THE DEFINED RISK STRATEGY

A Full Market Cycle Strategy

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INTRODUCTION

The following is a brief discussion of the Swan Defined Risk Strategy (DRS) as a full market cycle strategy by Swan Global Investments founder and president, Randy Swan. A full market cycle is defined as a market cycle that includes both a bull and a bear market.

DRS PHILOSOPHY AND GOALS

The DRS philosophy is grounded upon the belief that market timing and stock selection investment strategies generally fail to provide superior returns over the long-term and that asset allocation is limited in its ability to protect capital from market risk. The DRS emerged out of a desire to find an investment approach that could allow someone to benefit from an investment in the equities market while reducing the risks in equities investing.

This philosophy was stated at the inception of the DRS in 1997:

> "*The great claim of asset allocation is that risk can be reduced by diversifying over several broad asset classes (i.e., stocks, bonds, cash and real estate) without a similar reduction in return. This risk reduction is, however, strictly theoretical (typically based upon relationships that existed over a particular period). There is no guarantee that these same relationships will continue in the future. This is the crux of where asset allocation or modern portfolio theory breaks down. Risk is not defined; instead it is merely expressed in historical standards.*"
>
> - Randy Swan, founder and CEO of Swan Global Investments

The inherent weakness of asset allocation to protect against market risk was exposed in 2008 when a broad-based equities market meltdown took place and well-diversified investment portfolios were subject to ruinous declines in value in a relatively short period of time. More recently, 2022 was a year when equities and bonds concurrently suffered double-digit losses, severely impacting "balanced" portfolios. The value of the defined risk approach was apparent in these scenarios.

The DRS was designed to avoid the difficulties of selecting individual stocks for investment, timing the overall market, and the vulnerabilities inherent in passive asset allocation investment strategies. Specifically, the DRS was designed to hedge against systemic or market risk. Even well-diversified portfolios can be hurt when all the components decline at the same time. The goal of the DRS is not to outperform the broad market indices on the upside but rather to seek outperformance over an entire investment cycle, which includes periods of widespread equity market declines. Since mid-1997, the DRS has been able to accomplish the primary goal of allowing investors to participate in bullish equity market gains while seeking to reduce risk from the market's potential to decline. (No representations about future performance are being made in this observation.)

While we cannot claim that the Swan DRS will outperform the market in any particular time frame, it was designed to provide significant downside risk reduction.

Hedging against downside risk can be one of the best ways to outperform the market over a longer time frame. In order to provide significant downside risk mitigation, the DRS tends to underperform the broader market on the upside.

The importance of minimizing downside risk and the impact on long-term returns was stated by John Nyaradi:

> "*If you don't lose money during downturns, you only have to capture roughly 30 percent of the upside move of a bull market to beat buy and hold.*"
>
> - John Nyaradi (Super Sectors: How to Outsmart the Market Using Sector Rotation and ETF)

A study by Crestmont Research validates Nyaradi's 30% claim, finding that only 26% of the upside move is needed and this study is consistent with our experience and analysis of the DRS historical performance over a period of 25+ years.

PROPER INVESTMENT MANAGER & ADVISOR GOALS

Investors should not focus solely on the upside performance of an asset or asset class but rather on a return of that asset over an entire market cycle. It is irrelevant what a strategy returns in a bull market if you lose most of those gains in the next bear market.

A prudent investment manager has a fiduciary responsibility to protect capital and provide for the possibility of long-term gains. A good prudent manager should manage to outperform over the long-term and should facilitate client education to ensure they understand and fully comprehend the manager's investment goal. Judging and taking short-term action is folly, we believe, as it is often based on emotional responses to market moves. Such emotional reactions often lead to disastrous consequences (i.e., quitting on a good long-term strategy or buying at the high and selling at the low).

If that perspective is valid, then the DRS is at least suitable and at best ideal for a core investment allocation. It is designed to provide substantial, always-on, downside risk mitigation. Of course, where the DRS fits into an investor's portfolio is up to the advisor, consultant, or individual investor.

We believe the DRS can serve very well as the core investment for a broad range of investors because the Swan DRS has demonstrated the ability in the past, with actual capital, to match the long-term rate of returns for stocks with substantially less risk than most other investment strategies, as benchmarked against the 60/40 portfolio, as represented by a 60% investment in the S&P 500 index and 40% investment in the Bloomberg US Aggregate Bond Index.

We place an emphasis on hedging capital against market risk because we do not believe that it is unreasonable to suggest that the current market environment is uncharted territory.

The potential for another calamitous year such as 2008, or worse, is always a real possibility. This consideration makes the risk-protecting DRS even more valuable given the dynamics and uncertainties of the current economic environment.

We usually ask investors: “There is market risk out there—what are you doing about it?” Most people seek to mitigate risks of major losses to their property, health, and life. Why not your portfolio?

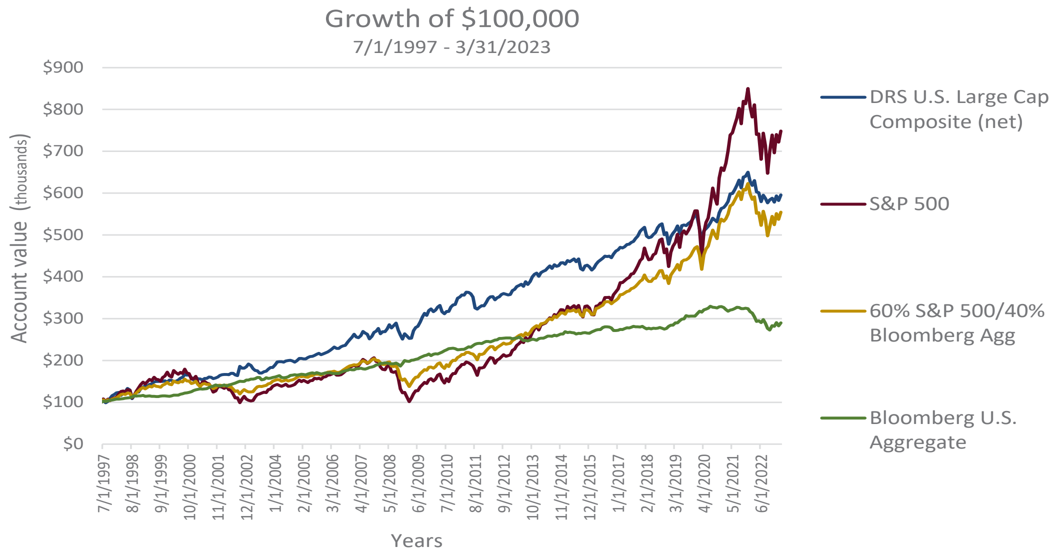
Investors who seek higher upside capture ratios than the DRS has historically provided should perhaps invest in other assets but must also acknowledge and accept the higher risk inherent in those investments.

We manage the DRS in a similar fashion to what we believe great advisors seek to provide; mitigating risks to the core equity as we do with a hedge while committing a small portion of the portfolio to generate additional returns with option strategies.

The goal of a good advisor is to find good managers and allocate in the right proportion considering the client’s goals and objectives as well as the client’s tolerance for risk. Assets that have the potential for high returns with low risk and low correlation should be the ultimate goal of every advisor and client.

WHAT BENCHMARK RETURNS SHOULD THE DEFINED RISK STRATEGY BE COMPARED TO?

We are comfortable comparing the DRS to a diversified portfolio of stocks and bonds. We are also comfortable being compared to the S&P 500, provided that longer investment time horizons are used (ones that include bear markets). The chart below shows the growth of $100,000 invested since inception of the strategy versus various benchmarks.



Source: Zephyr StyleADVISOR and Swan Global Investments. The S&P 500 Index and the Bloomberg US Aggregate Bond Index are unmanaged indices, and cannot be invested into directly. Swan Defined Risk Strategy returns are from the Swan Defined Risk U.S. Large Cap Composite, net of all fees. See the Disclosures section for more information.

Investment 7/1/1997 - 3/31/2023	Return (%)	Std Dev (Pop.) (%)	Downside Risk (%)	Beta vs. Market	Alpha vs. Market	R-Squared vs. Market (%)	Sharpe Ratio
Swan DRS U.S. Large Cap Composite (net)	7.18	9.16	6.91	0.33	4.46	32.00	0.57
S&P 500 Index	8.13	15.67	11.9	1.00	0.00	100.00	0.40
60% S&P 500 / 40% Bloomberg Agg	6.88	9.65	7.32	0.61	1.63	97.41	0.51
Bloomberg U.S. Aggregate Index	4.22	3.89	2.9	0.02	4.12	0.63	0.59

Source: Zephyr StyleADVISOR and Swan Global Investments. The S&P 500 Index and the Bloomberg US Aggregate Bond Index are unmanaged indices, and cannot be invested into directly. Swan Defined Risk Strategy returns are from the Swan Defined Risk U.S. Large Cap Composite, net of all fees. See the Disclosures section below for more information.

A long-term annualized rate of return of 7% on capital investments in a diversified portfolio has been used in the past as the assumed rate of return for pension plans. However, that 7% is not as reasonable in the current environment due to the low returns from “safe” investments in U.S. Treasury securities. It is important to note, while bonds have enjoyed a great tailwind over the past 40+ years, the decades-long decline in interest rates that caused that tailwind appears to be over.

Regardless of what an appropriate actuarial rate of return should be, the DRS performance of 7.2% annualized since inception in July 1997 (as of March 31, 2023) compares favorably to a diversified portfolio, outperforming a traditional 60/40 portfolio and slightly underperforming the S&P 500 over that time period.

While the DRS is primarily devised to replace the traditional balanced portfolio, investors often utilize the strategy as an alternative way to invest in equities. When considering the DRS performance relative to the S&P 500 Index, it is important to note that since 2008 the Federal Reserve has been increasingly involved directly in capital markets. This intervention, in the form of direct asset purchases, liquidity injections, digital money printing, and interest rate suppression, spurred the equity markets (and bond markets to a lesser degree) to historic rates of return. For example, from 2012 through 2021, the 10-year annualized return for the S&P 500 Index was 16.88%, nearly double the long-term rate of return for stocks of 9.59% since the Great Depression (source: MorningStar Direct. Stocks: IA SBBI U.S. Large Stock Index). After the 2022 bear market, the 10-year annualized return dropped to 12.56% (for 2013 through 2022), still well above the long-term average.

The question then becomes: *Which portfolio would you rather have, a portfolio exposed to unlimited market risk or one that actively seeks to reduce that risk by hedging?*

Any sophisticated investor knows one should compare not only the returns but also the risks of competing investment strategies. Based upon various measures of performance such as beta, standard deviation, drawdowns, and absolute levels of risk, Swan believes that the DRS is the superior long-term approach because market risk is mitigated and actively managed. The DRS could be considered even more valuable if you accept the assertion that the tailwind provided by the long bull market in bonds is over.

APPRECIATION OF THE GOALS OF THE DRS

Long-term investors may face numerous bull and bear markets over the course of their investment timeline. How they navigate those ups and downs will determine their final outcome.

The Defined Risk Strategy seeks to navigate and capitalize on market cycles. The strategy's combination of passive equity investment with active risk management is distinctly aligned with objectives of long-term investors: to participate in markets while seeking to preserve wealth.

Preserving wealth and providing the opportunity for growth is the dual mandate of the DRS, and presumably the 60/40 portfolio as well. As previously mentioned, the DRS was designed to outperform a 60/40 portfolio on an absolute and risk-adjusted basis over an entire market cycle, not just a bull market. We believe it would be difficult for anyone to achieve their financial goals without using risk mitigation strategies, in particular strategies that hedge market risk. Stock selection and market timing have proven ineffective in dealing with systemic risk over the long term precisely because they don't adequately address systemic risks. The DRS focuses on risk management in an attempt to deliver a better investment experience (lower portfolio volatility) than its benchmarks. Attempting to minimize the impacts of downside risk and reducing volatility by using proper risk management techniques gives an investor a better chance of successfully navigating market cycles and achieving long-term objectives.

Another benefit Swan provides is that the DRS does not rely upon timing the market successfully for entry and exit to reach its long-term objectives. Investors are often conflicted about entering the markets during uncertain times in the investment cycle.

Investors have different objectives, investment timelines, risk tolerances, and needs both in retirement in the meantime.

The DRS has proved its value by providing compelling risk and return metrics relative to the 60/40 portfolio and the S&P 500 Index since inception of the strategy. Investors in the DRS can benefit from the potential for attractive long-term rolling returns and the knowledge that if a large market decline occurs then the strategy should provide significant downside risk mitigation. Any out-performance is icing on the cake. Historically speaking, there has been a lot of icing for Swan investors willing to be patient investors.

IMPORTANT NOTES & DISCLOSURES

Swan Global Investments, LLC is a SEC registered investment advisor providing asset management services utilizing the proprietary Swan Defined Risk Strategy, allowing our clients to grow wealth while protecting capital. Note that being an SEC registered Investment Adviser does not denote any special qualification or training. Swan offers and manages the proprietary Defined Risk Strategy ("DRS") through multiple product offerings for its clients including individuals, institutions and other investment advisor firms. Information is this communication is aggregated from Swan affiliated companies. Swan Global Investments, LLC, Swan Capital Management, LLC, Swan Global Management, LLC and Swan Wealth Management, LLC are affiliated entities. More information about Swan and Swan's DRS can be found at www.swanglobalinvestments.com or by contacting Swan at sales@swanglobalinvestments.com, Swan Global Investments, LLC, 277 East 3rd Ave, Durango, CO 81301. (970) 382-8901.

Swan Global Investments, LLC is affiliated with Swan Capital Management, LLC, Swan Global Management, LLC and Swan Wealth Management, LLC. There are nine DRS Composites offered: 1) The DRS U.S. Large Cap Composite which combines non-qualified and qualified separately managed accounts with a moderate risk tolerance invested in S&P 500 equities. 2) The DRS U.S. Large Cap Growth Composite which includes separately managed accounts with a higher risk tolerance invested in S&P 500 equities; 3) The DRS U.S. Large Cap Prime Composite which includes portfolios with a conservative risk tolerance invested in S&P 500 equities; 4) The DRS Emerging Markets Composite which includes separately managed account(s) and mutual fund accounts invested in emerging market equities; 5) The DRS Foreign Developed Markets Composite which includes separately managed account(s) and mutual fund accounts invested in foreign developed market equities; 6) The DRS U.S. Small Cap Composite which includes separately managed account(s) and mutual fund accounts invested in U.S. small cap equities. 7) The DRS U.S. Large Cap Institutional Composite which includes high net-worth, non-qualified separately managed accounts and mutual fund accounts invested in S&P 500 equities that utilize cash-settled, index-based options held at custodians that allow participation in Clearing Member Trade Agreement (CMTA) trades; 8) The DRS U.S. Large Cap Institutional Growth Composite which includes high net-worth, qualified and non-qualified separately managed accounts and mutual fund accounts with a higher risk tolerance invested in S&P 500 equities that utilize cash-settled, index-based options held at custodians that allow participation in Clearing Member Trade Agreement (CMTA) trades; 9) The Pacer Swan Structured Outcome Strategies (SOS) ETF Series Composite which includes investors in the Pacer Swan SOS ETF products. Additional information regarding Swan's Policies and Procedures used for valuing investments, calculating performance, and preparing GIPS reports are available upon request. There are three composites that have been terminated: 1) The DRS U.S. Large Cap Sectors Select Composite which includes non-qualified separately managed accounts invested in S&P 500 equities terminated on 1/1/2020. 2) The DRS U.S. Large Cap IRA Composite which includes qualified separately managed accounts invested in S&P 500 equities terminated on 1/1/2020. 3) The DRS Solutions Growth Composite which includes all separately managed accounts invested in multiple hedged asset classes and diversified into other asset classes with target allocations guided by a growth-oriented risk tolerance terminated in May 2020.

IMPORTANT NOTES & DISCLOSURES

Composite Description: The Defined Risk U.S. Large Cap Composite demonstrates the performance of non-qualified and qualified assets 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 eliminate most of the 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 spreads that represent other indices that are widely traded. The Defined Risk Strategy is a hedged equity investment approach designed to benefit from long-term market appreciation, while mitigating overall market risk. 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.

Performance results are presented in U.S. dollars and are net-of-model-fees and trading expenses and reflect the reinvestment of dividends and capital gains. Actual fees may vary based on, among other factors, account size and custodial relationship.

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

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	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
1997+	18.94%	18.94%	18.94%	N/A	N/A	N/A	1 / .22	0.22	<6	10.58%	10.58%	10.58%	N/A	N/A
1998	11.22%	32.28%	20.50%	N/A	N/A	N/A	1 / .32	0.32	<6	28.58%	42.18%	26.44%	N/A	N/A
1999	12.20%	48.42%	17.11%	N/A	N/A	N/A	1 / .72	0.72	<6	21.04%	72.09%	24.25%	N/A	N/A
2000	3.17%	53.13%	12.95%	N/A	N/A	N/A	1 / .90	0.90	<6	-9.10%	56.43%	13.64%	N/A	N/A
2001	7.46%	64.56%	11.70%	0.35	7.24%	0.50	3 / 1.66	1.66	<6	-11.89%	37.83%	7.39%	16.71%	0.13
2002	12.22%	84.67%	11.80%	0.20	10.20%	0.55	3 / 1.97	1.97	<6	-22.10%	7.37%	1.30%	18.55%	-0.17
2003	-0.73%	83.32%	9.77%	0.16	10.11%	0.46	6 / 3.74	3.74	5.68%	28.68%	38.17%	5.10%	18.07%	0.07
2004	11.66%	104.71%	10.02%	0.17	9.89%	0.54	8 / 4.66	4.66	5.80%	10.88%	53.21%	5.85%	14.86%	0.14
2005	6.62%	118.25%	9.62%	0.17	6.11%	0.54	8 / 4.98	4.98	2.66%	4.91%	60.73%	5.74%	9.04%	0.14
2006	17.13%	155.63%	10.38%	0.17	4.52%	0.62	12 / 7.69	7.69	3.71%	15.79%	86.12%	6.76%	6.82%	0.21
2007	8.21%	176.63%	10.18%	0.18	5.92%	0.61	14 / 9.40	9.40	3.79%	5.49%	96.34%	6.64%	7.68%	0.20
2008	-4.57%	163.97%	8.81%	0.23	9.33%	0.48	17/ 15.65	15.65	5.00%	-37.00%	23.70%	1.87%	15.08%	-0.11
2009	22.47%	223.29%	9.84%	0.25	10.71%	0.61	73 / 55.78	55.78	4.18%	26.46%	56.44%	3.64%	19.63%	0.02
2010	7.88%	248.77%	9.70%	0.27	10.58%	0.63	105 / 97.90	97.90	2.21%	15.06%	80.00%	4.45%	21.85%	0.09
2011	-5.20%	230.63%	8.60%	0.27	9.21%	0.55	146 / 59.44	59.44	3.16%	2.11%	83.80%	4.29%	18.71%	0.09
2012	8.29%	258.03%	8.58%	0.27	7.42%	0.58	436 / 129.08	386.76	1.44%	16.00%	113.22%	5.01%	15.09%	0.15
2013	14.16%	308.71%	8.91%	0.28	6.58%	0.64	423 / 309.7	1,052.99	1.56%	32.39%	182.28%	6.49%	11.94%	0.25
2014	6.11%	333.67%	8.74%	0.28	4.75%	0.65	599 / 434.3	1,810.04	0.65%	13.69%	220.92%	6.89%	8.97%	0.29
2015	-2.23%	323.99%	8.12%	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%	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%	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%	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%	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%	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%	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%	0.33	8.76%	0.57	818 / 414.59	2,202.24	0.40%	-18.11%	596.25%	7.91%	20.87%	0.38

+1997 CY Returns are total returns (i.e. not annualized) from July-December consistent with initial Strategy implementation.

IMPORTANT NOTES & DISCLOSURES

No current or prospective client should assume future performance of any specific investment strategy will be profitable or equal to past performance levels. 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. 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. 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.

The benchmarks used for the Defined Risk U.S. Large Cap Composite are the S&P 500 Index, which consists of approximately 500 large cap stocks and the Bloomberg US Aggregate Bond Index. The Bloomberg US Aggregate Bond Index is 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).

The S&P 500 Index is a market cap weighted index of 500 widely held stocks often used as a proxy for the overall U.S. equity market. Indexes are unmanaged and have no fees or expenses. An investment cannot be made directly in an index. 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. 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. 121-SGI-053023

IMPORTANT NOTES & DISCLOSURES

Additional information regarding Swan's Policies and Procedures used for valuing investments, calculating performance, and preparing GIPS reports are available upon request. Swan claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with GIPS. Swan's compliance with GIPS has been independently verified for the periods July 1, 1997 through December 31, 2021. The Spaulding Group conducted Swan's verification. The three-year annualized standard deviation measures the variability of the composite and the benchmarks over the preceding 36-month period. The dispersion of annual returns is measured by the standard deviation of asset-weighted portfolio returns represented within the composite for the full year. For those periods with five or fewer portfolios included for the entire year, dispersion is not presented. A copy of the verification report is available upon request. To receive copies of the report, please call (970) 382-8901 or email operations@swanglobalinvestments.com. Verification assesses whether (1) the firm has complied with all the composite construction requirements of GIPS on a firm-wide basis, and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with GIPS. Verification does not ensure the accuracy of any specific composite presentation.

ABOUT SWAN GLOBAL INVESTMENTS

Investing Redefined®

Since 1997, our hedging and options strategies have been redefining investing to directly address the biggest threat long-term investors face: market risk.

Market risk is too big a threat to investors to be dealt with passively. So we hedge it.

Our simple, yet innovative investment philosophy is the foundation of our Defined Risk Strategy, a rules-based, multi-asset hedged equity strategy, with a track record of seeking to generate consistent returns while defining, or limiting, downside risk to improve investment outcomes and managing risk for irreplaceable capital through full market cycles (bull and bear).

Swan Global Investments is an asset manager headquartered in Durango, Colorado, with offices in Puerto Rico.

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