



Hedged Equity Investing

Addressing the Investor's Dual Dilemma

Innovative Overlay and Hedged Equity Solutions, Since 1997.

Market Risk is Inevitable & Unpredictable

Can cause large losses, wrecking plans and lives.

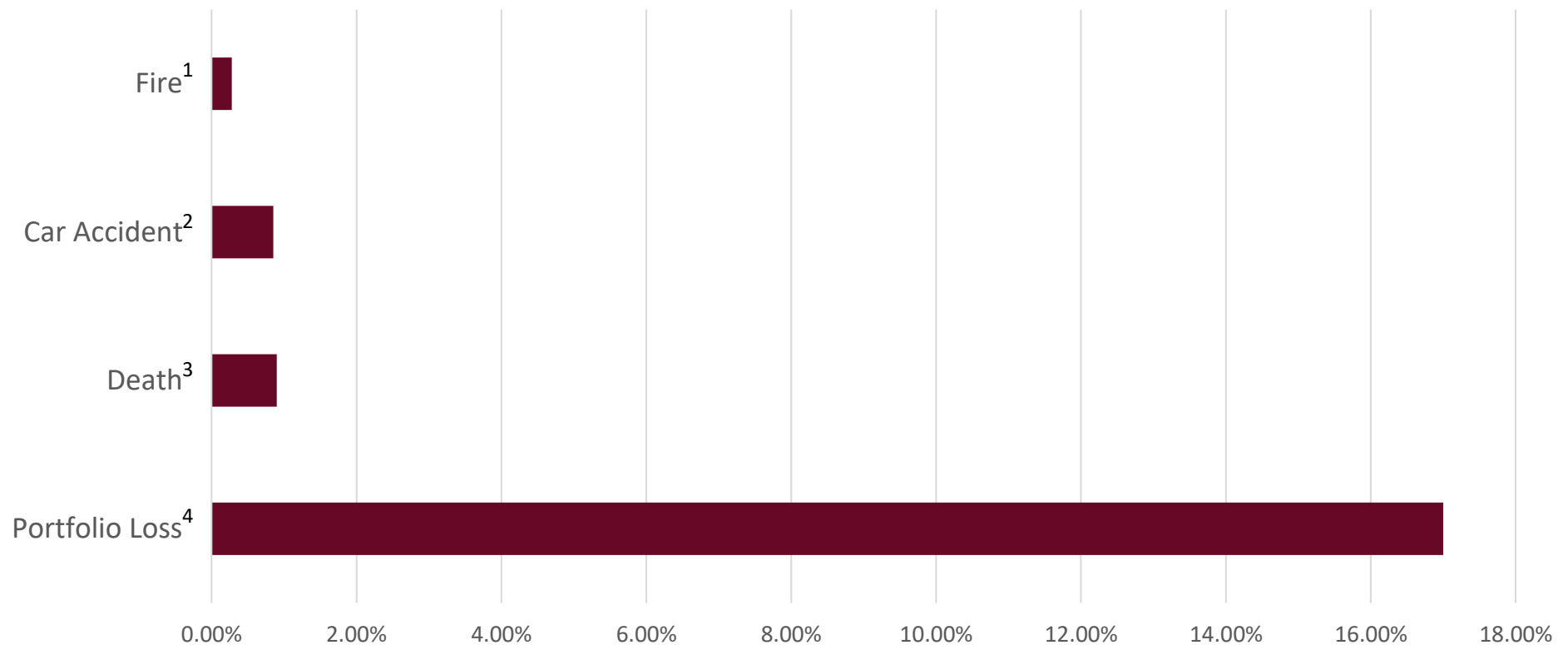
By Definition, Market Risk *Cannot* be Diversified Away.

But it can be hedged.



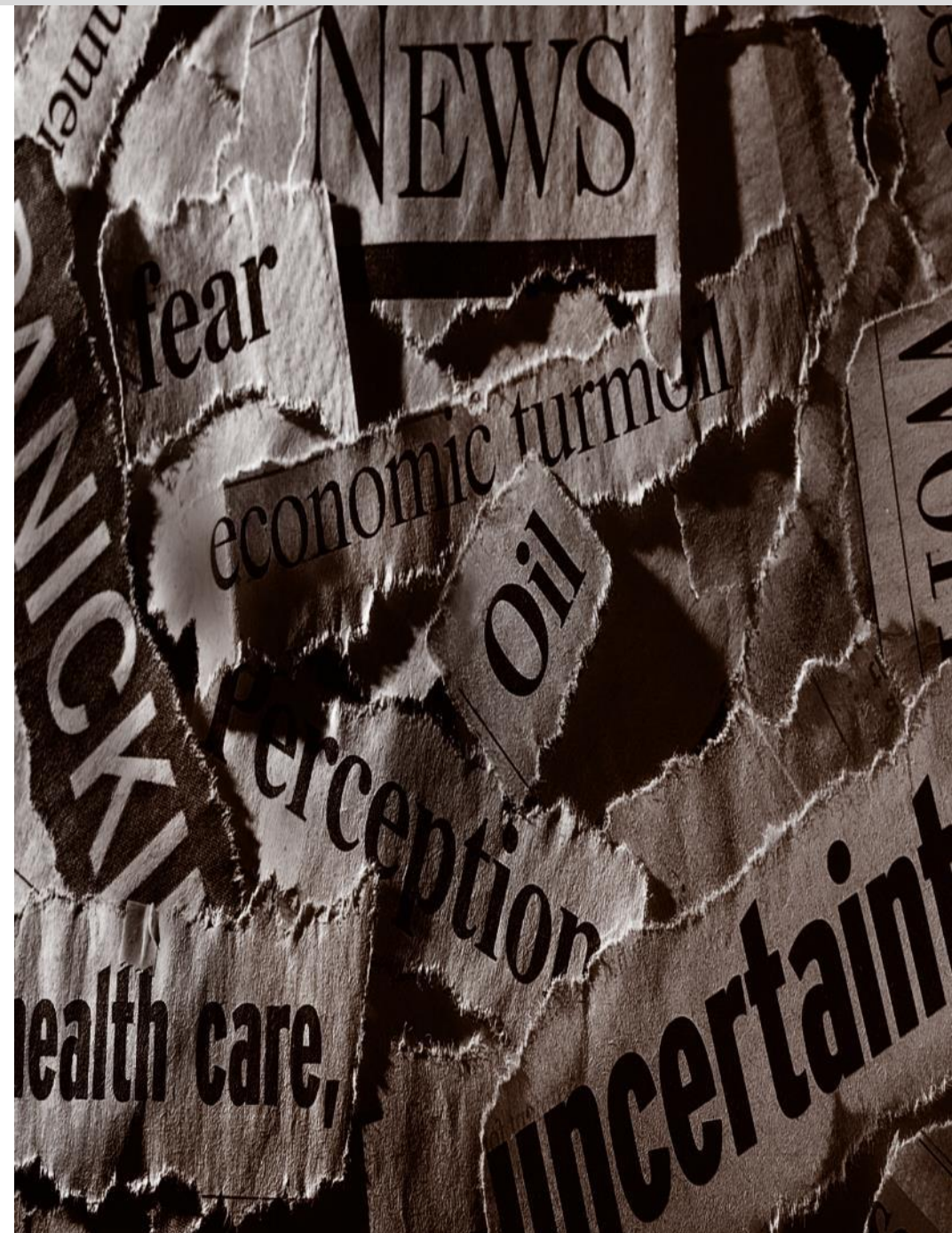
What Are You Looking to Protect?

Chance of Major Loss



What's Driving Risk?

- Global recession concerns
- Impacts of inflation on earnings
- Implications of rapid Fed rate hikes
- Geopolitical risks in an increasingly multi-polar world



The Investor's "Trilemma"

State of Equity Markets

- Global recession risk
- Markets once again approaching all-time highs
- Narrowness of recent market rally
- "QE punchbowl" taken away
- Long-term return expectations are muted

State of Bond Markets

- Fed Reserve indicates commitment to hike & hold rates
- Inflation remains elevated, eroding real income
- Biggest losses in decades

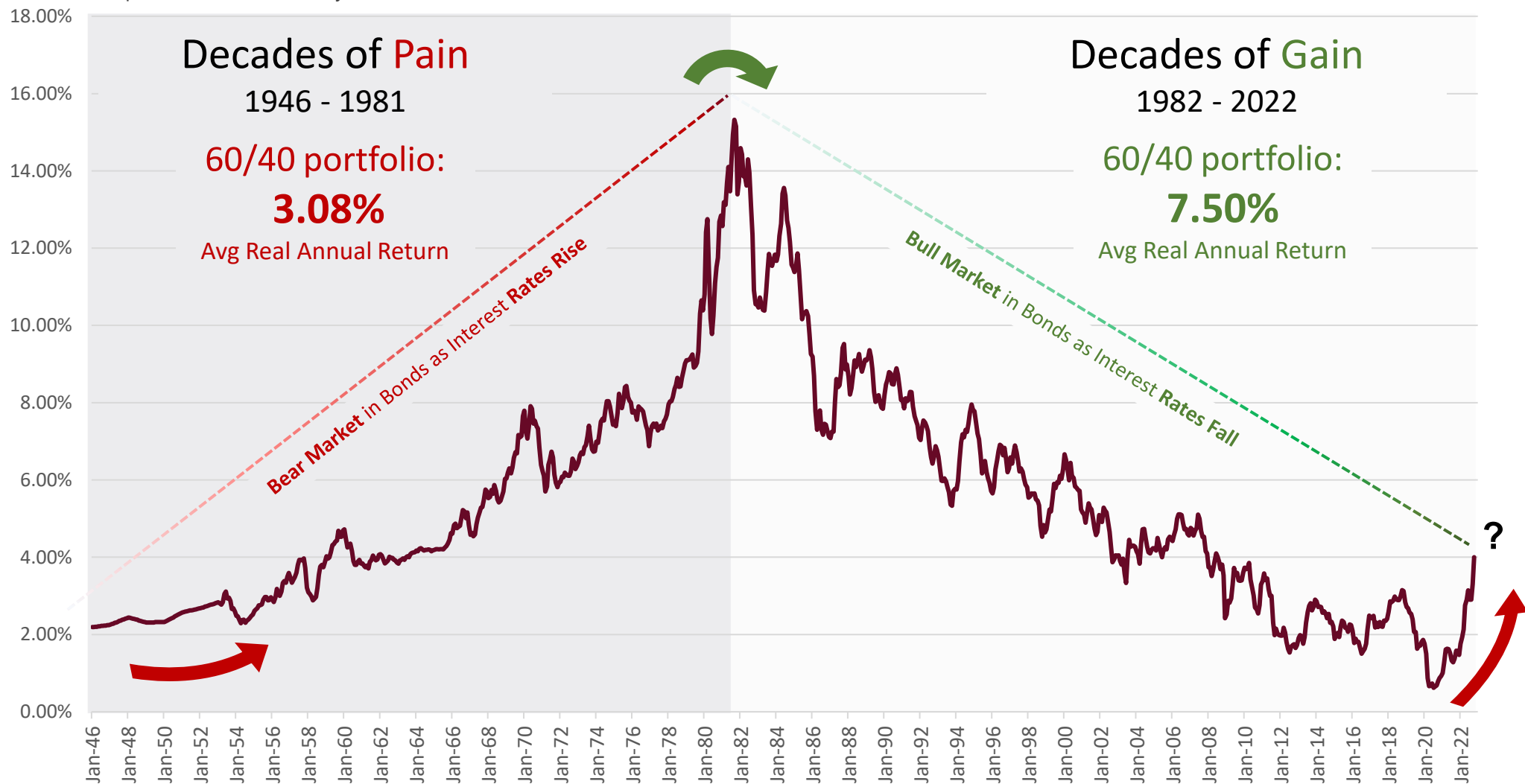
Market Entry (Cash on Sidelines)

- Inflation eroding buying power
- Timing risk
- Selection risk



Long-Term Debt Cycle Turning?

Graph: 10-Year US Treasury Rate, 1945-2022



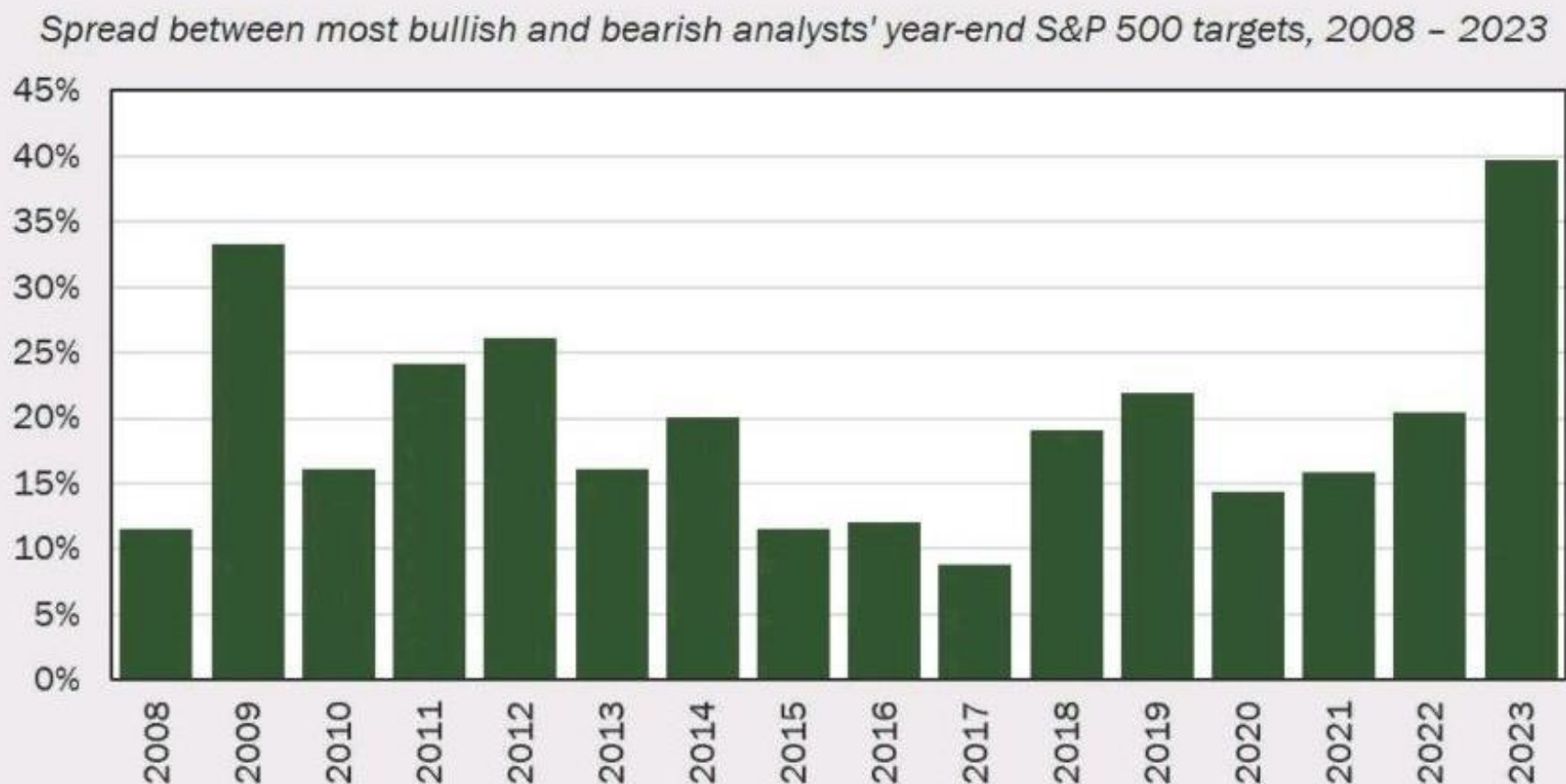
Market Sold Off.

Now Where Do We Go?

SP 500 Index: 1/3/2022 – 9/30/2023



Historic Divergence Among Analyst Outlooks



What Do Experts Think?

Forecasted Nominal Returns - Next 5 to 10 years			Implications for Various Portfolios			
Source	US Equities	US Bonds	60/40	70/30	80/20	90/10
1) Vanguard	4.70%	4.10%	5.74%	4.52%	4.58%	4.64%
2) BlackRock	5.80%	3.70%	5.18%	5.17%	5.38%	5.59%
3) Research Affiliates	4.60%	5.60%	7.84%	4.90%	4.80%	4.70%
4) JP Morgan	8.19%	5.92%	8.29%	7.51%	7.74%	7.96%
5) Morningstar	5.70%	4.30%	6.02%	5.28%	5.42%	5.56%
6) Northern Trust	6.30%	4.70%	6.58%	5.82%	5.98%	6.14%
7) GMO	0.50%	2.30%	0.92%	1.04%	0.86%	0.68%
AVERAGE	5.11%	4.37%	5.80%	4.89%	4.97%	5.04%

*Equity
Risk
Premium
is Falling*

*Increase
in Risk,
Decrease
in Return*

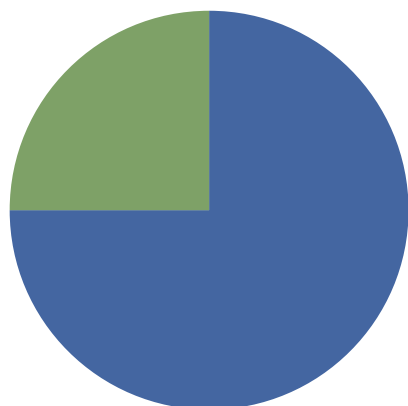
For Financial Professional Use Only Source: Swan Global Investments. Return forecasts from numerous sources using most recent available data.

1. June 2023. <https://advisors.vanguard.com/insights/article/series/market-perspectives> Based on 10-year forecasts for U.S. large cap equities and for U.S. treasury bonds.
2. June 2023. <https://www.blackrock.com/institutions/en-us/insights/charts/capital-market-assumptions> Based on 10-year forecasts for U.S. large cap equities and U.S. Long government bonds (10+ years).
3. Sept. 2023. <https://interactive.researchaffiliates.com/asset-allocation#!/?currency=USD&model=ER&scale=LINEAR&terms=NOMINAL> Based on 10-year forecasts for U.S. large cap equities and U.S. Treasury Long (Bloomberg US Treasury Long index as a representative example of its characteristics).
4. Sept. 2023. <https://am.jpmorgan.com/us/en/asset-management/institutional/insights/portfolio-insights/litcma/> Based on 10-year forecasts for U.S. large cap equities and U.S. Long Treasuries.
5. Jan. 2023 <https://www.morningstar.com/articles/1074631/experts-forecast-stock-and-bond-returns-2023-edition> Based on 10-year forecasts for U.S. large cap equities and U.S. aggregate bonds.
6. Aug. 2022. <https://www.capitalmarketassumptions.com/> Based on 5-year forecasts for US large cap equities and U.S. bonds.
7. April 2023. <https://www.advisorperspectives.com/commentaries/2023/05/18/gmo-7-year-forecast-april-2023> Based on 7-year forecasts for U.S. large cap equities and U.S. 10-year Treasury.



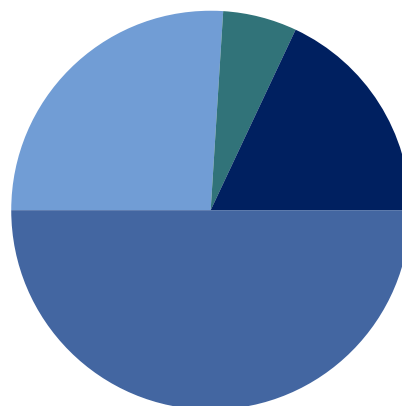
Stepping Up the Risk Curve

INCREASING COMPLEXITY



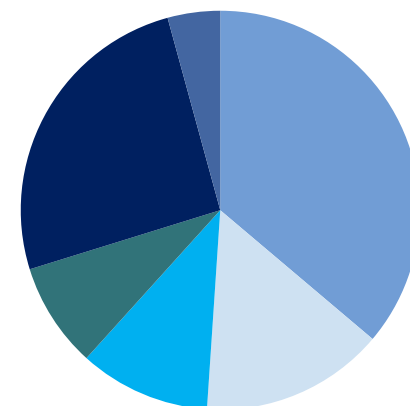
1989

Expected Return: 7.5%
Standard Deviation: **3.1%**



2004

Expected Return: 7.5%
Standard Deviation: **8.9%**



2019

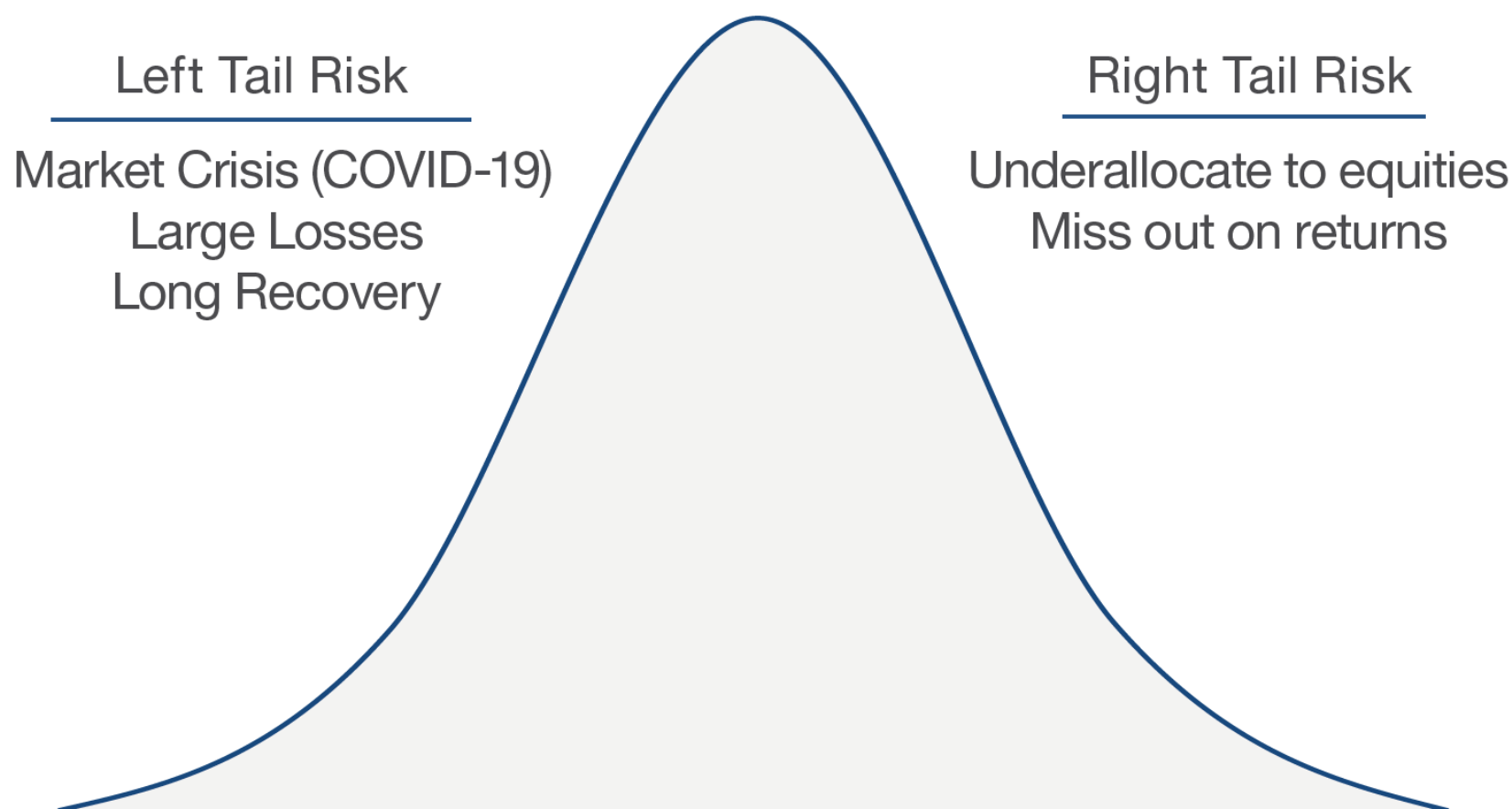
Expected Return: 7.5%
Standard Deviation: **18%**

INCREASING RISK

6x from 1989-2019 (30 years)



Need a 'Hedge' for Both Tails



Always Invested, Always Hedged

*"By actively seeking to not lose big,
we believe investors will be
better off in the long run."*

- Randy Swan, Founder and Lead Portfolio Manager



Hedged Equity



We Believe...

Difficult to consistently and successfully execute market-timing strategies



Difficult to select stocks that will consistently outperform the market



Key to long-term wealth creation is to minimize downside risk



Pursuing returns in a variety of market conditions is critical to long-term success



Important to control risk in every phase of a market cycle



Therefore, we...

Remain **Always Invested** – passive, buy & hold

Invest in index-based ETFs

Remain **Always Hedged** – actively managed, seeking to mitigate market risk

Seek additional return to offset hedge cost

Disciplined approach to remove emotions from process



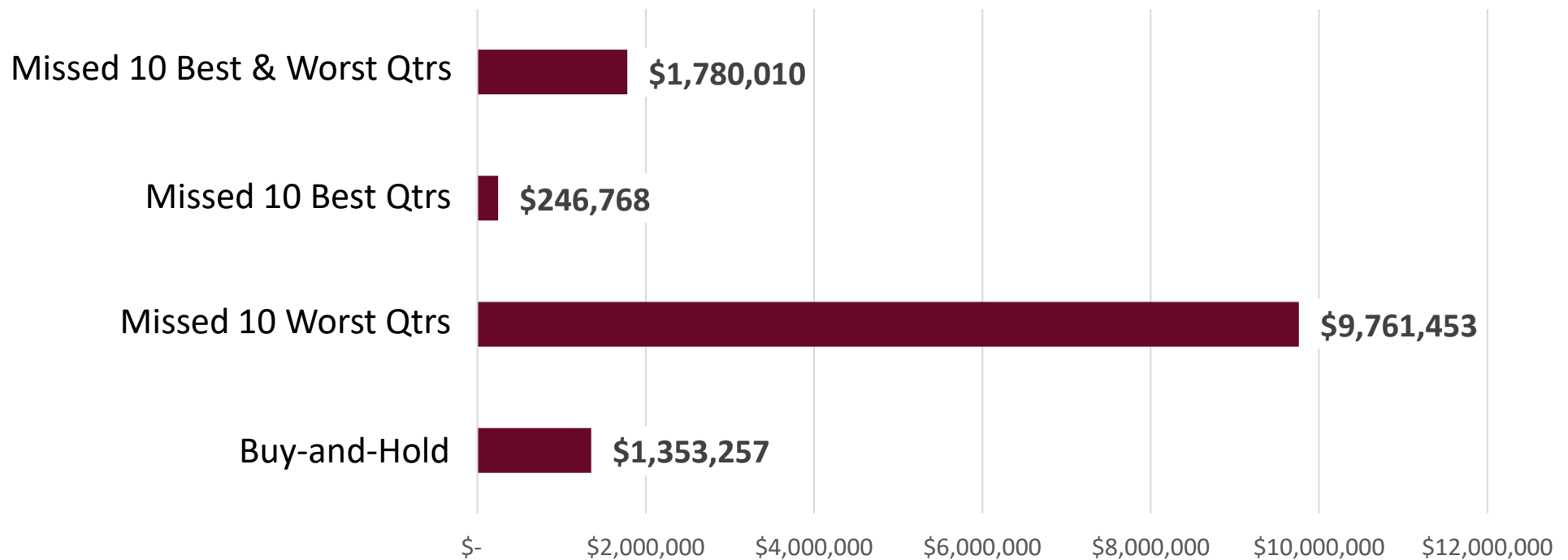
Participate in Growth, Mitigate Losses

A Winning Long-Term Strategy

Passive vs. Active Risk Management

S&P 500 Index 1973-2022 (last 50 years)

Hypothetical Investment of \$10,000



Investor Behavior Cycle

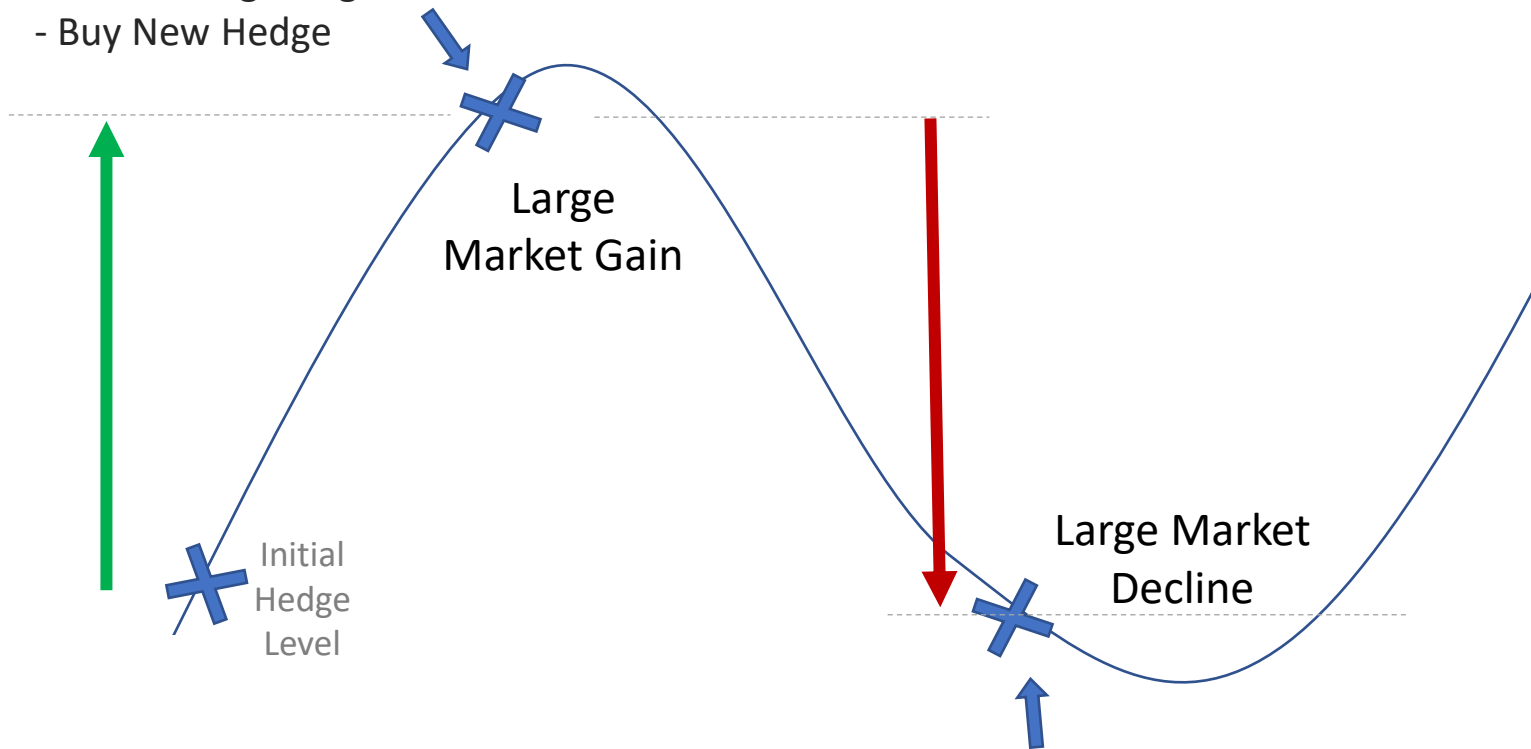


Benefits of Passive Investing + Active Risk Management

RE-HEDGE: Raise Hedge Level, Lock-In Gains

- Sell Existing Hedge
- Buy New Hedge

FOR ILLUSTRATION PURPOSES ONLY



RE-HEDGE: Capitalize on Market Weakness

- Sell Valuable Existing Hedge (Sell High)
- Buy New Hedge
- Buy Additional Equity after Price Drop (Buy Low)



Always Invested, Always Hedged



Equity

for Portfolio
Growth



Swan
DRS



Hedge

for Portfolio
Preservation



Options

Offset Hedge Cost

A HEDGE IS NOT INSURANCE AGAINST LOSSES



Defined Risk Strategy – Distinct Investment Process

1 Invest in Equities

WHY?

To participate in equity markets.

- Always Invested – Passive position in low-cost equity index ETFs
- No market timing or stock selection

2 Hedge the Equities

WHY?

To mitigate risks of bear markets.

- Always Hedged – Actively managing long-term put options (LEAPs), generally one to two years to expiration, initially
- Purchased at, or near-the-money

3 Seek Additional Return

WHY?

To offset the cost of the hedge.

- Actively managing shorter-term options strategies
- Utilizing a disciplined, time-tested approach



The Process is

Transparent

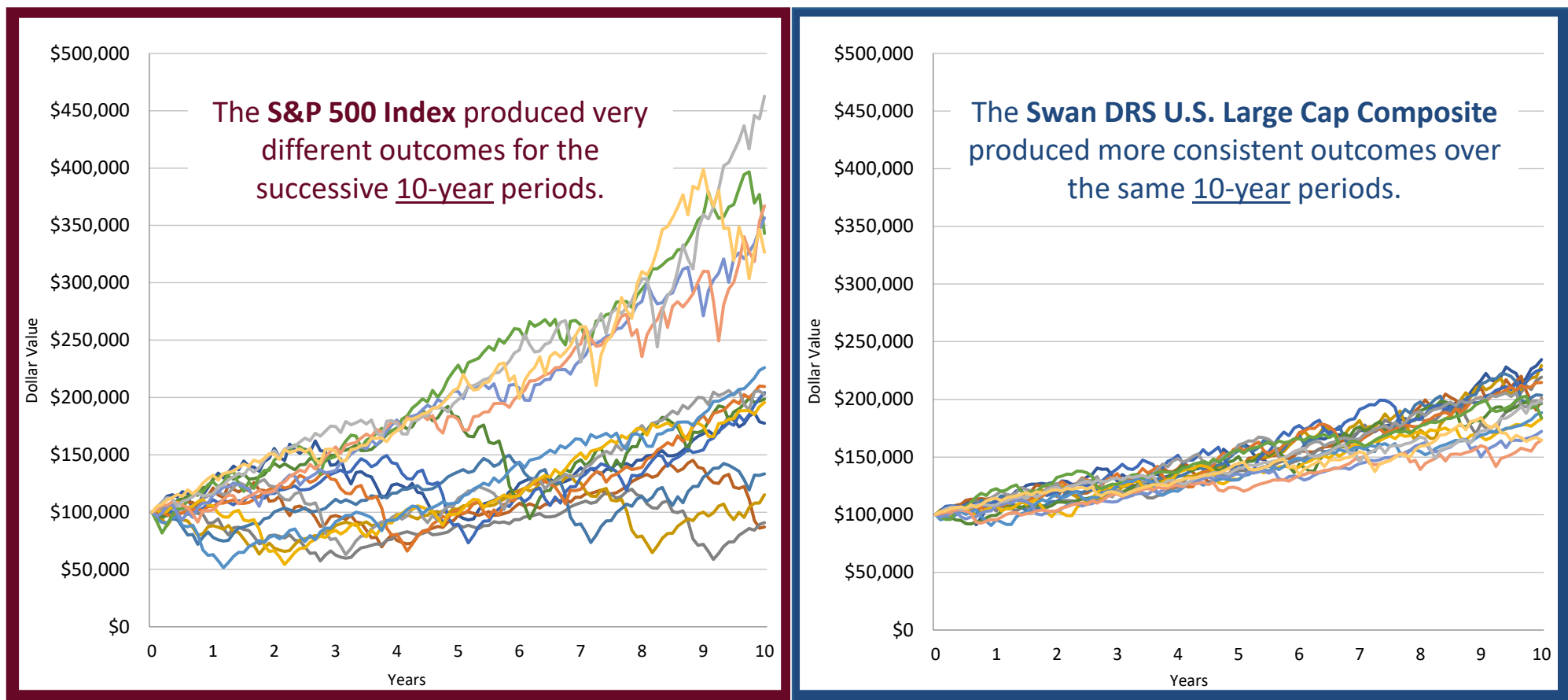
Disciplined

Repeatable



A Proven Hedged Equity Approach – Through Market Cycles

Define Risk, Improve Outcomes – *Investing Redefined*®

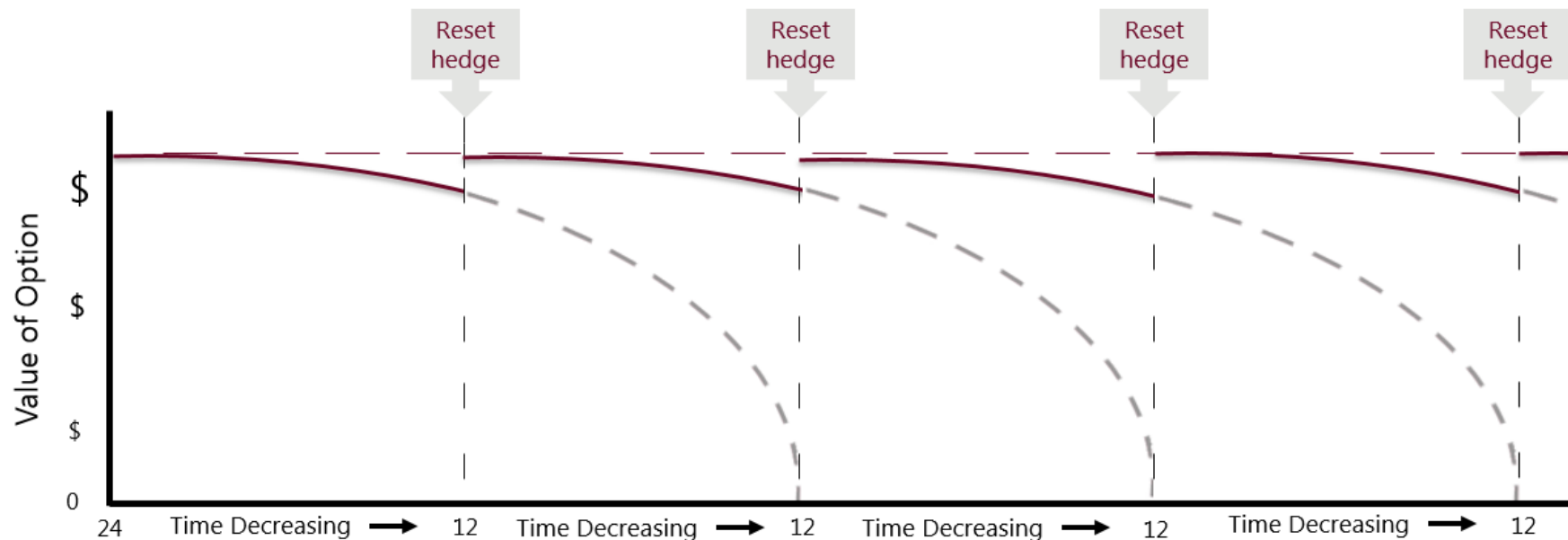


The graphs above show an investment of \$100,000 over fifteen successive, 10-year investment periods.
The first period is 1/1998 to 12/2007; the last period is 1/2013 to 12/2022.

All but two of these periods contain at least one bull market and one bear market (1/2009 to 12/2018 and 1/2010 to 12/2019).



2 Rolling the Hedge (LEAP) – Cost Management



By rolling the hedge annually

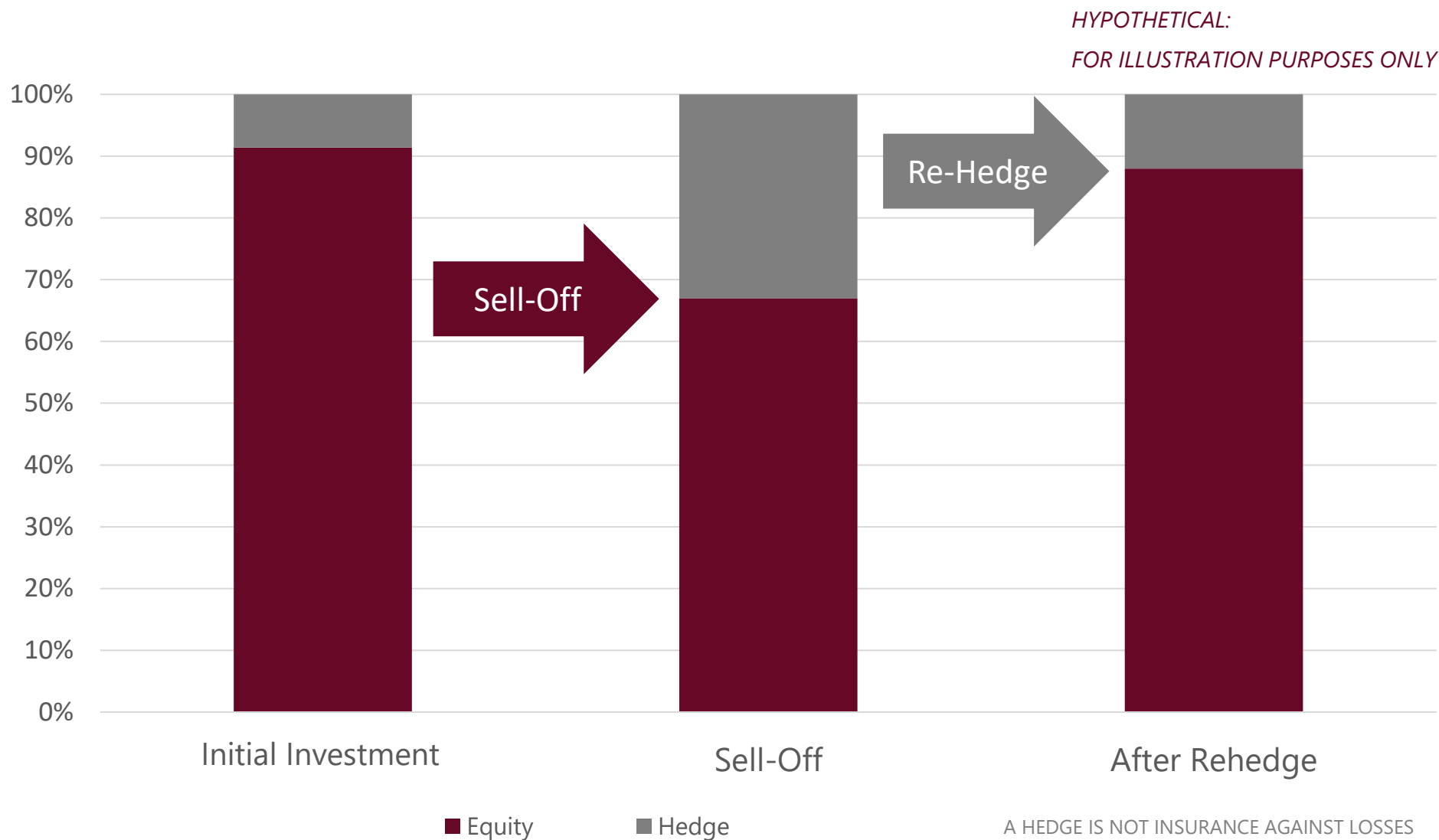
- The portfolio is always hedged
- The DRS may not be under duress to hedge
- Mitigate exposure to decline in value of put option

*HYPOTHETICAL:
FOR ILLUSTRATION PURPOSES ONLY*

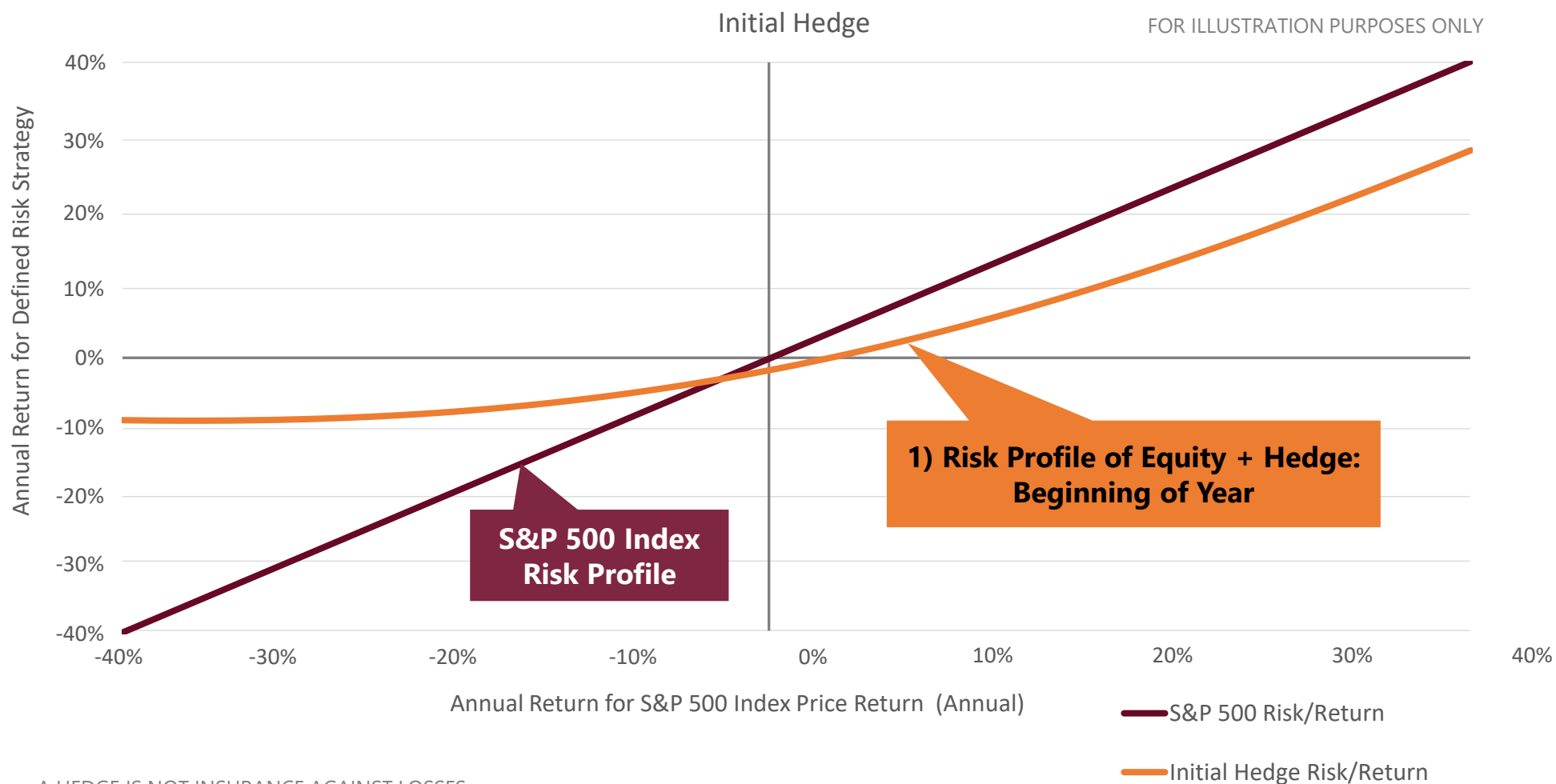
A HEDGE IS NOT INSURANCE AGAINST LOSSES



2 Hedge/Re-Hedge Process (Rebalancing of Portfolio)



2 Changing the Risk/Return Profile Through Market Cycles

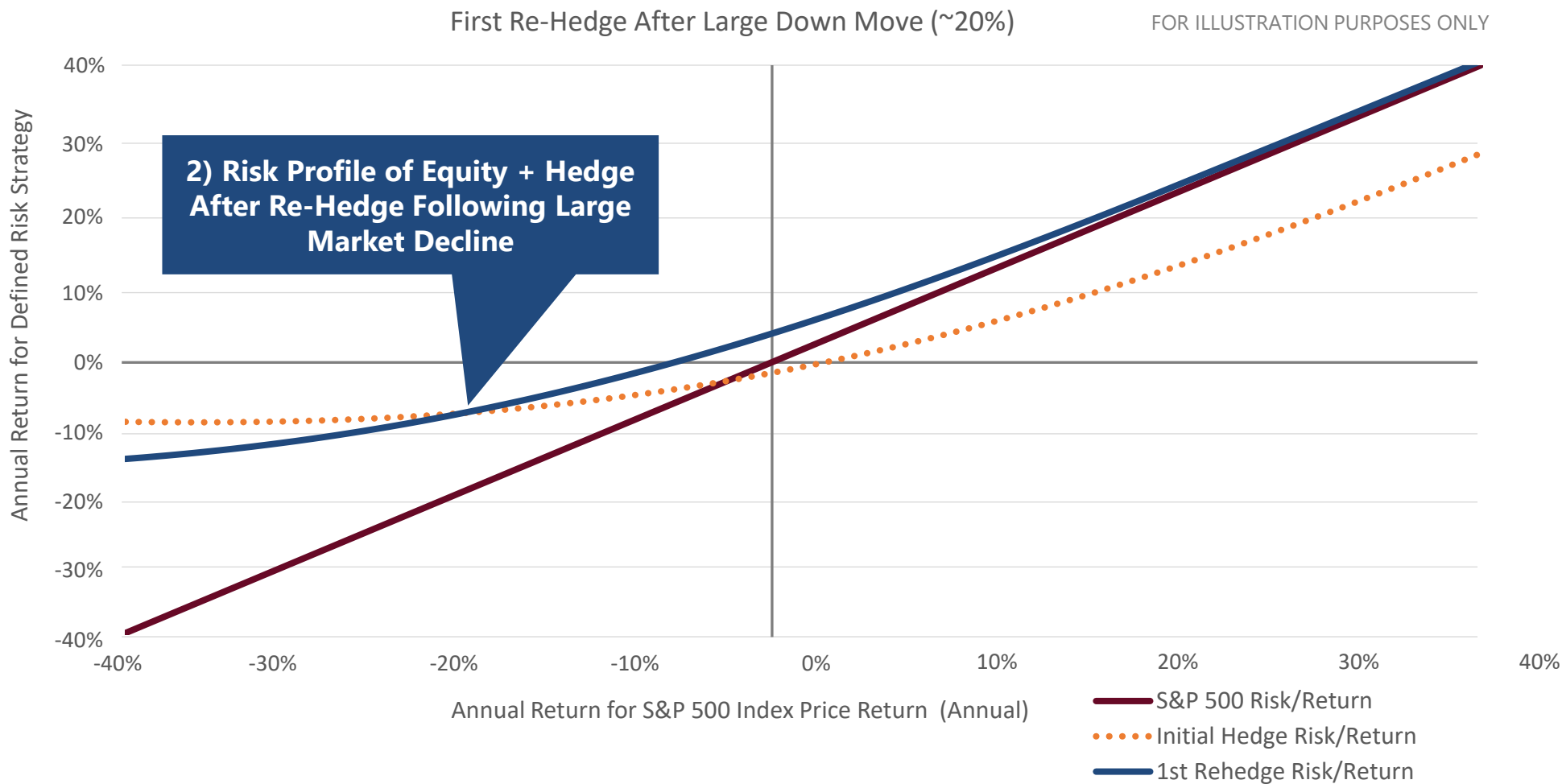


A HEDGE IS NOT INSURANCE AGAINST LOSSES



2 Re-Hedge: After Large Market Decline

- ✓ Seek to Monetize the Hedge, Acquire More Equity at Market Low



A HEDGE IS NOT INSURANCE AGAINST LOSSES



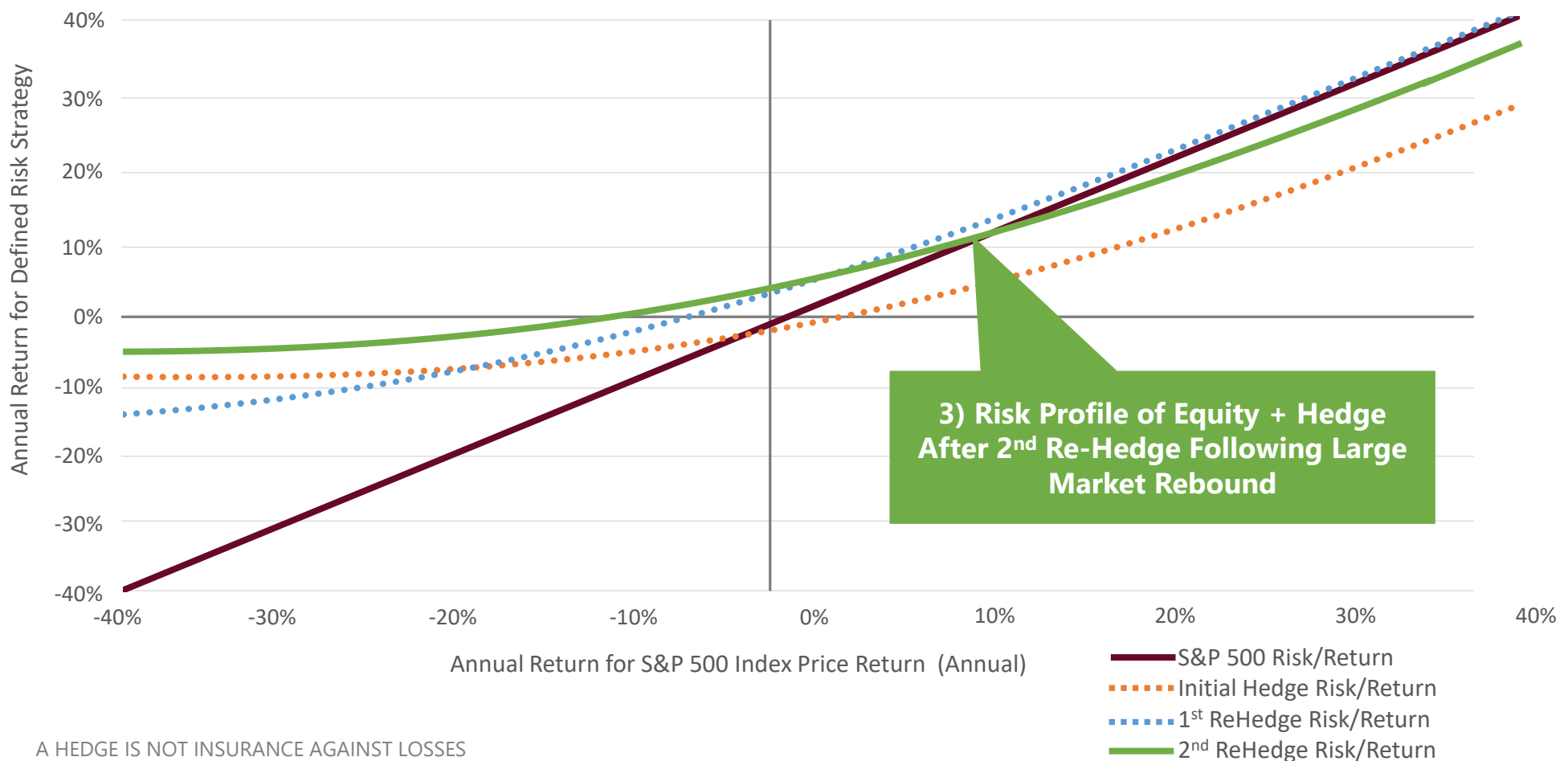
2

Re-Hedge: After Large Market Gain

- ✓ Seek to Raise Hedge Level and Lock-In Some Gains

Second Re-Hedge After 25% Rebound

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A HEDGE IS NOT INSURANCE AGAINST LOSSES

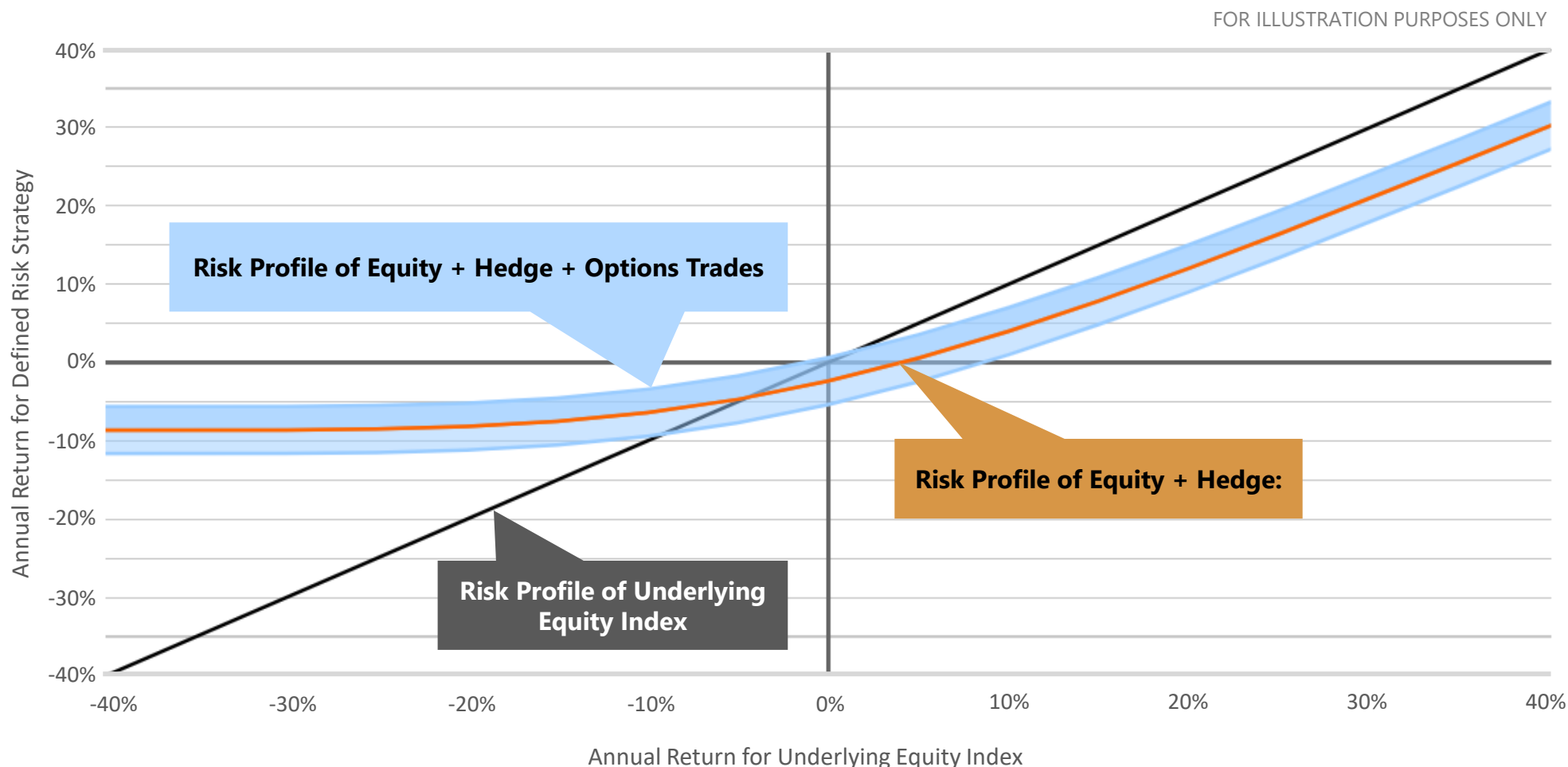


Distinct Investment Process – All Three Components (Flagship DRS)

1 + 2 + 3

Seeking Improved Risk/Return

A Defined Risk Approach to Hedged Equity



A HEDGE IS NOT INSURANCE AGAINST LOSSES

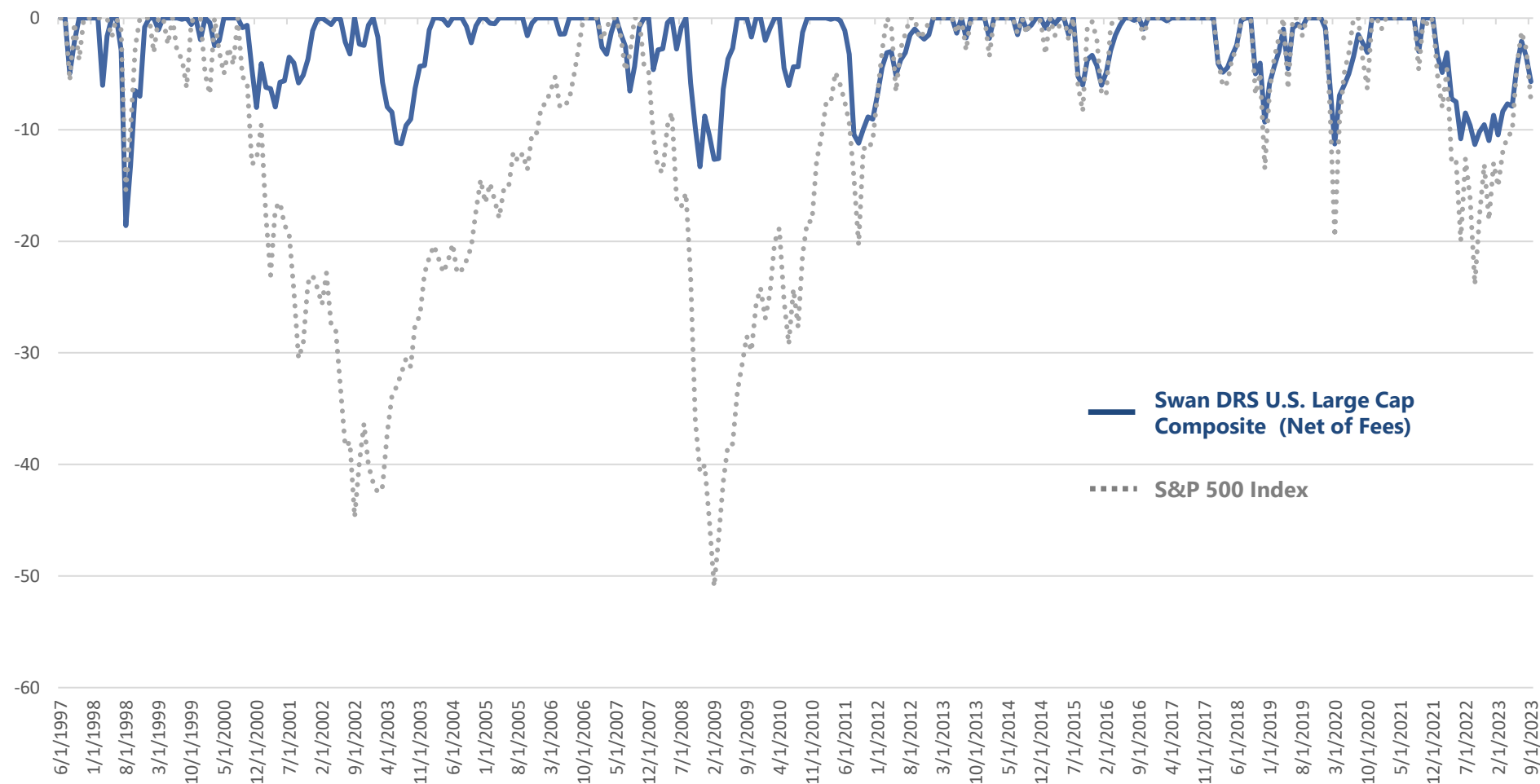
For Financial Professional Use Only Source: Swan Global Investments and Morningstar; the S&P 500 Index is an unmanaged index and cannot be invested into directly. Targeted annual returns for the Swan Defined Risk US Large Cap Composite presented herein are net of all fees. NOTE – this chart is for illustration purposes, not a guarantee of future performance. The charts and graphs contained herein should not serve as the sole determining factor for making investment decisions. The effectiveness of the hedge and degree of downside risk mitigation varies with market conditions. The DRS can and does have periods of losses.



DRS: Minimized Losses in Bear Markets

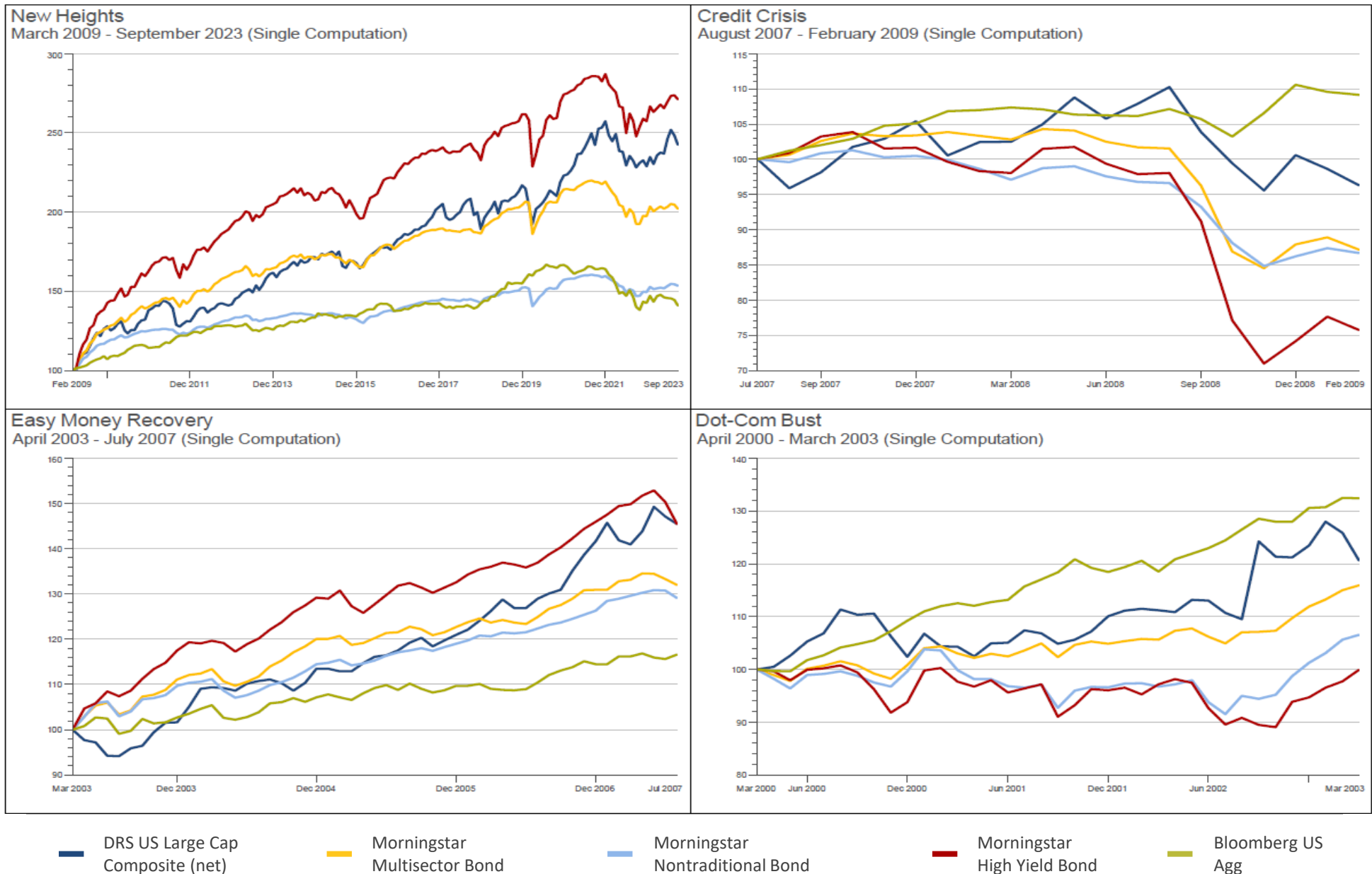
Drawdown

July 1997 – September 2023 (Month-End Data)



Defined Risk Strategy – Implementation

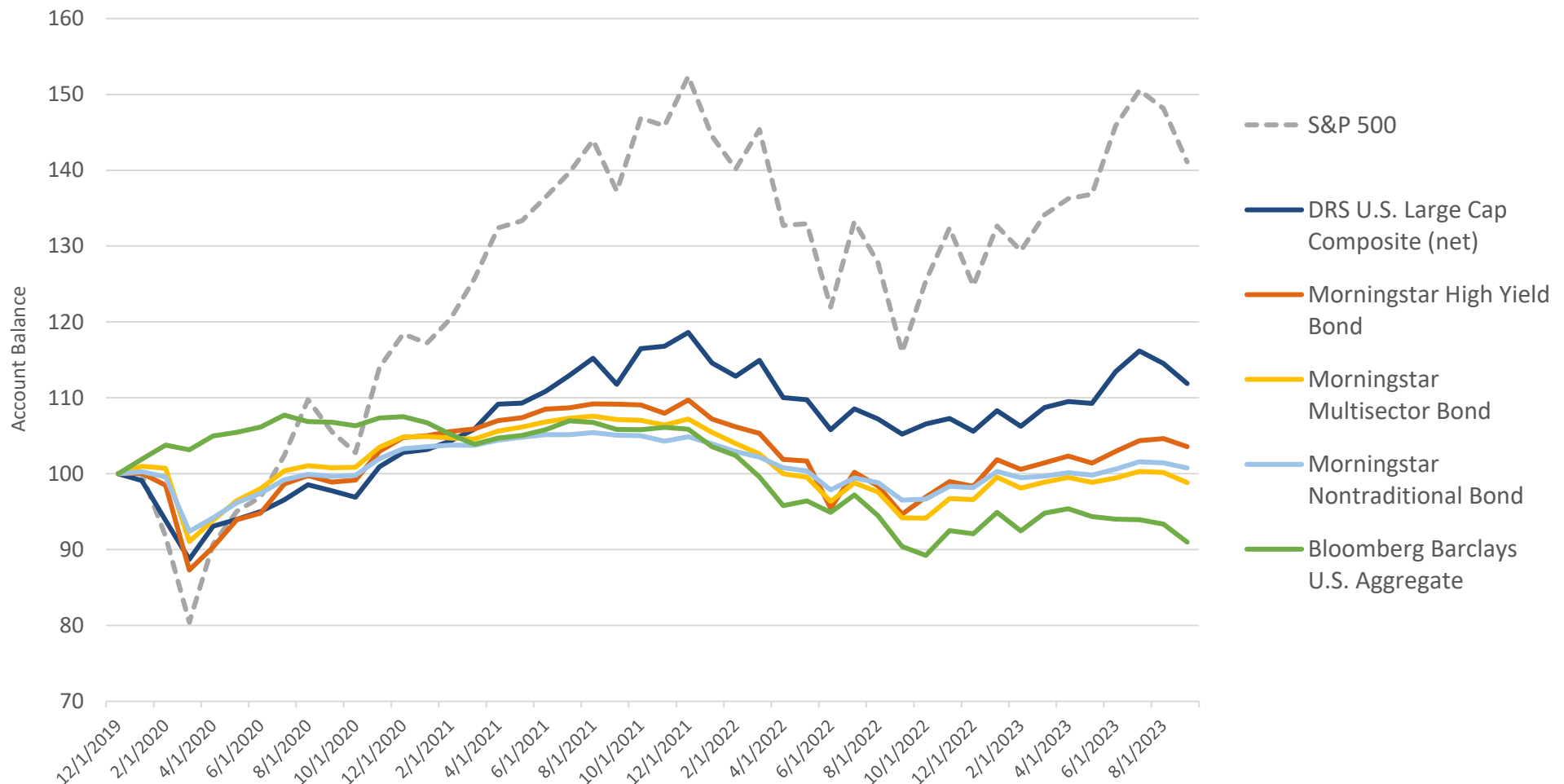
Similar Historical Returns to Nontraditional and Multisector Bonds



COVID-19 Crisis: DRS vs. S&P 500 and Various Bond Categories

Manager Performance

January 2020 – September 2023 (Single Computation, Month-End Data)

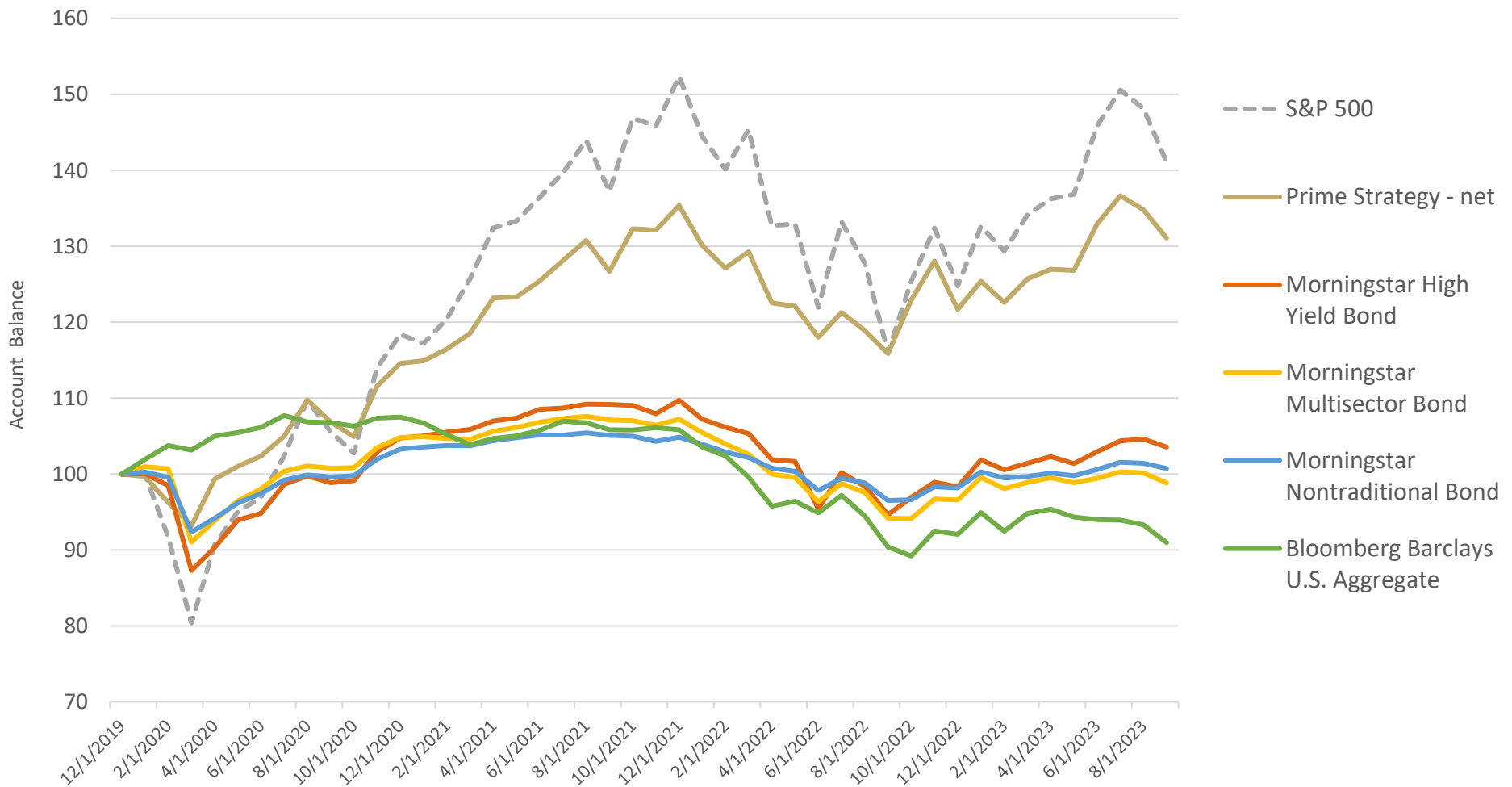


Defined Risk Strategy – Implementation

COVID-19 Crisis: DRS Prime vs. S&P 500 and Various Bond Categories

Manager Performance

January 2020 – September 2023 (Single Computation, Month-End Data)



Hedged Equity

1. Strategy Variations
2. Where Does It Fit?
3. How Much is Enough?



One Proven Approach – Many Applications

Ability to Tailor Risk/Return by Adjusting Components



Serving a Range of Investor Needs & Objectives



Investor Profile	Moderate-Conservative	Moderate	Moderate Growth
Strategy Variation	Defined Risk Prime Strategy	Defined Risk Strategy	Defined Risk Growth Strategy
Objective	Seek improved investor experience while mitigating downside risk.	Long-term growth of capital, while mitigating downside risk.	More growth oriented, with some downside risk mitigation.
Process	<p>Step 1: Buy Equity (low-cost ETFs)</p> <p>Step 2: Hedge the Equity At-the-Money (ATM) LEAPS</p> <p>Step 3: Seek Additional Return (Short-term Options Trades) <u>Buy Calls and Call Spreads.</u> <u>May Sell Calls</u></p>	<p>Step 1: Buy Equity (low-cost ETFs)</p> <p>Step 2: Hedge the Equity At-the-Money (ATM) LEAPS</p> <p>Step 3: Seek Additional Return (Short-term Options Trades) Buy or Sell Calls and Puts</p>	<p>Step 1: Buy Equity (low-cost ETFs)</p> <p>Step 2: Hedge the Equity <u>Out-of-the-Money (OTM) LEAPS</u></p> <p>Step 3: Seek Additional Return (Short-term Options Trades) Buy or Sell Calls and Puts</p>



Full Menu of Hedged Equity Solutions



Building Blocks

Active Hedge Management

Exchange Traded Funds

- U.S. Large Cap (HEGD)

Open-End Mutual Funds

- U.S. Large Cap (SDRIX)
- U.S. Large Cap Growth (SDAIX)
- U.S. Small Cap (SDCIX)
- Foreign (SDJIX)
- Emerging Markets (SDFIX)

Separately Managed Accounts

- U.S. Large Cap
- U.S. Large Cap Growth
- U.S. Large Cap Prime
- U.S. Small Cap
- Foreign Developed
- Emerging Markets

Passive Hedge Management

Pacer-Swan SOS ETF Series

- SOS FLEX
- SOS Moderate
- SOS Conservative
- SOS Fund of Funds



Overlays

Hedged Equity Overlays*

Single or Multi-Asset
Equity Portfolio Overlays

Custom Portfolio Overlays*

Concentrated Holdings,
Low-Cost Basis Equity



Portfolio Implementation

Client Objective	Funding Source
Mitigate Interest Rate Risk	Fixed income







Risk-On: re-enter equity markets or
increase equity exposure

Cash, **fixed income**, high yield

Mitigate Equity Risk and/or Mitigate High Beta Bond Risk	Traditional equities , higher-beta fixed income holdings
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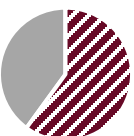


Impacts on Balanced Portfolio Risk/Return

Summary Statistics: July 1, 1997 – Sept 30, 2023		Return (%)	Cumulative Return (%)	Alpha vs. Market	Standard Deviation	Beta vs. Market	Sharpe Ratio
	DRS U.S. Large Cap Composite (net)	7.15%	513.06%	-1.03%	9.13%	0.33	0.57
	80% Swan / 20% Balanced Portfolio	7.15%	512.04%	-1.03%	8.56%	0.39	0.60
	60% Swan / 40% Balanced Portfolio	7.11%	506.34%	-1.07%	8.32%	0.44	0.62
	40% Swan / 60% Balanced Portfolio	7.04%	496.05%	-1.14%	8.43%	0.50	0.60
	20% Swan / 80% Balanced Portfolio	6.94%	481.38%	-1.24%	8.88%	0.55	0.56
	60% S&P 500 / 40% Bloomberg Agg	6.80%	462.60%	-1.38%	9.63%	0.61	0.50

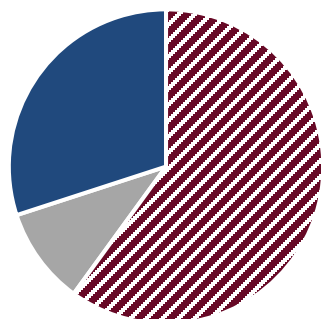


Impacts on Balanced Portfolio Risk/Return

	Summary Statistics: July 1, 1997 – Sept 30, 2023	Return (%)	Cumulative Return (%)	Excess Return vs. Market	Standard Deviation	Beta vs. Market	Sharpe Ratio
	60% S&P 500 / 10% Bloomberg Agg / 30% DRS	7.15%	513.06%	-1.03%	9.13%	0.33	0.57
	60% S&P 500 / 20% Bloomberg Agg / 20% DRS	7.70%	600.73%	-0.48%	11.21%	0.70	0.51
	60% S&P 500 / 30% Bloomberg Agg / 10% DRS	7.41%	552.88%	-0.77%	10.62%	0.67	0.51
	60% S&P 500 / 40% Bloomberg Agg	7.11%	506.81%	-1.07%	10.10%	0.64	0.51



'New' Balanced Portfolio



60%
Equity

30%
**Hedged
Equity**

10%
Bonds

Hedged

Address Left Tail Risk

- Serves the risk mitigation role in portfolio
- Reduce duration, credit, inflation & other risks

Equity

Address Right Tail Risk

- Increase overall equity exposure
- Manage to return objectives



1. Allocating Capital is Challenging
 - ✓ Muted return forecasts for equities and fixed income
 - ✓ Inflation remains elevated
2. Hedged Equity: A Solution to Challenges Today & Beyond
 - ✓ Address both Tail Risks
 - ✓ Surrogate for fixed income
 - ✓ Allocate more to risk assets, without all the risk



Hedged Equity Managers – Since 1997



SWAN GLOBAL
INVESTMENTS

- ✓ Leader in Hedged Equity & Options-Based Solutions
- ✓ Active & Passive Solutions
- ✓ Disciplined Outcome-Oriented Approach
- ✓ Seeking Capital Preservation & Consistent Rolling Returns
- ✓ Multiple Asset Classes & Structures
- ✓ Customization for IPS & Risk Budgets





Addendum

Swan Global Investments – Firm Overview

Asset management firm based in Durango, CO.

- Founded in 1997 by Randy Swan
- Leaders in Hedging & Options-Based Strategies
- SEC Registered RIA
- \$2.2 billion in AUM

Active & Passive Strategies

- **Active:** goals-based hedged-equity strategies
- **Passive:** Structured outcome strategies
- Designed to hedge against market risk while remaining invested for growth

Multiple asset classes, risk/return profiles, and vehicle structures:

- Separately Managed Accounts
- Open-End Mutual Funds
- ETFs
- Overlays: Tailored to existing portfolio or concentrated positions
- Global Hedged Equity Models

AUM Overview

Current Structures	Number of Strategies / Funds Managed	\$ AUM in Millions (as of 9/30/23)
ETFs	14	\$405
Mutual Funds	5	\$836
SMA s	2,567	\$812
Custom Overlay	43	\$104
Total	2,852	\$2,157



Portfolio Management Team



Randy Swan

Founder,
Lead Portfolio Manager

Investment Experience: 26 years



Chris Hausman, CMT[®], CAIA[®]

Senior Portfolio Manager,
Managing Director, Risk

Investment Experience: 28 years



Rob Swan

COO,
Portfolio Manager

Investment Experience: 14 years



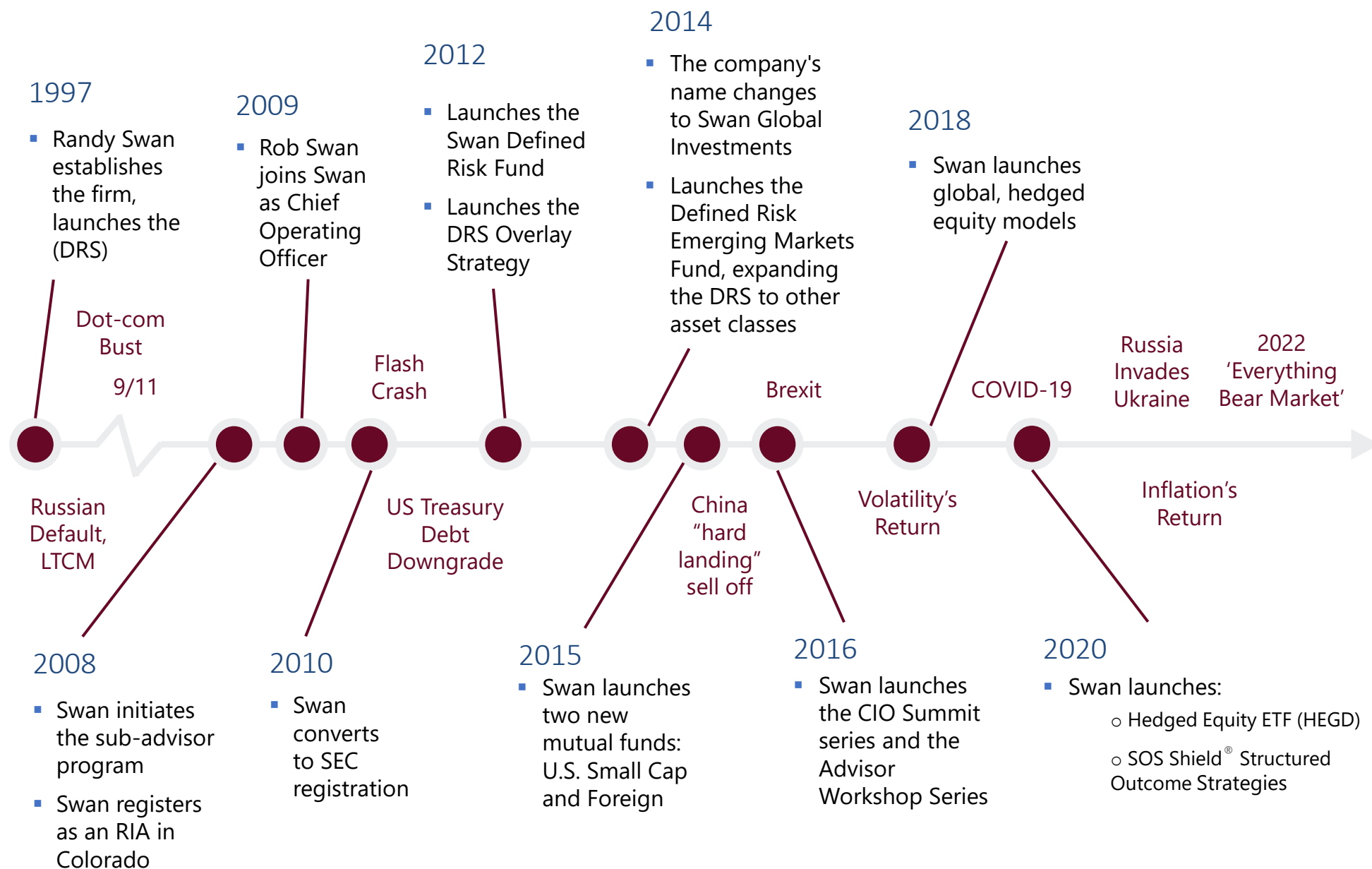
Marc Odo, CFA[®], FRM[®], CAIA[®], CIPM[®], CFP[®]

Client Portfolio Manager

Investment Experience: 27 years

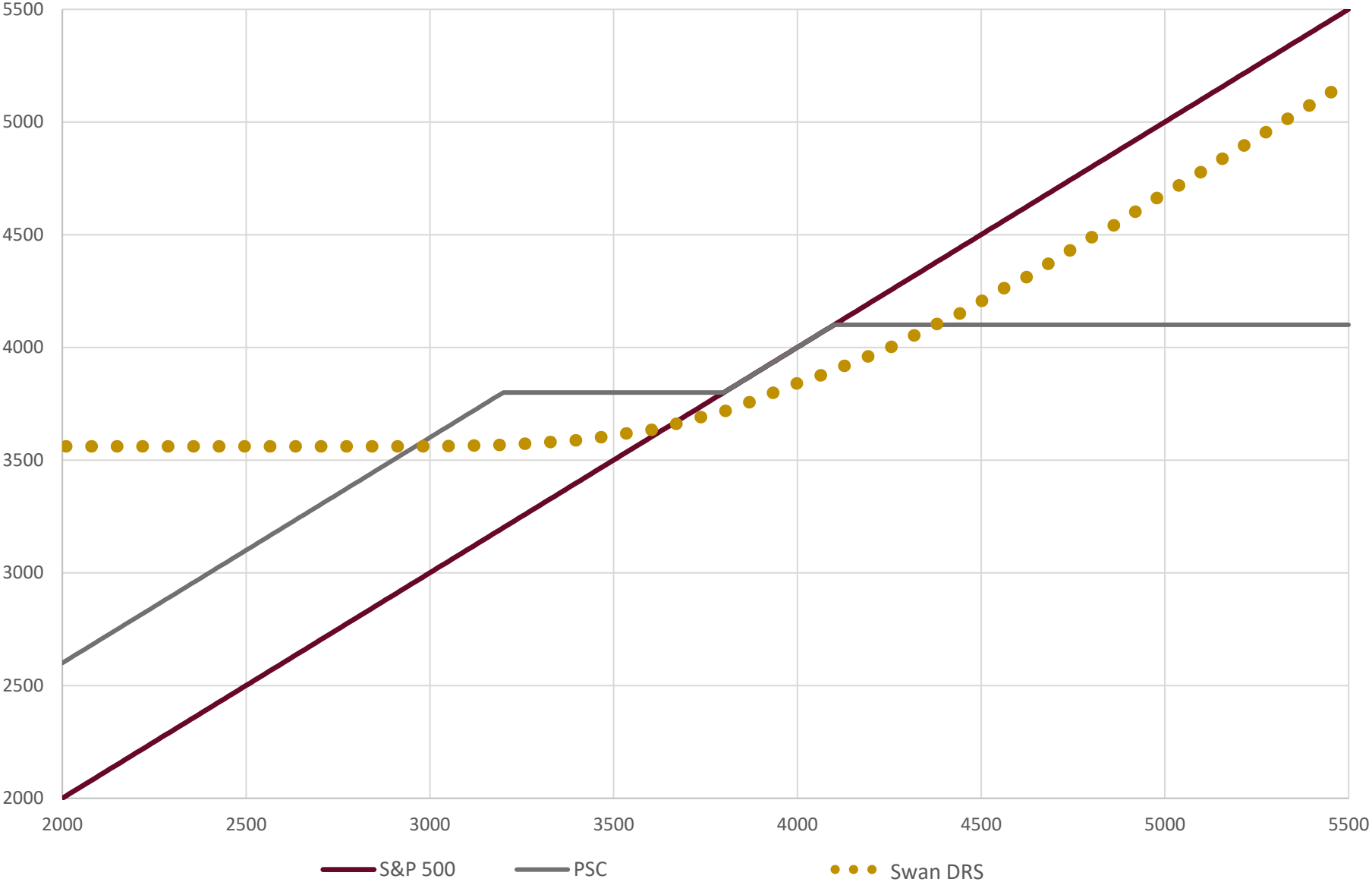


Swan Global Investments – Key Milestones



Theoretical Comparison of Swan vs. Put Spread Collar

Swan DRS vs. Put Spread Collar



The Pros and Cons of a Passive Hedge

■ Zone A

Market zone, full participation, range-bound

■ Zone B

Risk offset zone, no market exposure

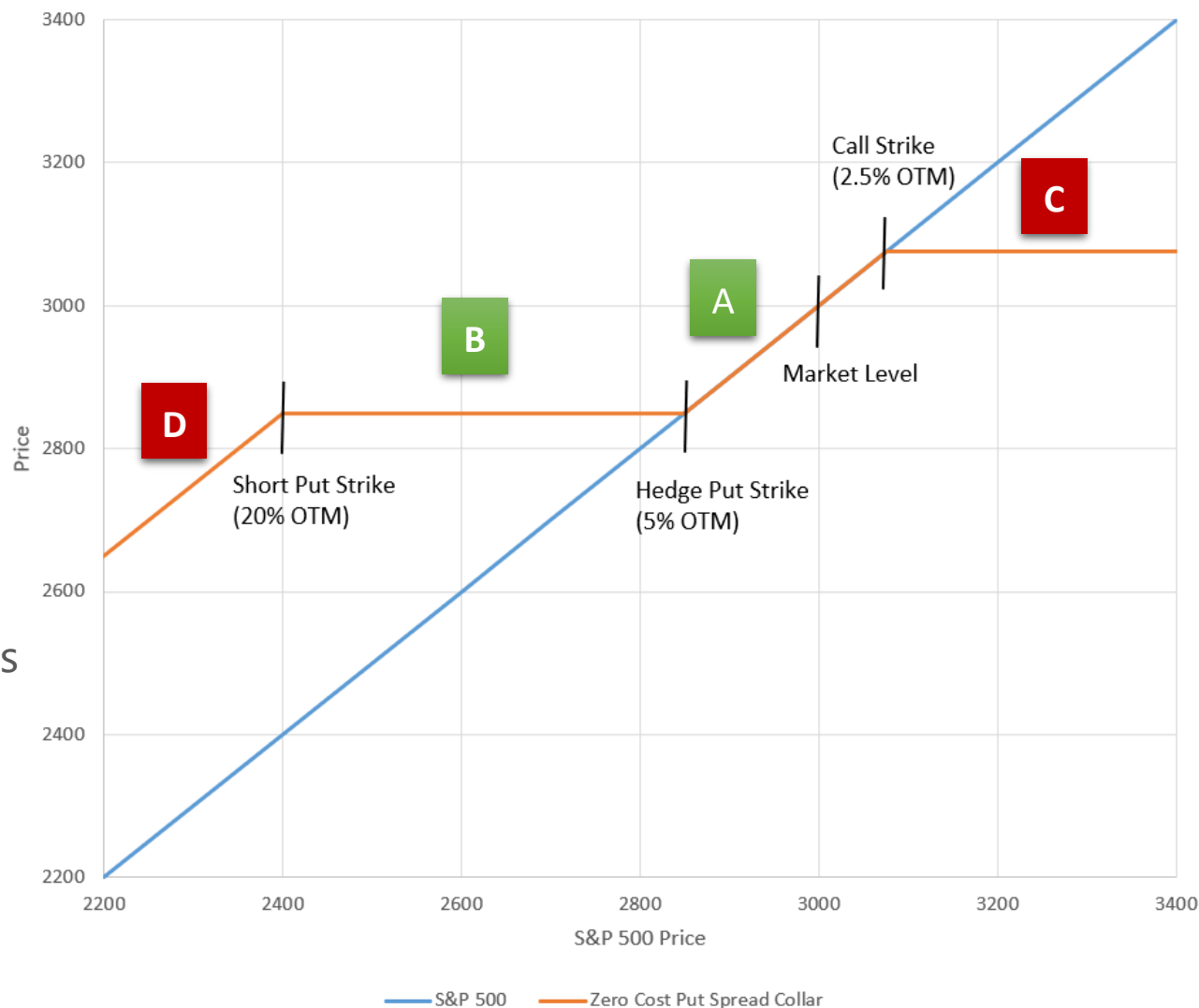
■ Zone C

Opportunity cost zone, no participation in market gains

■ Zone D

Danger zone, full participation in market losses

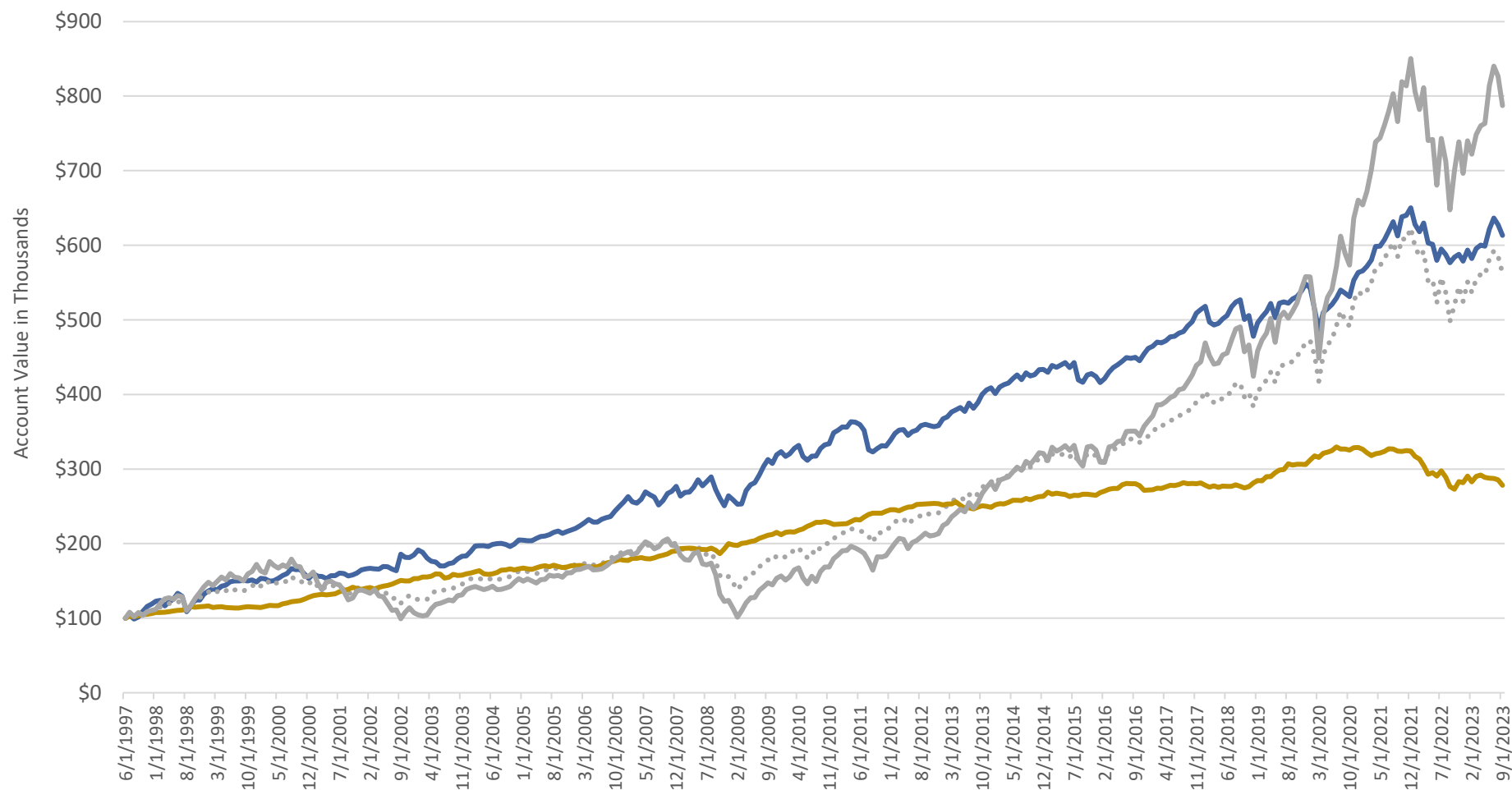
5% / 20% Zero Cost Put Spread Collar



A TIME-TESTED HEDGED EQUITY APPROACH – OVER FULL-MARKET CYCLES

Swan Defined Risk Strategy vs. S&P 500 Index vs. 60/40 Portfolio vs. Bloomberg US Agg

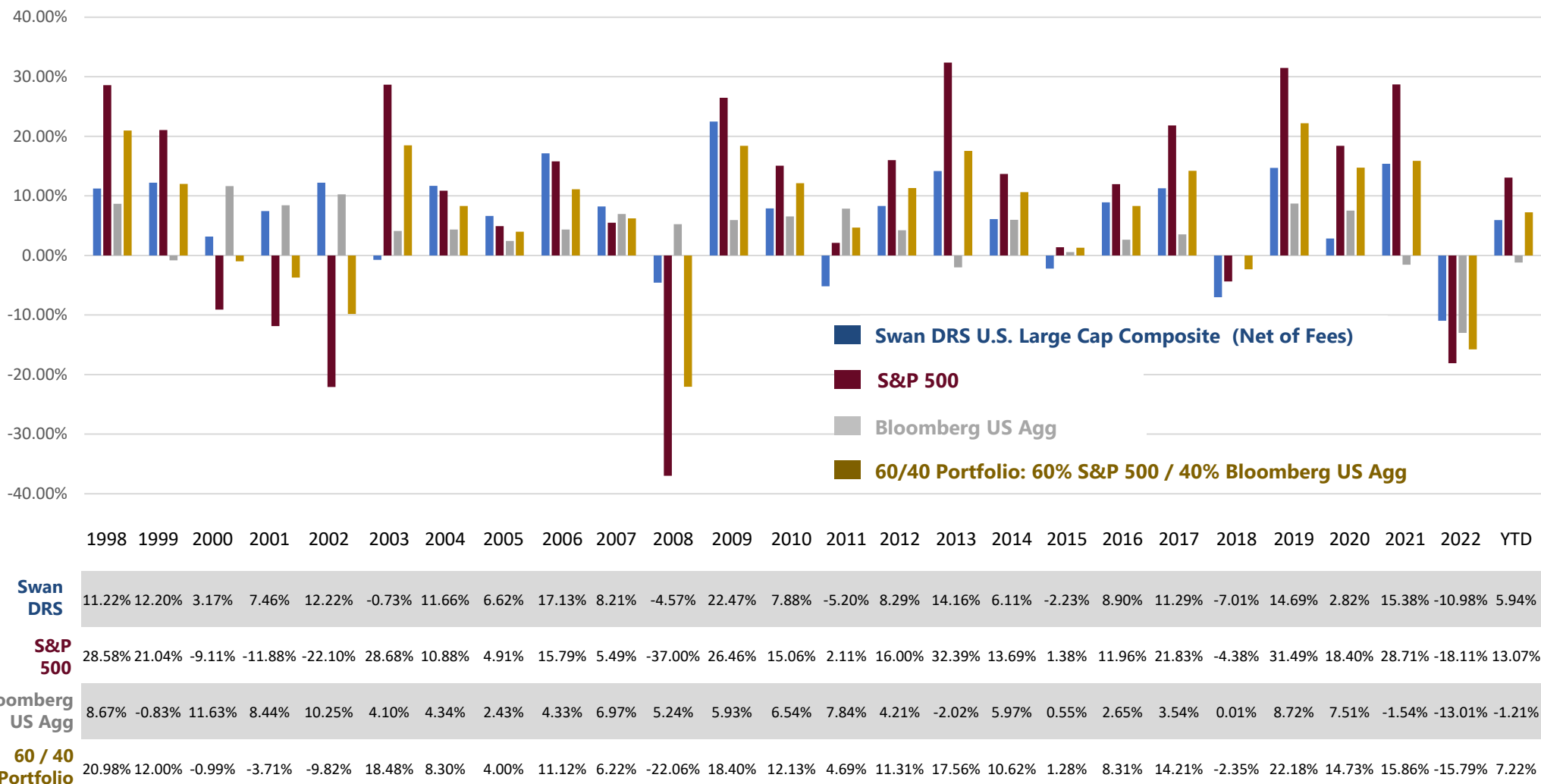
Growth of \$100,000 - 7/1/1997 - 9/30/2023



Proven Ability to Minimize Losses in Bear Markets

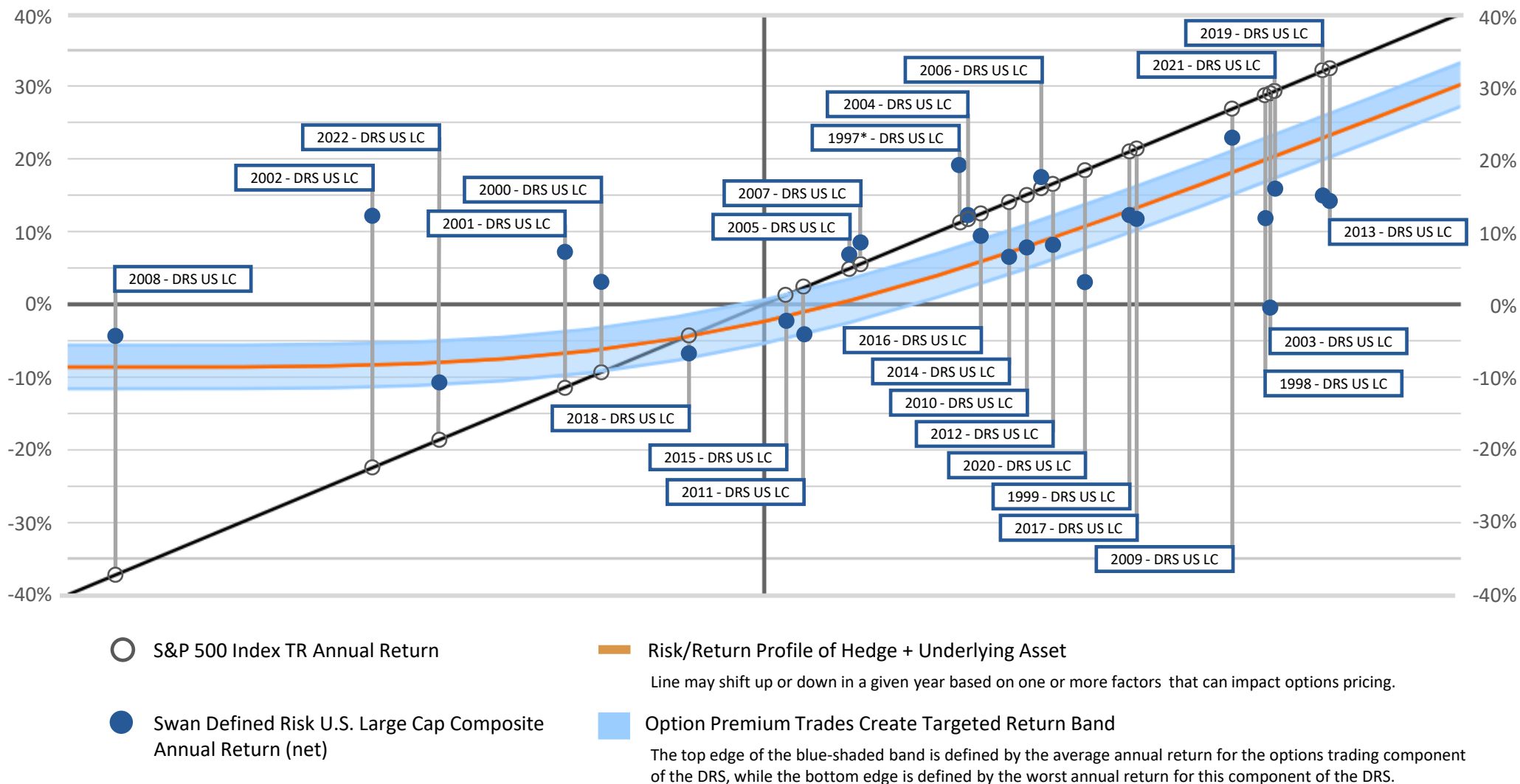
Swan Defined Risk Strategy vs. S&P 500 Index vs. Bloomberg US Agg

Annual Returns – July 1, 1997 to September 30, 2023

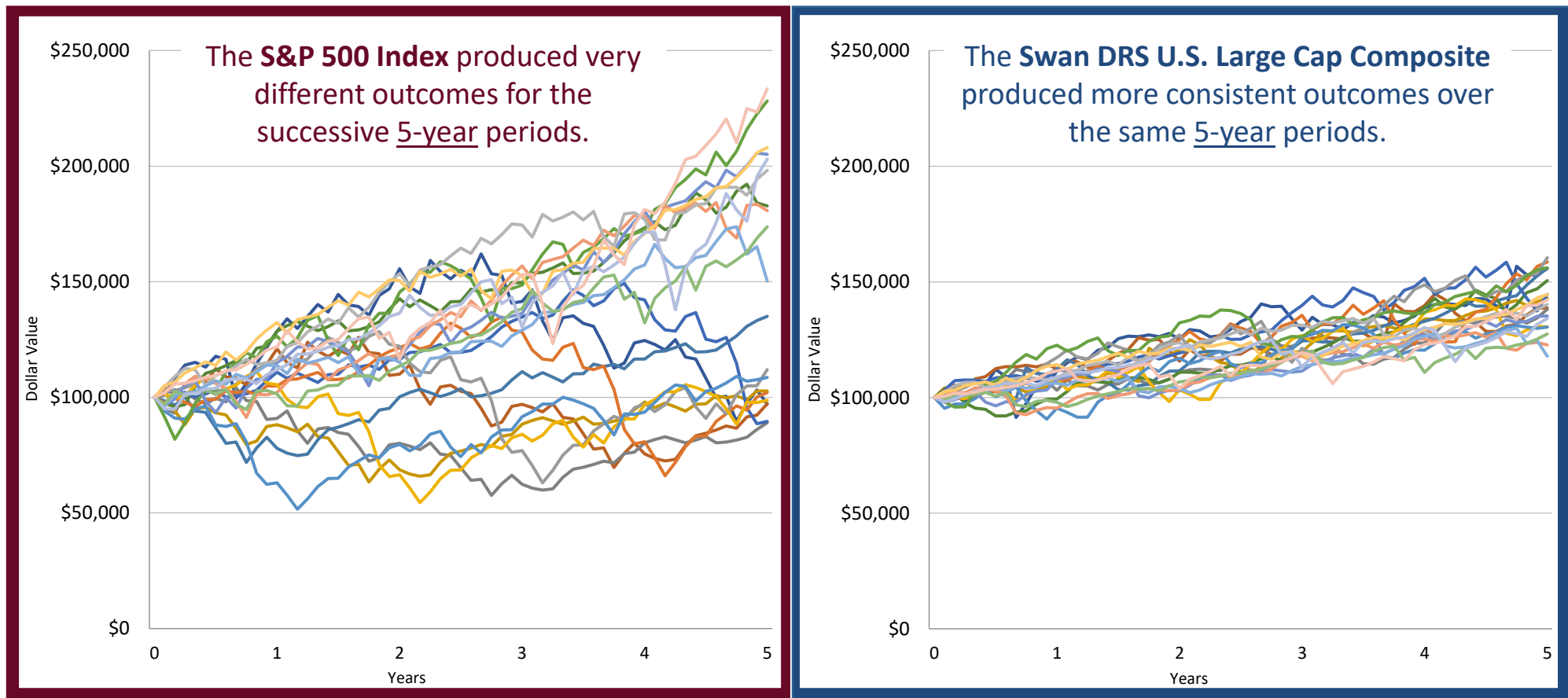


Targeted Return vs. Actual Return

Swan Defined Risk U.S. Large Cap Composite (net of fees)



Define Risk, Improve Outcomes – *Investing Redefined*®

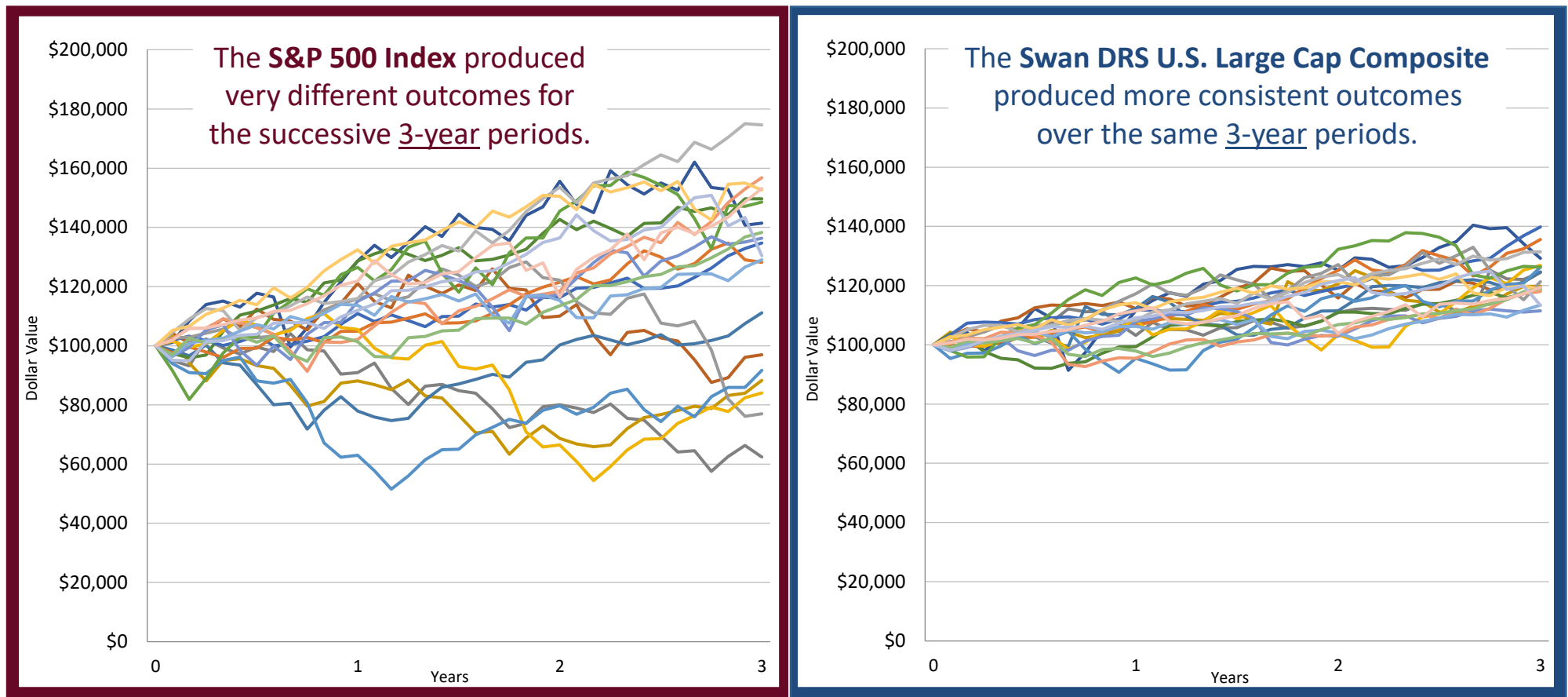


The graphs above show an investment of \$100,000 over twenty-one successive, 5-year investment periods. The first period is 1/1998 to 12/2002; the last period is 1/2018 to 12/2022.



A Proven Hedged Equity Approach – Through Market Cycles

Define Risk, Improve Outcomes – *Investing Redefined*®



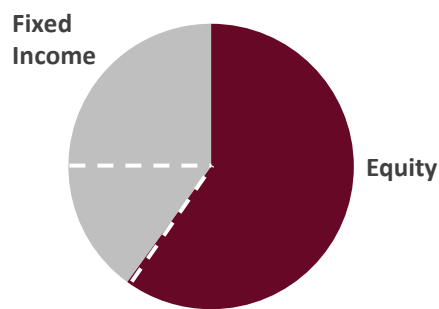
The graphs above show an investment of \$100,000 over twenty-three successive, 3-year investment periods. The first period is 1/1998 to 12/2000; the last period is 1/2020 to 12/2022.



May Serve Various Objectives

Minimize Rate Risk,
Increase Return Potential

Re-Allocate Bond Positions

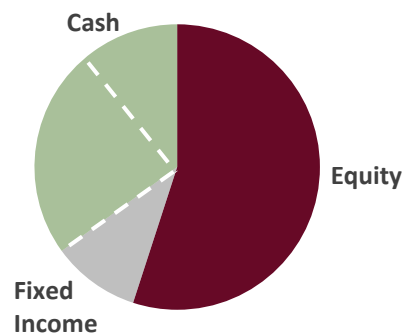


Reposition a share of various bond allocations into Hedged Equity to potentially:

- ✓ Reduce duration risk
- ✓ Increase overall portfolio return
- ✓ Maintain a similar risk target

Remain Invested

Shift Cash Off the Sidelines

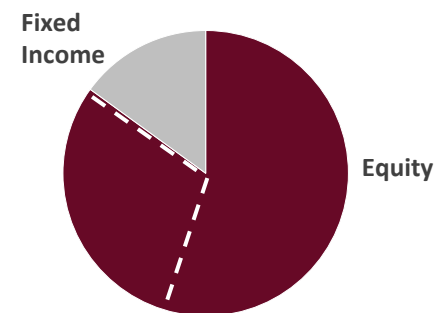


Reposition portion of cash into Hedged Equity to potentially:

- ✓ Increase market exposure
- ✓ Maintain a level of risk mitigation

Mitigate Market Risk
& Reduce Volatility

Re-Allocate Equity Positions



Reposition portion of large equity allocation to Hedged Equity to potentially:

- ✓ Mitigate downside risk/volatility
- ✓ Maintain a level of equity upside participation



Rolling Returns are Revealing

S&P 500 Index TR vs. Swan Defined Risk US Large Cap Composite

Rolling Annualized Returns Since Inception

Based on Month-End Results

Rolling Period 7/1/1997 – 12/31/2022	S&P 500 TR Index				Swan Defined Risk U.S. Large Cap Composite			
	Current Rolling Return	Average Rolling Return	Worst Rolling Return	Best Rolling Return	Current Rolling Return	Average Rolling Return	Worst Rolling Return	Best Rolling Return
Rolling 1 Year	-18.11%	9.36%	-43.32%	56.35%	-10.78%	7.40%	-10.78%	38.25%
Rolling 2 Year	2.66%	8.67%	-26.08%	37.22%	1.57%	7.26%	-0.80%	23.95%
Rolling 3 Year	7.66%	7.83%	-16.09%	26.07%	2.05%	6.97%	1.31%	19.18%
Rolling 4 Year	13.18%	7.48%	-9.76%	22.42%	5.12%	6.91%	2.48%	12.90%
Rolling 5 Year	9.42%	7.48%	-6.63%	23.00%	2.62%	6.96%	2.37%	12.89%
Rolling 6 Year	11.40%	7.67%	-1.13%	21.72%	4.05%	6.99%	2.92%	10.83%
Rolling 7 Year	11.48%	7.66%	-3.85%	17.27%	4.75%	7.02%	3.88%	10.73%
Rolling 10 Year	12.56%	7.56%	-3.43%	16.67%	5.09%	7.11%	4.21%	10.38%
Rolling 15 Year	8.81%	7.35%	3.76%	10.90%	5.22%	7.10%	5.22%	9.09%

Since Inception: July 97-Dec 2022	S&P 500 Index	Swan DRS
Annualized Return	7.91%	7.27%



Rolling Returns are Revealing

60/40 Portfolio vs. Swan Defined Risk US Large Cap Composite

Rolling Annualized Returns Since Inception, Based on Month-End Results

Rolling Period 7/1/1997 – 12/31/2022	60/40 Portfolio: July 97-Dec 2022				Swan DRS: July 97-Dec 2022			
	Current Rolling Return	Average Rolling Return	Worst Rolling Return	Best Rolling Return	Current Rolling Return	Average Rolling Return	Worst Rolling Return	Best Rolling Return
Rolling 1 Year	-15.79%	7.27%	-27.65%	34.50%	-10.78%	7.40%	-10.78%	38.25%
Rolling 2 Year	-1.22%	7.08%	-14.59%	24.76%	1.57%	7.26%	-0.80%	23.95%
Rolling 3 Year	3.83%	6.74%	-7.24%	18.45%	2.05%	6.97%	1.31%	19.18%
Rolling 4 Year	8.14%	6.57%	-4.05%	16.11%	5.12%	6.91%	2.48%	12.90%
Rolling 5 Year	5.96%	6.56%	-2.26%	15.85%	2.62%	6.96%	2.37%	12.89%
Rolling 6 Year	7.29%	6.67%	1.69%	15.08%	4.05%	6.99%	2.92%	10.83%
Rolling 7 Year	7.44%	6.67%	-0.12%	12.31%	4.75%	7.02%	3.88%	10.73%
Rolling 10 Year	8.08%	6.64%	0.42%	11.56%	5.09%	7.11%	4.21%	10.38%
Rolling 15 Year	6.64%	6.56%	4.69%	8.55%	5.22%	7.10%	5.22%	9.09%
Since Inception: July 97-Dec 2022		60% S&P 500 Index / 40% Bloomberg Aggregate Bond			Swan DRS			
Annualized Return		6.72%			7.27%			

For Institutional Use Only Source: Swan Global Investments and Zephyr StyleADVISOR. Data based on historic returns of a 60/40 blended composite and the Swan Defined Risk US Large Cap Composite net of fees, from 7/1997 to 12/31/2022, and assume no portfolio withdrawals. The 60/40 blended composite, weighted 60% in the S&P 500 Index, , which consists of approximately 500 large cap stocks, and 40% in the Bloomberg US Aggregate Bond Index. The 60/40 is rebalanced monthly. 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). Results in the table are the best, worst, and average annualized returns, based on month-end returns, for every rolling period listed within the overall time frame of July 1st, 1997 to December 31st, 2022. 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.

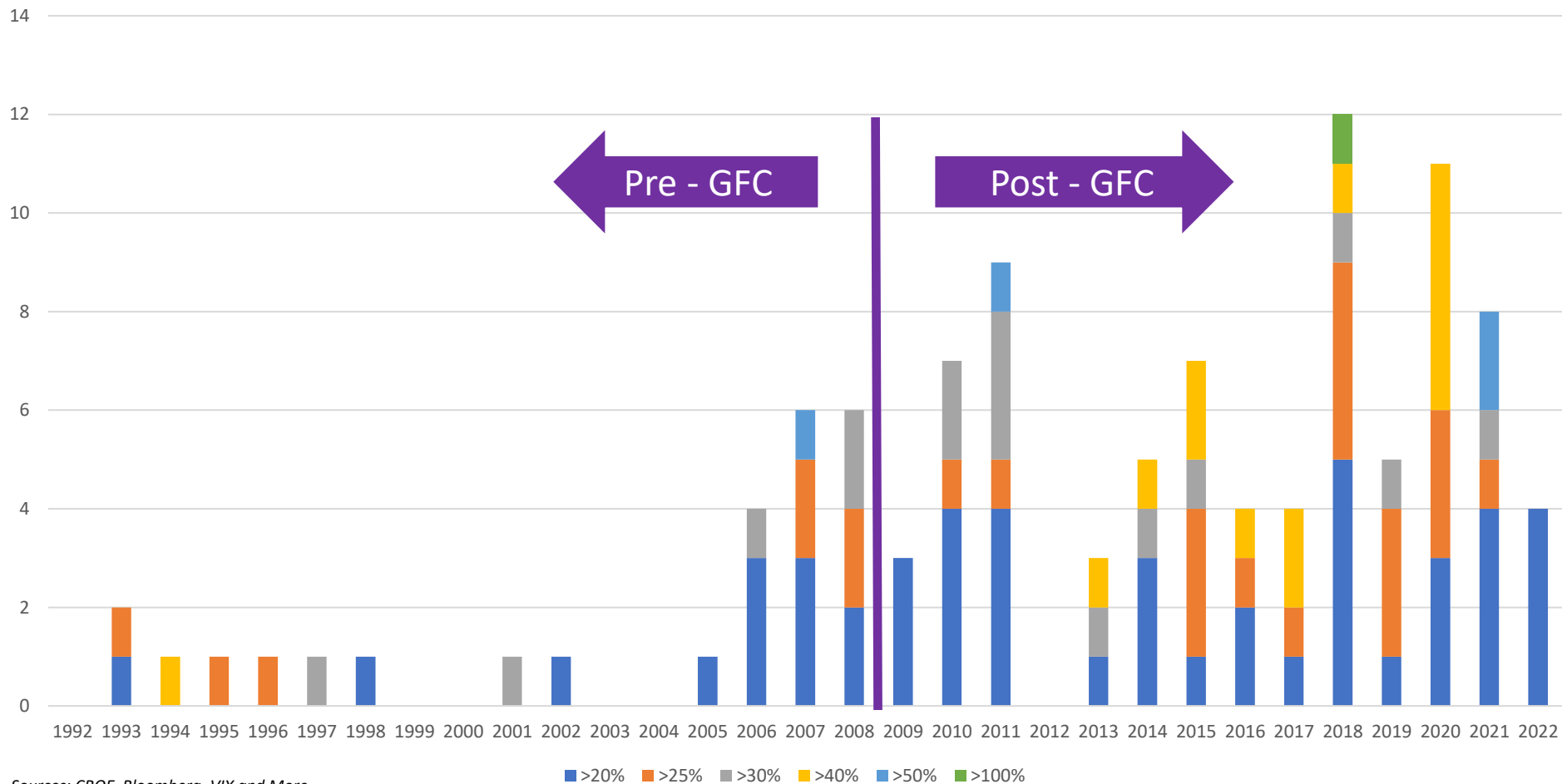


Shift the Efficient Frontier

Portfolio Statistics: July 1, 1997 – December 31, 2022	Return	Cumulative Return	Standard Deviation (Population)	Beta vs. Market	Excess Return vs. Market	Sharpe Ratio	Maximum Drawdown	Pain Index	Pain Ratio
60% S&P 500 Index / 40% Bloomberg U.S. Agg	6.72%	424.69%	9.63%	0.61	-1.19%	0.50	-32.54%	4.10%	1.18
60/40 Portfolio w/ 10% Swan DRS	6.81%	436.39%	9.22%	0.58	-1.10%	0.53	-30.16%	3.66%	1.34
60/40 Portfolio w/ 20% Swan DRS	6.89%	447.26%	8.88%	0.55	-1.01%	0.56	-27.71%	3.27%	1.53
60/40 Portfolio w/ 30% Swan DRS	6.97%	457.27%	8.61%	0.52	-0.94%	0.59	-25.18%	2.93%	1.73
60/40 Portfolio w/ 40% Swan DRS	7.04%	466.35%	8.43%	0.50	-0.87%	0.61	-22.90%	2.65%	1.94
60/40 Portfolio w/ 50% Swan DRS	7.10%	474.47%	8.33%	0.47	-0.81%	0.62	-21.06%	2.44%	2.13
60/40 Portfolio w/ 60% Swan DRS	7.15%	481.57%	8.33%	0.44	-0.76%	0.63	-19.19%	2.27%	2.32
60/40 Portfolio w/ 70% Swan DRS	7.19%	487.64%	8.41%	0.41	-0.72%	0.63	-17.29%	2.21%	2.40
60/40 Portfolio w/ 80% Swan DRS	7.23%	492.64%	8.59%	0.39	-0.68%	0.62	-16.59%	2.22%	2.41
60/40 Portfolio w/ 90% Swan DRS	7.25%	496.54%	8.85%	0.36	-0.65%	0.61	-17.58%	2.28%	2.36
Swan DRS (net)	7.27%	499.32%	9.18%	0.33	-0.63%	0.59	-18.56%	2.38%	2.26
S&P 500 Index TR	7.91%	596.25%	15.68%	1.00	0.00%	0.38	-50.95%	10.16%	0.59



VIX One-Day Spikes of 20% or More



Volatility spikes accompanying short/steep declines have become **more frequent and more extreme** following the Global Financial Crisis in 2008



The Swan Defined Risk Strategy or DRS as used in this document refer to the Swan Defined Risk US Large Cap 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+	19.17%	19.17%	19.17%	N/A	N/A	N/A	1 / .22	0.22	<6	10.58%	10.58%	10.58%	N/A	N/A
1998	11.55%	32.94%	20.90%	N/A	N/A	N/A	1 / .32	0.32	<6	28.58%	42.18%	26.44%	N/A	N/A
1999	12.26%	49.24%	17.37%	N/A	N/A	N/A	1 / .72	0.72	<6	21.04%	72.09%	24.25%	N/A	N/A
2000	3.17%	53.97%	13.12%	N/A	N/A	N/A	1 / .90	0.90	<6	-9.10%	56.43%	13.64%	N/A	N/A
2001	7.46%	65.46%	11.84%	0.36	7.23%	0.51	3 / 1.66	1.66	<6	-11.89%	37.83%	7.39%	16.71%	0.13
2002	12.22%	85.68%	11.91%	0.20	10.20%	0.56	3 / 1.97	1.97	<6	-22.10%	7.37%	1.30%	18.55%	-0.17
2003	-0.65%	84.47%	9.88%	0.16	10.11%	0.47	6 / 3.74	3.74	5.68%	28.68%	38.17%	5.10%	18.07%	0.07
2004	11.76%	106.17%	10.13%	0.17	9.89%	0.55	8 / 4.66	4.66	5.80%	10.88%	53.21%	5.85%	14.86%	0.14
2005	6.69%	119.97%	9.72%	0.17	6.12%	0.55	8 / 4.98	4.98	2.66%	4.91%	60.73%	5.74%	9.04%	0.14
2006	17.26%	157.94%	10.49%	0.17	4.52%	0.63	12 / 7.69	7.69	3.71%	15.79%	86.12%	6.76%	6.82%	0.21
2007	8.39%	179.57%	10.29%	0.18	5.92%	0.62	14 / 9.40	9.40	3.79%	5.49%	96.34%	6.64%	7.68%	0.20
2008	-4.57%	166.78%	8.91%	0.23	9.34%	0.49	17 / 15.65	15.65	5.00%	-37.00%	23.70%	1.87%	15.08%	-0.11
2009	22.63%	227.15%	9.95%	0.25	10.70%	0.62	73 / 55.78	55.78	4.18%	26.46%	56.44%	3.64%	19.63%	0.02
2010	7.88%	252.94%	9.79%	0.27	10.57%	0.63	105 / 97.90	97.90	2.21%	15.06%	80.00%	4.45%	21.85%	0.09
2011	-4.59%	236.73%	8.73%	0.27	9.21%	0.56	146 / 59.44	59.44	3.16%	2.11%	83.80%	4.29%	18.71%	0.09
2012	8.29%	264.64%	8.71%	0.28	7.45%	0.59	436 / 129.08	386.76	1.44%	16.00%	113.22%	5.01%	15.09%	0.15
2013	14.21%	316.45%	9.03%	0.28	6.62%	0.65	423 / 309.7	1,052.99	1.56%	32.39%	182.28%	6.49%	11.94%	0.25
2014	6.23%	342.40%	8.87%	0.28	4.75%	0.66	599 / 434.3	1,810.04	0.65%	13.69%	220.92%	6.89%	8.97%	0.29
2015	-2.11%	333.06%	8.25%	0.29	5.79%	0.62	766 / 473.21	2,446.11	1.36%	1.38%	225.36%	6.58%	10.47%	0.28
2016	9.08%	372.39%	8.29%	0.29	5.38%	0.65	1,207 / 675.64	3,620.08	0.90%	11.96%	264.27%	6.85%	10.59%	0.31
2017	11.51%	426.74%	8.44%	0.29	4.99%	0.69	1,630 / 982.45	4,975.33	0.78%	21.83%	343.79%	7.54%	9.92%	0.37
2018	-6.83%	390.74%	7.68%	0.31	6.23%	0.60	1,292 / 756.36	4,063.88	1.13%	-4.38%	324.34%	6.95%	10.80%	0.33
2019	14.93%	463.99%	7.99%	0.31	7.01%	0.64	1,144 / 638.36	3,065.24	1.15%	31.49%	457.95%	7.94%	11.93%	0.40
2020	3.01%	480.97%	7.77%	0.32	9.18%	0.62	893 / 501.09	2,236.86	1.75%	18.40%	560.60%	8.37%	18.53%	0.41
2021	15.63%	571.77%	8.08%	0.33	8.07%	0.67	1,026 / 546.44	2,571.77	0.24%	28.71%	750.23%	9.13%	17.17%	0.47

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

The Swan Defined Risk US Large Cap Composite demonstrates the performance of non-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 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.

The benchmarks used for the Swan Defined Risk US Large Cap Composite are the S&P 500 Index, which consists of approximately 500 large cap stocks, and a 60/40 blended composite, weighted 60% in the aforementioned S&P 500 Index and 40% in the Bloomberg US Aggregate Bond Index. The 60/40 is rebalanced monthly. 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 often used as a proxy for the overall U.S. equity market. Indexes and other benchmarks used herein are generally unmanaged and have no fees or expenses. An investment cannot be made directly in an index or some of these benchmarks. 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 and benchmarks may be of limited use.

Swan Global Investments, LLC. is a SEC registered Investment Advisor that specializes in managing money using the proprietary Defined Risk Strategy (DRS). Please note that registration of the Advisor does not imply a certain level of skill or training. Further information may be obtained by contacting the company directly at 970-382-8901 or www.swanglobalinvestments.com. Swan Global Investments, LLC, Swan Global Management, LLC, Swan Capital Management, LLC, and Swan Wealth Advisors, LLC are affiliated entities. Sources: Swan Global Investments, Zephyr StyleADVISOR, and Morningstar; all information is provided "as is" without warranty of any kind. Swan assumes no responsibility for typographical errors, inaccuracies or other errors which may occur.

This presentation is for information purposes only and does not constitute any investment advice or tax advice. 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 due to offering differences 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.



Disclosures

The Swan Defined Risk U.S. Large Cap Growth Strategy or DRS LCG as used in this document refers to the DRS U.S. Large Cap Growth Composite..

Year	Swan Global Investments, LLC DRS Growth Composite										S&P 500 Total Return ("The Benchmark")				
	Net-of-Fee Return	Net-of-Fee Cumulative Return	Net-of-Fee Annualized Return	Beta of-Fee	(Net-Standard Deviation (External) Fee)	Sharpe Ratio (Net-Of-Fee)	# of Accts / Assets in Millions	Total Firm Assets	Dispersion (Internal) Gross of Fee		Return	Cumulative Return	Annualized Return	Standard Deviation (External)	Sharpe Ratio
2015*	-5.36%	-5.36%	-5.36%	N/A	N/A	N/A	1 / 0.28	\$2,446.11	<6		-1.79%	-1.79%	-1.79%	N/A	N/A
2016	11.62%	5.63%	3.52%	N/A	N/A	N/A	1 / 0.32	\$3,620.08	<6		11.96%	9.96%	6.18%	N/A	N/A
2017	16.44%	23.00%	8.34%	N/A	N/A	N/A	1 / 0.38	\$5,030.83	<6		21.83%	33.96%	11.98%	N/A	N/A
2018	-9.76%	10.99%	2.95%	0.76	9.28%	0.22	1 / 1.34	\$4,063.88	<6		-4.38%	28.09%	7.15%	10.80%	0.55
2019	23.38%	36.94%	7.10%	0.77	10.70%	0.61	3 / 9.57	\$3,065.24	<6		31.49%	68.42%	12.05%	11.93%	0.91
2020	11.70%	52.96%	7.91%	0.70	13.90%	0.62	4 / 86.22	\$2,236.86	<6		18.40%	99.41%	13.16%	18.53%	0.80
2021	21.50%	85.84%	9.87%	0.70	11.71%	0.84	11 / 4.46	\$2,571.77	0.05%		28.71%	156.65%	15.39%	17.17%	0.99

+2015 Annual Returns are total returns (i.e., not annualized) from September-December 2015 consistent with initial Strategy implementation.

The DRS U.S. Large Cap Growth Composite Description: The DRS U.S. Large Cap Growth Composite demonstrates the performance of separately managed account(s), and mutual fund investors in the DRS U.S. Large Cap Growth Strategy. Accounts in the DRS U.S. Large Cap Growth Composite have a higher risk tolerance and are focused on growth over protection by purchasing slightly "out-of-the-money" LEAP put options, i.e., put options where the current price of the underlying stock is above the strike price of the options, thus spending less on hedging. This small difference increases growth potential. The Composite relies on LEAPS and other options to manage this risk tolerance. The portfolios invest in S&P 500 exchange traded funds ("ETF") and LEAPS associated with the ETFs as well as multiple other option spreads 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. ETFs and options are the primary components of the strategy.

The benchmarks used for the Swan Defined Risk U.S. Large Cap Growth Composite are the S&P 500 Index, which consists of approximately 500 large cap stocks and the Bloomberg US Aggregate Bond Index. The S&P 500 Index is often used as a proxy for the overall U.S. equity market. Indexes and other benchmarks used herein are generally unmanaged and have no fees or expenses. 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 Defined Risk U.S. Large Cap Prime Strategy and the DRS LCP as used in this document refers to the Defined Risk U.S. Large Cap Prime Composite.

Year	Swan Global Investments, LLC DRS U.S. Large Cap Prime Composite												S&P 500 ("The Benchmark")				
	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-Fee	Sharpe Ratio (Net-Of-Fee)	# of Accts / Assets in Millions	Total Firm Assets (\$MM)	Dispersion (Internal) Gross of Fees	Return	Cumulative Return	Annualized Return	Standard Deviation (External)	Sharpe Ratio
2019+	5.27%	5.27%	5.27%	5.43%	5.43%	5.43%	N/A	N/A	N/A	1 / 0.07	\$3,065.24	<6	9.07%	9.07%	9.07%	N/A	N/A
2020	14.66%	20.71%	16.25%	15.29%	21.55%	16.90%	N/A	N/A	N/A	72 / 35.53	\$2,236.86	<6	18.40%	29.14%	22.70%	N/A	N/A
2021	18.20%	42.68%	17.11%	18.82%	44.43%	17.75%	N/A	N/A	N/A	134 / 76.62	\$2,571.77	0.35%	28.71%	66.21%	25.33%	N/A	N/A

+2019 Annual Returns are total returns (i.e., not annualized) from September-December 2019 consistent with initial Strategy implementation. N/A: The Net three-year annualized standard deviation, Beta, and Sharpe Ratio of the Composite and Benchmark are not presented as 36-month returns are not available.

The Defined Risk U.S. Large Cap Prime Composite Description: The Defined Risk U.S. Large Cap Prime Composite demonstrates the performance of portfolios invested in The DRS U.S. Large Cap Prime Strategy. Account holders seek risk-managed growth of capital by matching or exceeding the long-term performance of the U.S. large-cap equity market by minimizing large declines typically experienced during bear markets. The portfolios use exchange-traded long-term put options on exchange-traded funds seeking to track the S&P 500 Index for hedging purposes and exchange-traded put and call options to generate additional returns. 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.

The benchmarks used for the Swan Defined Risk U.S. Large Cap Prime Composite are the S&P 500 Index, which consists of approximately 500 large cap stocks and the Bloomberg US Aggregate Bond Index. The S&P 500 Index is often used as a proxy for the overall U.S. equity market. Indexes and other benchmarks used herein are generally unmanaged and have no fees or expenses. 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).



Disclosures

Swan offers and manages The Defined Risk Strategy ("DRS") for its clients including individuals, institutions and other investment advisor firms. Swan Global Investments has affiliated advisers including Swan Global Management, LLC, Swan Capital Management, LLC, and Swan Wealth Advisors, 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. 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, 2022. 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.

Swan Defined Risk US Large Cap Composite (DRS), the Swan Defined Risk US Large Cap Growth Composite, and the Swan Defined Risk US Large Cap Prime Composite performance results are presented in U.S. dollars and are net-of-actual-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. 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. Swan uses options in the DRS. Options carry additional risks and are not suitable for all clients. Clients must read and understand the current options risk disclosure documents prior to entering into any options or other derivatives transactions. Prior to implementing a call writing program or any of the strategies described herein, a client should further discuss this investment process with other financial, legal and/or tax advisors. The options risk disclosure document is located at: <http://optionsclearing.com/about/publications/character-risks.jsp>

The charts and graphs contained herein should not serve as the sole determining factor for making investment decisions. To the extent that you have any questions regarding the applicability of any specific issue presented or discussed, you are encouraged to consult with Swan Global Investments. All information, including that used to compile charts, is obtained from sources believed to be reliable, but Swan Global Investments does not guarantee its reliability. ***-SGI-10**23

