. To fully offset the impact of a 1 pp increase in the cost of equity from today's levels, a company's expected long-term growth would need to increase by 2 pp. One way to boost growth is through investment in capex and R&D. M&A and spinoffs are other avenues for companies to improve their growth trajectories.
- We rebalance our Long Duration (GSTHLDUR) and Short Duration (GSTHSDUR)

baskets in this report. See Exhibit 16 and Exhibit 17 for the constituents of the baskets.

What higher interest rates mean for US stocks

The 10-year US Treasury yield surged to nearly 5% this week, reaching its highest level since October 2023. Following an above-consensus CPI print, our economists expect a 25 bp hike at the FOMC meeting next week. Our rates strategists believe that the combination of rising oil prices, a repricing of the Fed path, strong economic growth, and AI investment have lifted long-term interest rates.

Exhibit 1: The 10-year US Treasury yield has surged to nearly 5%

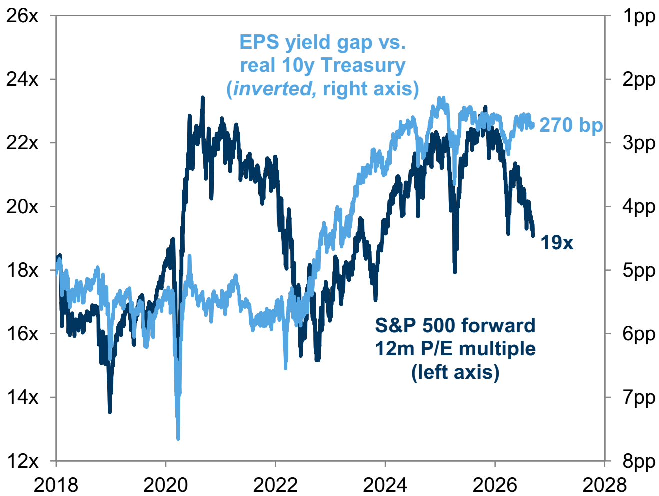


Source: Goldman Sachs Global Investment Research

Our recent conversations with both corporate executives and portfolio managers have focused on the impact of higher rates on equities. Below we highlight 7 key points and 14 charts.

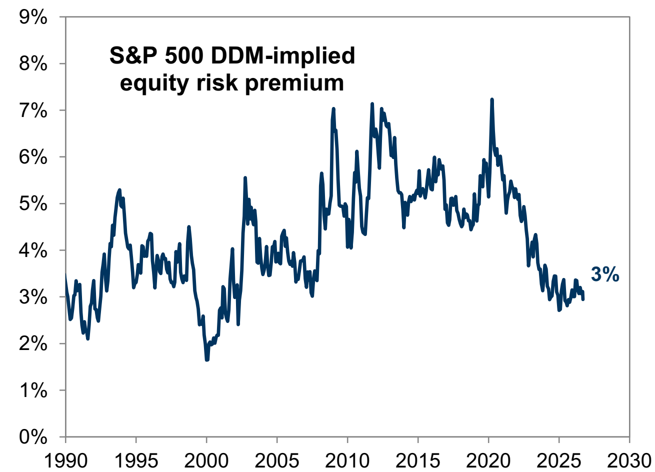
1. Equity multiples have declined this year but valuations relative to bonds have been roughly unchanged. The S&P 500 forward P/E has declined from 22x at the start of the year to 19x today. While there have been multiple contributors to the declining P/E, including AI-related uncertainty and skepticism about the durability of recent earnings strength, one contributor is the rise in interest rates. The difference between the S&P 500 earnings yield (5.2%) and the real 10-year US Treasury yields (2.6%), a simple proxy for the equity risk premium, is currently 270 bp. Outside of brief market downturns, this "yield gap" has been fairly constant during the last two years, as has the equity risk premium implied by our S&P 500 dividend discount model.

Exhibit 2: The S&P 500 P/E has contracted YTD but the yield gap with Treasuries has remained steady



Source: FactSet, Goldman Sachs Global Investment Research

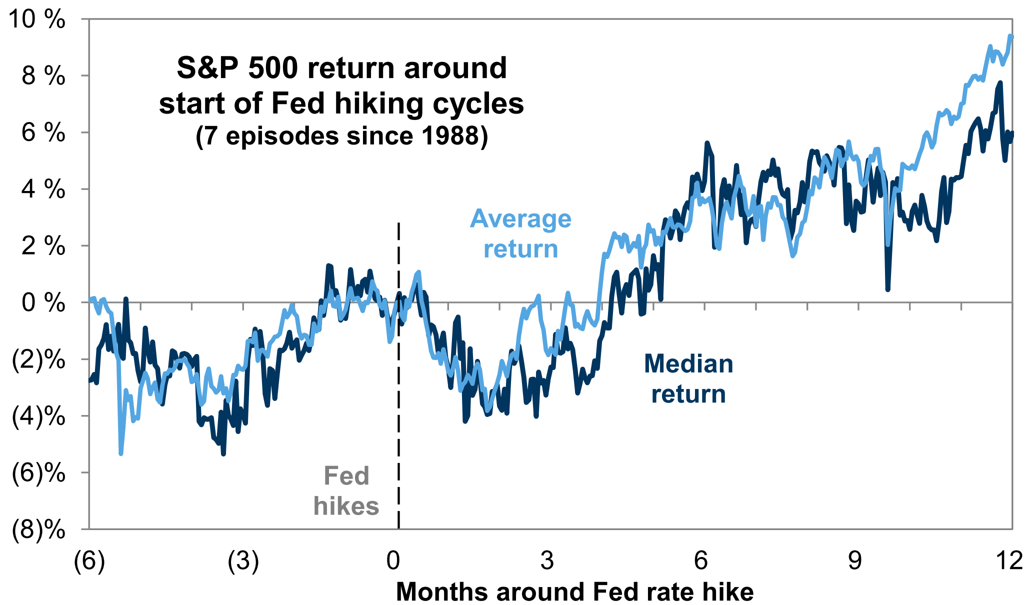
Exhibit 3: The market-implied ERP has been relatively stable in the past few years



Source: Goldman Sachs Global Investment Research

2. Equities typically struggle at the start of Fed hiking cycles, but the market has already priced substantial Fed tightening in coming months. The S&P 500 has generated an average 3-month return of -2% at the start of seven hiking cycles during the last few decades. However, the S&P 500 then generated an average 12-month return of +9%, with positive returns in every episode but 2022. In 1997, for example, the S&P 500 declined by 10% alongside the Fed's 25 bp hiking "cycle." Stocks bottomed when the market ceased pricing additional tightening, and the S&P 500 reached new highs within three months. Today, the rates market is already pricing more than three 25 bp hikes by the middle of 2027, lifting the bar for policy to surprise in a hawkish direction. The medium-term impact of Fed tightening on equities will depend on how tightening affects earnings growth, which is the most important driver of stocks.

Exhibit 4: US equities typically struggle around the start of Fed tightening cycles



Source: Goldman Sachs Global Investment Research

Within the equity market, sector performance has been inconsistent at the start of past Fed hiking cycles. Energy and Tech have delivered the strongest returns on average during the 3 months following the first Fed hike, while Health Care has posted the weakest average returns. However, no sector has delivered consistent out- or under-performance across past hiking episodes.

Exhibit 5: Performance after the first Fed rate hike

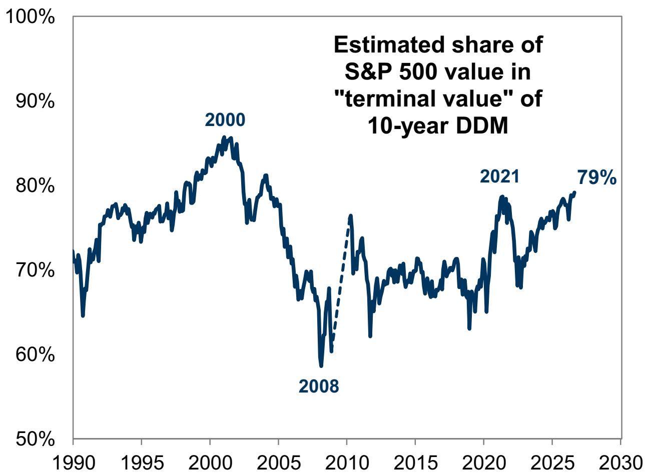
S&P 500 returns during 3 months following first Fed rate hike

	1988	1994	1997	1999	2004	2015	2022	Median	% positive
S&P 500 return	7 %	(3)%	13 %	(6)%	(2)%	(2)%	(16)%	(2)%	29%
Sector excess return vs. SPX (pp)									
Energy	(5)	(1)	(6)	5	13	4	25	**4**	57
Info Tech	8	4	11	12	(8)	(0)	(3)	**4**	57
Materials	6	(2)	(6)	(2)	5	3	5	**3**	57
Industrials	(0)	(2)	2	1	2	3	1	**1**	71
Utilities	(1)	(5)	(11)	1	9	15	8	**1**	57
Financials	5	3	(0)	(9)	2	(8)	(3)	**(0)**	43
Comm Services	(0)	2	(5)	(0)	3	3	(4)	**(0)**	43
Staples	(5)	1	(1)	(4)	(3)	6	8	**(1)**	43
Discretionary	2	(1)	(4)	(5)	1	(1)	(9)	**(1)**	29
Health Care	(6)	1	4	(3)	(4)	(5)	5	**(3)**	43

Source: Goldman Sachs Global Investment Research

3. Equities are usually more sensitive to long-term interest rates than short-term rates. One way to frame the value of an equity is as a discounted stream of long-term future cash flows. Our dividend discount model shows that roughly 75% of the present value of the S&P 500 reflects cash flows 10+ years in the future. Mirroring the long-term nature of equity cash flows, the correlation of S&P 500 returns with changes in interest rates is strongest for long-term bonds. Because inflation boosts the nominal values of future cash flows, equity valuations are more vulnerable to rising real rates than to nominal rates.

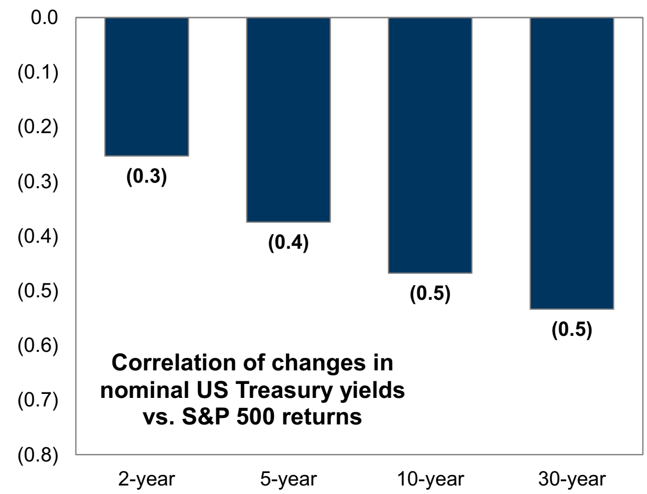
Exhibit 6: "Terminal value" represents roughly 80% of S&P 500 equity value today



We estimate the present value of earnings, dividends, and net buybacks for 10 years and assume the remainder of equity value is in the "terminal value."

Source: Goldman Sachs Global Investment Research

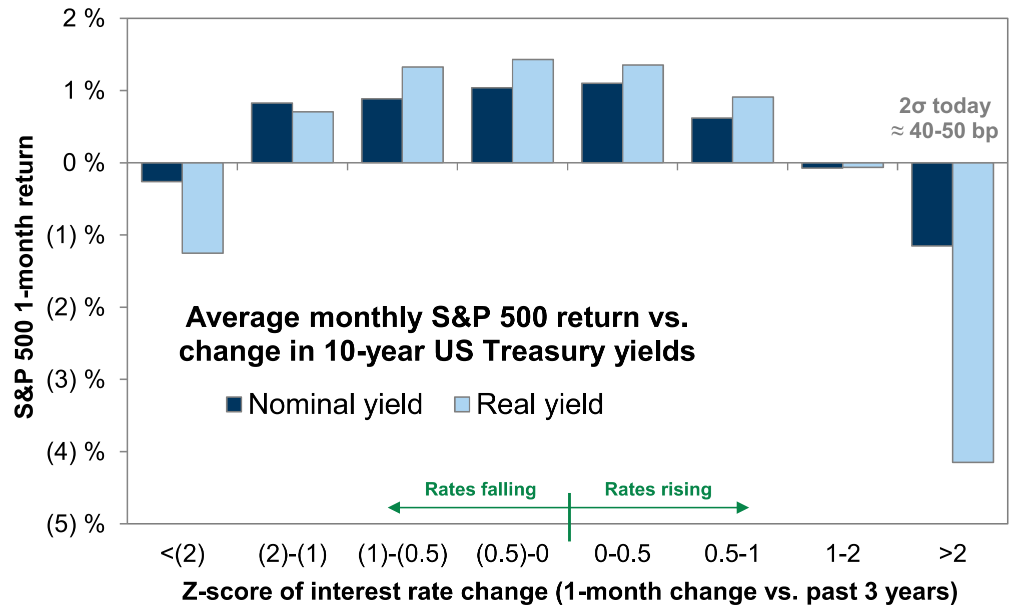
Exhibit 7: Equity returns are generally most correlated with changes in long-term interest rates
monthly changes since 2023



Source: Goldman Sachs Global Investment Research

4. In addition to the level of bond yields, interest rate volatility matters for equities. Stocks typically struggle to digest sharp increases in bond yields. During the past few decades, stocks have usually generated positive returns alongside rising interest rates unless the pace of rising rates exceeded 2+ standard deviations. Today, a 2 standard deviation move in 10-year Treasury yields would equate to about 50 bp over a month or 30 bp over two weeks. The speed of the rate moves during the last few weeks helps explain why stocks struggled to digest those changes.

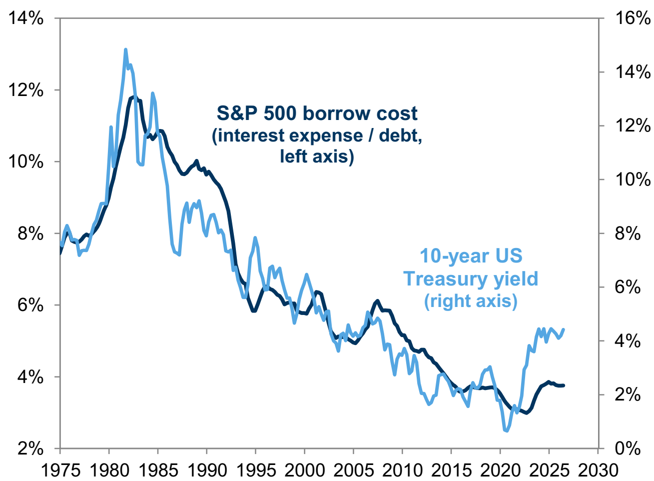
Exhibit 8: Equities typically struggle to digest sharp increases in bond yields



Source: Goldman Sachs Global Investment Research

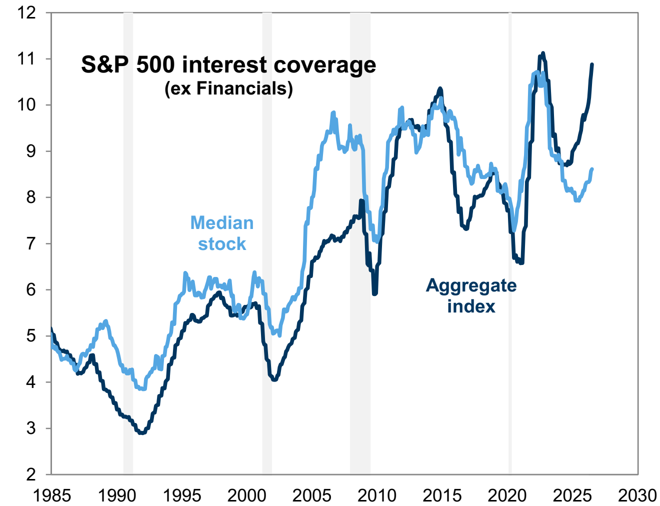
5. Corporate balance sheets today face limited fundamental risk from rising interest rates. Interest rates can affect corporate earnings and solvency in addition to equity valuations, but those risks appear limited today. S&P 500 borrow costs have increased modestly during the last few years alongside higher bond yields. However, the increase has been modest because most S&P 500 company debt carries fixed rates and long maturities. In addition, interest expenses remain small relative to strong profits. Interest coverage ratios for the aggregate S&P 500 and its median stock rank in the 99th and 68th percentiles relative to the past 20 years. Smaller companies generally have weaker balance sheets and higher shares of floating rate debt, making them more vulnerable.

Exhibit 9: Interest expense increase has been manageable



Source: Compustat, Goldman Sachs Global Investment Research

Exhibit 10: Interest coverage ratios are historically high
aggregate excludes “other income” for GOOGL, AMZN, MSFT in recent quarters

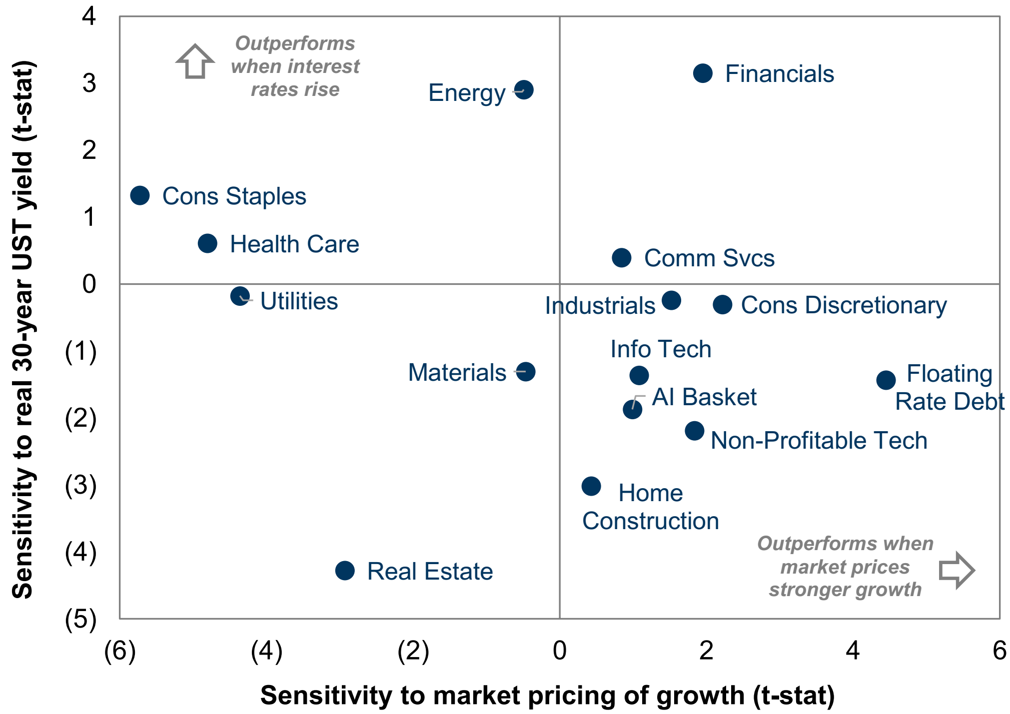


Source: Compustat, Goldman Sachs Global Investment Research

6. The sensitivity of equities to interest rates varies widely across the market. The valuations of “long-duration” stocks with high growth rates and low current profits are particularly vulnerable to rising yields because the cash flows underpinning their present values are concentrated in the distant future. In contrast, Financials earnings and share prices tend to benefit when interest rates rise. Like the broad Info Tech sector, AI stocks have exhibited a modest negative correlation with real yields.

For investors, stocks involved in home construction are one of the most direct ways to express a view on long-term interest rates within the equity market. The sensitivity of homebuilders to interest rates has been relatively stable over the past few years, and the stocks have been relatively insensitive to the broad macroeconomic growth outlook. Housing stocks have traded in lockstep with bond yields during the past few months, underperforming the equal-weighted S&P 500 by 16 pp since June.

Exhibit 11: The sensitivity of equities to rates varies widely across the market
regression of monthly excess returns versus equal-weight S&P 500 since 2021

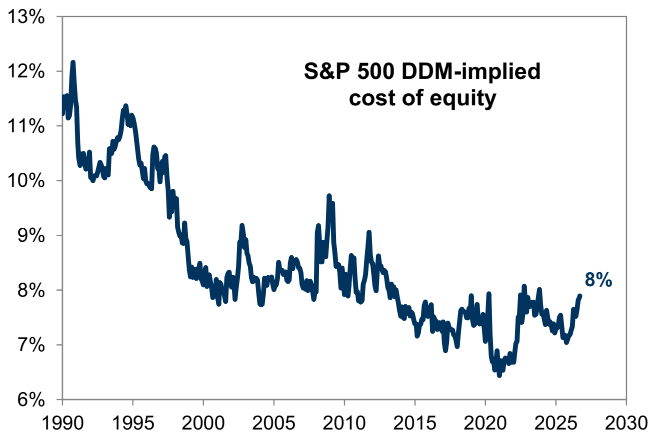


Source: Goldman Sachs Global Investment Research

7. A company can maintain its valuation in the face of rising interest rates if its risk premium falls or its growth rate rises. Interest rates rarely move in isolation, and shifting rates are usually accompanied by changes in equity risk premium. For the broad market, the ERP depends on factors including the economic growth backdrop, investor demographics and risk appetite, and monetary policy. For a given stock, the ERP also reflects company-specific risk.

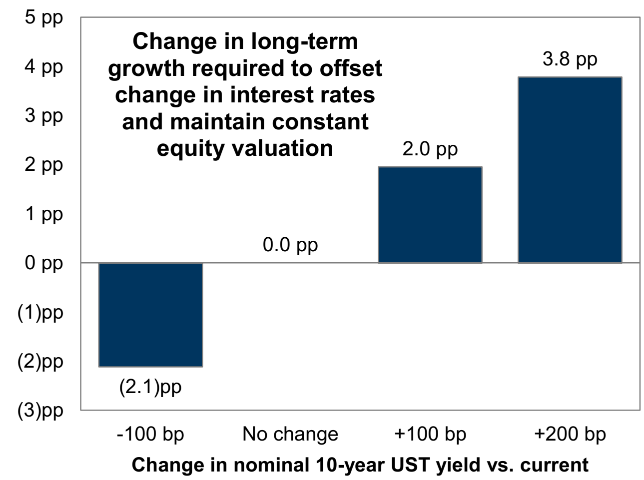
While changing the perceived risk profile of a company is possible, corporate managements can more directly alter the growth trajectories of their businesses. To fully offset the impact of a 1 pp increase in the cost of equity from today's levels, a company's expected long-term growth would need to increase by 2 pp.

Exhibit 12: S&P 500 market-implied cost of equity



Source: Goldman Sachs Global Investment Research

Exhibit 13: Improving growth can offset the equity valuation impact of higher rates
based on GS DDM assuming constant ERP

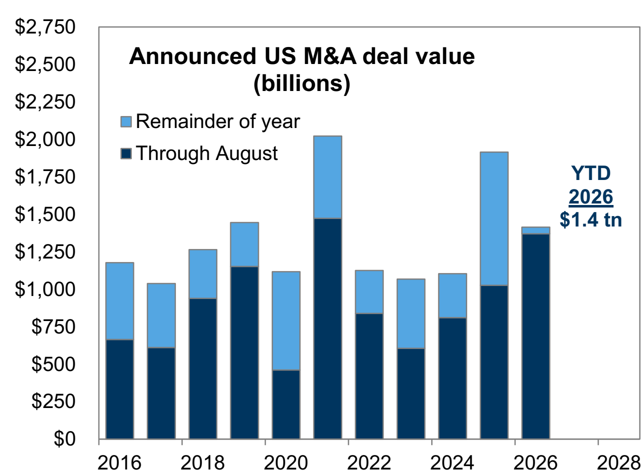


Source: Goldman Sachs Global Investment Research

The incentive to spur growth in the face of rising interest rates is one of many factors supporting the ongoing boom in AI investment. One way to boost growth is through investments in capex and R&D. This past earnings season, roughly half of S&P 500 companies discussed adopting AI in their businesses to boost productivity. Other companies will use AI to generate new streams of revenue.

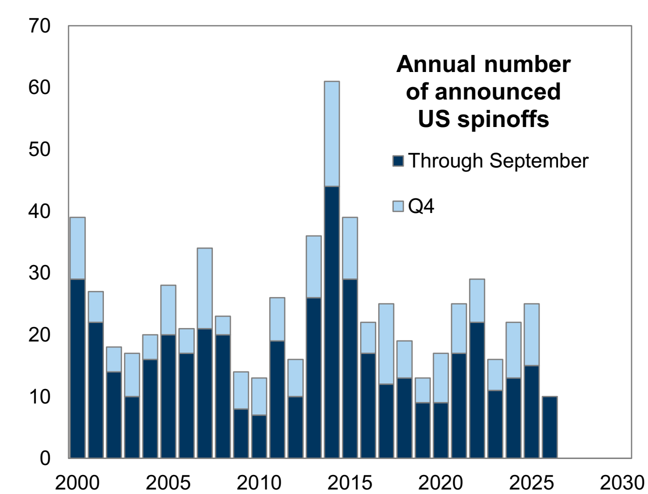
The ongoing acceleration in M&A activity highlights another avenue for companies to improve growth. US announced M&A volumes have totaled $1.4 trillion YTD, with global volumes up 36% year/year. Spin-off activity has been relatively muted during the last few years, but pressure from interest rates may drive additional companies to "shrink to grow" by spinning off low-growth or non-core businesses.

Exhibit 14: US M&A activity has accelerated



Source: Dealogic, Goldman Sachs Global Investment Research

Exhibit 15: Spin-off activity has recently been subdued



Source: FactSet, Goldman Sachs Global Investment Research

We rebalance our Long Duration (GSTHLDUR) and Short Duration (GSTHSDUR) baskets in this report. We estimate the weighted average distribution of cash flows for each Russell 1000 stock, excluding the Financials and Real Estate sectors (see US

Macroscope for details). Our Long and Short Duration baskets are sector-neutral to the Russell 1000.

Exhibit 16: Constituents of our Long Duration basket (GSTHLDUR)
Bolded names are new additions to the basket

Ticker	Company	Market Cap (bn)	YTD Return	Sales Growth 2026	Sales Growth 2027	EPS 2026	NTM EV/ Sales	Equity duration (years)
Consumer Discretionary								
RIVN	Rivian Automotive, Inc.	$ 23	(19)%	39 %	58 %	$(2.3)	2.1 x	25.7
DKNG	DraftKings, Inc.	12	(31)	11	13	0.1	1.8	23.7
TSLA	Tesla, Inc.	1436	(19)	12	13	1.7	10.9	23.5
LVS	**Las Vegas Sands Corp.**	**28**	**(33)**	**6**	**5**	**3.1**	**2.8**	**23.4**
CAVA	**CAVA Group, Inc.**	**6**	**(8)**	**28**	**21**	**0.5**	**3.9**	**23.4**
Consumer Staples								
COKE	**Coca-Cola Consolidated, Inc.**	**11**	**24**	**NM**	**NM**	**NM**	**NM**	**24.3**
CL	Colgate-Palmolive Company	70	13	5	3	3.9	3.5	23.6
CLX	**Clorox Company**	**11**	**(9)**	**4**	**7**	**5.7**	**2.1**	**23.5**
Energy								
TPL	Texas Pacific Land Corp.	25	28	25	12	8.8	23.4	23.3
LNG	**Cheniere Energy, Inc.**	**57**	**44**	**15**	**2**	**5.5**	**3.8**	**23.1**
Health Care								
TEM	Tempus AI, Inc.	10	(1)	26	23	(0.2)	6.2	24.9
INSM	Insmed Incorporated	28	(27)	NM	61	(1.6)	10.8	24.8
MDGL	**Madrigal Pharmaceuticals, Inc.**	**12**	**(8)**	**59**	**41**	**(6.3)**	**7.7**	**24.5**
AXSM	**Axsome Therapeutics, Inc.**	**11**	**16**	**52**	**62**	**(2.7)**	**8.2**	**24.2**
MRNA	**Moderna, Inc.**	**55**	**363**	**8**	**14**	**(8.3)**	**23.8**	**24.2**
ARWR	**Arrowhead Pharmaceuticals, Inc**	**12**	**25**	**(41)**	**3**	**(3.8)**	**33.4**	**24.2**
Industrials								
VRSK	**Verisk Analytics, Inc.**	**23**	**(21)**	**5**	**7**	**7.7**	**8.1**	**26.8**
RKLB	Rocket Lab Corp.	37	(11)	59	45	(0.3)	29.9	24.2
BE	**Bloom Energy Corp.**	**76**	**197**	**NM**	**67**	**2.7**	**14.9**	**23.9**
PL	**Planet Labs PBC**	**6**	**(15)**	**41**	**31**	**(0.1)**	**10.7**	**23.8**
KRMN	**Karman Holdings Inc.**	**5**	**(53)**	**57**	**27**	**0.6**	**6.3**	**23.7**
Information Technology								
APLD	**Applied Digital Corp.**	**$ 8**	**5 %**	**62 %**	**NM**	**$(0.8)**	**10.0 x**	**28.7**
AUR	**Aurora Innovation, Inc.**	**11**	**65**	**NM**	**NM**	**(0.5)**	**90.2**	**28.1**
IONQ	**IonQ, Inc.**	**15**	**(18)**	**NM**	**74**	**(1.4)**	**17.1**	**25.8**
WULF	**TeraWulf Inc.**	**8**	**40**	**60**	**NM**	**(3.0)**	**15.3**	**25.8**
CRWV	**CoreWeave, Inc.**	**41**	**24**	**NM**	**NM**	**(4.0)**	**4.2**	**25.3**
IT	Gartner, Inc.	11	(32)	(1)	4	14.5	2.1	24.2
AAOI	**Applied Optoelectronics, Inc.**	**9**	**196**	**NM**	**NM**	**0.7**	**3.5**	**23.9**
GDDY	GoDaddy, Inc.	12	(22)	6	5	7.4	2.9	23.9
ALAB	Astera Labs, Inc.	49	71	NM	61	4.0	19.1	23.8
NET	Cloudflare Inc	100	58	32	28	1.3	31.3	23.8
SNOW	Snowflake, Inc.	116	50	35	29	2.1	15.3	23.8
SITM	**SiTime Corp.**	**18**	**71**	**NM**	**55**	**11.3**	**14.0**	**23.7**
CRWD	CrowdStrike Holdings, Inc.	214	78	25	23	1.2	30.9	23.7
PLTR	Palantir Technologies Inc.	382	(7)	83	50	1.6	38.2	23.6
FTNT	Fortinet, Inc.	117	100	19	11	3.4	12.8	23.6
DDOG	Datadog, Inc.	74	63	31	22	2.5	15.1	23.6
LSCC	Lattice Semiconductor Corp.	16	55	76	45	2.1	13.7	23.6
MANH	**Manhattan Associates, Inc.**	**12**	**18**	**8**	**9**	**5.5**	**9.6**	**23.5**
CRCL	**Circle Internet Group, Inc.**	**21**	**14**	**9**	**23**	**1.0**	**(15)**	**23.5**
U	**Unity Software, Inc.**	**19**	**(5)**	**20**	**21**	**(0.7)**	**7.7**	**23.5**
CIEN	Ciena Corp.	47	43	34	30	7.9	6.3	23.5
Materials								
MP	**MP Materials Corp**	**9**	**2**	**99**	**77**	**0.0**	**13.0**	**23.2**
Communication Services								
LBTYA	**Liberty Global Ltd.**	**4**	**(5)**	**(2)**	**4**	**(1.5)**	**2.1**	**36.3**
NIQ	**NIQ Global Intelligence PLC**	**5**	**7**	**7**	**5**	**1.1**	**1.9**	**33.0**
ECHO	**EchoStar Corp.**	**15**	**(16)**	**(4)**	**(6)**	**19.9**	**3.6**	**29.2**
RBLX	Roblox Corp.	30	(45)	3	12	(1.4)	4.2	24.2
GSAT	**Globalstar, Inc.**	**11**	**34**	**5**	**21**	**(0.6)**	**32.4**	**23.8**
TTWO	Take-Two Interactive Software, Inc.	41	(15)	26	11	6.2	4.7	23.3
Utilities								
VST	**Vistra Corp.**	**49**	**(9)**	**27**	**9**	**8.6**	**3.0**	**22.6**
GSTHLDUR median		**$ 18**	**6 %**	**25 %**	**21 %**	**$ 1.1**	**8.2 x**	**23.8**
Russell 1000 median		**18**	**6**	**8**	**6**	**5.3**	**3.2**	**22.2**

Source: FactSet, Goldman Sachs Global Investment Research

Exhibit 17: Constituents of our Short Duration basket (GSTHSDUR)
Bolded names are new additions to the basket

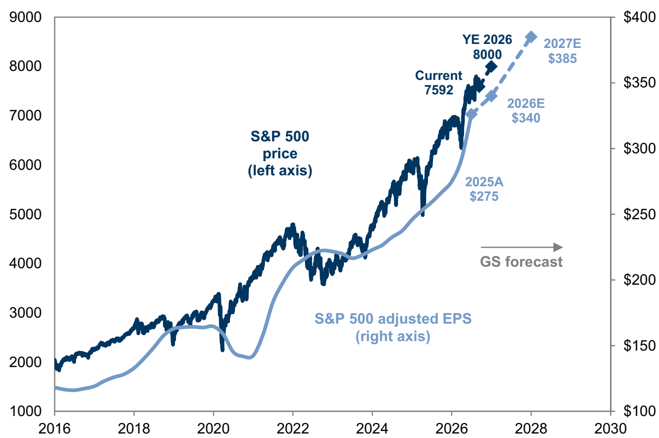
Ticker	Company	Market Cap (bn)	YTD Return	Sales Growth 2026	Sales Growth 2027	EPS 2026	NTM EV/ Sales	Equity duration (years)
Consumer Discretionary								
BYD	Boyd Gaming Corp.	$ 6	(10)%	0 %	2 %	$ 7.3	2.1 x	12.5
WHR	**Whirlpool Corp.**	**2**	**(50)**	**(4)**	**4**	**1.8**	**0.6**	14.7
PVH	PVH Corp.	3	4	(0)	1	12.0	0.7	17.0
LKQ	**LKQ Corp.**	**6**	**(19)**	**(0)**	**2**	**2.7**	**0.8**	17.1
LEN	**Lennar Corp.**	**19**	**(23)**	**(5)**	**3**	**5.6**	**0.7**	17.7
Consumer Staples								
TAP	Molson Coors Beverage Company	7	(15)	(1)	0	4.7	1.2	16.4
KHC	Kraft Heinz Company	29	6	(1)	0	2.1	1.8	17.7
CAG	**Conagra Brands, Inc.**	**7**	**(10)**	**(3)**	**(2)**	**1.6**	**1.3**	18.6
Energy								
MTDR	Matador Resources Company	8	48	12	13	7.9	2.6	18.5
DVN	Devon Energy Corp.	55	38	43	2	5.1	2.3	19.0
Health Care								
UHS	Universal Health Services, Inc.	9	(20)	7	5	22.5	0.8	18.3
VTRS	**Viatris, Inc.**	**19**	**35**	**3**	**2**	**2.5**	**2.1**	18.9
PFE	Pfizer Inc.	158	17	(1)	(4)	3.0	3.5	19.4
CI	**Cigna Group**	**74**	**4**	**4**	**4**	**30.5**	**0.3**	19.7
ZBH	**Zimmer Biomet Holdings, Inc.**	**18**	**3**	**4**	**4**	**8.5**	**2.8**	19.7
BIIB	**Biogen Inc.**	**32**	**22**	**6**	**2**	**12.4**	**3.7**	19.9
Industrials								
DD	**DuPont de Nemours, Inc.**	**17**	**7**	**5**	**4**	**7.3**	**2.6**	19.3
G	**Genpact Limited**	**6**	**(25)**	**7**	**7**	**4.1**	**1.2**	20.2
UAL	United Airlines Holdings, Inc.	35	(5)	15	5	10.0	0.8	20.3
TXT	**Textron Inc.**	**14**	**(9)**	**5**	**4**	**6.5**	**1.0**	20.5
AMTM	**Amentum Holdings, Inc.**	**5**	**(33)**	**(2)**	**1**	**2.5**	**0.6**	20.5
Information Technology								
EPAM	**EPAM Systems, Inc.**	**$ 6**	**(44)%**	**4 %**	**3 %**	**$ 13.1**	**1.0 x**	19.5
INGM	Ingram Micro Holding Corp.	6	25	10	3	3.4	0.2	19.5
SWKS	Skyworks Solutions, Inc.	13	35	(2)	3	5.0	3.3	19.8
SMCI	**Super Micro Computer, Inc.**	**25**	**28**	**74**	**37**	**4.0**	**0.5**	19.9
BILL	BILL Holdings, Inc.	4	(13)	12	11	3.3	2.4	20.0
DOX	Amdocs Limited	6	(24)	3	3	7.6	1.5	20.1
CTSH	**Cognizant Technology Solutions**	**26**	**(29)**	**5**	**5**	**5.8**	**1.3**	20.2
ARW	**Arrow Electronics, Inc.**	**11**	**94**	**30**	**8**	**21.8**	**0.3**	20.8
VNT	Vontier Corp	4	(16)	(1)	1	3.5	2.0	20.9
ZM	Zoom Communications, Inc.	25	11	5	4	6.1	4.1	20.9
FSLR	First Solar, Inc.	22	(21)	(4)	17	17.4	3.7	21.0
OLED	**Universal Display Corp.**	**4**	**(30)**	**(3)**	**8**	**4.2**	**5.2**	21.0
AVT	**Avnet, Inc.**	**8**	**96**	**30**	**18**	**8.7**	**0.3**	21.1
CRUS	Cirrus Logic, Inc.	6	(2)	2	4	8.6	2.6	21.1
CCC	CCC Intelligent Solutions Holdings	4	(14)	10	9	0.5	4.3	21.2
ACN	**Accenture Plc**	**109**	**(32)**	**5**	**4**	**14.1**	**1.5**	21.2
DLB	**Dolby Laboratories, Inc.**	**4**	**(1)**	**5**	**4**	**4.4**	**3.7**	21.3
SNX	**TD SYNNEX Corp.**	**20**	**71**	**18**	**7**	**19.2**	**0.3**	21.3
GEN	Gen Digital Inc.	18	12	12	7	2.8	4.6	21.4
KD	Kyndryl Holdings Incorporation	3	(52)	(1)	(1)	1.8	0.4	21.4
SAIL	SailPoint, Inc.	10	(13)	19	19	0.3	6.7	21.5
Materials								
MOS	Mosaic Company	8	8	(0)	6	0.5	1.1	16.8
Communication Services								
CHTR	Charter Communications, Inc.	23	(33)	(1)	(1)	41.1	2.2	14.6
CMCSA	Comcast Corp.	89	(7)	(2)	(2)	3.5	1.4	16.1
PPLI	**People Incorporated**	**3**	**(4)**	**(24)**	**1**	**6.4**	**1.7**	16.8
SIRI	SiriusXM Holdings Inc.	10	49	1	2	3.0	2.2	17.7
T	AT&T Inc	175	7	3	2	2.3	2.6	18.5
OMC	Omnicom Group Inc	22	0	50	(3)	10.4	1.2	19.6
Utilities								
PCG	**PG&E Corp.**	**31**	**(12)**	**5**	**4**	**1.7**	**3.6 x**	19.0
GSTHSDUR median		**$ 10**	**(4)%**	**4 %**	**4 %**	**$ 5.1**	**1.6 x**	**19.7**
Russell 1000 median		**18**	**6**	**8**	**6**	**5.3**	**3.2**	**22.2**

Source: FactSet, Goldman Sachs Global Investment Research

S&P 500 earnings and return forecasts

Pricing as of September 10, 2026, unless otherwise noted.

Exhibit 18: Goldman Sachs top-down S&P 500 forecasts



Source: FactSet, Goldman Sachs Global Investment Research

Exhibit 19: Goldman Sachs and consensus forecasts for S&P 500 earnings and returns

	Goldman Sachs forecast	Bottom-up analyst consensus	Top-down strategist consensus
S&P 500 EPS			
2025	**$275**	$275	$275
Y/Y growth	***12 %***	*12 %*	*12 %*
2026	**$340**	$365	$340
Y/Y growth	***24 %***	*33 %*	*24 %*
2027	**$385**	$418	$390
Y/Y growth	***13 %***	*15 %*	*15 %*
S&P 500 P/E			
Current on NTM EPS	**20x**	19x	20x
S&P 500 price target			
YE 2026	**8000**	NA	8000
Return to target	***5 %***		*5 %*
12-month	**8300**	9100	NA
Return to target	***9 %***	*20 %*	

Source: Bloomberg, FactSet, Goldman Sachs Global Investment Research

Biggest stock movers this week

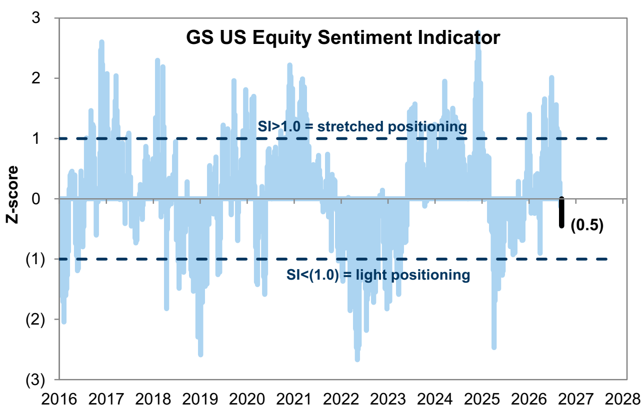
Exhibit 20: S&P 500 stocks with the largest moves this week
as of September 11, 2026

Company	Ticker	Industry group	Total return: This week	3m	6m	12m	Market cap (bn)	Consensus 2026 EPS growth	Fwd 12m P/E
Top 10 returns this week									
Hewlett Packard Enterprise	HPE	Tech Hardware & Equipment	**19 %**	22 %	164 %	130 %	$73	100 %	14x
Skyworks Solutions	SWKS	Semiconductors & Semi Equip	**19**	20	54	18	13	(16)	18
Ciena Corp.	CIEN	Tech Hardware & Equipment	**9**	(23)	(1)	158	47	145	34
HP Inc.	HPQ	Tech Hardware & Equipment	**9**	34	81	21	30	(4)	12
Coherent Corp.	COHR	Tech Hardware & Equipment	**8**	(17)	12	183	57	109	33
Dell Technologies	DELL	Tech Hardware & Equipment	**8**	37	254	312	322	140	20
Advanced Micro Devices	AMD	Semiconductors & Semi Equip	**8**	11	148	216	822	84	46
Corning Inc.	GLW	Tech Hardware & Equipment	**8**	(3)	20	120	141	30	45
QUALCOMM Inc.	QCOM	Semiconductors & Semi Equip	**8**	(7)	32	14	186	(24)	20
Intel Corp.	INTC	Semiconductors & Semi Equip	**7**	(6)	114	305	530	309	62
Bottom 10 returns this week									
Cooper Companies	COO	Health Care Equipment & Svcs	**(23)%**	(20)%	(27)%	(20)%	$10	3 %	12x
Casey's General Stores	CASY	Consumer Staples Retail	**(19)**	(31)	(9)	17	23	24	29
FactSet Research Systems	FDS	Financial Services	**(14)**	6	25	(26)	9	4	14
Amgen Inc.	AMGN	Pharma Biotech & Life Sciences	**(14)**	14	3	41	207	6	16
Howmet Aerospace	HWM	Capital Goods	**(11)**	(9)	(10)	24	91	41	39
Copart Inc.	CPRT	Commercial & Professional Svcs	**(11)**	(2)	(15)	(37)	28	(3)	18
Insulet Corp.	PODD	Health Care Equipment & Svcs	**(11)**	(11)	(43)	(60)	9	29	19
Boston Scientific	BSX	Health Care Equipment & Svcs	**(10)**	(11)	(38)	(59)	62	8	13
Dollar Tree Inc.	DLTR	Consumer Staples Retail	**(10)**	8	2	20	22	32	17
Booking Holdings	BKNG	Consumer Services	**(10)**	9	(0)	(20)	131	10	16
Median S&P 500 stock			**(2)%**	2 %	4 %	9 %	$43	12 %	17x
S&P 500 Index			**(1)**	5	13	18	67,988	33	19

Source: FactSet, Goldman Sachs Global Investment Research

Sentiment and flows

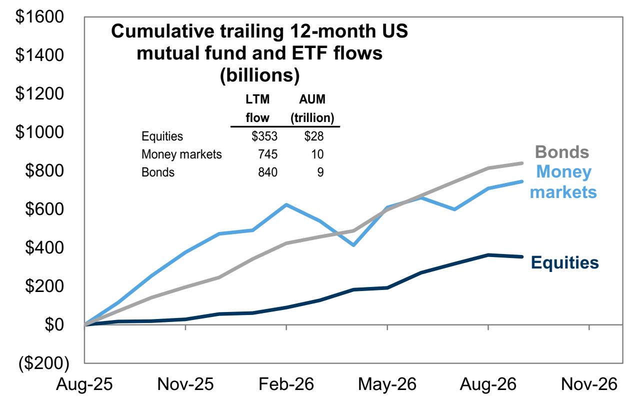
Exhibit 21: GS US Equity Sentiment Indicator of investor positioning
as of September 11, 2026



The Sentiment Indicator combines 9 measures of positioning across institutional, retail, and foreign investors and has historically been a statistically significant signal for near-term S&P 500 returns.

Source: Goldman Sachs Global Investment Research

Exhibit 22: Recent mutual fund and ETF flows



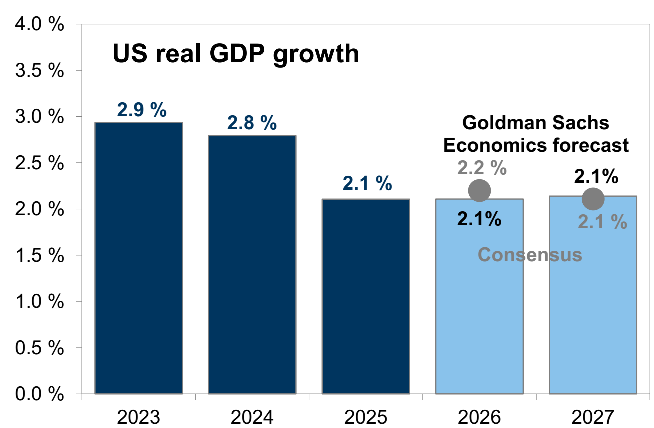
Source: EPFR, Goldman Sachs Global Investment Research

Economic growth

Exhibit 23: US equity market internal pricing of economic growth

Source: Bloomberg, Goldman Sachs Global Investment Research

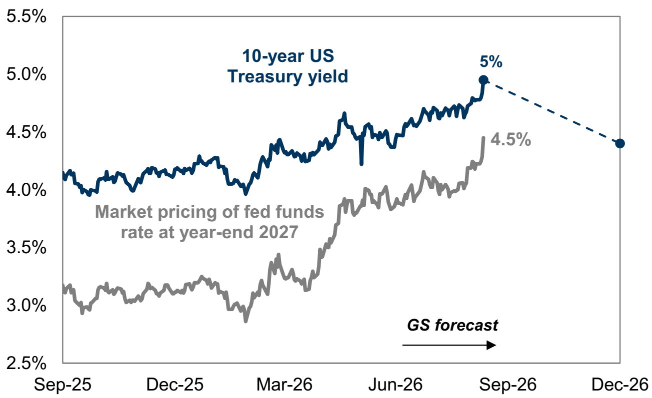
Exhibit 24: Goldman Sachs and consensus forecasts for US real GDP growth



Source: Bloomberg, Goldman Sachs Global Investment Research

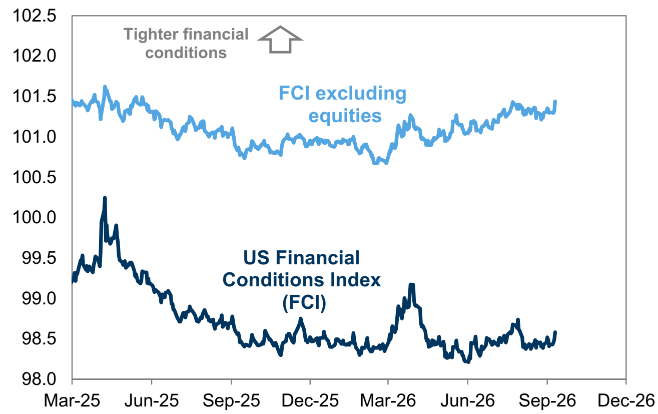
Interest rates and financial conditions

Exhibit 25: Market pricing of near-term and long-term interest rate outlook



Source: Goldman Sachs Global Investment Research

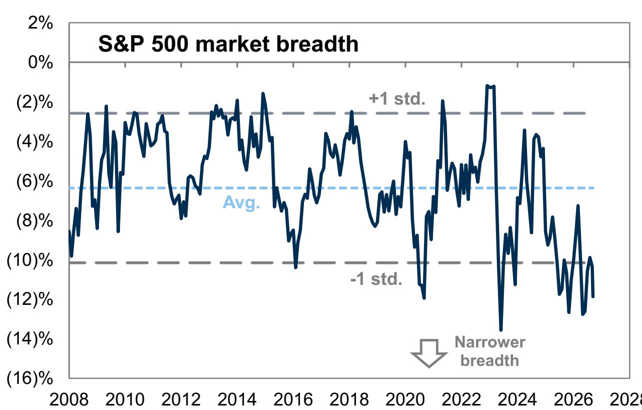
Exhibit 26: Goldman Sachs Financial Conditions Index



Source: Goldman Sachs Global Investment Research

Market breadth and concentration

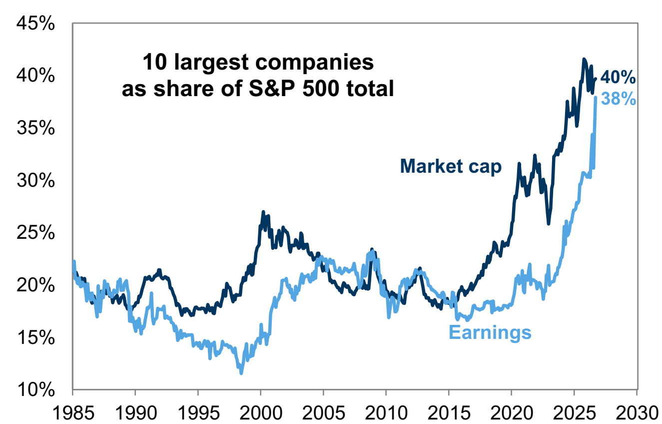
Exhibit 27: S&P 500 52-week market breadth



Market breadth is calculated as the difference between the distance of the aggregate S&P 500 Index from its 52-week high and the distance of the median S&P 500 constituent from its 52-week high. When the aggregate index is much closer to its 52-week high than is the median stock, market breadth is narrow.

Source: Goldman Sachs Global Investment Research

Exhibit 28: Concentration of S&P 500 market cap and earnings in the 10 largest index constituents

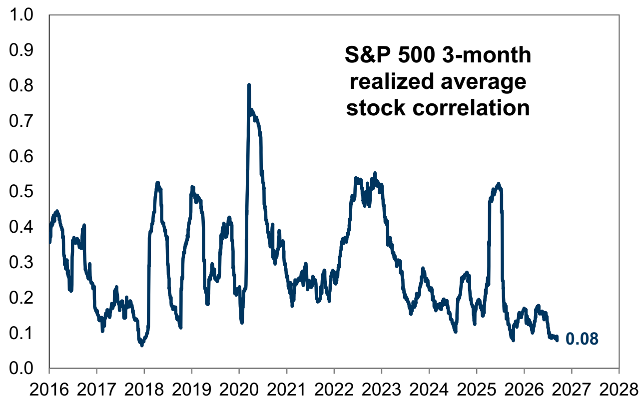


Earnings reflect consensus forward 12-month estimates.

Source: Compustat, IBES, FactSet, Goldman Sachs Global Investment Research

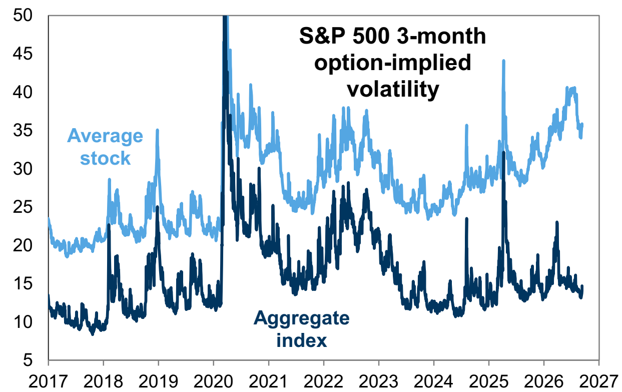
Correlation and volatility

Exhibit 29: S&P 500 realized average stock correlation



Source: Goldman Sachs Global Investment Research

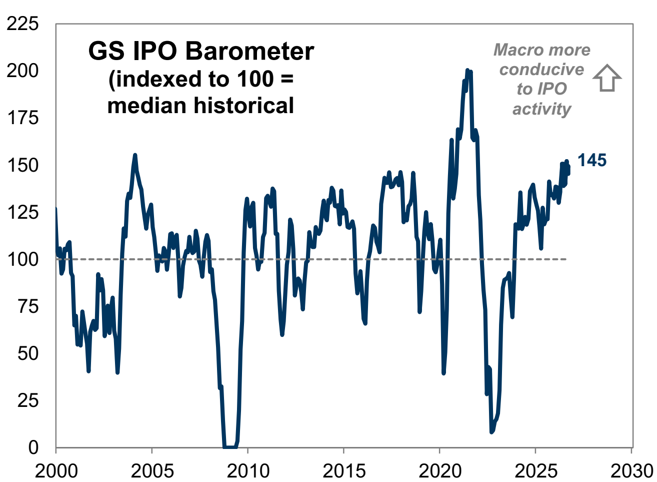
Exhibit 30: S&P 500 implied volatility



Source: Goldman Sachs Global Investment Research

IPO Barometer and mutual fund performance

Exhibit 31: Goldman Sachs IPO Barometer



The Goldman Sachs IPO Barometer combines five indicators that gauge the conduciveness of the macro environment to IPO activity.

Source: Goldman Sachs Global Investment Research

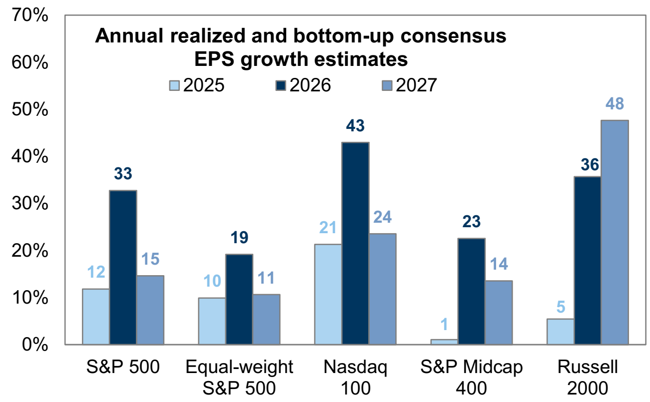
Exhibit 32: US equity mutual fund returns relative to benchmarks

Mutual fund style	Average YTD return	% outperforming benchmarks YTD
Large-cap core	10%	37%
Large-cap growth	6	68
Large-cap value	14	10
Large-cap total	**10%**	**38%**
Small-cap core	16%	33%

Source: FactSet, Goldman Sachs Global Investment Research

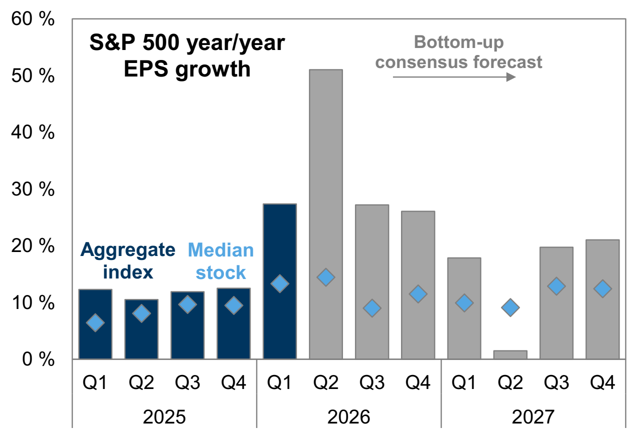
Earnings growth

Exhibit 33: Realized and consensus EPS growth for select US equity indices



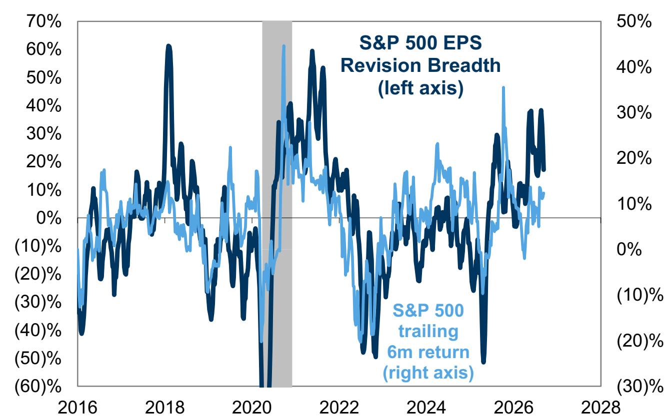
Source: FactSet, Goldman Sachs Global Investment Research

Exhibit 34: Realized and consensus year/year S&P 500 EPS growth



Source: FactSet, Goldman Sachs Global Investment Research

Exhibit 35: S&P 500 FY2 earnings revision breadth

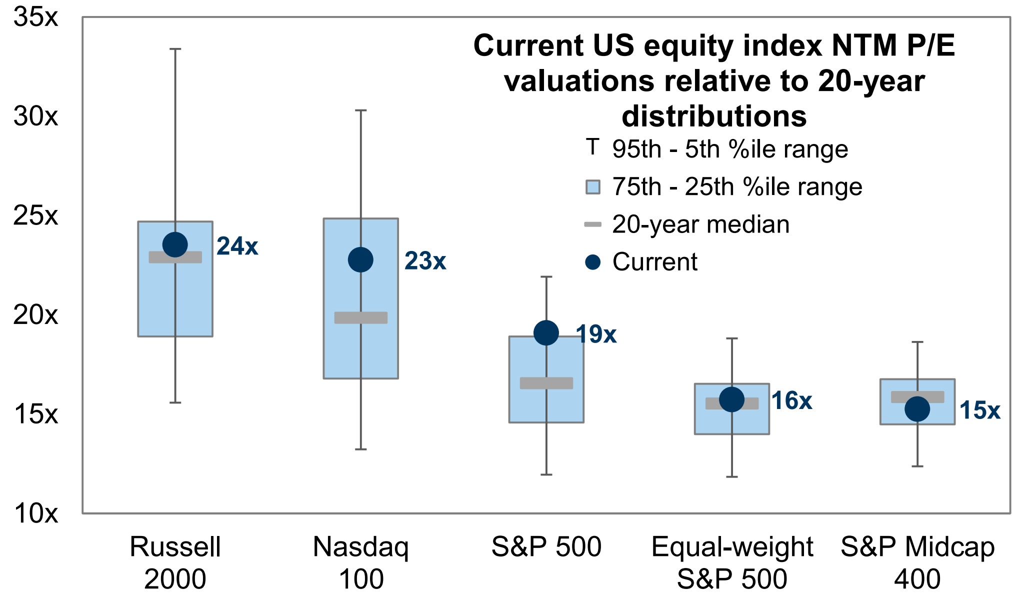


Revision breadth calculated as [(# of companies with positive EPS revisions)-(# of companies with negative revisions)]/(total # of companies). Revisions reflect FY2 EPS estimate changes during a rolling 1-month window.

Source: FactSet, Goldman Sachs Global Investment Research

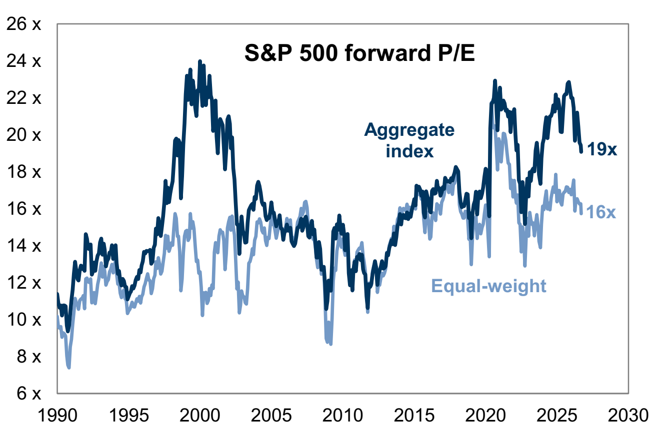
Valuations

Exhibit 36: US equity index P/E valuations vs. history



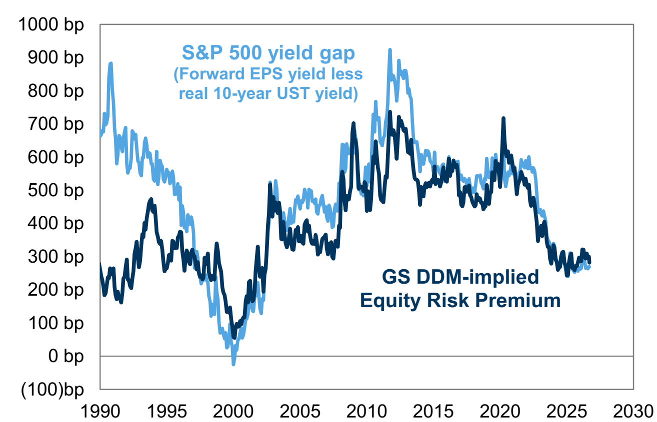
Source: Compustat, FactSet, IBES, Goldman Sachs Global Investment Research

Exhibit 37: S&P 500 consensus forward 12-month P/E



Source: Compustat, FactSet, IBES, Goldman Sachs Global Investment Research

Exhibit 38: S&P 500 valuation relative to US Treasury yields

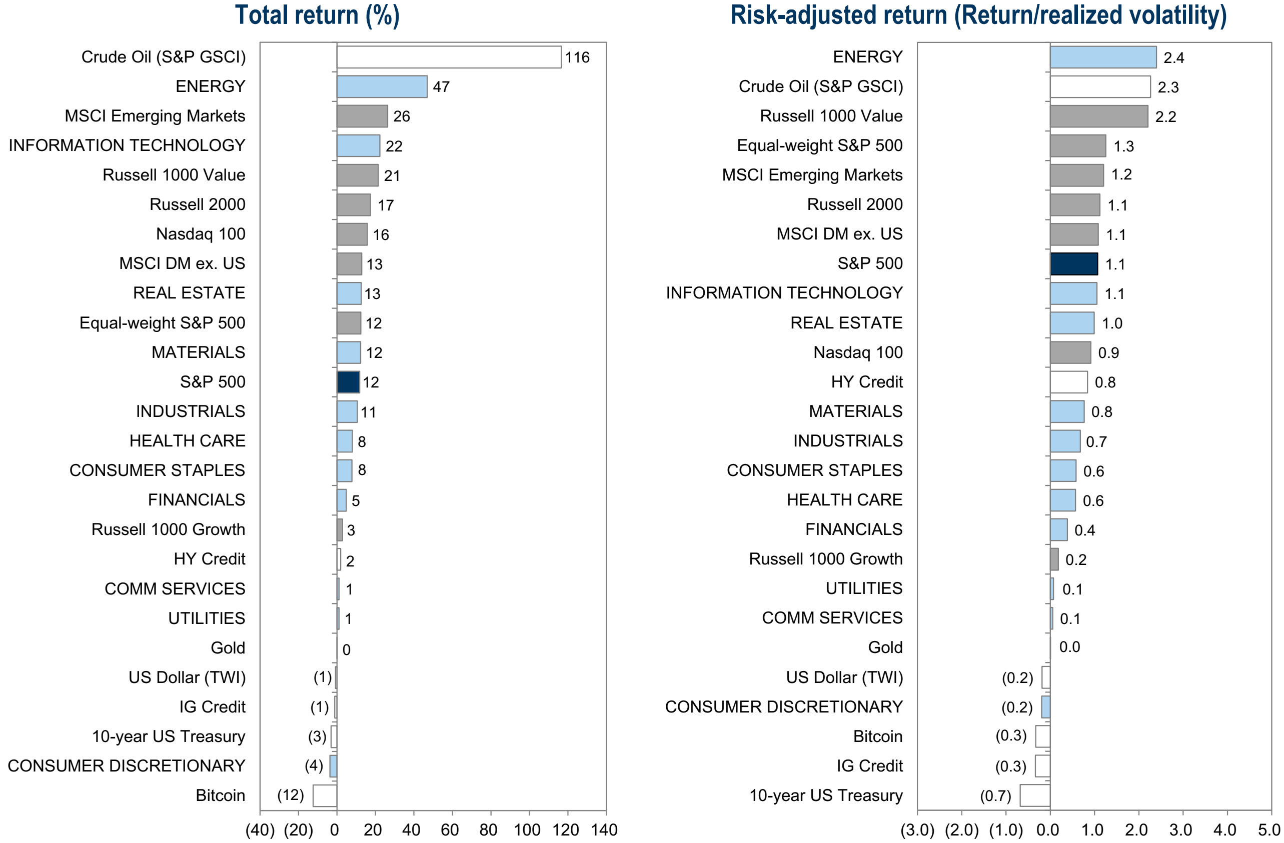


Equity risk premium calculated by solving for the discount rate that equates the fair value of our multi-stage S&P 500 dividend discount model to the current market price and subtracting the 10-year US Treasury yield.

Source: Goldman Sachs Global Investment Research

YTD absolute and risk-adjusted returns

Exhibit 39: YTD asset returns and return/volatility ratios



Crude oil represents S&P GSCI Crude Oil Index.

Source: FactSet, Haver Analytics, Goldman Sachs Global Investment Research

Sector returns, earnings, and valuations

Exhibit 40: Sector and industry group returns

Top quartile
Bottom quartile

	S&P 500	Index weight	1 Week	1 Month	3 Months	Last 12 Mo	YTD	GS allocation
		100 %	(2.0)%	(2)%	5 %	18 %	12 %	
SECTOR	Energy	4 %	0.7 %	8 %	13 %	51 %	47 %	
	Information Technology	38	(1.0)	(0)	7	30	22	
	Utilities	2	(1.1)	(1)	(3)	3	1	
	Communication Services	10	(1.2)	(2)	(1)	8	1	
	Consumer Staples	4	(2.0)	(2)	(3)	7	8	
	Industrials	8	(2.3)	(8)	1	14	11	
	Real Estate	2	(2.5)	(3)	(3)	12	13	
	Financials	12	(2.8)	(2)	9	9	5	
	Consumer Discretionary	9	(3.5)	(7)	0	(1)	(4)	
	Materials	2	(3.6)	(4)	4	13	12	OW
	Health Care	9	(4.4)	(2)	9	23	8	OW
INDUSTRY GROUP	Energy	4 %	0.7 %	8 %	13 %	51 %	47 %	
	Technology Hardware & Equipment	11	0.4	4	9	55	33	
	Semiconductors & Semi Equipment	18	(0.1)	(1)	3	47	36	
	Food Beverage & Tobacco	2	(0.5)	1	1	14	15	
	Media & Entertainment	9	(1.0)	(3)	(2)	10	0	
	Utilities	2	(1.1)	(1)	(3)	3	1	
	Banks	4	(1.2)	(1)	11	23	12	
	Transportation	1	(1.9)	(5)	1	20	12	
	Capital Goods	6	(2.1)	(9)	0	18	13	
	Real Estate Investment Trusts (REITs)	2	(2.5)	(3)	(3)	12	13	
	Consumer Discretionary Retail	5	(2.8)	(10)	2	1	4	
	Telecommunication Services	1	(3.0)	4	7	(4)	8	
	Consumer Staples Retail	2	(3.1)	(5)	(8)	4	2	
	Automobiles & Components	2	(3.2)	8	(4)	7	(17)	
	Financial Services	7	(3.4)	(1)	9	3	2	
	Household & Personal Products	1	(3.4)	(3)	(2)	(5)	3	
	Materials	2	(3.6)	(4)	4	13	12	
	Insurance	2	(3.9)	(4)	7	6	5	
	Health Care Equipment & Services	3	(4.1)	(4)	3	(1)	(4)	
	Software & Services	10	(4.2)	(3)	16	(6)	(3)	
	Pharma Biotech & Life Sciences	6	(4.6)	(0)	12	40	15	
	Commercial & Professional Svcs	1	(4.8)	(3)	6	(13)	(5)	
	Consumer Durables & Apparel	0	(5.5)	(14)	(7)	(23)	(15)	
	Consumer Services	2	(5.7)	(8)	1	(6)	(6)	

Source: FactSet, Goldman Sachs Global Investment Research

Exhibit 41: Earnings contributions and growth by S&P 500 sector

	GS top-down					Consensus bottom-up			
	Contribution			EPS growth		Contribution		EPS growth	
Sector	2025	**2026**	2027	**2026**	2027	2026	2027	2026	2027
Info Tech	$70	**$110**	$140	**56 %**	27 %	$113	$157	60 %	39 %
Financials	52	**56**	61	**8**	9	59	63	13	8
Comm Services	29	**36**	38	**24**	5	45	40	55	(13)
Health Care	33	**34**	39	**2**	14	33	40	0	21
Cons Discretionary	23	**24**	26	**7**	7	30	29	34	(4)
Industrials	21	**23**	25	**9**	9	24	28	15	16
Energy	12	**19**	17	**60**	(10)	21	19	79	(9)
Consumer Staples	15	**15**	16	**4**	4	15	16	4	6
Utilities	8	**8**	9	**7**	6	9	9	13	7
Materials	5	**8**	8	**39**	5	7	8	36	11
Real Estate	6	**7**	7	**5**	6	7	8	16	7
S&P 500	$275	**$340**	$385	**24 %**	13 %	$365	$418	33 %	15 %

Source: FactSet, Goldman Sachs Global Investment Research

Exhibit 42: S&P 500 sector P/E valuations relative to history

	Consensus forward 12-month P/E valuation				
		Absolute P/E		P/E vs. S&P 500	
	Current	%ile rank vs. history		%ile rank vs. history	
	P/E	10-year	30-year	10-year	30-year
Consumer Discretionary	**23x**	29%	76%	14%	64%
Industrials	**23**	67	89	92	97
Consumer Staples	**21**	72	75	68	48
Information Technology	**20**	44	54	51	42
S&P 500	**19**	**49**	**71**		
Health Care	**18**	77	71	82	40
Communication Services	**18**	18	22	28	9
Real Estate	**17**	38	55	42	36
Materials	**17**	50	73	45	31
Utilities	**17**	50	83	72	75
Financials	**15**	40	68	38	38
Energy	**14**	40	52	51	28

Source: Compustat, FactSet, IBES, Goldman Sachs Global Investment Research

Thematic baskets

Exhibit 43: Recent performance of select Goldman Sachs Research baskets
basket returns expressed relative to the equal-weight S&P 500 except for long/short basket pairs as noted

Top quartile
Bottom quartile

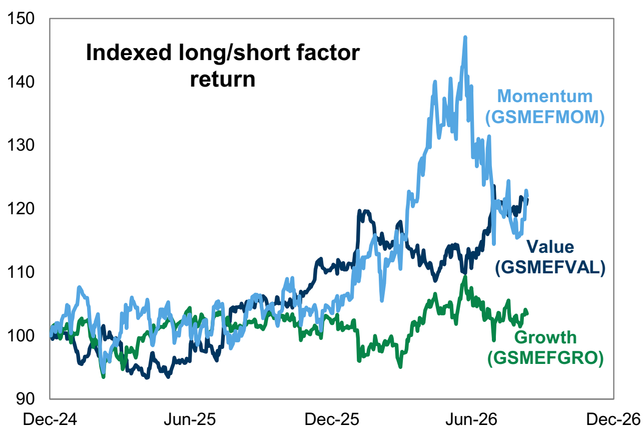
	Basket / Index	Ticker (GSTH____)	Total returns 1 Wk	3 Mo	12 Mo	YTD
	S&P 500	SPX	(2.0)%	5 %	18 %	12 %
	Equal-weight S&P 500	SPW	(3.2)	4	16	12
Macro-economic	Dual Beta	BETA	2.5 %	(1)%	58 %	37 %
	Interest Rate Sensitive	USTY	1.9	0	21	17
	Low vs. High Labor Cost	LLAB / HLAB	1.3	(3)	10	9
	High vs. Low Tax Rate	HTAX / LTAX	0.5	3	9	6
Geographic sales	EM Sales	BRIC	2.1 %	(1)%	58 %	41 %
	International Sales	INTL	1.2	(2)	34	23
	US Sales	AINT	(0.5)	3	(5)	(0)
	Western Europe Sales	WEUR	(0.6)	(1)	(0)	1
Fundamental	Strong vs. Weak Balance Sheet	SBAL / WBAL	4.4 %	(10)%	(18)%	(17)%
	Long vs. Short Duration	LDUR / SDUR	3.8	(10)	(26)	(20)
	ROE Growth	GROE	1.2	5	37	30
	Stable Growers	STGR	0.6	(3)	(17)	(10)
	High Quality	QUAL	0.4	(2)	(14)	(10)
	High vs. Low Operating Leverage	OPHI / OPLO	(0.6)	12	6	9
Uses of cash	Capex and R&D	CAPX	3.1 %	2 %	39 %	31 %
	High Growth Investment	HGIR	1.3	(2)	24	18
	Total Cash Return	CASH	1.2	2	9	6
	Debt Reducers vs. Issuers	DRED / DISS	1.1	(8)	7	2
	Buybacks	REPO	1.0	1	2	1
	Dividend Growth	DIVG	0.2	1	9	6
Ownership, risk & liquidity	Hedge Fund VIP	HVIP	2.5 %	(3)%	(1)%	(2)%
	Low vs. High Liquidity	LLIQ / HLIQ	(1.0)	(6)	(21)	(16)
	High Sharpe Ratio	SHRP	(1.9)	6	(6)	(3)
	Mutual Fund Over- vs. Underweights	MFOW / MFUW	(2.4)	(1)	(21)	(18)
Equity research	SMB Exposure	GSRHSMBX	1.4 %	2 %	(15)%	(9)%
	Oil Input Cost	GSRHOILX	(0.3)	(5)	(14)	(7)
	Gov't Exposure	GSRHGOVT	(0.5)	2	4	(4)
	M&A Candidates	GSRHACQN	(1.2)	20	24	9

Basket returns and constituents can be accessed via GS Marquee or Bloomberg using the indicated tickers.

Source: Goldman Sachs Global Investment Research

Factors

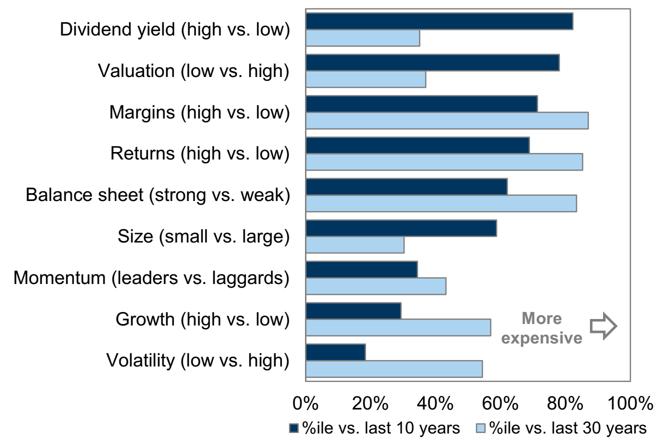
Exhibit 44: Indexed return of select equity factors



Factor performance and constituents can be viewed on GS Marquee or Bloomberg using the tickers indicated on the chart.

Source: Goldman Sachs Global Investment Research

Exhibit 45: Equity factor valuations relative to history



Source: Goldman Sachs Global Investment Research

Goldman Sachs global macro research cross-asset forecasts

Exhibit 46: Goldman Sachs macro research asset forecasts

Goldman Sachs Global Macro Forecasts

	units	Current	3m	6m	12m	Change to 12m target
Equities						
MXAPJ	level	896	960	1040	1120	**25 %**
TOPIX	level	4055	4400	4500	4600	**13**
S&P 500	**level**	**7592**	**7600**	**8000**	**8300**	**9**
STOXX Europe 600	level	636	670	680	695	**9**
10-year rates						
Euro Area (Germany)	%	2.5	3.0	3.0	3.0	**55 bp**
Japan	%	2.9	3.0	3.0	2.9	**(8)**
US	%	5.0	4.4	4.4	4.3	**(70)**
Corporate bonds						
High yield	bp	272	305	295	280	**8 bp**
Investment grade	bp	80	85	82	78	**(2)**
Currencies						
US dollar / Yen	$/¥	154	162	163	165	**7 %**
Euro / US dollar	EUR/$	1.16	1.14	1.12	1.12	**(4)**
Sterling / US dollar	£/$	1.35	1.33	1.29	1.28	**(5)**
Commodities						
COMEX gold	$/troy oz	4407	4690	4900	5115	**16 %**
NYMEX nat. gas	$/mmBtu	3	3.00	2.85	2.75	**(3)**
LME copper	$/mt	14390	13620	13735	13800	**(4)**
Brent crude oil	$/bbl	108	85	83	78	**(28)**

Source: FactSet, Goldman Sachs Global Investment Research