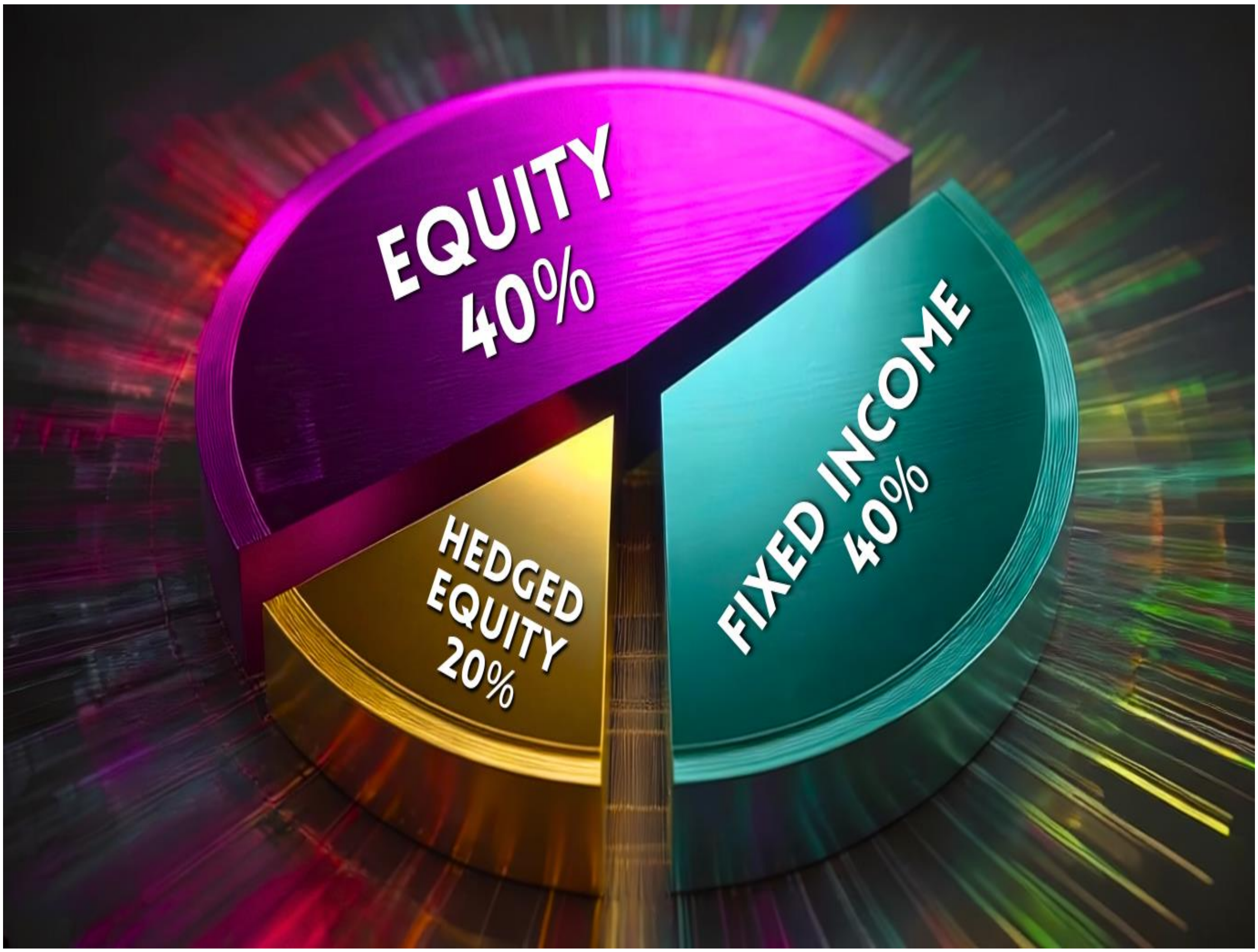
Hedged Equity as a Core Equity Allocation

Changing Portfolio Risk Within the Traditional Equity Sleeve



June 2026 | Swan Insights

Why the Traditional Equity Sleeve Needs Rethinking

The traditional 60/40 portfolio was built on one assumption: when stocks fall, bonds rise. That assumption failed decisively in 2022 — and the equity side of that portfolio remains structurally unchanged. Since then, many advisors and institutional allocators are reconsidering how risk is managed within portfolios.

One increasingly utilized approach is hedged equity—strategies designed to maintain equity exposure while structurally mitigating downside risk.

This post, the second in a four-part series, examines how hedged equity can function as a **re-engineered core equity allocation** — maintaining meaningful equity participation while structurally reducing the drawdown risk that disrupts client behavior at the worst possible moments.

Overall, hedged equity strategies can be difficult to categorize because they blur the lines between traditional portfolio roles. Depending on how a portfolio is constructed, hedged equity may be viewed as:

- a core equity allocation with embedded risk management
- a bond alternative
- a diversifying alternative strategy
- a risk-managed way to put cash to work

In model portfolios, hedged equity allows allocators to maintain equity exposure while reducing overall portfolio drawdown risk without relying exclusively on fixed income diversification.

What Makes the Swan Defined Risk Strategy a Core Equity Position (Not an Alternative)

The Defined Risk Strategy is institutional hedged equity — an actively-managed options-based strategy, launched in 1997, that seeks long-term portfolio growth while mitigating market risk.

This post focuses on Swan's separately managed account implementation of the DRS, represented by the Swan Defined Risk U.S. Large Cap Composite (inception July 1997). Swan first launched the DRS in SMA format and the strategy is available now in ETF and mutual fund format.

One can easily make the case that the DRS is fundamentally a core equity position, with an actively-managed, long-term hedge overlaid on top of it. If one were to compare the portfolio characteristics of the Swan Defined Risk U.S. Large Cap Composite against the S&P 500 index and the Morningstar category for Large Blend, the DRS is right in-line with other core, large cap equity offerings.

The tables below reflect similar portfolio characteristics.

Asset Allocation, 12/31/25	Swan DRS (%net)	S&P 500*	Large Blend Cat Avg
US Stock	97.78%	99.30%	96.09%
Non US Stock	0.59%	0.57%	2.35%
Bond	0.00%	0.00%	-0.82%
Cash	1.63%	0.13%	1.10%
Other	0.00%	0.00%	1.28%

Market Cap, 12/31/25	Swan DRS (%net)	S&P 500*	Large Blend Cat Avg
Giant	**38.76%**	46.23%	57.18%
Large	35.64%	34.90%	16.91%
Medium	19.23%	17.86%	19.27%
Small	0.98%	0.88%	3.73%
Micro	0.00%	0.00%	0.04%

Valuations, 12/31/25	Swan DRS (%net)	S&P 500*	Large Blend Cat Avg
Price/Earnings	27.11	27.26	26.53
Price/Book	4.88	5.04	5.47
Price/Sales	3.35	3.48	3.27
Price/Free Cash Flow	35.96	35.74	39.90
Dividend Yield	1.18%	1.14%	1.04%

Source: Morningstar Direct. *State Street SPDR S&P 500 (SPY) is used as a proxy for the S&P 500 index.

Given the fact that typically 85% to 90% of the portfolio is held in S&P 500 or Select Sector ETFs, the DRS holdings-based characteristics closely resemble large-cap core equity portfolios. If one uses a holdings-based approach, the asset allocation, market capitalization, and valuation characteristics of the DRS are clearly large cap, core equity.

On the other hand, you will certainly see a difference in returns between the DRS and the S&P 500 index or the typical large blend mutual fund. If one were to look at traditional "tracking" metrics like correlation and R-squared, you will see much higher levels of dispersion from the S&P 500 than you would with a traditional large cap core fund.

July 1, 1997 to Dec 31, 2025	Beta	Tracking Error	R-Squared	Correlation	Up Capture	Down Capture
Swan Defined Risk Strategy (net)	0.34	12.48%	34.33%	0.59	47.6%	24.9%

Morningstar Large Blend cat	0.98	1.54%	99.02%	1.00	95.2%	101.1%
S&P 500	1.00	0.00%	100.00%	1.00	100.0%	100.0%

Source: Zephyr StyleADVISOR

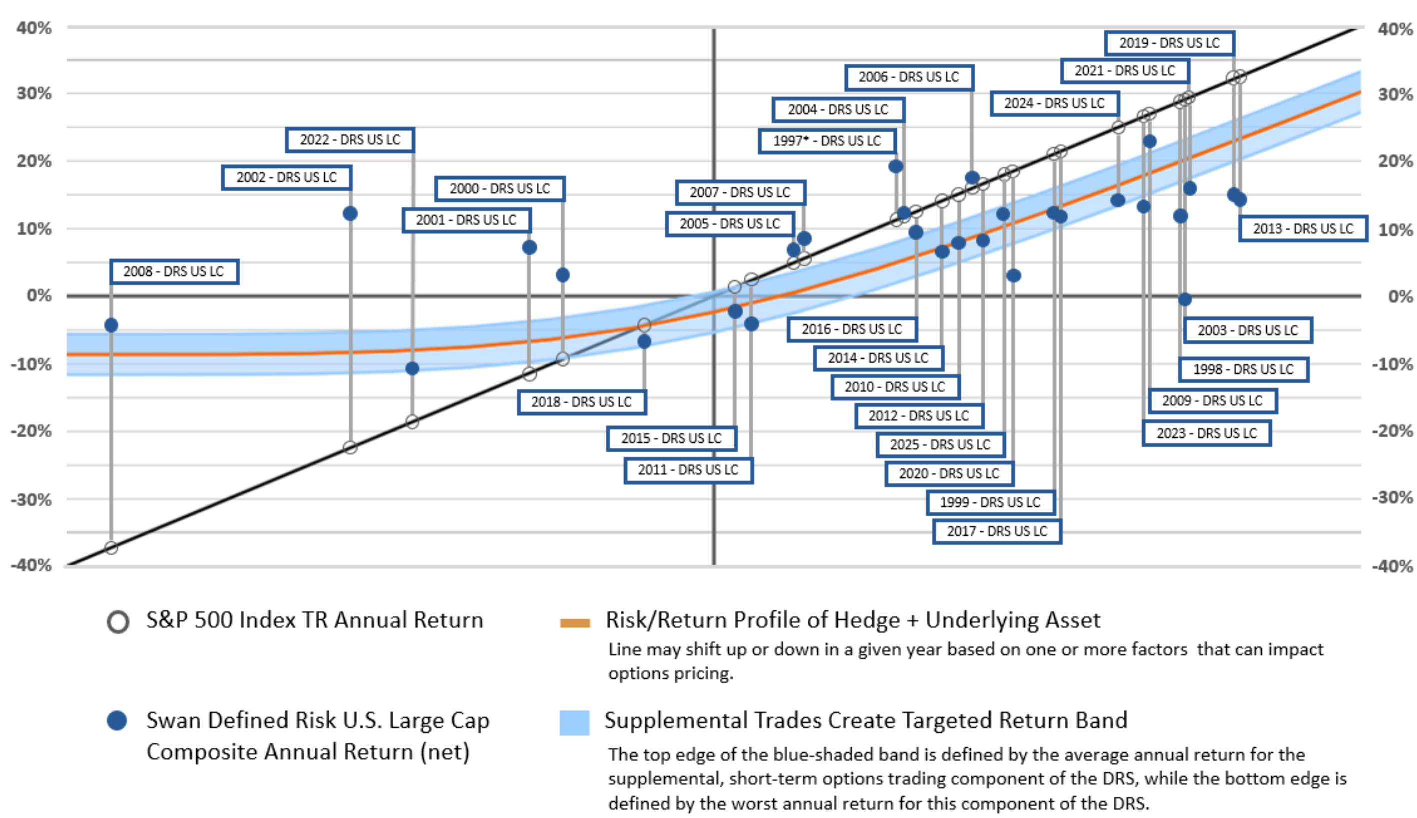
This, of course, is by design. The whole intent of the DRS is to avoid those times when the market is down significantly. The strategy has successfully navigated the largest bear markets this century, the Dot-Com Bust and, the Global Financial Crisis, as well as, other periods of major market stress like the 2010 Flash Crash, the Covid-19 selloff of 2020, the inflation bear market in 2022, the 2025 Tariff Tantrum and more.

Hedged Equity vs. Long-Only: The Convex Risk/Return Advantage

The driving idea behind the DRS is that those large bear markets are too painful to endure, so the DRS is engineered to have a different risk-return profile than a traditional long position.

We believe that our Target Return Band is the appropriate prism through which to view the convex return structure of the DRS vs the linear nature of S&P 500 index price, as well as the intended and actual risks and returns of the DRS relative to the market.

The Target Return Band: The Prism for Evaluating DRS Returns vs Long-Only Equity



Source: Swan Global Investments

The graph above shows the risk/return profile of the Swan Defined Risk Strategy. There are several key elements in this chart:

1. The diagonal black line is the linear return profile, or profit-loss diagram, for the S&P 500 on an annual basis. Positive returns in the upper right quadrant, loses in the lower left quadrant.
2. The curved gold line represents the convex return profile of the DRS's hedged equity position on an annual basis; that is, the buy-and-hold equity position combined with the hedging impact of the put options. The gold line lags the S&P 500 in up markets but is still upward sloping and uncapped. In down markets the hedged equity position flattens out as the S&P 500 continues to drop.
3. The blue area around the gold curved line is the anticipated range of impact from overlaying Swan's short-term supplemental trades that seek additional return over the hedged equity position.
4. Calendar year returns are flagged in blue outline, the blue dots then plot the return for the DRS, while the gray circle plots the corresponding return for the S&P 500 Index in that year.

It is our goal that annual returns of the DRS will be within or above the blue shaded area. More often than not, they have been.

The objective is not to outperform equities in bull markets, but to reduce volatility and most importantly the impact of major equity drawdowns such as those experienced during the Dot-Com Bust, the Global Financial Crisis, and other periods of severe market stress.

In our opinion, our actively-managed hedged equity strategy allows investors to pursue their two primary objectives simultaneously:

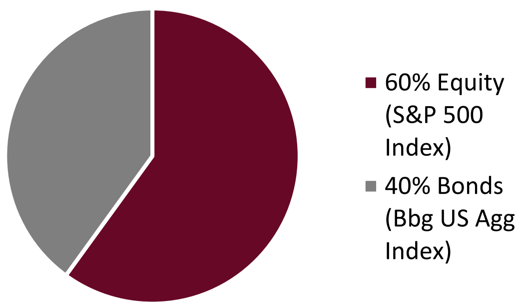
- Growth Potential: The investor has uncapped exposure to large cap core equity via our large allocation to S&P 500 index ETFs.
- Risk Management: The risk-return profile of those holdings is modified to manage and diminish the impact of bear markets.

What a Hedged Equity Sleeve Actually Does to a Portfolio

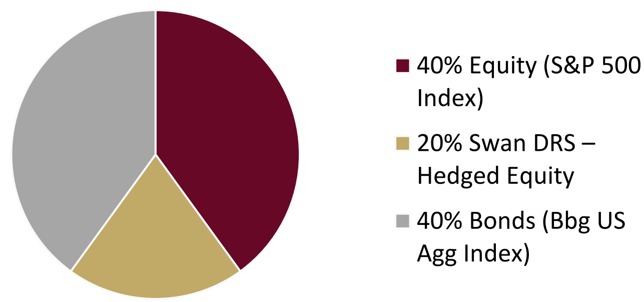
What a 20% Hedged Equity Sleeve Actually Does to a Portfolio

Given the DRS has similar portfolio characteristics at the strategy level is one thing. Seeing what it does inside a portfolio is another. The analysis below illustrates what historically happened when a 20% allocation to the Swan Defined Risk Strategy replaced a portion of the equity sleeve in a traditional 60/40 portfolio.

Before: 60% Equity, 40% Bond



After: 60/40 with 20% DRS as Equity Sleeve



For illustrative purposes only. Does not represent an actual account or guarantee of future results. Source: Swan Global Investments.

Similar Return, Meaningfully Less Risk

When 20% of the traditional 60/40 portfolio was replaced with the DRS — reducing the S&P 500 equity sleeve from 60% to 40% — the historical results across the full period from July 1997 through December 2025 tell a clear story:

July 1, 1997 to Dec 31, 2025	Annualized Return	Standard Deviation	Beta vs S&P 500	Max Drawdown	Sharpe Ratio	Pain Ratio
60/40 Traditional Portfolio	7.60%	9.58%	0.61	-32.54%	0.56	1.33
40% S&P 500, 20% DRS, 40% Bloomberg Agg	7.26%	7.76%	0.48	-23.13%	0.64	1.99

Source: Zephyr, Swan Global Investments. Past performance does not guarantee future results.

The primary takeaway is clear: for a slight reduction in return the portfolio with a DRS sleeve resulted in structural improvements in portfolio efficiency and across multiple risk dimensions simultaneously.

- Standard deviation and beta were reduced by significant margins.
- Maximum drawdown (absolute investor pain) was reduced by 29%
- Meanwhile, risk/return trade-off measures like Sharpe ratio and Pain ratio increased.

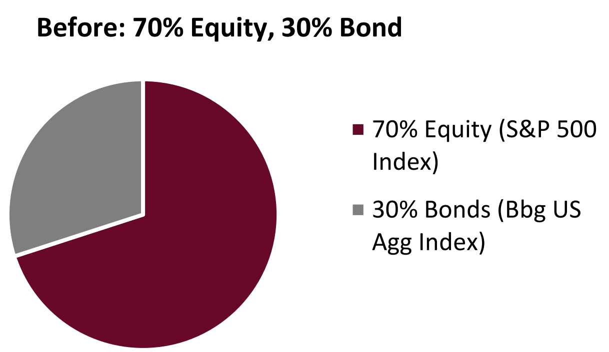
Increasing the Allocation Extends the Risk Management Benefit

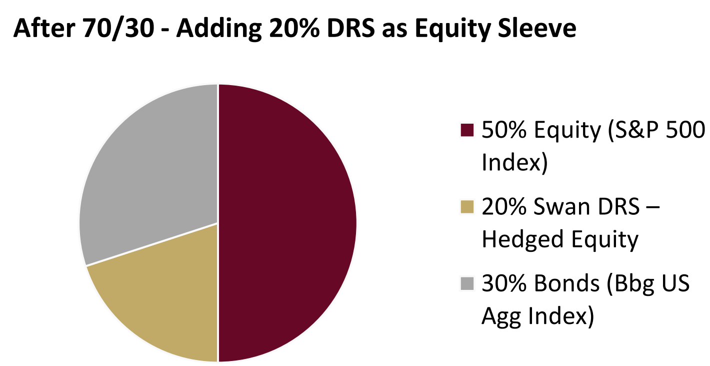
In terms of the risk-return trade-off, the DRS's benefits typically outweigh the marginal "costs." Increasing incremental allocation to the DRS may reduce volatility, drawdown depth, and may improve the return-per-unit-of-pain tradeoff — without meaningfully sacrificing annualized return.

July 1997 - December 2025	Annualized Return	Standard Deviation	Beta vs. S&P 500	Maximum Drawdown	Sharpe Ratio	Pain Ratio
60% S&P 500 / 40% Bbg Agg	7.60%	9.58%	0.61	-32.54%	0.56	1.33
50% S&P 500 / 10% Swan DRS / 40% Bbg Agg	7.44%	8.63%	0.55	-27.97%	0.60	1.61
40% S&P 500 / 20% Swan DRS / 40% Bbg Agg	7.26%	7.76%	0.48	-23.13%	0.64	1.99

Source: Zephyr, Swan Global Investments. Past performance does not guarantee future results.

70/30 Portfolio: Higher Equity Starting Point, Greater Structural Benefit





July 1, 1997 to Dec 31, 2025	Annualized Return	Standard Deviation	Max Drawdown	Sharpe Ratio	Pain Ratio
70/30 Traditional Portfolio	8.09%	10.99%	-37.62%	0.53	1.12
50% S&P 500, 20% DRS, 30% Bloomberg Agg	7.78%	9.12%	-28.84%	0.60	1.60

Source: Zephyr, Swan Global Investments.

For allocators running more equity-heavy models—a common posture for longer-horizon or growth-oriented clients—the case for a hedged equity sleeve is, if anything, stronger. The larger starting equity exposure means more runway for risk reduction, with return characteristics that historically remain competitive.

What This Means for Portfolio Construction

For a model builder setting drawdown budgets, the implication is significant:

- A traditional 60/40 portfolio experienced a maximum drawdown of -32.54% over the period since inception of DRS (July 1997).

That's a loss that is difficult for most clients to absorb without behavioral disruption.

- Introducing a 20% DRS allocation over the same time period as an equity sleeve decreased that figure to -23.13%, while simultaneously reducing volatility.

That combination — smaller drawdowns, better risk-adjusted returns, maintained growth — is precisely what an institutional hedged equity sleeve is designed to deliver.

The portfolio impact is clear: incorporating Swan DRS moderates return potential, but the tradeoff is more favorable than allocators may assume. In conventional 70/30 or 80/20 allocations — which carry elevated risk by design — a hedged equity sleeve can meaningfully improve volatility and risk-adjusted efficiency without the return drag that some allocators might assume.

Why Allocators Are Replacing Equity Exposure with Hedged Equity

Sometimes hedged equity gets relegated to a catch-all "alternatives" bucket. However, the ideas outlined here encourage allocators to think of hedged equity as a risk-controlled delivery of core equity exposure. Rather than layering risk management onto a separate sleeve, a more integrated approach embeds it directly into core equity exposure.

Strategies like the Swan Defined Risk Strategy maintain meaningful equity market participation while systematically reshaping the return path — producing materially different beta characteristics, drawdown behavior, and correlation patterns than traditional long-only exposures.

This matters beyond portfolio construction. Advisors manage client behavior as much as capital. Hedged equity's value is in keeping investors invested — moderating the drawdowns that trigger poor investor decisions at precisely the wrong moments.

As the industry continues to rethink traditional allocation frameworks, many advisors are evaluating whether their core equity exposure may be better delivered through strategies designed with risk mitigation as a foundational component rather than an afterthought.

About the Author:

Marc Odo, CFA®, FRM®, CAIA®, CIPM®, CFP®, Director of Research and Client Portfolio Manager, is responsible for helping clients and prospects gain a detailed understanding of Swan's Defined Risk Strategy, including how it fitsinto an overall investment strategy. Formerly Marc was the Director of Research for 11 years at Zephyr Associates.

Important Notes and Disclosures:

* The Swan Defined Risk Strategy, the Swan DRS, or DRS referred to in this document refer to the Defined Risk U.S. Large Cap Strategy Composite.

Swan Global Investments, LLC is a SEC registered Investment Advisor that specializes in managing money using the proprietary Defined Risk Strategy (“DRS”). SEC registration does not denote any special training or qualification conferred by the SEC. Swan offers and manages the DRS for investors including individuals, institutions and other investment advisor firms.
All investment strategies have the potential for profit or loss. Changes in investment strategies, contributions or withdrawals may cause the performance results of a client’s investment portfolio to differ materially from the reported composite performance. Different types of investments involve varying degrees of risk and there can be no assurance that any specific investment will either be suitable or profitable for a client’s investment portfolio. All Swan products utilize the Defined Risk Strategy (“DRS”), but may vary by asset class, regulatory offering type, etc. Accordingly, all Swan DRS product offerings will have different performance results and comparing results among the Swan products and composites may be of limited use. Economic factors, market conditions, and investment strategies will affect the performance of any portfolio and there are no assurances that it will match or outperform any particular benchmark. Historical performance results for market indices and/or categories generally do not reflect the deduction of transaction and/or custodial charges or the deduction of an investment management fee, the incurrence of which would have the effect of decreasing historical performance results. Swan’s investments may consist of securities which vary significantly from those in the benchmark indexes listed above and performance calculation methods may not be entirely comparable. Accordingly, comparing results shown to those of such indexes may be of limited use. The equity portion of portfolio is hedged using put options and the option income portion of the portfolio is actively managed to seek additional income. Both the equity and income portion of the strategy may experience losses in a market downturn but may be defined and mitigated by the hedge. The extent of potential losses will vary depending on many factors including, but not limited to; the options used, option strategy, expiration, prices, actions taken by portfolio manager. The adviser’s dependence on its DRS process and judgments about the attractiveness, value and potential appreciation of particular ETFs and options in which the adviser invests or writes may prove to be incorrect and may not produce the desired results. There is no guarantee any investment or the DRS will meet its objectives. All investments involve the risk of potential investment losses as well as the potential for investment gains. Prior performance is not a guarantee of future results and there can be no assurance, and investors should not assume, that future performance will be comparable to past performance. Minimum account size is $100,000. Management fee based on account size. For further information, including fee details, please get in touch with a Swan Global Investments representative by contacting the company directly at 970-382-8901 or www.swanglobalinvestments.com. 071-SGI-060526

Global Investment Performance Standards (GIPS®) Report

Swan Global Investments, LLC DRS U.S. Large Cap Composite													S&P 500 ("The Benchmark")				
Year	Net-Of-Fee Return	Net-Of-Fee Cumulative Return	Net-Of-Fee Annualized Return	Gross-Of-Fee Return	Gross-Of-Fee Cumulative Return	Gross-Of-Fee Annualized Return	Beta (Net-Of-Fees)	Standard Deviation (External) Net-Of-Fees	Sharpe Ratio (Net-Of-Fees)	# of Accts / Assets in Millions	Total Firm Assets ($MM)	Dispersion (Internal) Gross-Of-Fees	Return	Cumulative Return	Annualized Return	Standard Deviation (External)	Sharpe Ratio

Compliance Statement: Swan Global Investments, LLC ("Swan") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Swan has been independently verified by The Spaulding Group for the periods July 1, 1997 through December 31, 2024. The verification report is available upon request.

A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards.

Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. Verification does not provide assurance on the accuracy of any specific performance report. To receive copies please call 970-382-8901 or email operations@swanglobalinvestments.com.

Definition of the Firm: Swan Global Investments, LLC is an SEC registered investment advisor providing asset management services utilizing the Swan Defined Risk Strategy ("DRS"), allowing its clients to grow wealth while protecting capital. Please note that registration of the adviser does not imply a certain level of skill or training. Swan Global Investments, LLC is affiliated with Swan Capital Management, LLC, Swan Global Management, LLC and Swan Wealth Management, LLC.

Firm Redefinition: Previously Swan offered and managed The Defined Risk Strategy for its clients which were individual investors. Swan redefined itself to include all client types, including individuals, institutions and sub-advised clients, as of January 1, 2010. This redefinition resulted in a change to Swan's 2009 performance numbers, due to adding all sub-advised clients beginning on June 30, 2009. Additionally, Swan created affiliated entity Swan Capital Management, Inc. on April 13, 2012 to be an advisor and distributor of the Swan Defined Risk Fund launched in July 2012. In December 2014, Swan Capital Management, Inc. converted to Swan Capital Management, LLC. Swan created affiliated entity Swan Wealth Management, LLC to serve as the portfolio manager of the DRS in 2014, and subsequently created affiliated entity Swan Global Management, LLC to serve as the portfolio manager of the DRS starting in 2015.

Name Changes: Swan Consulting, Inc. changed its name to Swan Wealth Advisors, Inc. on April 8, 2011 to better reflect that the Company is a money management firm. Investment consulting firms generally do not manage money. Swan Wealth Advisors, Inc. changed its name to Swan Global Investments, LLC on December 5, 2014 to better reflect that the Company is a money management firm rather than an advisor. Advisors are the Company's clients, and it does not want to give the impression that the Company is competing with other advisors. Instead, Swan Global Investments, LLC offers investment products and manages money for sub-advised clients and the mutual funds of its affiliate Swan Capital Management, LLC.

Composite Inception Date: The inception of the DRS U.S. Large Cap Composite was July 1, 1997.

Composite Creation Date: The DRS U.S. Large Cap Composite was defined on January 1, 2010.

Composite Description: The DRS U.S. Large Cap Composite demonstrates the performance of qualified and non-qualified assets invested in DRS U.S. Large Cap strategies managed by Swan Global Investments, LLC since inception. It includes discretionary individual accounts whose account holders seek the upside potential of owning stock, and the desire to minimize the downside risk associated with owning stock. The Composite relies on LEAPS and other options to manage this risk. Individual accounts own S&P 500 exchange traded funds and LEAPS associated with the exchange traded funds as well as multiple other option trades that represent other indices that are widely traded. The Defined Risk Strategy was designed to protect investors from substantial market declines, provide income in flat or choppy markets, and to benefit from market appreciation. Stock and options are the primary components of the strategy. Portfolios in the composite may include non-DRS securities (securities that are not part of the Swan Defined Risk Strategy) that are excluded from composite performance.

Returns: Performance results reflect the reinvestment of dividend and other earnings and are expressed in U.S. dollars. Gross-of-fee performance results do not reflect the deduction of the firm's investment management fees or custodial fees but are net of all transaction costs and withholding taxes (if applicable). Net-of-fees returns are calculated by deducting the higher of either actual management fees or a model management fee equal to the highest tier of the fee schedule (0.60% annual, or 0.05% monthly) from the monthly gross-of-fee composite return. The composite includes portfolios that pay zero commissions on certain securities in the portfolio (e.g., exchange traded funds (ETFs)).

Fee Schedule: The investment management fee schedule for sub-advised clients is as follows. Rate breaks are applied to total aggregate assets under management under the sub-advisory agreement:

Annual fees are 60 basis points (0.60%) on the first $10 Million; 50 basis points (0.50%) on the next $190 Million; 45 basis points (0.45%) on the next $300 Million; 40 basis points (0.40%) on the next $500 Million; and 35 basis points (0.35%) over $1 Billion. Actual investment management fees incurred by clients may vary.

Benchmark: The benchmarks used for The DRS U.S. Large Cap Composite is the S&P 500 Index, which consists of approximately 500 large cap stocks and 60%/40% blended benchmark consisting of 60% S&P 500 Index and 40% Bloomberg US Aggregate Bond Index, a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS and CMBS (agency and non-agency).

Policies: Policies for valuing investments, calculating performance, and preparing GIPS reports, as well as a complete list and description of composites and broad distribution pooled funds are all available upon request.

Use of Derivatives: The purchase and sale of options are a component of The Defined Risk Strategy Composite. Options are traded on both long-term and short-term horizons to reduce the risk of owning stock and to generate income. Since inception of The Defined Risk Strategy, options have been responsible for a significant portion of total returns. The DRS uses little or no leverage (<2% of total portfolio value). Portfolios are generally balanced annually with approximately 85-90% stock, 10-15% options. Please contact Swan Global Investments, LLC for more detailed information on the use of options in The DRS.

Leverage and Short Positions: The DRS U.S. Large Cap Composite uses a combination of ETFs (long) and options, both long (portfolio has bought a position in a call or put option) and short (the portfolio holds a written call or put option) positions which constitute approximately 85-90% and 10-15% of the portfolio, respectively. The Defined Risk Strategy does not typically borrow money to buy stock on margin and as a result does not use leverage in the traditional sense. However, the DRS uses options as a material part of the strategy and by definition may constitute use of leverage since options typically control a large amount of the underlying security. This does not imply that The DRS portfolio is leveraged. The short option positions that are used to generate income are offset in whole or in part by the long stock and long options positions contained in the portfolio. Regardless, a margin account could be required.

Minimum account size: Before January 1, 2013, there was no minimum account size required for inclusion in Defined Risk Strategy Composite. Starting January 1, 2013, the minimum account size required for inclusion in the DRS U.S. Large Cap Composite is $250,000.

Beta: Beta for the Composites has been calculated using the standard formula of: covariance of portfolio and benchmark returns divided by the variance in benchmark returns. The period used in calculations is July 1, 1997 through the end of the period and the frequency of returns used is monthly. Beta is based on returns that are net of Swan fees only. A beta greater than 1.0 indicates that the investment is more volatile than the index, whereas a beta between 0 and 1.0 indicates that the investment is less volatile than the market index. A negative beta indicates the investment performance is counter-cyclical to the market. Values are excluded for the first 3.5 years of Composite implementation (i.e., 1997-2000) to ensure sufficient measurement points for meaningful statistical analysis.

Standard Deviation (External): Standard deviation measures the variability of the Composite's monthly returns, and states that variability on an annualized basis. Annualized standard deviations of monthly returns for both the Composite and benchmark have been calculated using the following method: Standard Deviation of 36 monthly returns multiplied by the Square Root of 12 (which annualizes it). This measure is based on returns that are net of Swan fees only.

Measure of Dispersion (Internal Standard Deviation): The Composite dispersion is measured using standard deviation of returns as stated above. However, from inception to December 31, 2012, the dispersion represented the variability of Net-of-Fees returns within the Composite. After December 31, 2012, the dispersion represents the variability of Gross-of-Fees returns within the Composite to remove the variance in fees per account. Dispersion is measured using only portfolios that were included in the Composite the entire calendar year.

Sharpe Ratio: Sharpe Ratios for both the Composite and the benchmark have been calculated using the standard formula of (Annualized Return – Risk Free Annualized) / Standard Deviation. The period used in calculations is July 1, 1997 through the end of the period and the frequency of returns used is annually. Annualized Returns in this calculation are net of Swan fees only. Risk Free Return values used in calculations are based on 91 Day Treasury Bill returns for the same period. Values are excluded for the first 3.5 years of Composite implementation (i.e., 1997-2000) to ensure sufficient measurement points for meaningful statistical analysis.

Currency: All valuations are computed, and performance reported in US dollars. Past results do not guarantee future performance.

Portfolios in the composite may include non-DRS securities (securities that are not part of the Swan Defined Risk Strategy) that are excluded from composite performance.