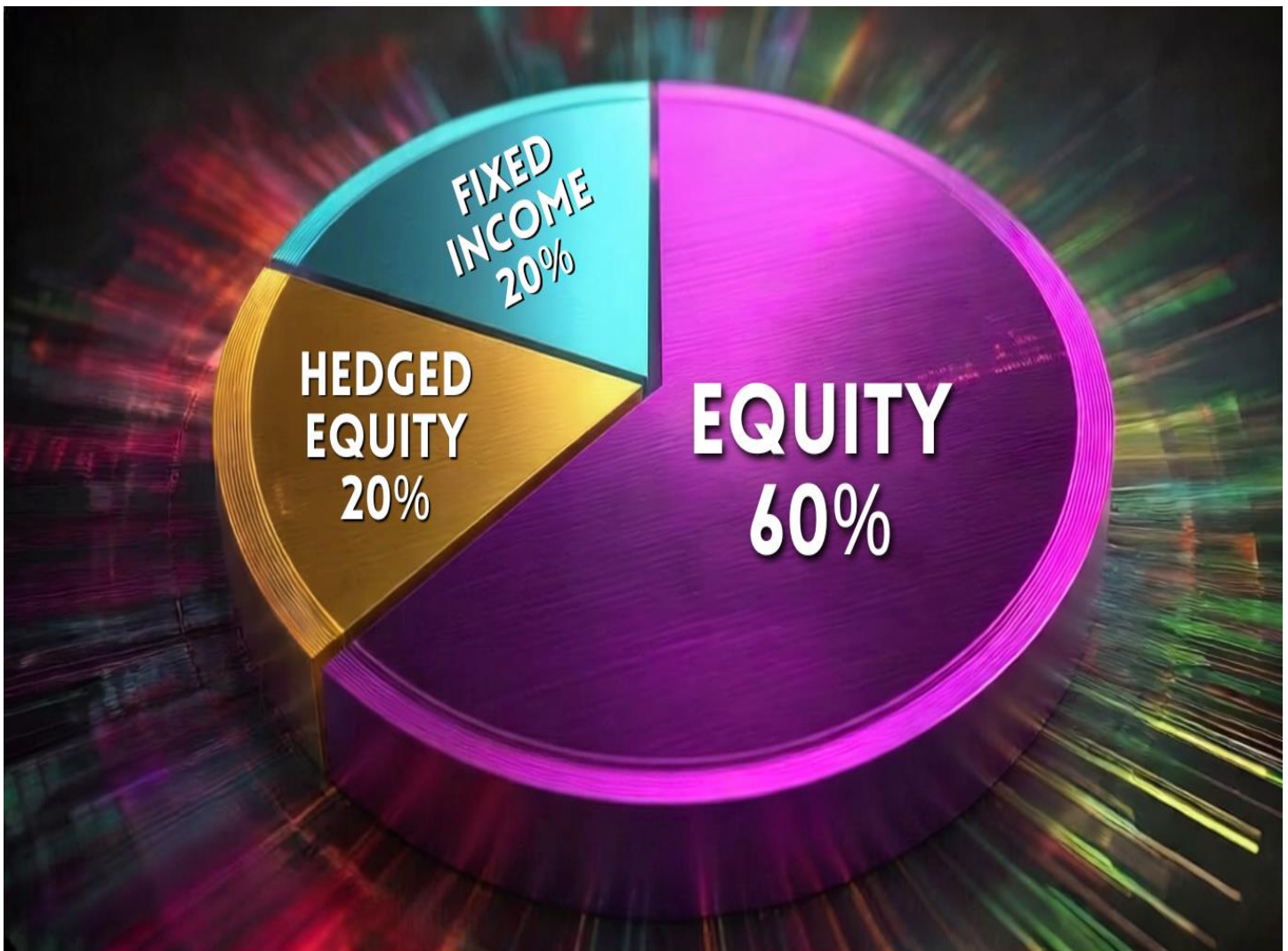


Hedged Equity as a Bond Alternative

How Risk-Managed Equity May Serve as a Bond Surrogate



One of the most frequently asked questions regarding our Defined Risk Strategy (DRS) is, “Where does the DRS fit?” In discussions with advisors, CIOs, and model builders we see the DRS being utilized to serve many different portfolio roles.

This post—the first in a four-part series—focuses on implementing hedged equity as a bond surrogate. Subsequent posts in this series will examine other meaningful use cases:

- core equity sleeve,
- alternative allocation, and
- cash deployment vehicle.

Why the Modern Portfolio Needs a Bond Surrogate

For decades bonds were a “win-win” proposition. Bondholders received meaningful yield AND protection of principal. This was one of the main reasons why the classic “60-40” stock-bond portfolio was so successful.

However, it seems unlikely bonds will be able to provide both a high level of returns and correlation benefits going forward. It is Swan Global Investment’s opinion that bonds are now a “lose-lose” situation. Like-minded investors can use hedged equity as a surrogate for bonds in their portfolio construction.

Bonds have been in a strange limbo ever since 2022’s dramatic unwinding of the “ZIRP/zero-interest rate policy” era. While short-term rates have fluctuated significantly, the longer-term, 10-year rate has been steady in the 3.5-4.5% range. There has been much debate about whether rates should go higher or lower, but either situation could be perilous for bondholders.



Source: U.S. Department of the Treasury

Bond Risk #1: Why Rate Cuts May Not Save Bondholders

If the monetary doves have their way and rates decrease, this might provide a short-term boost to bondholders, as bond prices and yields are inversely correlated.

Rate cuts may backfire for bondholders for three reasons:

- Inflation has not returned to its 2% target — cheaper money could further fuel it, undercutting the value of fixed income
- Moreover, the dovish case is being driven more by political considerations than economic reasons. If the Fed is losing its political independence — investors will likely demand a higher premium for Treasury debt as a result
- The September–November 2024 data proved this: the Fed cut rates 75 basis points while the 10-year yield simultaneously *rose* 79 basis points

The doves are thus in a “be careful what you wish for” predicament. While under normal circumstances rate cuts boost bond prices, we might be in a situation where rate cuts are counterproductive.

Bond Risk #2: How Rising Rates Devastate Fixed Income Portfolios

Alternatively, some are arguing that interest rates need to be increased. After decreasing from generationally high levels in 2021-22, inflation appears to be ticking up again. Most Fed-watchers agree the biggest mistake of Powell’s chairmanship was labeling the post-Covid period of inflation as “transitory” and delaying action. Some argue the Fed should learn from this experience and again raise rates to squeeze inflation, before it gets out of control.

Bond prices will likely fall in a scenario where the Fed is forced to raise rates. In 2022 the Bloomberg Aggregate US Bond index had a return of -13.0%, but the picture was grim across many types of bonds.

	2022	Max Drawdown
Bloomberg US Agg Bond	-13.01%	-17.89%
Bloomberg US Aggregate 1-3 Yr	-3.72%	-5.73%
Bloomberg US Aggregate 3-5 Yr	-7.84%	-11.78%
Bloomberg US Aggregate 5-7 Yr	-10.78%	-15.79%
Bloomberg US Aggregate 7-10 Yr	-14.82%	-20.89%
Bloomberg Short Treasury	0.98%	-0.29%
Bloomberg Intermediate Treasury	-7.77%	-11.25%
Bloomberg Treasury Long	-29.26%	-40.96%
Bloomberg US Treasury US TIPS	-11.85%	-14.20%
Bloomberg High Yield Corporate	-11.19%	-14.95%

Source: Morningstar Direct

While commentators argue about what the Fed **should** do, it is also worth asking what the Fed **can** do.

For decades the United States government has run budget deficits, racking up enormous debts. Some are warning that we are moving from a period of monetary dominance to fiscal dominance; an era where the Fed's monetary policy decisions are less effective and constrained by the government's fiscal outlays. Under this scenario, prevailing yields will be driven higher by mandatory spending on entitlement programs and existing debt servicing.

Whether as a deliberate policy decision or driven by market forces, yields may rise due to:

- Mandatory spending on entitlement programs
- Existing debt servicing costs on accumulated deficits
- Market demand for a higher premium on Treasury debt under fiscal dominance

Ultimately, the cause of yields potentially rising is irrelevant; the outcome would be harmful to existing bondholders.

Why Bonds May Fail as a Diversifier: From 2022 to the Tariff Tantrum

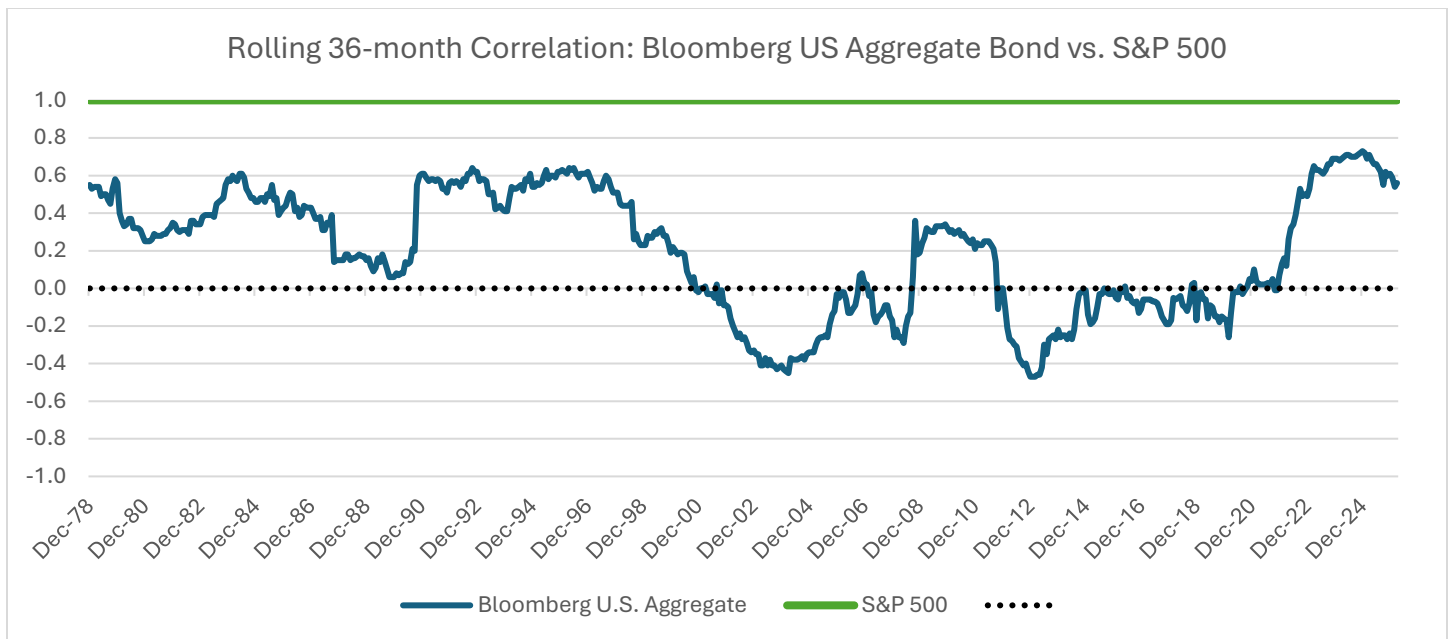
While the outlook for bonds may be grim in both lower- and higher-rate scenarios, the concern for asset allocators should be the risk diversification benefits bonds bring to a broad portfolio.

The last several years have exposed structural weaknesses in the assumed stock/bond correlations underpinning the 60/40 portfolio construction.

2022 served as a harsh reminder that bonds are not always reliable ballast when inflation risk, rather than growth risk, becomes the dominant macro shock. Both equities and core bonds sold off sharply and the classic diversification engine failed at the precise moment it was most needed.

This pattern of converging correlations between stocks and bonds repeated itself in April 2025 during the "Tariff Tantrum." Although shorter-lived, this was another episode where traditional diversification failed when investors needed it the most.

The graph below shows the rolling 36-month correlation of the Bloomberg U.S. Aggregate Bond Index against the S&P 500; the two ingredients of the traditional "60/40" portfolio.



Source: Zephyr StyleADVISOR

The volatility risk of a portfolio is reduced when the constituents have low, or even better, negative correlations. However, if the correlations are high volatility is not meaningfully reduced.

The lesson is not that bonds have no role in a portfolio, but that strategic portfolios need additional, explicitly differentiated sources of downside mitigation as portfolio ballast. The growth of hedged equity solutions illustrates the growing demand for bond alternatives.

The Defined Risk Strategy: A Hedged Equity Bond Alternative

Hedged equity strategies may offer an alternative to relying on bonds for capital preservation and volatility reduction. A hedged equity approach is typically invested in risk assets like the S&P 500, while seeking to mitigate downside risks using put options. Put options have stronger correlation benefits and less sensitivity to interest rates than bonds. By combining equity exposure with put options rather than bonds, hedged equity strategies may be an attractive alternative to fill the capital preservation role bonds traditionally filled.

The Swan Defined Risk Strategy (DRS)* combines passively-held equity exposure with actively-managed put options.

Why the DRS uses put options (rather than bonds) for downside mitigation:

- Put options are inversely correlated to the underlying equity by structure — not by macroeconomic assumption
- They have less sensitivity to interest rates than bonds
- They directly mitigate downside risk regardless of rate environment
- The DRS has a 28-year track record of performance through bear markets and market crises since 1997

2022 Case Study: Swan DRS -11% vs. Bonds -13% vs. 60/40 Portfolio -15.8%

For investors, 2022 was a brutal reminder of duration risks to both bonds *and* stocks.

Following inflation spiking to the highest levels in a generation, the Fed finally and decisively ended the “ZIRP”/zero-interest rate policy era. The Fed Funds Rate rose from 0%-0.25% to 4.25%-4.50% over the span of nine months, one of the fastest rate hikes in history. The good news was that this decisive action brought inflation back down to reasonable levels. The bad news is that it had an extremely negative impact on bonds as well as stocks.

2022 Bond Index Total Returns and Maximum Drawdowns

- -18.1% for the S&P 500 index
- -15.8% for the 60/40 portfolio
- -13.0% for the Bloomberg US Aggregate Bond index
- -11.0% for the Swan Defined Risk Strategy (DRS)*

Source: Morningstar Direct

This period illustrated the weakness of traditional asset allocation: risk is only reduced if the correlations between asset classes remain low.

Other macro-level risks that could create another 2022-style scenario where bonds and stocks fall in lockstep:

- Persistent inflation / rising rates
- De-dollarization
- Fed independence concerns
- Runaway fiscal spending

If a big, macro factor like rising interest rates negatively impacts both stocks and bonds, risk is unlikely to be reduced in a meaningful manner. In contrast with the correlated returns of stocks and bonds, the put options used to hedge the DRS had positive returns of 5.2% in 2022*, helping offset the losses on the equity side.

A full discussion regarding the outlook for bonds is outside the scope of this article. That said, other macro-level risks like persistent inflation, de-dollarization, Fed independence, and runaway fiscal spending may give rise to another situation like 2022 when bonds and stocks fall in lockstep. In such situations, the DRS with its use of put options offers a compelling strategy for capital preservation and surrogate for bonds in a portfolio.

Key Takeaways

- Bonds now face risks whether rates rise or fall — a structural "lose-lose" for bondholders
- Stock-bond correlation is unreliable: 2022 and April 2025's "Tariff Tantrum" both proved it fails when most needed
- The DRS's put options provide downside risk mitigation that is rate-agnostic — structurally different from bonds
- In 2022, DRS returned -11.0%, outperforming bonds (-13.0%), the 60/40 portfolio (-15.8%), and the S&P 500 (-18.1%)
- For advisors seeking a bond surrogate, hedged equity offers an explicitly differentiated source of downside mitigation

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 fits into 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.

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
2015	-2.23%	323.99%	8.12%	-1.64%	408.14%	9.18%	0.29	5.79%	0.61	766 / 473.21	2,446.11	1.36%	1.38%	225.36%	6.58%	10.47%	0.28
2016	8.90%	361.71%	8.16%	9.55%	456.68%	9.20%	0.29	5.38%	0.64	1,207 / 675.64	3,620.08	0.90%	11.96%	264.27%	6.85%	10.59%	0.31
2017	11.29%	413.84%	8.31%	11.96%	523.26%	9.34%	0.29	4.98%	0.67	1,630 / 982.45	4,975.33	0.78%	21.83%	343.79%	7.54%	9.92%	0.37
2018	-7.01%	377.83%	7.55%	-6.45%	483.07%	8.55%	0.31	6.23%	0.59	1,292 / 756.36	4,063.88	1.13%	-4.38%	324.34%	6.95%	10.80%	0.33
2019	14.69%	448.01%	7.85%	15.38%	572.73%	8.84%	0.31	7.01%	0.63	1,144 / 638.36	3,065.24	1.15%	31.49%	457.95%	7.94%	11.93%	0.40
2020	2.82%	463.45%	7.63%	3.44%	595.85%	8.61%	0.32	9.17%	0.61	893 / 501.09	2,236.86	1.75%	18.40%	560.60%	8.37%	18.53%	0.41
2021	15.38%	550.10%	7.94%	16.07%	707.68%	8.90%	0.33	8.07%	0.66	1,026 / 546.44	2,571.77	0.24%	28.71%	750.23%	9.13%	17.17%	0.47
2022	-10.98%	478.71%	7.13%	-10.45%	623.32%	8.07%	0.33	8.76%	0.57	818 / 414.59	2,202.24	0.40%	-18.11%	596.25%	7.91%	20.87%	0.38
2023	11.96%	547.94%	7.31%	12.64%	714.72%	8.24%	0.33	7.68%	0.58	736 / 403.99	2,105.95	0.42%	26.29%	779.27%	8.55%	17.29%	0.42
2024	14.01%	638.70%	7.54%	14.69%	834.43%	8.47%	0.34	7.91%	0.60	722 / 404.13	2,311.22	2.21%	25.02%	999.26%	9.11%	17.15%	0.45

Performance is presented for the past 10 calendar years as of December 31, 2024. The firm has a longer performance track record for this composite which is available upon request.

Composite			
Annualized As Of	Gross	Composite	
12/31/2024	Return	Net Return	Benchmark
Since Inception	8.47%	7.54%	9.11%
10 Year	6.11%	5.47%	13.10%
5 Year	6.79%	6.15%	14.53%
3 Year	4.98%	4.35%	8.94%
1 Year	14.69%	14.01%	25.02%

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.

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