Goldman Sachs

Goldman Sachs Lexicon Long Short Index

Objective:

GS Lexicon Long Short Index seeks to provide enhanced diversification to traditional assets by using a multi-asset framework across equities, fixed income, and gold.

Vol Target:

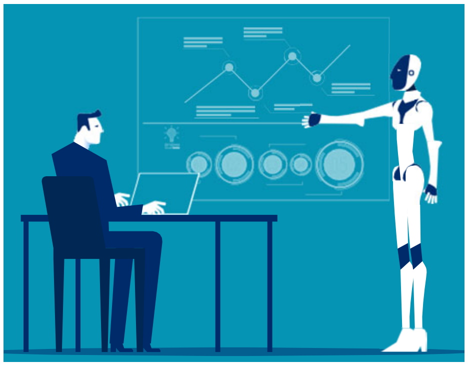
12.5%

Approach:

The Index leverages Artificial Intelligence (AI) technology, and more specifically its branch Natural Language Processing – NLP, to score companies' sentiment based on their recent communications including earnings calls. The scores are then used to construct a long/ short basket of stocks. The index then combines this with a dollar-hedged gold component and a fixed income component that can be either long, short, or unallocated on 10Y US treasuries based on its momentum.

Holdings:

US Equities, US 10Y Treasuries, and Dollar-Hedged Gold



US Equity Selection Leveraging NLP Technology

Earnings calls may offer insights into a company's financial performance, business developments, and management perspective.

The index leverages sentiment data driven by NLP to identity and select stocks to allocate to. Each month, the Index may allocate up to 130% to equities which have the most positive sentiment and short up to 30% to equities which have the most negative sentiment.

Diversification

Dollar-Hedged Gold: Gold is generally seen as a defensive asset and a potential hedge against inflation and market downturns. The Index reduces traditional gold exposure's inherent short US dollar exposure to attempt to improve its defensive properties.

Long Short Treasury: Treasuries are generally seen as a safe haven asset. However the Index has the ability to short treasuries in a rising rate environment to potentially improve performance.

Allocation Based on Financial Stress Index

The OFR Financial Stress Index (OFR FSI) is a daily market-based snapshot of stress in financial markets.

If the OFR FSI is greater than 2 (which may be a signal of financial stress), the Index will allocate more to Gold and less into Equities.

Performance (as of 5/30/25)

Month-to-Date Return	0.60%
Year-to-Date Return	-7.46%
1 Year Return	-0.52%
2 Year Annualized Return	11.21%
10 Year Annualized Return	10.99%
Annualized Return Since Inception January 6, 2005	12.63%

Costs (as of 5/30/25)

Average Rolling 1 Year Rebalancing and Servicing Costs[1]	1.11%
Highest Rolling 1 Year Rebalancing and Servicing Costs[1]	1.78%
Index Deduction Rate	0.95% per annum

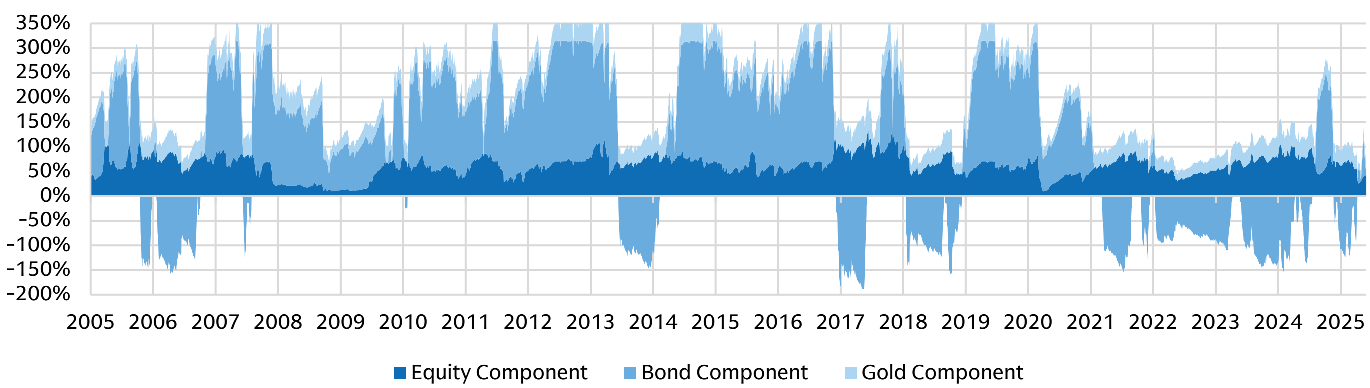
Calendar Year Returns

Goldman Sachs Lexicon Long Short Index

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Return	0.2%	7.0%	8.8%	15.1%	6.8%	28.1%	22.8%	22.4%	10.7%	18.6%	0.2%

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2025
Return	-0.1%	20.4%	0.9%	29.3%	18.8%	20.2%	11.3%	8.2%	24.2%	-7.5%	0.0%

Goldman Sachs Lexicon Long Short Index Weightings



Component	Equity Component	Bond Component	Gold Component
Average Exposure May 2025	38.7%	38.3%	19.3%

Goldman Sachs Global FICC and Equities, as of May 30, 2025. Data from January 6, 2005 to May 30, 2024. Backtested performance for the Goldman Sachs Lexicon Long Short Index up to June 4, 2025 and live data thereafter. Performance figures are net of 0.95% index fee, rebalancing and servicing costs. Backtesting analysis/simulated results are for illustrative purposes only. GS provides no assurance or guarantee that the index will operate or would have operated in the past in a manner consistent with the backtesting analysis. Backtested performance may use slightly different data sources, approximation and limited differences in methodology to those prescribed in the index disclosure document.

The Goldman Sachs Lexicon Long Short Index is calculated on an excess return basis, and is subject to servicing costs (accruing daily) and rebalancing costs (applied to the volume of daily turnover)which may be meaningful. Further, a deduction rate of 0.95% per annum (accruing daily) is applied to the Goldman Sachs Lexicon Long Short Index. For more information about the costs and deductions, see goldmansachsindices.com/products/GSLEXILS

[1]Excluding Index Deduction Rate of 0.95% per annum

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Selected Key Risks

The "Selected Key Risks" is intended to summarize certain risks associated with the Goldman Sachs Lexicon Long Short Index, but is not exhaustive, and should be read in conjunction with the "Certain Risk Factors and Additional Information about the Index" section at the end of the Methodology. The "Selected Key Risks" should not be regarded as offering advice on the advisability of investing in products that may be linked to the Index or the investment strategy underlying the Index. You should also read any relevant documentation that may highlight further risks particular to any product linked to the Index, or arising from the relationship between the terms of such product and the features of the Index.

- The value of the Index depends on the value of the Index Components, which may increase or decrease over time. Neither the Index nor any Index Component includes any element of downside protection or guaranteed return.
- The Index has a very limited performance history. The Index will only be calculated live from the Launch Date and as such, there will be no historical live performance data available in respect of it prior to that time.
- The actual performance of the Index in the future may bear little relation to the historical performance or hypothetical historical past performance of the Index. The hypothetical past performance of the Index prior to the Launch Date has been derived from back-testing by applying the Index methodology to historical levels of the Index Components, on the basis of certain assumptions and subject to certain limitations. In addition, certain data used by the Index was back-filled by the Index Sponsor for back-testing purposes based on certain assumption or internal models due to the absence of historical data.
- Hypothetical past performance is back-tested using criteria applied retroactively. It could therefore benefit from hindsight and from the use of procedures to develop the Index Methodology that may have favored certain criteria that performed well in the past but may not continue to perform well in the future. You should carefully consider the assumptions, limitations and potential biases of the back-testing process when evaluating any hypothetical past performance data.
- The Index deductions, including servicing, rebalancing and deduction costs and costs embedded in Index Components, will have a negative impact on Index performance.
- The servicing cost rate for the Equity Component is a variable rate based on current equity funding cost levels as indicated by the price of "Adjusted Interest Rate (AIR) Total Return" futures contracts. Equity funding costs have historically been highly variable. These rates are market-driven and may potentially be even higher in the future depending on the environment.
- Depending on the application of the factors that impact the weight of the Index Component, the Index may have an absolute leverage as high as 350%. Leverage means that the Index will have increased exposure to changes in the levels of the Index Component, magnifying the volatility and risk that the performance of the Index will be adversely affected. In other conditions the Index may have no exposure to the Index Component, and the level of the Index will not benefit from any positive performance of the Index Component.
- No assurance can be given that the Index will achieve its volatility target of 12.5%, as the Index's volatility target mechanism relies rely on backward-looking historical volatility (which may not be replicated). In addition, the Index may be slow to rebalance allocations or reduce exposure to the Index Components following a sudden increase in volatility.
- The Index's market signals and volatility control mechanism may generate significant rebalancings within the Index and its components which will impact performance due to the resulting rebalancing costs and negatively impact Index performance.
- The Index's market signals may not perform as expected should market environments change, and such signals' effectiveness may wane or disappear over time.
- The benchmark reference rate used to determine servicing costs within the Equity Component may be replaced by a successor benchmark or a fixed rate, which may be set at a rate higher than the anticipated equity funding costs of any affiliate of the Index Sponsor that may act as a hedge provider.
- There is no guarantee that the Equity Component may outperform broad market benchmarks.
- There is no guarantee that the Gold Component may outperform traditional exposure to gold.
- There can be no assurance or guarantee that such Individual Treasury Momentum Signal methodology will result in outperformance relative to traditional long-only treasury exposure.
- The Index uses a stress indicator (the "Stress Indicator") to allocate between certain Index Components based on market conditions. However, there can be no assurance that over-weighted Index Components will perform better, or under-weighted Index Components will perform worse, in a particular stress regime. In addition, in the back-tested data, re-weightings based on the Stress Indicator was infrequent, and it may not be possible to fully test the robustness of the underlying historical data or to measure its statistical significance.
- The composition and weighting of the stocks comprising the Equity Component is determined based on criteria applied to data provided by a third-party vendor. If the sentiment scoring based on such data fails to perform as expected, the performance of the Index may suffer.
- The Signal Data produced by the third-party vendor based on its proprietary algorithmic natural language processing ("NLP") and machine learning ("ML") models to analyse the content of transcripts produced in respect of publicly available corporate calls and events in order to generate sentiment labels. The Index Sponsor uses the Signal Data from the third-party vendor as provided, and does not validate the third-party vendor's proprietary models nor the Signal Data itself.

Selected Key Risks

- The Signal Data as provided and as used in the Index is not an analysis of investment fundamentals or a recommendation by any person to invest or not invest in any stock.

- If Signal Data becomes unavailable for use in the Index, the Index Committee may determine in its sole discretion to use the latest available Sentiment Factor Scores and may postpone any applicable rebalancing in whole or in part following such date for a period of up to 6 months thereafter.

- The Signal Data, which is produced by the third-party vendor's automated algorithm, may be limited in its ability to accurately determine "sentiment" for the applicable stock portfolio and such limitation may adversely affect the performance of the Index (potentially materially so). If the observed relationship between NLP based sentiment and the future stock return weakens, the performance of the Equity Component will be impacted (potentially materially so).

- The sentiment score for an individual stock is based on the aggregated count of sentiment labels for individual sentences or paragraphs assigned to transcripts in the vendor dataset over a lookback period and the net sentiment label of those individual sentences or paragraphs (by comparing the counts of positive labels and negative labels if different sentiment labels exist for different topics within one sentence or paragraph). Further, the aggregated sentiment score treats individual sentences or paragraphs equally when aggregating for sentiment score and does not account for different relative importance of individual sentences or paragraphs within transcripts. As such, the aggregated sentiment score for a given stock may be inherently limited as a reflection of actual sentiment in transcripts.

- The Index selects stocks based on "relative" sentiment rather than "absolute" sentiment scores. As a result, it may take long position in stocks with negative sentiment scores (i.e. where those stocks have a "less negative" sentiment on a relative basis to other stocks) and short positions in stocks with positive sentiment scores, respectively.

- The back-test period for the Equity Component relies on both back-tested and "in-sample" data which may be inherently unreliable. In particular, the Signal Data from "in-sample" periods will be of inherently lower reliability given the propensity of such data to "overfitting" risks.

Disclaimers

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GS Treatment Of Incidents

- The treatment of incidents affecting Benchmarks administered by Goldman Sachs is subject to a specific “Policy on Global Benchmark Incidents and Restatements ” (the **Policy**”) (1) in addition to the oversight of the Index Committee.
- Incidents include errors or anomalies with respect to the published level of a Benchmark which has resulted from various events including, but not limited to, a third party restating input data consumed by Goldman Sachs, a discrepancy between the documentation and the implementation of a Benchmark, a documentation error, a calculation error, a publication error or a third party error.
- After identification of such incidents, should Goldman Sachs determine it is required by the Policy, Goldman Sachs will recalculate and republish the Benchmark level for a period starting up to three weekdays prior to the incident being identified and until the day the Benchmark is corrected (the “**Restatement”**). This period is defined as the **“Restatement Period”**.
- This means that the <u>benchmark levels prior to the Restatement Period will not be corrected, even if impacted by an incident</u>.
- The Restatement is implemented in such a way that the daily returns of the Benchmark are corrected for each day in the Restatement Period. Investors will be notified of such Restatement via a notice posted on the Marquee website.
- A Restatement may alter the calculation of cash flows of instruments linked to the Benchmark within the Restatement Period. In such case, the relevant contractual provisions set out in the legal documentation of the instrument will apply. Please note that the Restatement can lead to different calculated cash flows (higher or lower) than if the Restatement had not occurred.
- For every incident resulting in incorrect rates of costs being deducted from the Benchmark level from the date of an incident and onwards (“**Additional Costs**” (2)) the relevant Goldman Sachs Group entity shall offer to reimburse any such Additional Costs, where due and payable as determined by Goldman Sachs, to investors in, or counterparties to, financial instruments linked to or referencing the Benchmark, in accordance with, and where permitted by, applicable laws and regulations and the contractual provisions and offering documents of the relevant instruments. Any reimbursement of Additional Costs shall be limited to the Additional Costs accrued during the three (3) years prior to the date on which the incident was identified.

(1) **In the event of a discrepancy between the provisions of the Policy and the information set out in this document, the provisions of the Policy shall prevail. Please note that the policy can be changed at Goldman Sachs discretion**

(2) **Any increased cost which has occurred as a result of or derived from any incorrect asset weights or asset quantities arising from an incident does not constitute “Additional Costs”.**