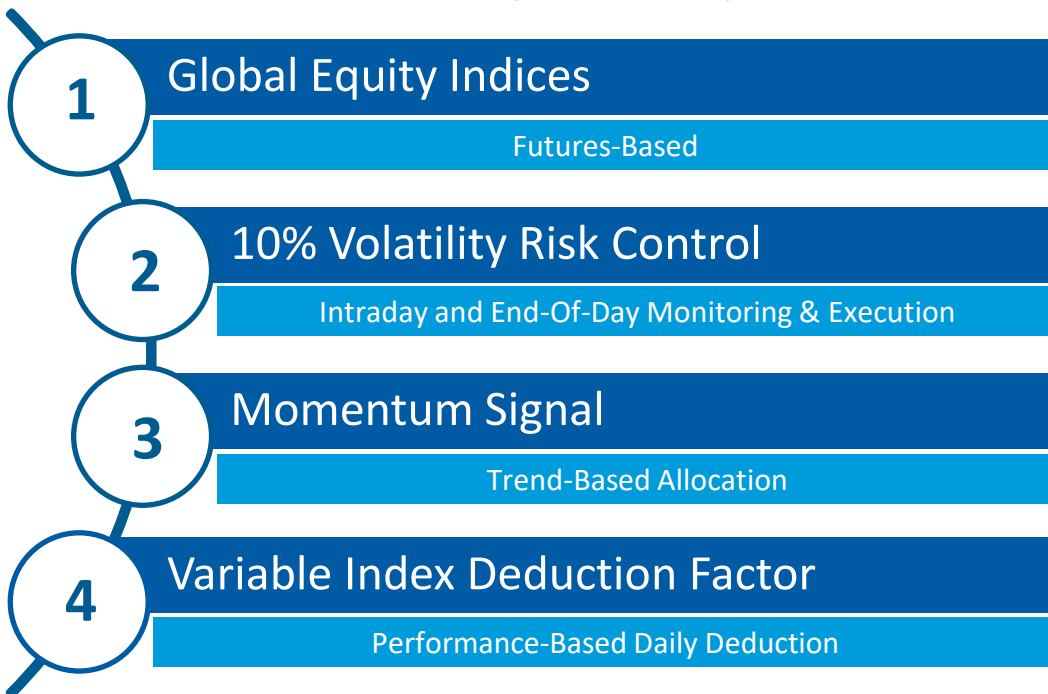


Morgan Stanley

Morgan Stanley Global Equity Allocator Index

Morgan Stanley Global Equity Allocator Index Overview

The Morgan Stanley Global Equity Allocator Index (“MSGE Index” or the “Index”) provides exposure to global equities by employing a momentum-based allocation. Targeting a 10% realized volatility, the Index adjusts exposure to US Equities intraday while adjusting all other allocations end of day. A variable index deduction factor is deducted daily from the Index’s performance.



Global Equities – The Index provides exposure to US Large Caps, US Tech, Eurozone, UK, Japanese and Emerging Market Equities through listed futures.



10% Volatility Risk Control – The Index targets 10% annualized volatility by adjusting its allocation on an intraday and end of day basis. If the Index’s US Equity holdings experience significant changes in volatility intraday, the Index will rebalance the allocation in order to bring the holdings volatility back to the target level of volatility. All other equity component exposures are adjusted end of day.



Momentum Signal – A momentum signal is calculated for each equity component based on the 10% volatility controlled underlying component prices and used as an indicator of the corresponding equity future performance. On each day, the signals are ranked and weights are assigned to each component based on this relative ranking.



Variable Index Deduction Factor – Dynamic fee mechanism built within the Index allows for a larger allocation to non-cash assets and greater participation to upside performance in a cost-controlled manner.

There are risks associated with the Index, including that the performance of the Index is reduced by a Variable Index Deduction Factor that scales upward based on positive recent performance of the Index, up to a maximum of 0.15% per business day. Such index deduction is applied when calculating the level of the Index and is a function of Index performance and will vary based on such performance. In addition, the Index includes transactional and margin costs based on rebalances and exposures of the Global Equities futures. Please see page 8 and 9 for further information.

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Morgan Stanley Global Equity Allocator Index Performance

The MSGE Index provides exposure to global equities employing a momentum-based allocation.

Index Performance



Source: Morgan Stanley Sales & Trading. Past Performance is not an indication of future performance.

MSGE Index	Return	Annualized Volatility	Sharpe Ratio**	Maximum Drawdown***
2009	-0.28%	2.18%	-0.13	0.33%
2010	4.99%	9.01%	0.55	9.36%
2011	-7.37%	10.46%	-0.70	13.08%
2012	3.95%	9.64%	0.41	8.18%
2013	17.53%	8.78%	2.00	4.52%
2014	1.81%	8.92%	0.20	5.71%
2015	-3.58%	9.65%	-0.37	10.71%
2016	2.61%	8.75%	0.30	6.01%
2017	17.81%	8.99%	1.98	3.88%
2018	-4.74%	9.26%	-0.51	11.84%
2019	15.40%	8.01%	1.92	6.03%
2020	9.19%	9.63%	0.95	9.68%
2021	7.45%	8.39%	0.89	5.09%
2022	-13.53%	9.26%	-1.46	15.54%
2009 - 2022	3.56%	9.15%	0.39	15.77%
1 Year Trailing*	-10.65%	9.14%	-1.16	15.77%
3 Year Trailing*	2.24%	9.08%	0.25	15.77%
7 Year Trailing*	4.19%	8.92%	0.47	15.77%
10 Year Trailing*	4.52%	8.97%	0.50	15.77%

Source: Morgan Stanley Sales & Trading, Bloomberg.

From December 23, 2009 to October 27, 2022. Trailing data as of October 27, 2022.

The Index Live Date is October 12, 2022. All data prior to the Index Live Date is simulated.

Trailing returns are annualized returns.

* Annualized returns over those trailing periods.

** The Sharpe Ratio is the volatility-adjusted performance of the Index. It represents returns received per unit of risk.

*** Maximum Drawdown refers to the largest observed down move from a peak to a trough of the Index over a given period.







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*** Note on Simulated Returns:** Back-testing and other statistical analyses provided herein use simulated analysis and hypothetical circumstances to estimate how the Index may have performed between December 23, 2009 to October 11, 2022, prior to its actual existence. The results obtained from such “back-testing” should not be considered indicative of the actual results that might be obtained from an investment or a product linked to the Index. The actual performance of the Index may vary significantly from the results obtained from back-testing. Unlike an actual performance record, simulated results are achieved by means of the retroactive application of a back-tested model itself designed with the benefit of hindsight and knowledge of factors that may have possibly affected its performance. Morgan Stanley provides no assurance or guarantee that any product linked to the Index will operate or would have operated in the past in a manner consistent with these materials. Calculation based on simulated performance is purely hypothetical and may not be an accurate or meaningful comparison. Past performance (actual or simulated) is not necessarily indicative of future results.

1 Global Equity Indices

Futures-Based

The Index provides exposure to US Large Caps, US Tech, Eurozone, UK, Japanese and Emerging Market Equities through listed futures.

US Large Cap Equities	
US Tech Equities	
Eurozone Equities	
UK Equities	
Japan Equities	
Emerging Market Equities	

Historical Performance of the 10% Volatility Controlled Underlying Component Prices

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	FULL PERIOD
US Tech 2.0%	US Tech 14.2%	US Large Caps -2.6%	Japan 14.8%	US Large Caps 27.7%	US Tech 11.5%	Eurozone 2.1%	US Large Caps 7.8%	US Tech 30.7%	US Tech 1.9%	US Tech 24.2%	US Tech 20.9%	US Large Caps 15.6%	Japan -2.8%	US Tech 10.2%
Japan 1.7%	US Large Caps 13.7%	UK -3.9%	US Tech 11.0%	US Tech 24.6%	US Large Caps 7.0%	Japan 1.8%	UK 7.6%	US Large Caps 30.1%	US Large Caps -2.8%	US Large Caps 22.8%	US Large Caps 11.5%	US Tech 13.2%	UK -3.1%	US Large Caps 8.4%
Emerging Market 1.0%	UK 6.1%	US Tech -4.6%	US Large Caps 8.8%	Japan 20.9%	Japan 1.6%	US Tech 0.8%	US Tech 6.3%	Emerging Market 25.3%	Japan -5.9%	Eurozone 17.0%	Japan 5.6%	Eurozone 11.3%	Eurozone -7.4%	Japan 4.0%
UK 0.4%	Emerging Market 5.9%	Eurozone -6.6%	Emerging Market 7.7%	UK 14.5%	Eurozone -0.4%	UK -4.8%	Emerging Market 2.7%	Japan 17.4%	Emerging Market -9.2%	Japan 11.3%	Emerging Market 4.7%	UK 10.3%	US Large Caps -13.7%	UK 2.1%
Eurozone 0.3%	Japan -0.6%	Emerging Market -9.4%	Eurozone 7.4%	Eurozone 12.7%	UK -2.3%	US Large Caps -7.1%	Eurozone 2.2%	UK 11.6%	Eurozone -10.1%	UK 10.3%	Eurozone -4.8%	Japan 2.9%	Emerging Market -14.8%	Eurozone 1.9%
US Large Caps -0.5%	Eurozone -2.8%	Japan -11.8%	UK 4.1%	Emerging Market -6.5%	Emerging Market -2.9%	Emerging Market -10.0%	Japan -0.3%	Eurozone 8.0%	UK -11.7%	Emerging Market 7.2%	UK -8.5%	Emerging Market -3.9%	US Tech -16.4%	Emerging Market -0.7%

Source: Morgan Stanley Sales & Trading. Data as of October 27, 2022. The Index Live Date is October 12, 2022. All data prior to the Index Live Date is simulated.


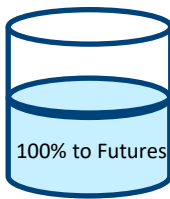
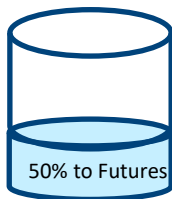
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2 10% Volatility Risk Control

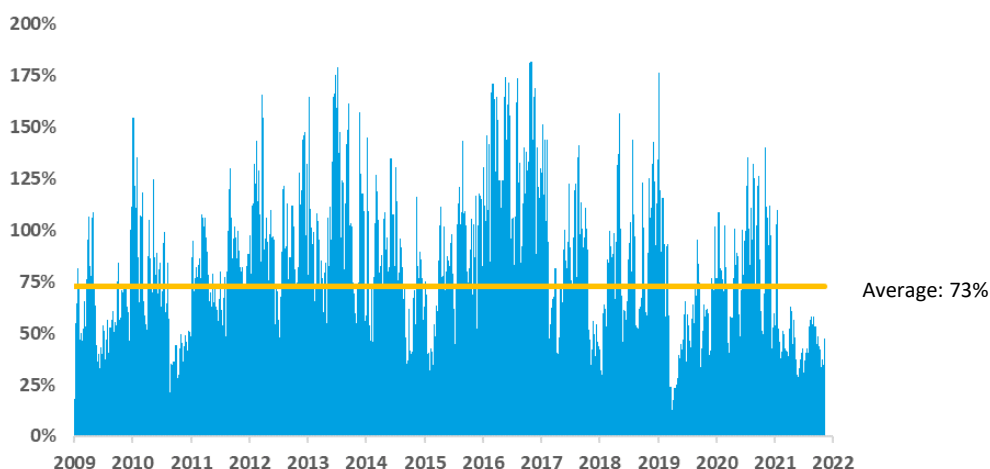
Intraday and End-Of-Day Monitoring & Execution

The Index targets 10% annualized volatility by adjusting its allocation on an intraday and end of day basis. If the Index's US Equity holdings experience significant changes in volatility intraday, the Index will rebalance the allocation in order to bring the holdings volatility back to the target level of volatility. All other equity component exposures are adjusted end of day.

Illustrative Example with only 1x Asset

Underlying Futures Volatility: 4%	Underlying Futures Volatility: 10%	Underlying Futures Volatility: 20%
 <p>200% to Futures</p>	 <p>100% to Futures</p>	 <p>50% to Futures</p>
The Index will allocate the maximum allowed exposure, 200%, to underlying Futures.	The Index will allocate 100% exposure to the underlying Futures.	The Index will allocate 50% exposure to the underlying Futures.

Historical Index Leverage to Underlying Equity Futures



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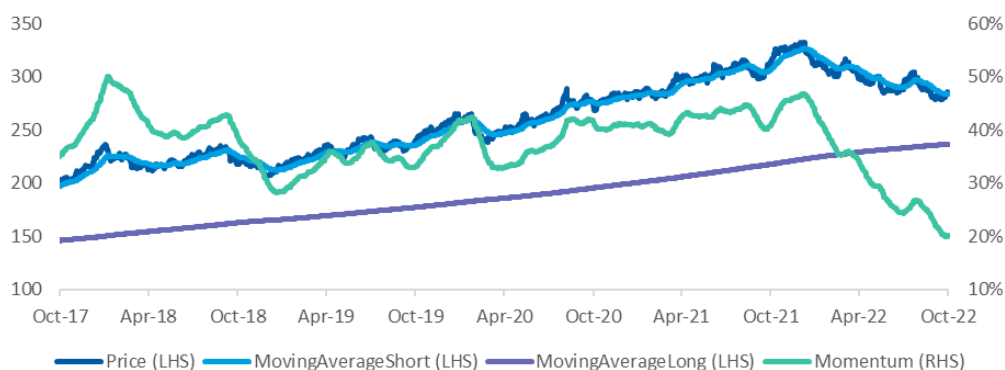
3 Momentum Signal

Trend-Based Allocation

- On each day, the Index allocates a weight to each of the components based on a momentum signal. The signal and the allocations are estimated according to the following steps.
 - The signal is calculated as the ratio of a short-term moving average price to a long-term moving average price of the underlying global equities.
 - The score of each asset is ranked and based on this relative ranking, a fixed weight is assigned to each asset.

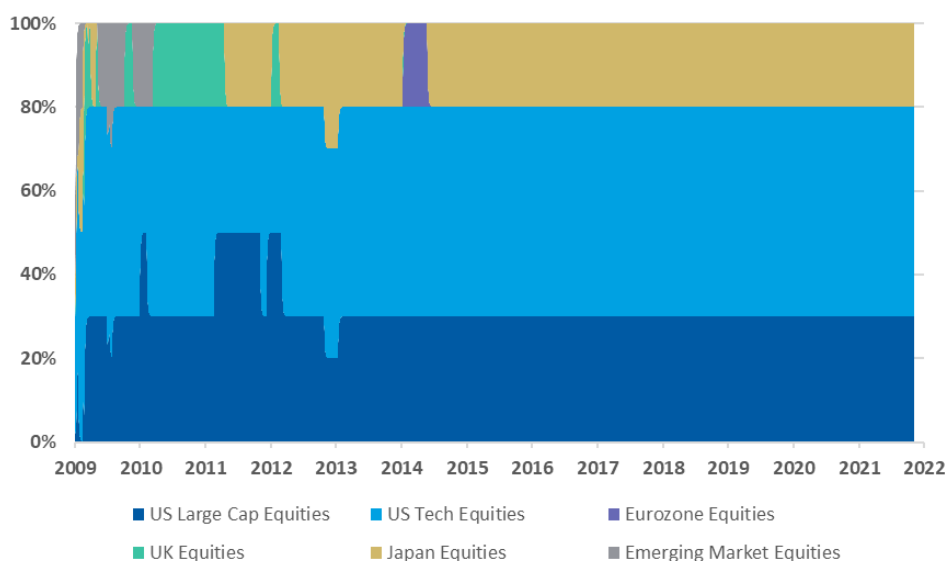
Momentum Signal Rank	Weight
1	50%
2	30%
3	20%
4	0%
5	0%
6	0%

Momentum Signal For US Large Caps over last 5 Years



Source: Morgan Stanley Sales & Trading. Data as of October 27, 2022. The Index Live Date is October 12, 2022. All data prior the Index Live Date is simulated.

Historical Allocations to the Underlying Equity Futures



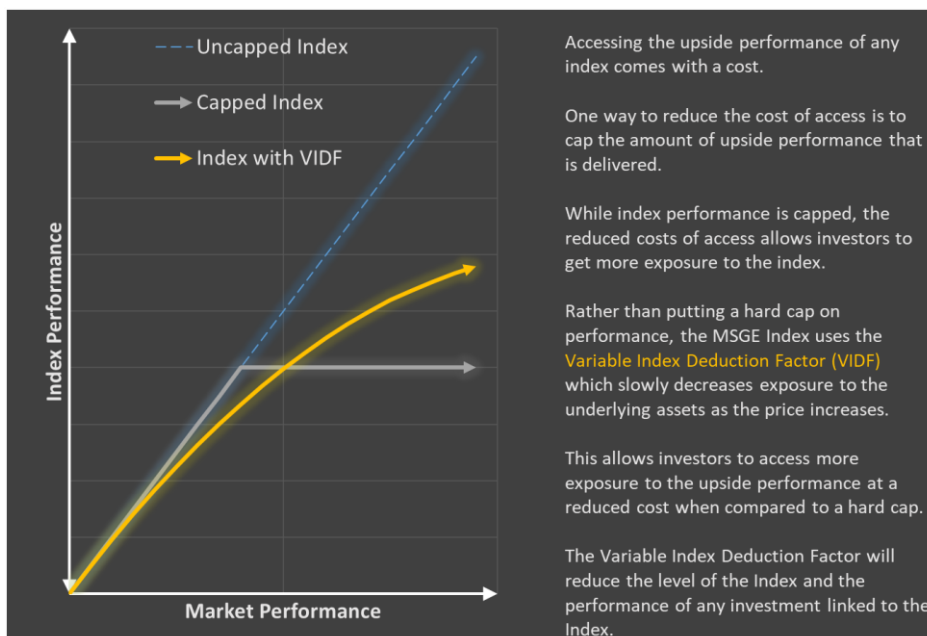
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4 Variable Index Deduction Factor

Performance-Based Daily Deduction

The **Variable Index Deduction Factor** serves as a dynamic fee mechanism that reduces the cost to access the Index thereby allowing for a larger allocation to risk assets and greater exposure to upside performance.



How The Variable Index Deduction Factor Works

To determine the Variable Index Deduction Factor, the previous day's Index level is compared to its own recent moving average ("MA"), using a window of approximately one month (one twelfth of a year):

- If the **Index is significantly below its MA**, the Variable Index Deduction Factor reduces, down to a minimum of **0.00% per day**.
- If the Index is equal its MA, the Variable Index Deduction Factor is **0.00197% per day**.
- If the **Index is significantly above its MA**, the Variable Index Deduction Factor increases, up to a maximum of **0.15% per day**

Examples	A	B	C
Index Level	97.0	100.0	103.0
Moving Average	100.0	100.0	100.0
Next Day's Variable Index Deduction Factor	0.00002%	0.00197%	0.07262%

Source for all exhibits contained herein: Morgan Stanley Sales & Trading, illustrative only.
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Summary of the Index

The MSGE Index provides exposure to global equities with a momentum-based allocation. Targeting a 10% realized volatility, the Index adjusts exposure to US Equities intraday while adjusting all other allocations end of day. A variable index deduction factor is deducted daily from the Index performance.

Risk Factors

Prior to making an investment decision in respect of any Financial Product, prospective investors should consider carefully all of the information set out in the relevant Index Description. There are risks associated with the Index, including but not limited to the following:

- **The level of the Index can go down.** The Index components are exposed to various risks and their market price may be influenced by many unpredictable factors. There are also risks associated with the construction of the Variable Index Deduction Factor.
- **The Index contains a Variable Index Deduction Factor.** The Index includes a variable index deduction mechanism that scales upward based on positive recent performance of the Index, up to a maximum of 0.15% per business day. Such index deduction is applied when calculating the level of the Index and will thus reduce the return of the Index.
- **The Index nor any of the components comprising the Index are guaranteed to yield specific results.** There can be no assurance that the Index will be successful.
- **There are risks relating to the volatility target mechanism.** The Index's volatility target mechanism is applied to target an overall level of realized volatility equal to 10% but the realized volatility may be less than or greater than 10% and the volatility target may adversely affect Index performance. The Index may have greater than 100% exposure (up to 200% to the various Index components at any time as a result of the volatility target mechanism), which may exacerbate losses and subsequent deleveraging may increase the time taken to recover from a drawdown event.
- **There are risks associated with leverage.** The Index rules contemplate the possibility of leverage within the Index to achieve the 10% volatility target, which is expected to magnify declines.
- **The Index has limited history.** The Index was established on October 12, 2022 and therefore has a very limited history. Any investment in an instrument linked to the Index may involve greater risk than an investment linked to an index with longer actual historical performance and a proven track record. Any performance prior to the establishment of the Index has been retrospectively simulated by Morgan Stanley & Co. LLC and is subject to significant limitations. **Past performance (actual or simulated) is never a guarantee of future performance.**
- **The Index has embedded costs,** including, but not limited to, transaction, futures roll and margin costs. The return of such component and, as a result, the return of the Index will be lower than if there were no associated costs.
- **Investing in an instrument linked to the Index is not equivalent to investing in any underlying instrument linked to S&P 500 Index or any other equity indices or ETFs.** There is no actual portfolio of assets to which any person who purchases a product linked to the Index is entitled or has any ownership interest in. Investors in an instrument linked to the Index will not have rights to the underlying futures contracts.
- **Prior to purchasing any products linked to (or based on) the Index, investors and consumers should seek independent financial, tax, accounting and legal advice.**
- **Index may be impacted by extraordinary or disruption events.**

Note on Simulated Returns

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