Goldman Research **Sachs**

GLOBAL STRATEGY PAPER NO. 71

Bear Market Anatomy – the path and shape of the bear market



- Most equities have entered, or are on the cusp of, a bear market.
- Not all bear markets are the same. The type of bear market has some bearing on the triggers, timing and speed of the recovery.
- Our framework identifies 3 types: 'Structural' bear markets triggered by structural imbalances and financial bubbles; 'Cyclical' bear markets typically triggered by rising interest rates, impending recessions and falls in profits; 'Event-driven' bear markets triggered by a one-off 'shock' that either does not lead to a domestic recession or temporarily knocks a cycle off course. Cyclical bear markets are the most common, with falls averaging 30%.
- Bear market rallies are common, but a sustained trough typically requires a
 combination of cheap valuations, extreme negative positioning, policy intervention
 and a slowing of macro deterioration. Our Bull/Bear indicator (GSBLBR) remains
 elevated.
- We would argue that we are in an event-driven bear market (triggered by tariffs). However, it could easily morph into a cyclical bear market given growing recession risk. The average falls of around 30% are similar for both event-driven and cyclical bear markets, while they differ in terms of duration with event-driven downturns being shorter with a faster recovery profile.
- Over the medium term, secular inflection points in the 'Post Modern Cycle', including less globalisation, higher budget deficits, higher cost of capital and constraints on corporate profit margins, are likely to weigh on returns on investment, increasing the case for diversification.

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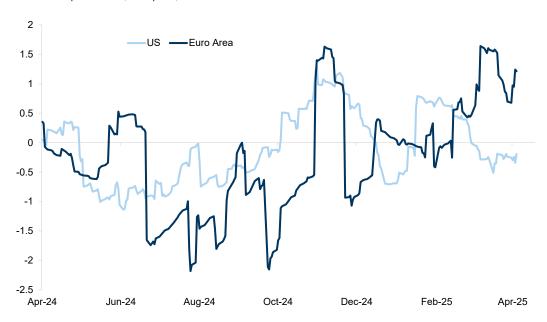
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Bear Market Anatomy - the path and shape of the bear market

Most equities have entered, or are on the cusp of, a bear market. The drawdown started with the US, driven by a combination of deteriorating economic conditions relative to consensus (Exhibit 1), coupled with a de-rating of the largest technology companies. The sharp falls in some of the biggest tech names resulted in a bigger drag on the US equity markets than on others, reversing the virtuous cycle that has driven the US equity market to nearly fifteen years of outperformance. For much of Q1, other equity markets (unusually) managed to de-couple. The narratives around German fiscal spending (and an improvement in macro data relative to expectations) and the China tech revival were sufficient – supported by much lower valuations than the US – to push these markets higher.

Exhibit 1: Recent shifts in policy are reflected in macro surprises GS MAP Surprise Index (90 Day MA)



Our daily MAP surprise indices summarise the importance and strength (relative to consensus expectations) of economic indicators worldwide. Across numerous countries, our surprise index's methodology standardises the criteria for indicator selection and importance, thresholds for "surprise" scores, and schemes for aggregation, while allowing for occasional judgmental input from local economists.

Source: Goldman Sachs Global Investment Research

The sharp slide in equities since 'liberation day' has taken all equity markets down together, alongside credit. Fears of recession have surged, and, as we argued in our <u>Global Strategy Views: Magnificent Diversification</u>, whenever the US has experienced a fall of more than 10%, other equity markets also fall – even if, on occasion, they outperform on a relative basis (<u>Exhibit 2</u>). Last week, markets hit this inflection point.

Exhibit 2: Broadly, all equity markets tend to fall when the US experiences a correction above 10% Periods of SPX correction above 10% since 1990. Price returns in local currency. Shading denotes when regional markets outperformed the US.

Start	End	SPX Return	MXAPJ (\$) Return	MSCI Japan Return	HSI Return	SXXP Return	FTSE 100 Return
02-Jan-90	30-Jan-90	-10%	-2%	-5%	-3%	-3%	-5%
16-Jul-90	11-Oct-90	-20%	-26%	-29%	-17%	-20%	-13%
07-Oct-97	27-Oct-97	-11%	-17%	-5%	-29%	-7%	-9%
17-Jul-98	31-Aug-98	-19%	-21%	-14%	-16%	-17%	-15%
16-Jul-99	15-Oct-99	-12%	-6%	-4%	-9%	-7%	-10%
24-Mar-00	09-Oct-02	-49%	-49%	-46%	-50%	-53%	-44%
27-Nov-02	11-Mar-03	-15%	-13%	-13%	-11%	-24%	-17%
09-Oct-07	09-Mar-09	-57%	-62%	-59%	-60%	-59%	-46%
23-Apr-10	02-Jul-10	-16%	-9%	-15%	-6%	-11%	-15%
29-Apr-11	03-Oct-11	-19%	-27%	-14%	-29%	-21%	-16%
21-May-15	25-Aug-15	-12%	-23%	-14%	-22%	-13%	-13%
03-Nov-15	11-Feb-16	-13%	-15%	-18%	-18%	-20%	-13%
26-Jan-18	08-Feb-18	-10%	-8%	-6%	-8%	-7%	-6%
20-Sep-18	24-Dec-18	-20%	-9%	-16%	-7%	-12%	-9%
19-Feb-20	18-Mar-20	-29%	-24%	-24%	-19%	-36%	-32%
03-Jan-22	12-Oct-22	-25%	-31%	-8%	-28%	-21%	-8%
31-Jul-23	27-Oct-23	-10%	-12%	-3%	-13%	-9%	-5%
19-Feb-25	04-Apr-25	-17%	-4%	-11%	0%	-10%	-8%
Average		-20%	-20%	-17%	-19%	-19%	-16%
Median		-17%	-16%	-14%	-17%	-15%	-13%

Source: Datastream, Goldman Sachs Global Investment Research

How far and how deep?

The questions investors now face are how deep will the bear market be and how long will it last?

Not all bear markets are the same. The type of bear market has some bearing on the triggers, timing and speed of the recovery. In our work on market cycles, we look at the broad differences between different types of bear markets using our bear market framework first published in <u>Share Despair</u> (2002) and <u>Bear Repair</u> (2004).

Looking at the long-term history (using US data as a proxy), we find that there are different types of bear markets; each is a function of different triggers and has distinct characteristics. We identify three categories of bear markets:

- **Structural bear markets** triggered by structural imbalances and financial bubbles. Very often there is a 'price' shock such as deflation and a banking crisis that follows.
- **Cyclical bear markets** typically triggered by rising interest rates, impending recessions and falls in profits. They are a function of the economic cycle.
- Event-driven bear markets triggered by a one-off 'shock' that either does not lead to a domestic recession or temporarily knocks a cycle off course. Common triggers are wars, an oil price shock, an EM crisis or technical market dislocations. The principal driver of an event-driven bear market is higher risk premia rather than a rise in interest rates at the outset.

Exhibit 3 shows the previous bear markets and our classification.

Exhibit 3: US Bear markets & Recoveries since the 1800s

S = Structural, C= Cyclical, E = Event-driven

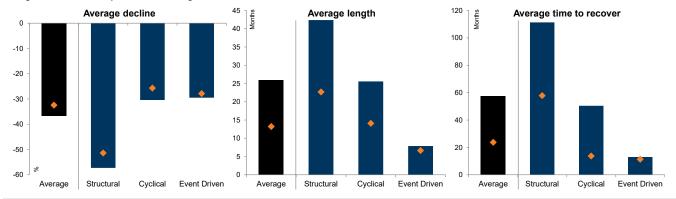
		Туре			rime to reco	ver back to
Туре	Start	End	Length (m)	Decline (%)	Nominal (m)	Real (m)
S	May-1835	Mar-1842	82	-56	259	-
С	Aug-1847	Nov-1848	15	-23	42	-
С	Dec-1852	Oct-1857	58	-65	67	-
С	Mar-1858	Jul-1859	16	-23	11	-
С	Oct-1860	Jul-1861	9	-32	15	-
С	Apr-1864	Apr-1865	12	-26	48	-
S	Feb-1873	Jun-1877	52	-47	32	11
С	Jun-1881	Jan-1885	43	-36	191	17
С	May-1887	Aug-1893	75	-31	65	49
С	Sep-1902	Oct-1903	13	-29	17	22
E	Sep-1906	Nov-1907	14	-38	21	250
С	Dec-1909	Dec-1914	60	-29	121	159
С	Nov-1916	Dec-1917	13	-33	85	116
С	Jul-1919	Aug-1921	25	-32	39	14
S	Sep-1929	Jun-1932	33	-85	266	284
S	Mar-1937	Apr-1942	62	-59	49	151
С	May-1946	Mar-1948	21	-28	27	73
E	Jun-1948	Jun-1949	12	-21	7	7
E	Aug-1956	Oct-1957	15	-22	11	13
E	Dec-1961	Jun-1962	6	-28	14	18
E	Feb-1966	Oct-1966	8	-22	7	24
С	Nov-1968	May-1970	18	-36	21	270
S	Jan-1973	Oct-1974	21	-48	69	154
С	Nov-1980	Aug-1982	20	-27	3	8
E	Aug-1987	Dec-1987	3.3	-34	20	49
С	Jul-1990	Oct-1990	3	-20	4	6
S	Mar-2000	Oct-2002	30	-49	56	148
S	Oct-2007	Mar-2009	17	-57	49	55
E	Feb-2020	Mar-2020	1	-34	5	5
E	Jan-2022	Oct-2022	9	-25	15	20
E	Feb-2025	Apr-2025	1	-17		
Average			25	-36	54	80
Median			16	-32	29	36
Average Str			42	-57	111	134
Average Cyc			27 8	-31	50	73
Average Eve	Average Event Driven			-27	12	48

Source: Goldman Sachs Global Investment Research

In terms of profiles, the average **cyclical and event-driven markets generally tend to fall around 30%,** although they differ in terms of duration. Cyclical bear markets last an average of around two years and take around five years to fully rebound to their starting point, while the event-driven ones tend to last around eight months and recover in about a year. Structural bear markets have by far the most severe effects. The average declines are around 60% playing out over three years or more, and they tend to take a decade to fully recover (<u>Exhibit 4</u>).

Exhibit 4: US bear markets and recoveries since the 1800s

Orange diamonds mark post-WW2 averages



Source: Goldman Sachs Global Investment Research

Good examples of structural bear markets are the collapse that was triggered by the 1929 stock market crash, the downturn in Japan in 1989/90 and, most recently, the Global Financial Crisis. Each exhibited similar conditions of broad-based asset bubbles, euphoria, private-sector leverage and, finally, a banking crisis. By contrast, the bear market during the pandemic was an example of an event-driven downturn. At the time it occurred, the economy was relatively balanced, with low and stable growth and inflation. True, the event itself was unusual and the initial shock to growth extreme, but the scale and breadth of the policy support were such that the market hit was short-lived and the recovery rapid, similar to other event-driven bear markets in history.

Of course, identifying the type of bear market is easiest in retrospect but more complicated in real time. Most structural bear markets start out looking cyclical, and many event-driven bear markets begin due to a specific event, which increases the risk of a recession and can morph into something more cyclical.

We argue that we are currently in an event-driven bear market. The event in this case was 'liberation day' and the sharp rise in tariffs it triggered. Indeed, this could be seen as self-inflicted, given the strong prospects for global economic activity at the start of the year, particularly in the US, where our economists put the probability of recession at just 15%.

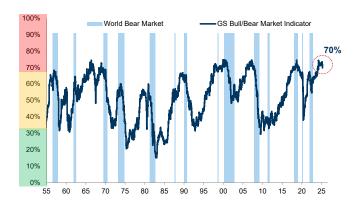
However, it could easily morph into a cyclical bear market given the growing recession risk. Our economists have <u>lowered</u> their 2025 Q4/Q4 GDP growth forecast to 0.5% and raised their recession probability to 45%.

The average falls of around 30% are similar for both event-driven and cyclical bear markets, but they differ in terms of duration, with event-driven downturns being shorter and having a faster recovery profile. **On that basis, we would expect further downside.**

Our equity market Bull/Bear indicator – which has been elevated for a while now – remains high. It dropped from 72% last week to 70% this week (<u>Exhibit 5</u>). This was mainly driven by Shiller P/E (which dropped from its 94th percentile last week, to its 89th) and the ISM index (which dropped from its 32nd to its 25th percentile) (<u>Exhibit 6</u>). Nevertheless, very low unemployment (which is likely to rise) and elevated valuation

suggests that markets are still vulnerable to the downside.

Exhibit 5: GS Bull/Bear Market Indicator (GSBLBR)



Source: Shiller, Haver Analytics, Datastream, Goldman Sachs Global Investment Research

Exhibit 6: Details of components of the GS Bull/Bear Market Indicator

GS Bull/Bear Market Indicator = Average percentile

	Level	Percentile
Shiller PE	31.0	89%
0-6 quarter yield curve	-0.1	88%
Private sector Financial Balance	2.5	80%
Unemployment	4.2	80%
Core Inflation	3.1	56%
ISM	49.0	25%
GS Bull/Bear Market Indicator		70%

Note: 100th percentile means these variables are at their highest level, except for Private sector Financial Balance, yield curve and unemployment where 100% means they are at their lowest.

Source: Haver Analytics, Datastream, Robert Shiller, Goldman Sachs Global Investment Research

The Bear Market Bounce

In most bear markets, given light positioning, marginal changes in these variables can have amplified effects on markets. As a result, **bear market rallies are quite common.** Taking the experience of the bear markets since the 1980s, including the collapse of the technology bubble in 2000-2002 and the GFC in 2008, we see a pattern of rebounds before the market reaches a trough.

Exhibit 7: Historical examples of bear market rallies MSCI AC World - Bear market rally

Global Bear Market Rally			Length (days)	MSCI AC World (%)	Cyclicals vs. Defensives (%)	Value vs. Growth (%)	EM vs. DM (%)	Small vs. Large (%)	US 10y BY (Δ bp)
Recession &	26-Oct-81	04-Dec-81	39	10.3	0.2	-1.8	-	-	-2.44
Stagflation	17-Mar-82	07-May-82	51	9.2	0.6	-1.3	-	-	-0.33
Program trading collapse	20-Oct-87	21-Oct-87	1	7.9	-0.8	0.0	-	-	-0.11
Recession & Oil shock	02-Apr-90	17-Jul-90	106	15.3	-1.3	-3.4	10.0	-	-0.21
a	23-May-00	17-Jul-00	55	8.7	3.6	-9.1	3.0	1.0	-0.29
lqq	22-Mar-01	21-May-01	60	14.7	5.3	-0.3	-7.5	-0.2	0.68
Dot-com bubble	21-Sep-01	04-Jan-02	105	20.1	17.8	-5.1	13.3	1.5	0.46
D .	06-Feb-02	19-Mar-02	41	9.2	3.3	3.5	-2.2	-0.4	0.39
1 -c	23-Jul-02	22-Aug-02	30	13.9	-3.0	-0.6	-14.8	-6.7	-0.16
ŏ	09-Oct-02	28-Nov-02	50	18.6	12.6	6.5	-2.6	-0.3	0.67
	22-Jan-08	27-Feb-08	36	8.4	5.5	-1.9	6.2	2.5	0.37
:Si	17-Mar-08	19-May-08	63	13.9	7.0	-2.0	5.7	-0.2	0.53
Global Financial Crisis	17-Sep-08	19-Sep-08	2	8.2	4.9	2.9	1.8	-0.9	0.38
Glo ncis	10-Oct-08	14-Oct-08	4	12.5	0.6	1.8	1.3	-3.5	0.18
ie Li	27-Oct-08	04-Nov-08	8	21.8	5.7	-0.2	9.9	0.0	0.03
ш	20-Nov-08	06-Jan-09	47	23.8	8.9	1.1	6.3	3.3	-0.64
China & Oil turbulence	29-Sep-15	03-Nov-15	35	10.8	2.2	-0.7	0.1	-2.4	0.16
COVID-19	23-Mar-20	08-May-20	46	27.7	2.6	-4.7	-6.6	5.1	-0.09
2022 Bear Market Rally	17-Jun-22	16-Aug-22	60	12.8	2.8	-7.0	-11.8	0.8	-0.41
Average			44	14.1	4.1	-1.2	0.8	0.0	-0.04
Median			46	12.8	3.3	-0.7	1.6	-0.2	0.03

Source: Datastream, Goldman Sachs Global Investment Research

Exhibit 8 shows 19 global bear market rallies since the early 1980s. On average, they have lasted 44 days and the MSCI AC World return is 10% to 15%. Cyclicals outperform Defensives 83% of the time and by 4% on average.

We find a similar result at the regional level: EM outperforms DM 67% of the time.

During these periods, there is no clear pattern in the performance of Value vs. Growth or Small vs. Large Caps.

The 2022 rally's duration and magnitude were not unusual relative to the experience of previous decades.

Exhibit 8: Duration of bear market rallies

MSCI AC World, Since 1981. Orange bar indicates 2022 bear market.



Exhibit 9: Performance of bear market rallies
MSCI AC World, Since 1981. Orange bar indicates 2022 bear market.



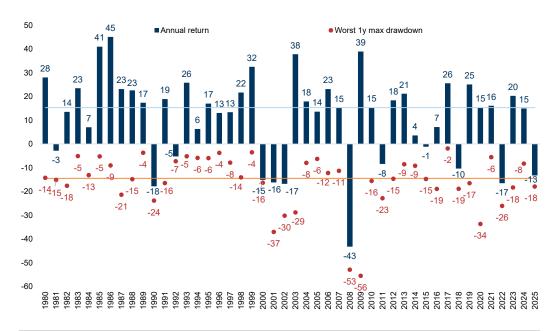
Source: Datastream, Goldman Sachs Global Investment Research

Source: Datastream, Goldman Sachs Global Investment Research

Given the very sharp falls in investor sentiment over the past few days, it would be typical for there to be a bounce in equity prices. It is also worth noting that most bear markets see a recovery within a year. As Exhibit 10 shows, looking at the global equity index, despite median intra-year drops of 15%, the annual returns were positive in 34 of the last 45 years.

Exhibit 10: Despite median intra-year drops of 15%, the annual returns were positive in 34 of the last 45 years

MSCI AC World, calendar year returns vs. intra-year declines. Total Return Index in USD (%).



Source: Datastream, Goldman Sachs Global Investment Research

Conditions for a recovery

While bear markets vary, there are several conditions we would expect to see before a sustained rebound in equities:

- 1. Attractive valuations
- 2. Extreme positioning
- 3. Policy support
- 4. A sense that the second derivative of growth is improving

Valuations remain expensive

Cheap valuations are not a sufficient condition for a market rebound but, in combination with other factors, can be a good sign of transition from a 'despair' into a 'hope' phase. While there has now been a reasonable de-rating in equities, they remain expensive by historical comparison, particularly in the US.

The US equity market, which has outperformed others for nearly fifteen years, has seen its market capitalisation outpace its economy, reaching a record-high valuation relative to GDP – a phenomenon that has not been reflected in other markets since the financial crisis despite the trend to lower interest rates (Exhibit 11). While we have argued that much of this equity growth has been supported by fundamentals (see <u>The Concentration Conundrum; What to do about market dominance</u>), valuations have continued to imply a strong future path for earnings that is not compatible, in the short term, with recessions.

Market cap to GDP 200% S&P 500 market cap to GDP 168% 175% World equity market cap to GDP 150% 125% 100% 75% 50% 25% 0% 91 94 97 00 03 06 09 12 15 18 21 24

Exhibit 11: The US equity market has seen its market capitalisation outpace its economy, reaching a record-high valuation relative to GDP

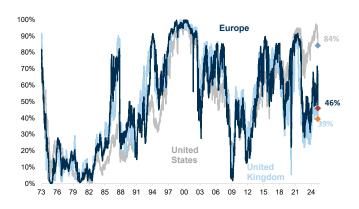
Source: Datastream, Haver Analytics, Goldman Sachs Global Investment Research

This has resulted in valuation ratios in general being much higher in the US than other major markets (Exhibit 12 and Exhibit 13).

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Exhibit 12: Valuations are neither expensive (as in the US) nor cheap

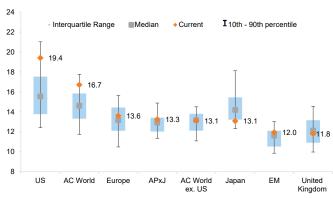
Percentile for Europe, UK, and US (Worldscope); Average percentile of NTM P/E, LTM P/B and LTM P/D



Source: Datastream, Worldscope, Goldman Sachs Global Investment Research

Exhibit 13: Non-US markets, while cheap relative to the US, are not particularly inexpensive relative to their own history

12m fwd P/E, MSCI regions; data since 2003

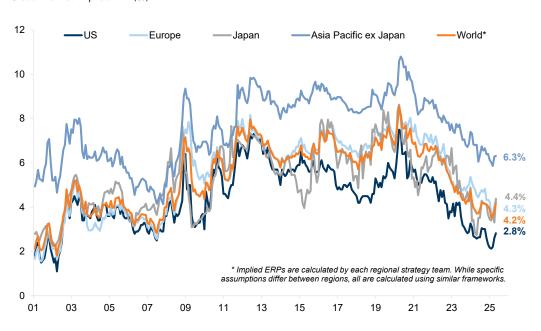


Source: FactSet, Goldman Sachs Global Investment Research

The forward P/E multiple on the S&P 500 is 19.4x, which still ranks above the 80th percentile of a 25-year data set. While structural changes in the market composition may limit the scale of the de-rating from here (technology has grown as a share of the index and the sector is dominated by companies with strong balance sheets and net cash), there remains downside. The S&P 500, for example, troughed with a P/E of 14x in 2018, 13x in 2020 and 15x in 2022.

Valuations are also stretched against bonds and the ERP remains low (Exhibit 14).

Exhibit 14: Higher bond yields have pushed down Equity Risk Premia Global market-implied ERP (%)



Source: Goldman Sachs Global Investment Research

In our view, valuations need to adjust further before equities can transition into the 'hope' phase of the next cycle — the powerful rebound that typifies the transition into a new bull market. Choosing a 'correct' multiple is obviously subjective. As a guide,

however, our US strategists illustrate the sensitivity around these central forecasts (See *Where to Invest Now: April Showers*). Exhibit 15 illustrates the sensitivity around these central forecasts.

Exhibit 15: Central forecasts around valuation estimates are highly sensitive Based on 2025 EPS and forward P/E multiples starting from April 4 close

			2025 EPS scenario			
		_	Recession	GS	Bottom-up	
			scenario	baseline	consensus	
			\$220	\$253	\$268	
		y/y growth	(-11%)	(+3%)	(+9%)	
	224	Jan. 2025	-4%	9%	16%	
	22x	Jan. 2025	4850	5550	5900	
	2011	5-year avg	-13%	0%	5%	
P/E	20x		4400	5050	5350	
2	10	10	-22%	-10%	-4%	
Ma	18x	10-year avg	3950	4550	4850	
Forward	16	20	-31%	-20%	-15%	
_	16x	30-year avg	3500	4050	4300	
	4.4	2048 /500	-39%	-30%	-26%	
	14x	2018 low	3100	3550	3750	

Source: FactSet, Goldman Sachs Global Investment Research

Interest rates

One of the factors that helps to explain the difference between a bear market rally and a genuine bull market transition is the perceived scale of any prospective downturn. Volatility around the trough is often a function of investor perception oscillating between these two outcomes. **In general, however, policy support plays an important role.**

- Cyclical bear markets around 'soft landings' are likely to end around a move lower in interest rates.
- 2. Cyclical bear markets associated with 'hard landings' are not likely to be resolved by interest rates alone. Interest rate cuts are an important part of the recovery puzzle, but a slowing in the second derivative of growth, together with depressed valuations, also tends to be important.

At this stage, however, interest rate cuts are not likely to be imminent. Fed Chair Jerome Powell <u>commented</u> that it is 'not clear at this time what the appropriate path for monetary policy will be' and that the FOMC 'does not need to be in a hurry' to adjust policy. However, financial conditions tightened sharply over the course of the day — we estimate our <u>financial conditions index</u> (FCI) increased by 0.25pt to 99.83 (<u>Exhibit 16</u>) — and now appears to be a greater headwind to growth this year — our FCI impulse model now suggests a 0.5pp annualised drag on GDP in the remainder of the year. Of course, the more that the stock market falls, and the longer it takes for policy rates to be cut, the higher the implied probability of recession. This makes a combination of interest rate cuts, together with some signs that the growth deterioration is slowing, likely

pre-conditions for a sustained market recovery. In our current non-recession baseline, our economists expect the Fed to deliver a package of three consecutive 25bp rate cuts starting in June (vs. July previously), lowering the funds rate to 3.5-3.75%. However, in a recession scenario, we would instead expect the Fed to cut by around 200bp over the next year. This path towards lower interest rates, combined with other factors mentioned, would likely form an important part of the transition to a new bull market cycle.

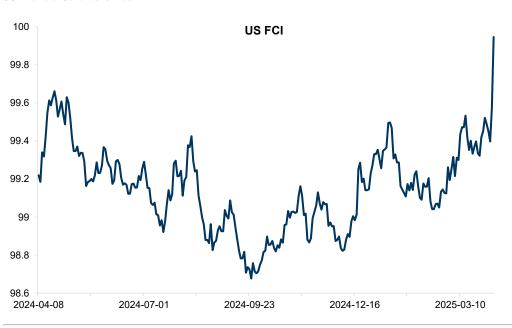


Exhibit 16: Financial conditions appear to be a greater headwind to growth this year US Financial Conditions Index

Source: Goldman Sachs Global Investment Research

Growth momentum

It remains premature to expect growth momentum to bottom. Equity markets are particularly sensitive to the higher-frequency survey data, which remain very weak. The near-term earnings season is also likely to be weak, with outlook statements likely to be particularly important.

Positioning

We have several indicators to illustrate the extent of market sentiment and positioning. While these were adjusting slowly to a more negative position in Q1, the past week has seen a considerable acceleration. Overall, the <u>'risk off'</u> price action has been broad-based across assets — our <u>Risk Appetite Indicator</u> had one of the largest 2-day drops since 1991. After having already reset to a neutral level after the February/March sell-off, it dropped to c.-1.4 at the end of last week (<u>Exhibit 17</u>). That said, it tended to bottom even lower in previous market sell-offs — <u>usually an RAI level near or below -2 indicates better opportunity to 'buy the dip'</u> (or at least stop being bearish). Such low levels of our RAI historically signalled a better asymmetry for risky assets — the hit ratio of positive S&P 500 returns in the subsequent 12m from levels below -2 is above 90%. Within the indicator, the RAI credit component has fallen rapidly, closing the gap with

the RAI equity component. That said, in level terms credit is still pricing a low probability of a recession, while the VIX, US front-end rates and equities have reacted much more. While the market pricing of latent recession risk has also increased, it is now pricing a higher probability of entering a recession — the highest since 2020.

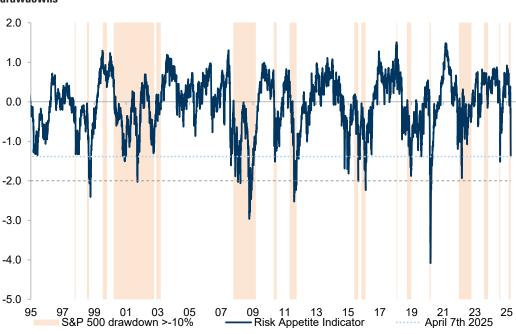


Exhibit 17: While already at c.-1.4, the RAI troughed closer to (or below) -2.0 during previous S&P 500 drawdowns

Source: Goldman Sachs Global Investment Research

Structural changes and the post-modern cycle

In our framework, an event-driven bear market can morph into a cyclical one if it triggers a recessionary outcome in which profits fall. The more severe structural bear markets typically are proceeded by much higher private sector leverage than we have now. Broadly speaking, the corporate sector has healthy balance sheets and banks are well capitalised. Equally, while equity valuations are high, particularly in the US, they have not been in bubble territory, in our view (See <u>25 Years on; Lessons from the bursting of the technology bubble</u>).

This makes us more confident that this bear market will be more modest in depth and duration than previous structural downturns. Nevertheless, while there are cyclical elements within the de-risking that is unfolding, there are also a number of secular trends that are inflecting which are likely to constrain longer-term returns in equities. We previously identified several important structural headwinds in our work on the Post-Modern Cycle. Since then, many of these structural factors have become more of a constraint but are more likely to impact future returns than the scale and magnitude of the current downturn.

Among the many structural tailwinds that have stimulated long-term returns for equity investors have been:

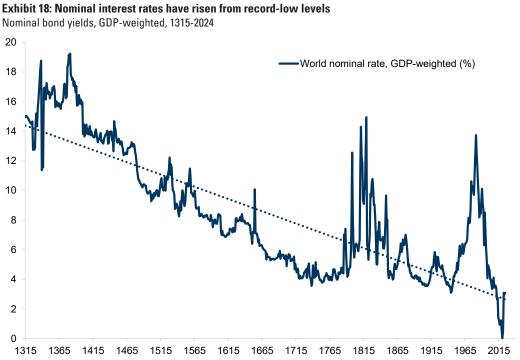
1. Long-term fall in interest rates and the cost of capital

Goldman Sachs **Global Strategy Paper**

- 2. Long-term rise in margins and profit shares of GDP
- 3. Secular rise in world trade growth
- 4. Structural decline in government spending on defense

Long-term interest rates

Long-term interest rates were in a secular down phase since their most recent peak in 1982. Exhibit 18, using data from the Bank of England, shows how dramatically they have trended downwards since then, ultimately reaching close to zero around the time of the pandemic. While interest rates remain very low by long-term historical comparison, the increase since the era of QE has been historically sharp. Interest rates have started to fall again, but it is unlikely that they will trend downwards over the next few years.

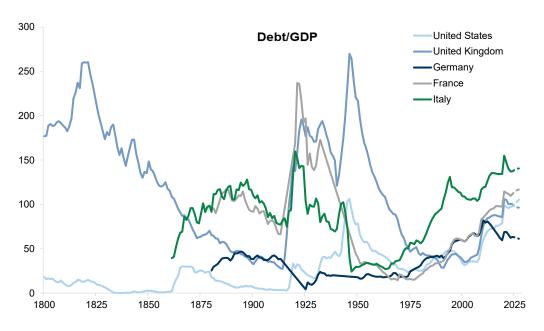


Source: Bank of England, Goldman Sachs Global Investment Research

Alongside this, rising government spending is putting upward pressure on term premia, preventing longer-term interest rates from declining (Exhibit 19).

Exhibit 19: Government debt as a percentage of GDP

Dotted lines: GIR Economics forecasts for 2024-2027

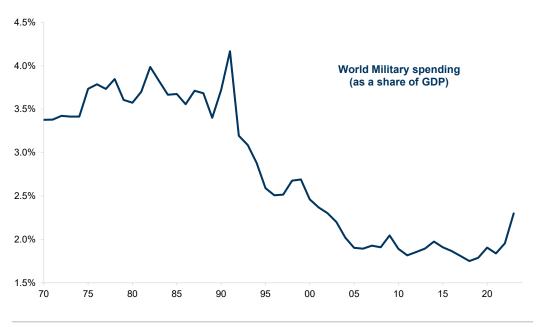


US data from IMF before 1939. For all other countries, data from IMF for the entire period.

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

As demand to borrow more for issues related to defense spending is increasing (<u>Exhibit</u> <u>20</u>), the cost of capital is likely to be more of a long-term constraint.

Exhibit 20: Demand to borrow more for defense spending is increasing World military spending (as a share of GDP)

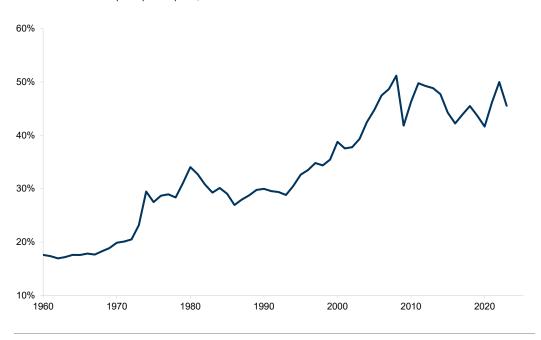


Source: SIPRI Military Expense Database, IMF, Goldman Sachs Global Investment Research

World trade growth

World trade growth has increased dramatically in the period of globalisation (Exhibit 21). Falling tariffs as well as greater supply-chain integration have both played important contributions to this growth. The 'reciprocal' tariff policy President Trump announced would constrain World trade growth — which had flattened relative to GDP since the financial crisis.

Exhibit 21: World trade growth has increased dramatically in the period of globalisation World merchandise imports plus exports, % of GDP



Source: IMF, World Bank, Goldman Sachs Global Investment Research

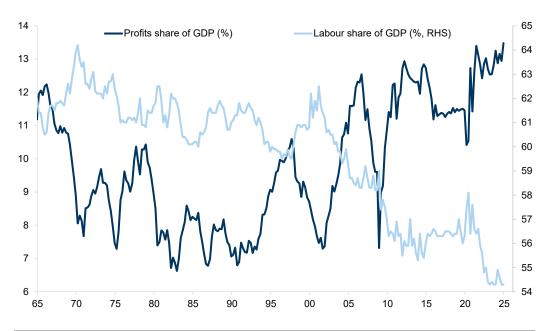
Margins and profit shares of GDP

Over the past three decades, a combination of technological innovation, globalisation and rising World trade have helped to push profit margins to record-high levels. A simple comparison between the profit shares of GDP and labour shares of GDP illustrates how the corporate sector has benefited from lower labour costs and more trade (Exhibit 22). While globalisation has not ended, the increasing number of constraints are likely to restrict the pace and scale of corporate profit margins over the medium term, resulting in revenue growth becoming more important as a driver of earnings and returns. Arguably, this is likely to be one of the most important secular headwinds for equity returns.

In our view, this bear market is likely to be cyclical in nature. Nevertheless, longer-term inflection points in some of the key drivers of returns over the past three decades are likely to dampen longer-term returns. Investors should seek to maximise risk-adjusted returns by buying into near-term weakness as valuations improve, increase diversification and focus on compounding returns. This can be achieved by lengthening investor time horizons and focusing on quality growth companies that re-invest at a high rate coupled with quality value companies that compound dividends over time.

Exhibit 22: The expansion of effective global labour supply resulted in a downward trend in labour shares of GDP, while profit shares moved to record-high levels

United States



Source: Haver Analytics, Goldman Sachs Global Investment Research

Our Asset allocation team has found that US equity valuations are difficult to sustain structurally if there is a trend towards higher inflation and lower corporate profitability (see <u>The Strategic Balanced Bear — A Framework for Long-Term 60/40 Returns and Strategic Tilting</u>) (Exhibit 23 and Exhibit 24). This again points to the benefits of international diversification when a sustained recovery in the equity market emerges.

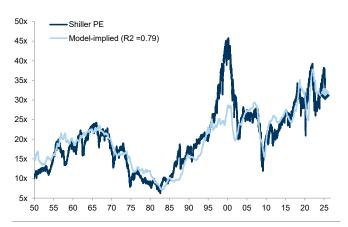
Exhibit 23: A simple model combining inflation and ROE has explained a large part of the variation in US equity valuations since WW2

S&P 500 Shiller P/E 'fair value' model (LN of Shiller P/E)						
	Coefficient	Standard error	Impact of 1SD change			
Constant	2.6 ***	0.1				
10y inflation	-15.7 ***	0.9	-0.31			
LTM ROE	6.5 ***	0.6	0.17			
Estimation period	1950-2023					
R2	79%					
Johansen cointegration test	Statistic					
H0: r = 0	40.7 ***					
H0: r = 1	10.2					
H0: r = 2	2.6					

^{*:} p < 10%; **: p < 5%; ***: p < 1%. HAC standard errors. Model is estimated on logarithms.

Source: Haver Analytics, Kenneth French, Goldman Sachs Global Investment Research

Exhibit 24: Trends in inflation and corporate profitability have had the largest impact on S&P 500 valuations



Source: Haver Analytics, Kenneth French, Robert Shiller, Goldman Sachs Global Investment Research

See more:

Global Strategy Paper: Bear Repair; The Bumpy Road to Recovery

2023 Outlook: Bear with it

Goldman Sachs Global Strategy Paper

Disclosure Appendix

Reg AC

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