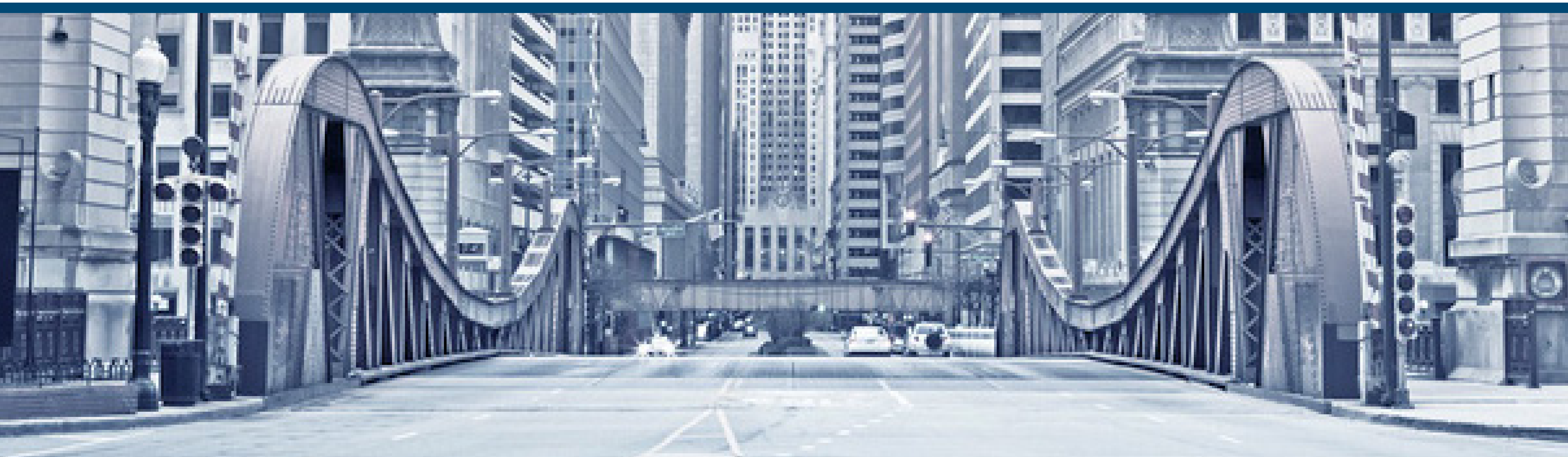
SPIDERROCK
ADVISORS

Hedged Equity
Concentrated Stock



Our Company

SpiderRock Advisors is an asset management firm **focused on providing customized option overlay** strategies to investors. Combining world-class technology with comprehensive derivative expertise, we are **making it easy for Institutions and Financial Advisors** to add option strategies to their investment portfolios.

Year Founded:	2013
Full Time Employees:	31
Portfolio Management Team:	6
Firm AUM:	$2.7 billion

Our Company Portfolio Management

ERIC METZ, CFA
President, Chief Investment Officer

Eric oversees all investment strategies and portfolio management activities at the firm. Prior to joining SRA, Eric was the Derivatives Strategist and Portfolio Manager at RiverNorth Capital Management, managing both mutual fund and hedge fund assets. He began his career with the Chicago Trading Company on the floors of the Chicago Mercantile Exchange (CME) and the Chicago Board Options Exchange (CBOE). After the trading floors, Eric was a senior trader and partner at both Ronin Capital and Bengal Capital, proprietary trading firms specializing in volatility arbitrage.

Eric graduated, Magna Cum Laude, from the University of Michigan with a B.S.E in Industrial and Operations Engineering. He earned his M.S.E., with honors, in Industrial and Operational Engineering, and was enrolled in the program's PhD program. Eric is a CFA Charterholder, a member of the CFA Institute, the CFA Society of Chicago and a board member of the OIC Institutional Advisory Council.

FRED SLONEKER
Deputy CIO, Chief Quantitative Strategist

Fred joined SpiderRock Advisors in 2019 and now serves as Deputy Chief Investment Officer as well as Chief Quantitative Strategist. Prior to joining SRA, Fred was the Head Quantitative Trader for a series of volatility-focused proprietary trading funds in Chicago. He began his career as a Trader and Portfolio Manager for hedge funds JMG Triton Offshore and Claire Capital Management in San Francisco, specializing in convertible arbitrage strategies. He later created and managed a volatility strategy for Toronto Dominion (TD) Securities.

Fred graduated from the California Institute of Technology (Caltech) with a B.S. in Economics.

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Overview

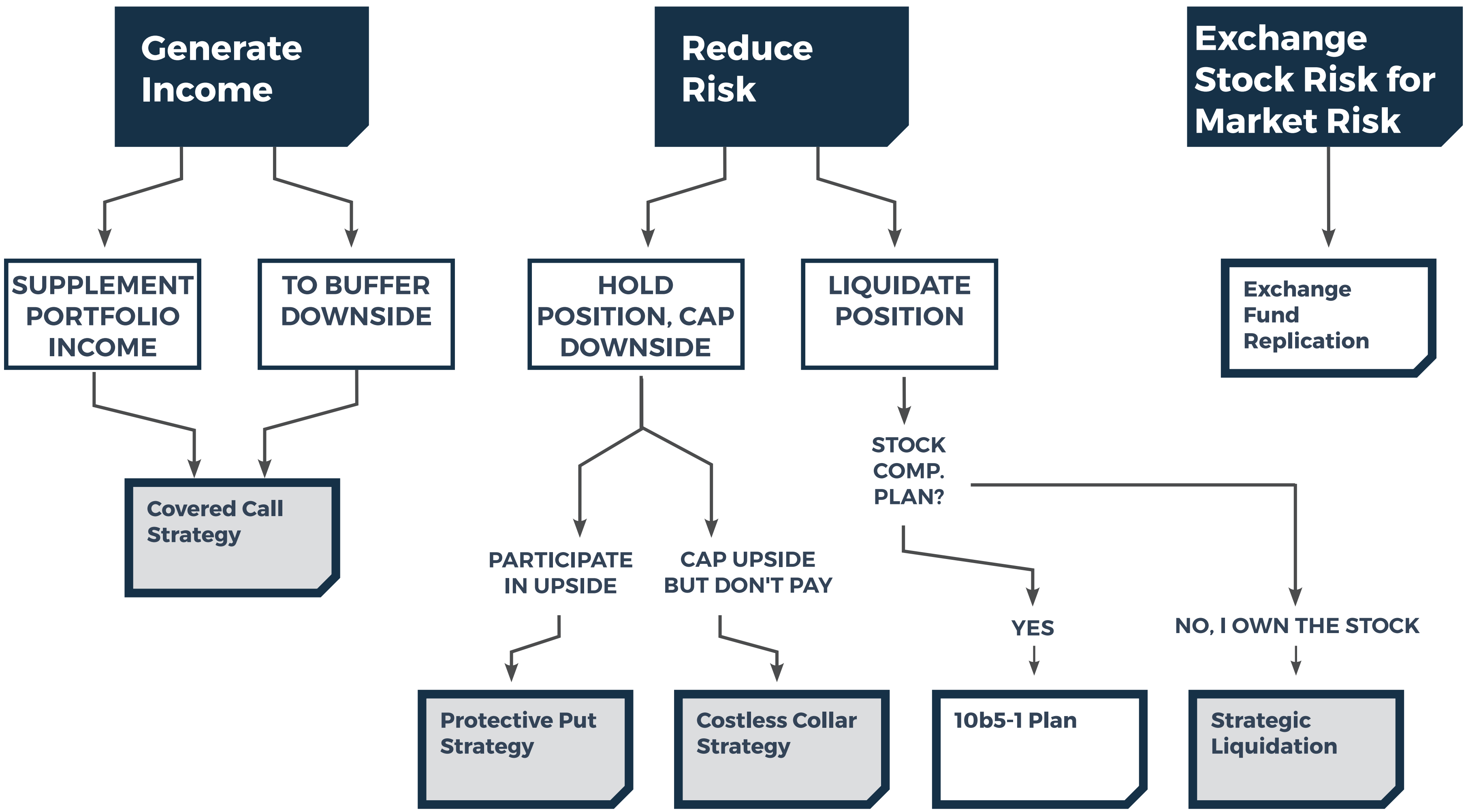
Low cost basis stock positions are a regular occurrence in today's market environment, and may lead to investors owning suboptimal portfolios. Rather than diversifying their holdings, clients may be exposed to an unnecessary amount of idiosyncratic risk because of the tax consequences related to selling shares.

In these scenarios, option-based solutions can provide a potential reduction in these risks without triggering capital gains on the stocks. The following slide maps out client goals and how
SpiderRock Advisors ("SRA") aims to implement the optimal strategy for your clients.

Please note that individual tax consequences may vary.

I want to help my client with a concentrated stock position

my client would like to:

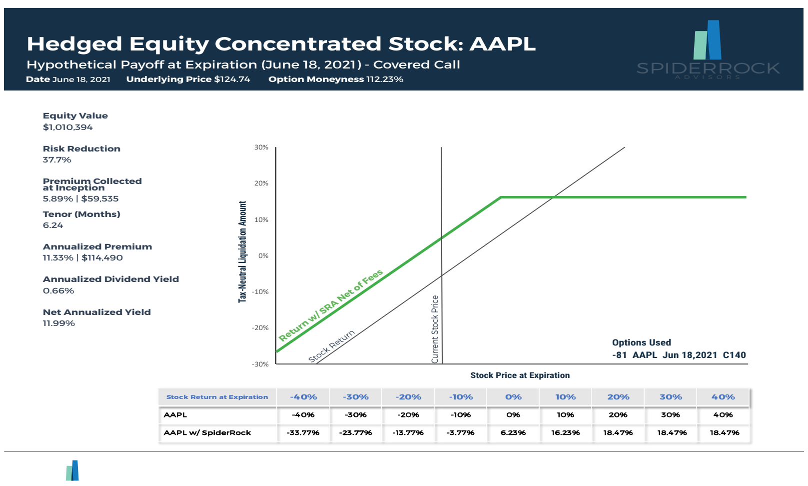


= Denotes ability to use Basis Hedge

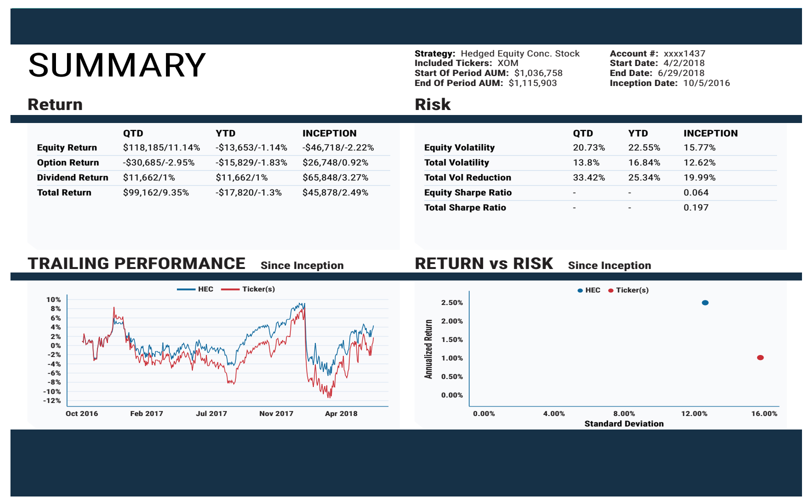
SpiderRock Advisors

As your firm's outsourced derivatives desk, SpiderRock Advisors is with you every step of the way. SRA is committed to providing advisors with client-friendly proposal generation, active management, and quarterly performance reporting.

Proposal Generation:



Performance Reporting:



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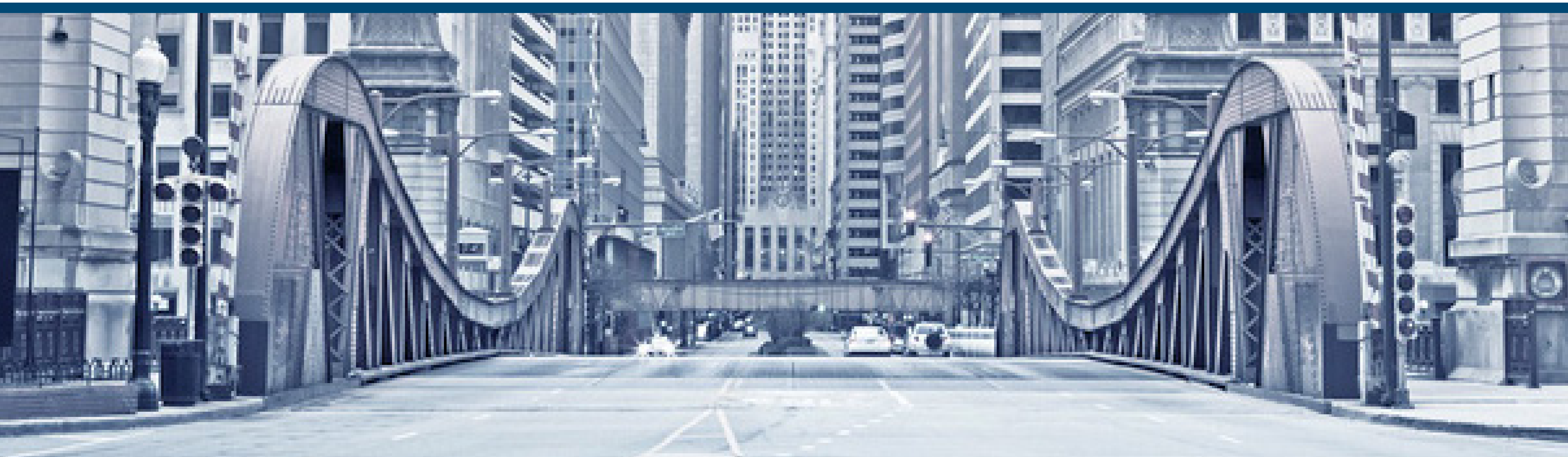
Covered Calls and Costless Collars



Hedging Concentrated Stock

The Problem

Client has a concentrated stock position with a low cost basis and is reticent to sell due to any of the following:

1) a sale would trigger a large taxable gain;
2) emotional attachment; or
3) legally not allowed to sell company shares.

Hedging Concentrated Stock

Our Solution

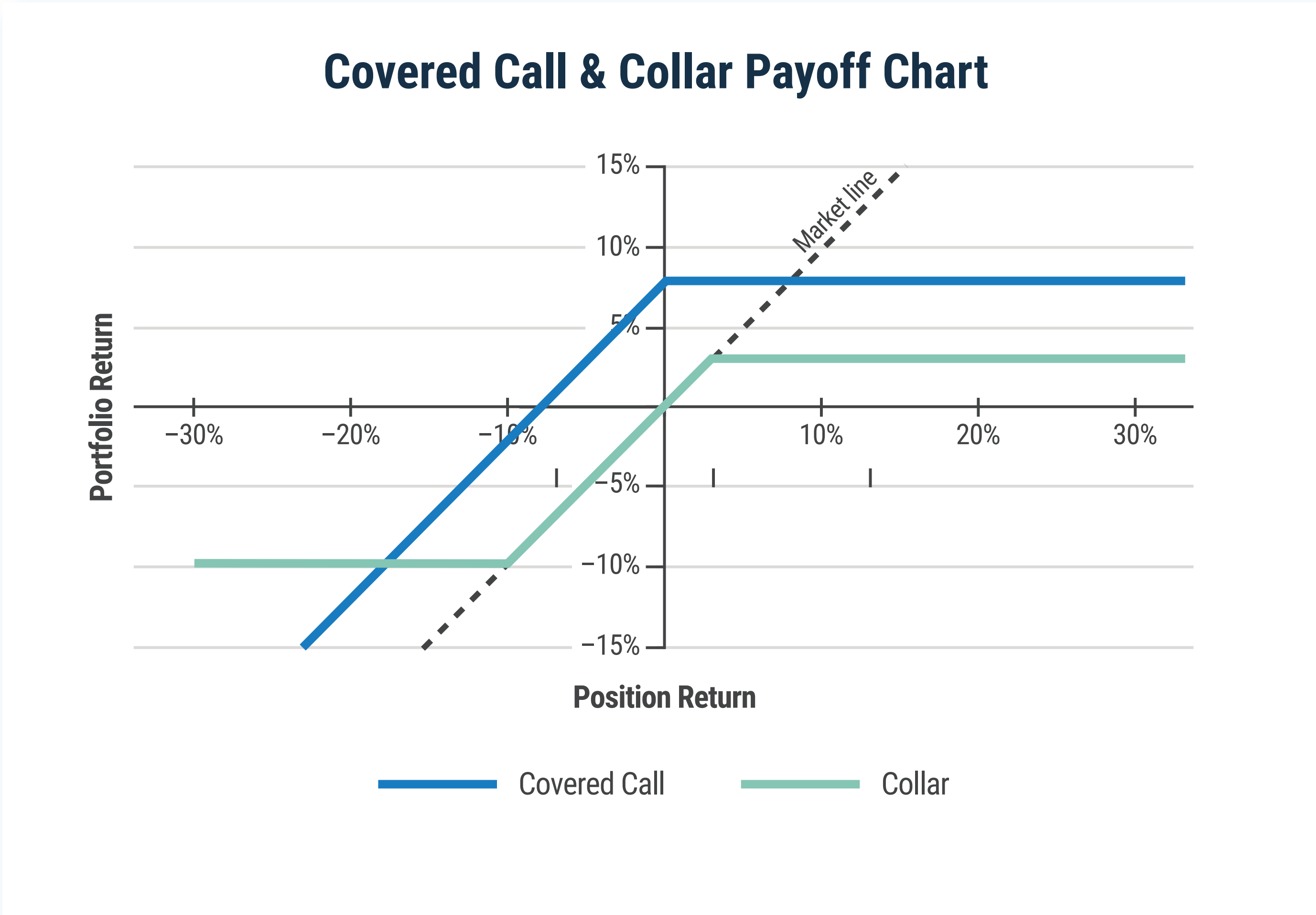
SRA's Hedged Equity - Concentrated Stock program seeks to reduce the risk inherent in concentrated positions while potentially generating income and reducing tax consequences.

In this scenario, our Hedged Equity Concentrated Stock strategy seeks to solve multiple problems:

1) It helps the client reduce their idiosyncratic stock risk without triggering tax consequences;
2) It allows the client to potentially generate an income stream off of this asset; and
3) SRA may prevent the stock from being called away with a "No Call Away" provision.

An early exercise of a covered call may result in equity shares being called away.
This could create a situation where SRA may need to purchase the shares with same day settlement.

Two Approaches
Concentrated Stock Hedging



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Covered Call Strategy

Covered call strategies can be utilized to **generate potential call premium** and seek to **buffer a position's downside** by selling call options.

The call premium acts as a **diversified source of income** for the portfolio while also aiding as a buffer, or hedge, should the position's stock price decrease.

Finally, any dividends continue to accrue to the client.

Covered Call Strategy
Hedging AAPL Position

Example

By utilizing a covered call strategy on a ~$1 million AAPL position, the client would have generated **$59,535** of call premium, which annualizes to an option yield of 11.33%.

Simultaneously, the position's beta would have **been reduced by ~38%**.

Hedged Equity Concentrated Stock: AAPL

Hypothetical Payoff at Expiration (June 18, 2021) - Covered Call

Date June 18, 2021 **Underlying Price** $124.74 **Option Moneyness** 112.23%

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Equity Value
$1,010,394

Risk Reduction
37.7%

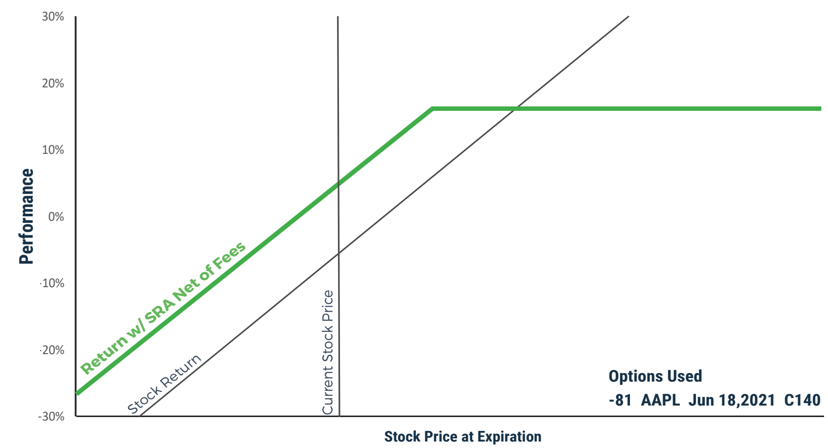
Premium Collected at Inception
5.89% | $59,535

Tenor (Months)
6.24

Annualized Premium
11.33% | $114,490

Annualized Dividend Yield
0.66%

Net Annualized Yield
11.99%



Stock Return at Expiration	-40%	-30%	-20%	-10%	0%	10%	20%	30%	40%
AAPL	-40%	-30%	-20%	-10%	0%	10%	20%	30%	40%
AAPL w/ SpiderRock	-33.77%	-23.77%	-13.77%	-3.77%	6.23%	16.23%	18.47%	18.47%	18.47%

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The premium generated does not include fees or transaction costs.

Collar Strategy

Collars can **hedge a position's downside** exposure for little or no cost by selling call options and then **using the call premium to purchase protective puts**.

The strategy can reduce the position's beta, and in some situations, can also generate income for the client.

Collar Strategy
Hedging AAPL Position

Example

In this example, by utilizing a collar strategy on a ~$1 million AAPL position, the client would have netted **$16,200** of premium, which annualizes to an option yield of 1.43%.

Simultaneously, the position's beta would have **been reduced by ~68%**.

Hedged Equity Concentrated Stock: AAPL

Hypothetical Payoff at Expiration (June 18, 2021) - Collar

Date June 18, 2021 **Underlying Price** $124.74 **Option Moneyness** 116.2% | 84.2%

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Equity Value
$1,010,394

Risk Reduction
67.9%

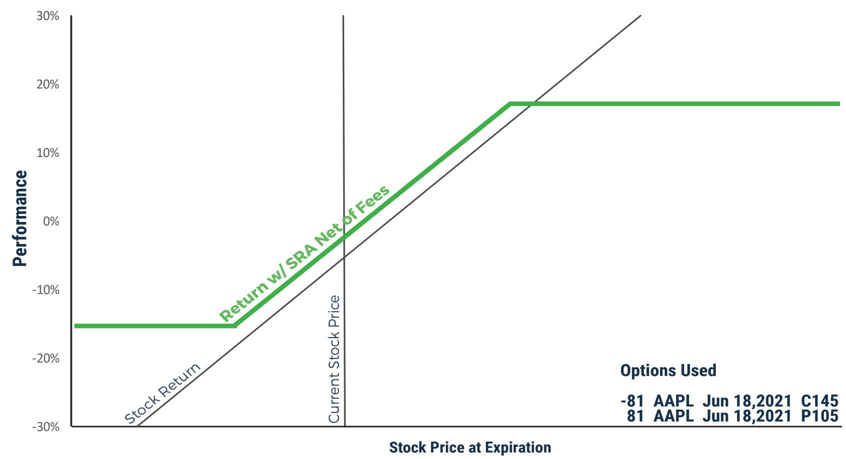
Premium Collected at Inception
1.60% | $16,200

Tenor (Months)
13.44

Annualized Premium
1.43% | $14,471

Annualized Dividend Yield
0.66%

Net Annualized Yield
2.09%



Stock Return at Expiration	-40%	-30%	-20%	-10%	0%	10%	20%	30%	40%
AAPL	-40%	-30%	-20%	-10%	0%	10%	20%	30%	40%
AAPL w/ SpiderRock	-13.48%	-13.48%	-13.48%	-7.66%	2.34%	12.34%	18.58%	18.58%	18.58%

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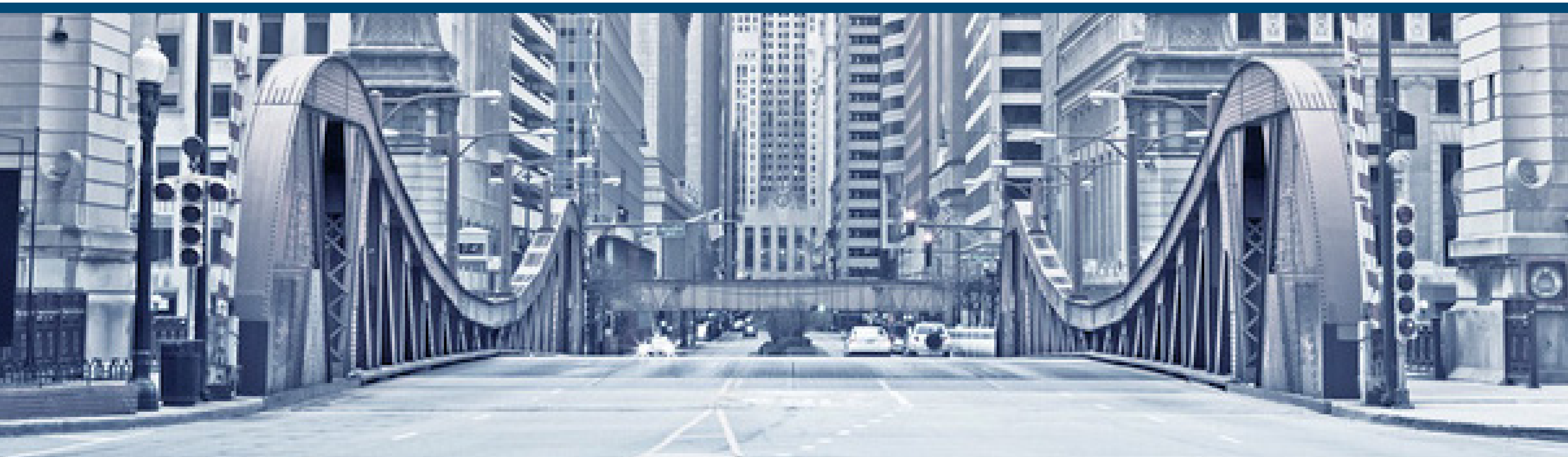
Strategic Liquidation



Problem

The Problem

Clients own a concentrated position and want to liquidate the asset in order to diversify their holdings. However, they are hesitant to sell due to the imminent tax bill.

What problems can be caused by holding a concentrated position?

1) Your client wants the ability to create distributable cash flow from their concentrated position while best minimizing tax consequences;

2) Your client holds too much single stock name risk and wants to reduce risk; and

3) Your client owns low basis stock and selling would trigger a large taxable gain.

Solution

Strategic Liquidation

SpiderRock Advisors can sell calls on the low basis position, generating a new stream of income that can be used to help offset capital gain taxes associated with liquidating the stock. You can now present your client with a strategy that allows them to help offset capital gain taxes without having to dip into their own pocket.

In this scenario, our Strategic Liquidation strategy may solve multiple problems:

1) It provides a solution for your client in which they can liquidate their position while remaining net neutral on related tax consequences;
2) Seeks to minimize the diversification risk associated with the concentrated position; and
3) It allows your client to potentially generate a new income stream off of this asset.

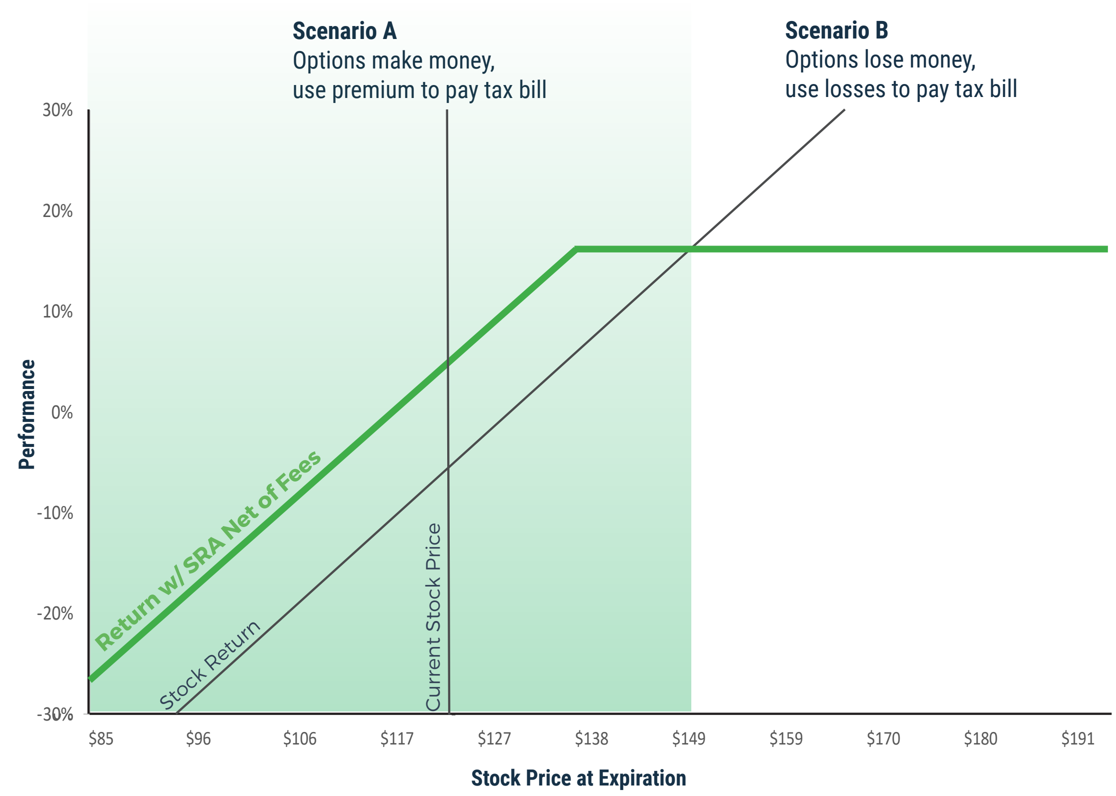
Two Potential Scenarios

Scenarios

There are only two potential scenarios that can occur when owning a concentrated stock and utilizing our Strategic Liquidation strategy:

1) The stock declines - you are buffered by the call premium generated and can use the premium to liquidate a portion of the stock; or
2) The stock increases through the strike price - you keep all the premium and buy the option back at a loss.

Hypothetical AAPL Strategic Liquidation Scenarios



What happened?

1) The stock price decreased or remained relatively flat.
2) The options expired worthless.
3) The client kept all the call premium, buffering their downside.

What's next?

1) The client pays taxes on the generated call premium.
2) The client receives the left over call premium or "income".
3) The advisor can sell a targeted amount of stock, creating a taxable event.
4) The advisor can use the received call premium to pay the tax liability associated with selling the position.

End Result

The client can liquidate a portion of their concentrated position to offset the affiliated taxes.

Source: SpiderRock Advisors
Option Key: June 2021 AAPL $140 Strike Call
Embedded Capital Gains: 50%
Assumed Short/Long Term Tax Rate(s): 37.0%, 23.8%

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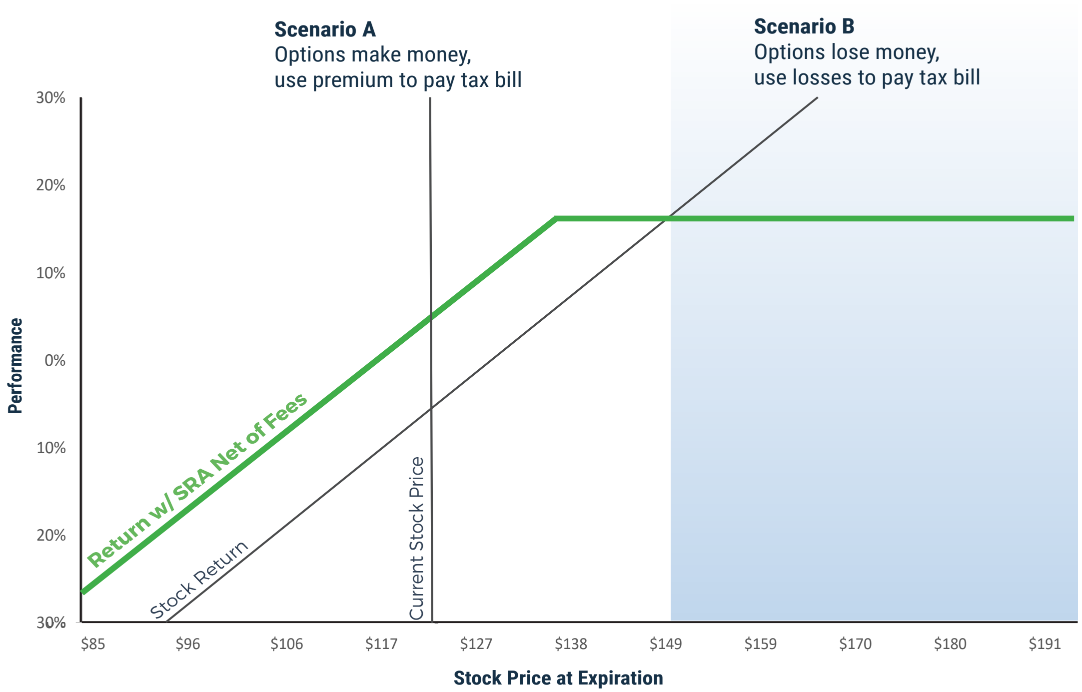
Hypothetical AAPL Strategic Liquidation Scenarios



What happened?

1) The stock price increased through the strike price.
2) The client kept all the call premium but the equity's upside was truncated.

What's next?

1) The options are bought back at a loss.
2) This loss allows the client to liquidate a targeted amount of stock, to reduce or eliminate tax liability.
3) The targeted amount of stock is based on the value of the offsetting capital loss created, i.e. the higher the stock rises, the more you can liquidate.

End Result

The client can liquidate a portion of their concentrated position to offset the affiliated taxes.

Source: SpiderRock Advisors
Option Key: June 2021 AAPL $140 Strike Call
Embedded Capital Gains: 50%
Assumed Short/Long Term Tax Rate(s): 37.0%, 23.8%

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Hypothetical Amount of Liquidation

Source: SpiderRock Advisors
Option Key: June 2021 AAPL $140 Strike Call
Embedded Capital Gains: 50%
Assumed Short/Long Term Tax Rate(s): 37.0%, 23.8%

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Hypothetical Strategic Liquidation Forecast

Clients may use SRA's Strategic Liquidation to potentially exit a low-cost position in a tax-efficient manner.

Year	Beginning Stock Price	Beginning Shares	Stock MV	Strike	Option Premium (%)	Option Premium ($)	Hyp. Stock Performance	Ending Stock Price	End of Year Market Value	After-Tax Options Gain/(Losses)	Shares Available to Sell Tax-Neutral	Stock Sold Tax-Neutrally
1	$100.00	100,000	$10,000,000	105.0%	7.0%	$700,000	20%	$120.00	$12,000,000	($800,000)	11,429	$1,371,429
2	$120.00	88,571	$10,628,571	105.0%	7.0%	$744,000	-15%	$102.00	$9,034,286	$468,720	37,873	$3,863,077
3	$102.00	50,698	$5,171,209	105.0%	7.0%	$361,985	15%	$117.30	$5,946,890	($155,136)	2,305	$270,394
4	$117.30	48,393	$5,676,497	105.0%	7.0%	$397,355	20%	$140.76	$6,811,796	($454,120)	5,004	$704,296
5	$140.76	43,389	$6,107,500	105.0%	7.0%	$427,525	-20%	$112.61	$4,886,000	$269,341	18,076	$2,035,469
Ending Values:		**25,314**	**$2,850,531**			**$2,630,864**	**12.6%[1]**					**$8,244,664**

Assumptions

LT Tax Rate:	23.8%	Cost Basis (Per Share):	$50
ST Tax Rate:	37.0%	Cost Basis (Total):	$5,000,000
Starting Number of Shares:	100,000		

[1]Annualized 12.6%
[2]After-Tax Dollars

Summary Statistics with SpiderRock Advisors

Number of Shares Sold:	74,686
Percent of Stock Sold:	75%
Taxes Offset by Option Gains / Losses:	$1,073,464
Cash Available to Invest:	**$8,244,664**

Disclosures

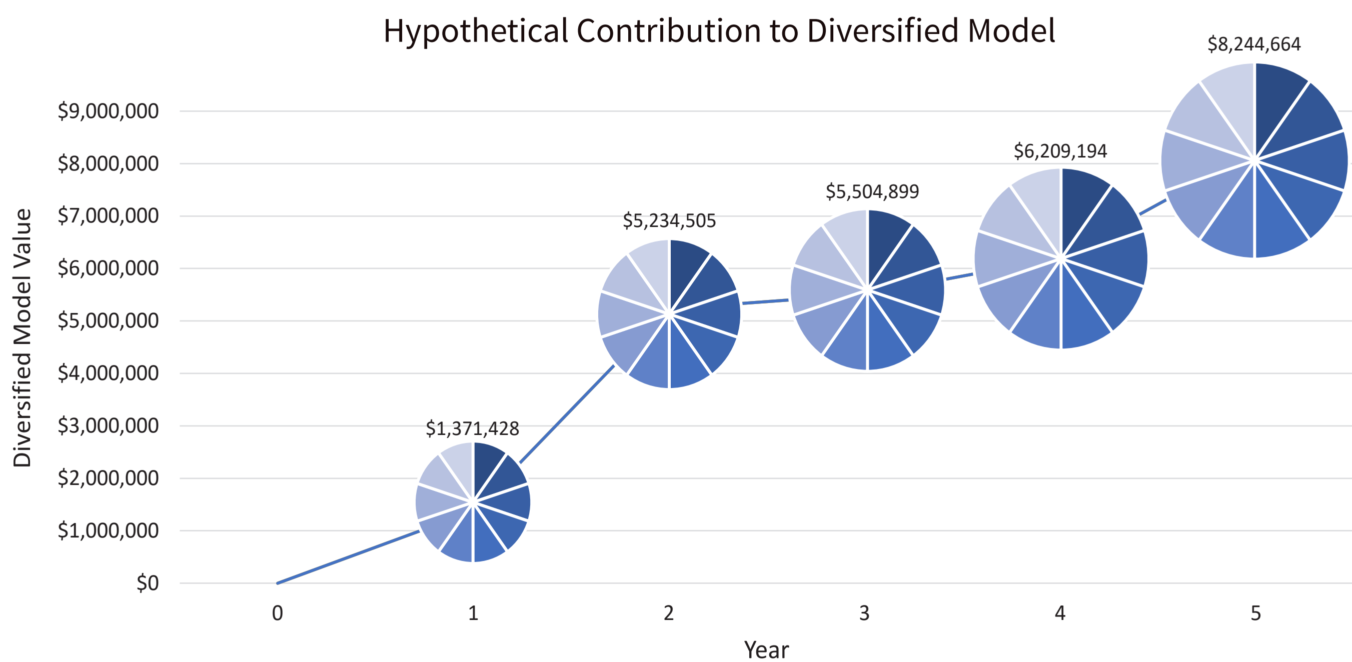
This analysis is provided for illustrative purposes only. It is not based on the actual performance of any account or specific stock position, nor is it a result of a backtest. Any actual performance or estimated after-tax gains or losses for a live mandate will differ. This example is based on a hypothetical Hedged Equity Concentrated Stock – Covered Call program. Option Strike and Premium are simplifying examples and do not account for the fact SRA will generally actively manage such a program.

Nothing in this analysis should be considered tax advice. Clients are encouraged to seek qualified tax counsel, as SpiderRock Advisors does not provide tax guidance.

Hypothetical Portfolio Value Growth

In this example, the client systematically sells out of their concentrated stock position at a level where option premiums or losses offset the capital gains bill triggered by selling shares, and then reallocates at the end of each year into a diversified model.

The illustration assumes no growth in the diversified model, and uses the example returns and assumptions provided here on page 23 for the concentrated stock.



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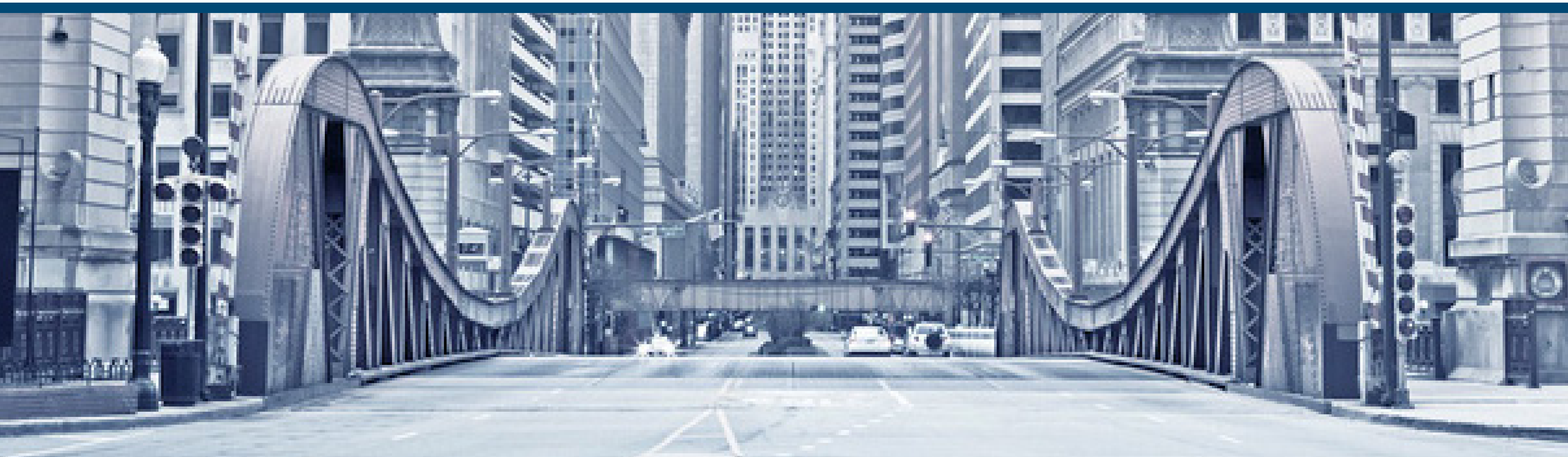
Exchange Fund Replication



Exchange Fund Replication

The Problem

Client has a concentrated stock position and is reticent to sell **but** would be open to exchanging single stock risk for market risk. The client has not opted into an Exchange Fund yet due to:

1. Lack of liquidity (e.g. 7-year lockups)
2. The challenges of a Limited Partnership, especially K-1s and administrative fees
3. Limited transparency into holdings or some funds being "maxed out" with a certain ticker or exposure
4. Receiving low basis positions at the end of the lockup period which they may not wish to hold

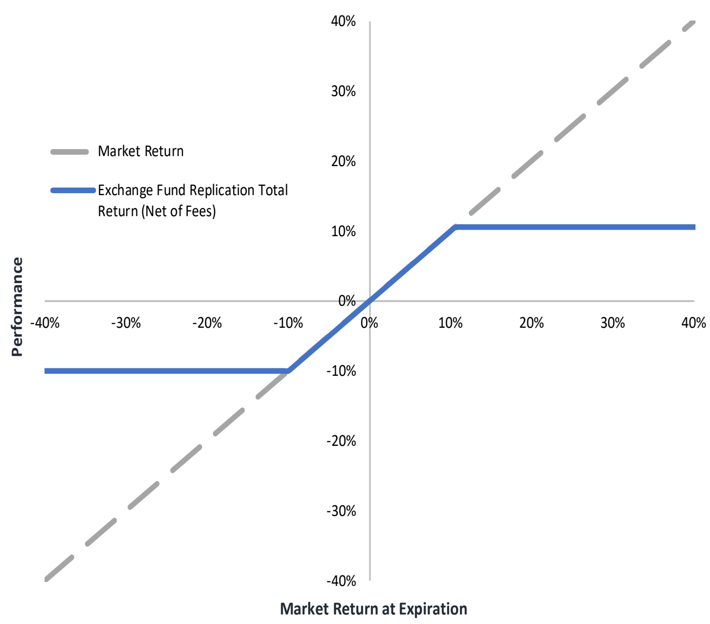
Exchange Fund Replication

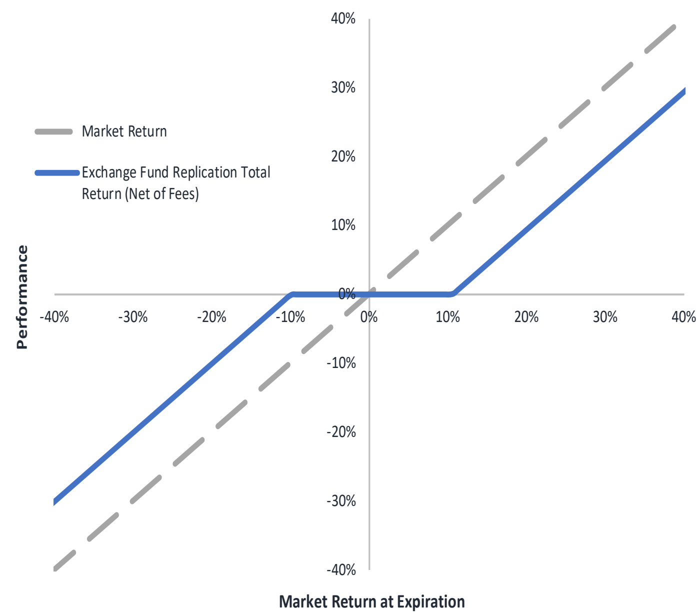
The Solution

Using SpiderRock Advisors' Exchange Fund Replication, clients may exchange their concentrated idiosyncratic risk for broad-based market risk with the following advantages over traditional Exchange Funds:

1. Daily liquidity
2. Structure is used in an SMA format
3. Full transparency into strategy holdings
4. Allows for strategic liquidation over time

Exchange Fund Replication





How to reduce concentrated risk

1) Sell call options on concentrated position
2) Purchase put options on concentrated position
3) Result = position is collared, premium neutral

How to transition to market risk

1) Sell put options on the S&P 500
2) Use put premium to purchase call options on the S&P 500
3) Result = concentrated equity exposure is transitioned to market equity exposure, premium neutral

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Exchange Fund Replication

PROCESS

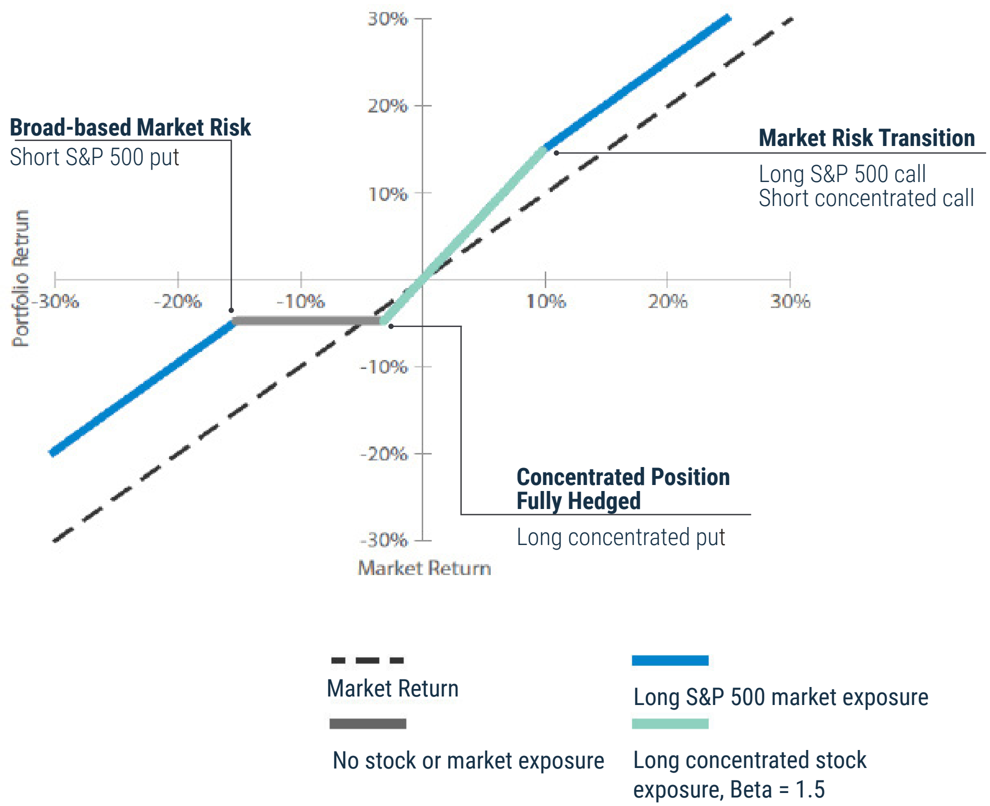
1. How to reduce concentrated risk?

- Sell call option on concentrated position
- Purchase put option on concentrated position
- Result = position is collared, premium neutral

2. How to transition to market risk?

- Sell put option on the S&P 500
- Use put premium to purchase call option on the S&P 500
- Result = concentrated equity exposure is transitioned to market equity exposure, premium neutral

HYPOTHETICAL EXCHANGE FUND REPLICATION PORTFOLIO*



*Illustrative Use Only. Assumes no Basis Risk.

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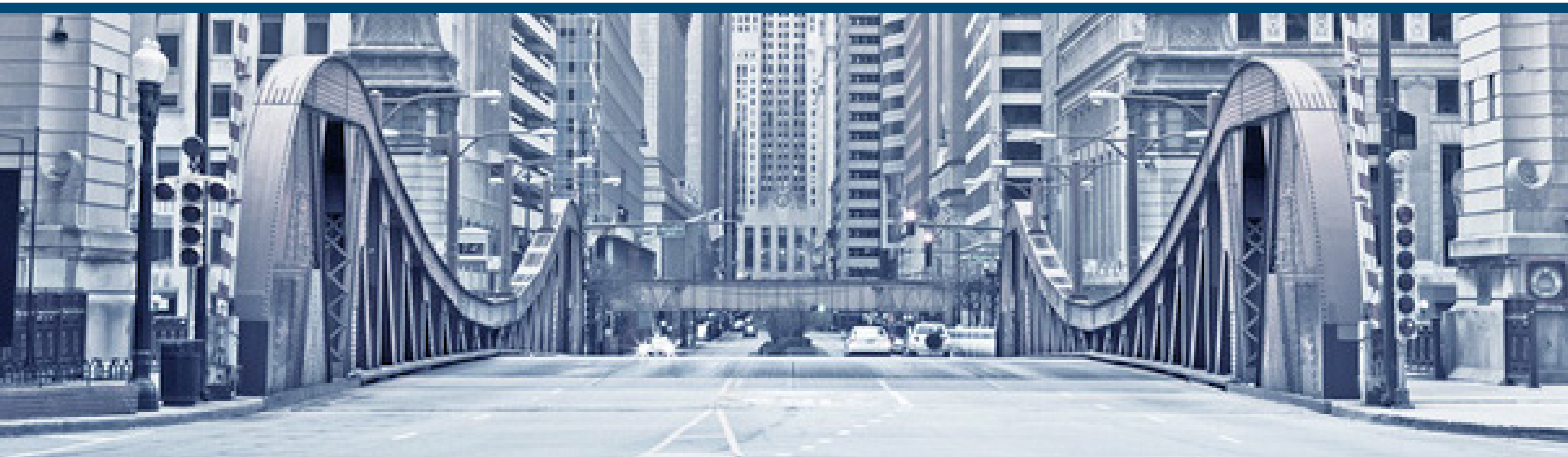
Exchange Fund Replication

Summary

Utilizing SpiderRock Advisors, you can help clients with the following:

1. Seek to hedge idiosyncratic risk
2. Gain broad-based market risk exposure
3. Strategically liquidate the position over time
4. Obtain full strategy transparency with daily liquidity

Basis Hedge



Basis Hedge

The Problem

1) Client wants to hedge a concentrated stock position but is unable to do so due to the lack of options.

2) Even if options on the underlying could be sold, the execution cost of illiquid options to the end client both into and out of the trades, is prohibitively high.

3) Client wants to hedge a concentrated position, but is unable to do so due to corporate plan restrictions (Rule 10b5-1, ESOP, etc.).

Basis Hedge

The Solution

1) SRA may help by analyzing the market, selecting a proxy for the underlying concentrated security, and implementing a basis hedge;

2) A basis hedge is a similar security that has a high historical correlation to the security the client wishes to hedge;

3) SRA will sell options against a risk-adjusted amount of the concentrated security to be hedged; and

4) While the underlying risk can be hedged, and liquidity costs can be improved, it is important to realize that the hedge is an imperfect one: the client is exposed to basis risk.

Basis Hedge

SRA Process

1) To find an appropriate hedge, SRA will screen for 1) stocks/ETFs that have a high historical correlation to the underlying instrument and 2) stocks/ETFs that have a liquid options market.

2) SRA will run a regression analysis of returns in order to find the beta between the instruments.

3) Once an appropriate hedge has been selected, SRA will run a basis risk analysis to illustrate the distribution of historical dispersion.

4) SRA "beta adjusts" the underlying portfolio and hedges with the equivalent amount of allocated notional dollars to isolate the risk of the underlying instrument.

Basis Hedge

What is Basis Risk?

Basis risk is created by the use of an imperfect hedge - the risk is that the hedge and the underlying instrument will not move with perfect correlation, in spite of historial correlations.

Basis risk can be positive or negative:

1) Positive basis risk occurs when the security being hedged outperforms the underlying of our option hedge.

2) Negative basis risk occurs when the underlying of our option hedge outperforms the security being hedged.

SRA seeks to optimize the hedge based on correlation, yield, and distribution of basis risk.

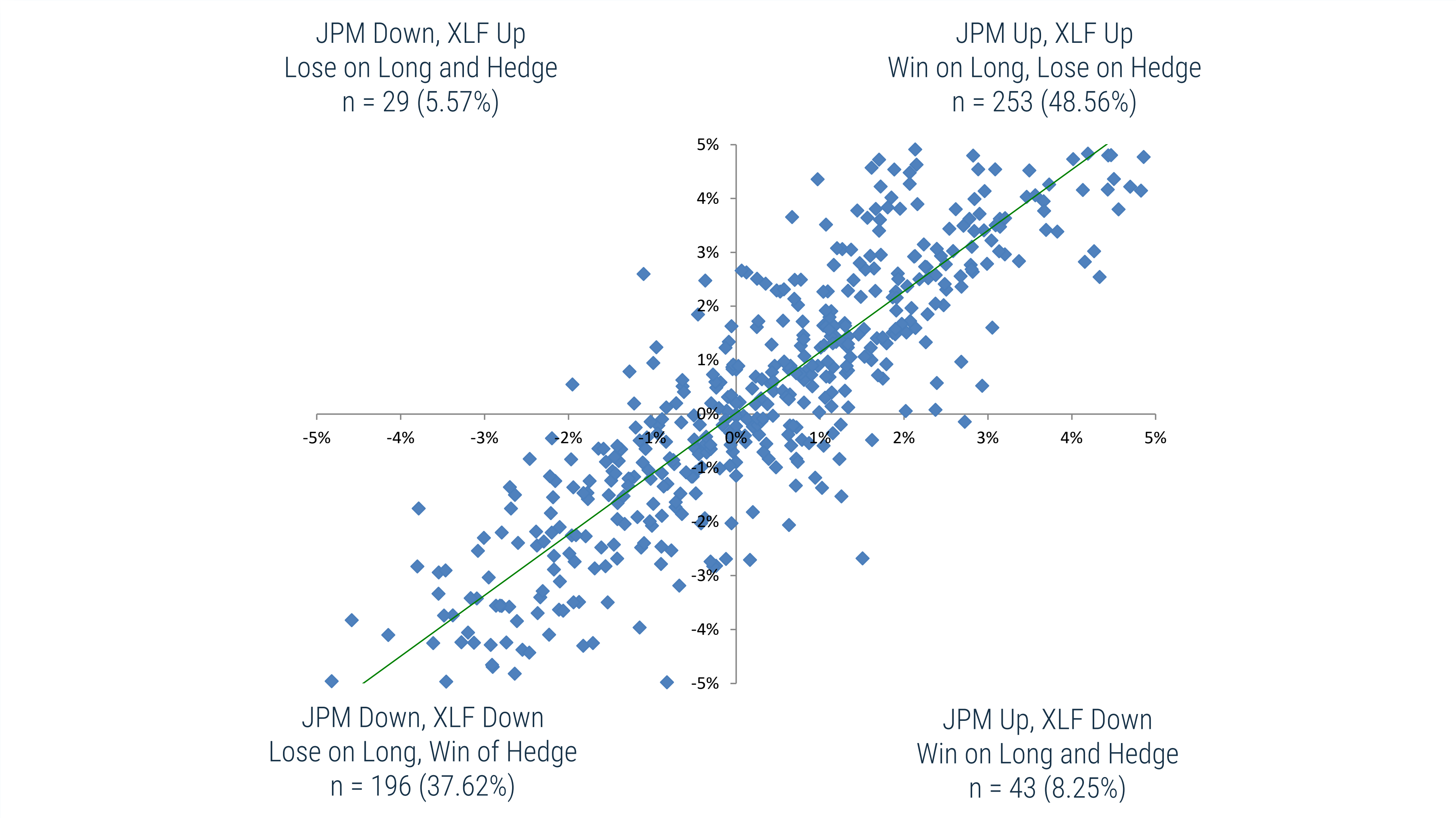
Hypothetical Example 1

Hedging JP Morgan Chase Equity with XLF ETF

JPMorganChase

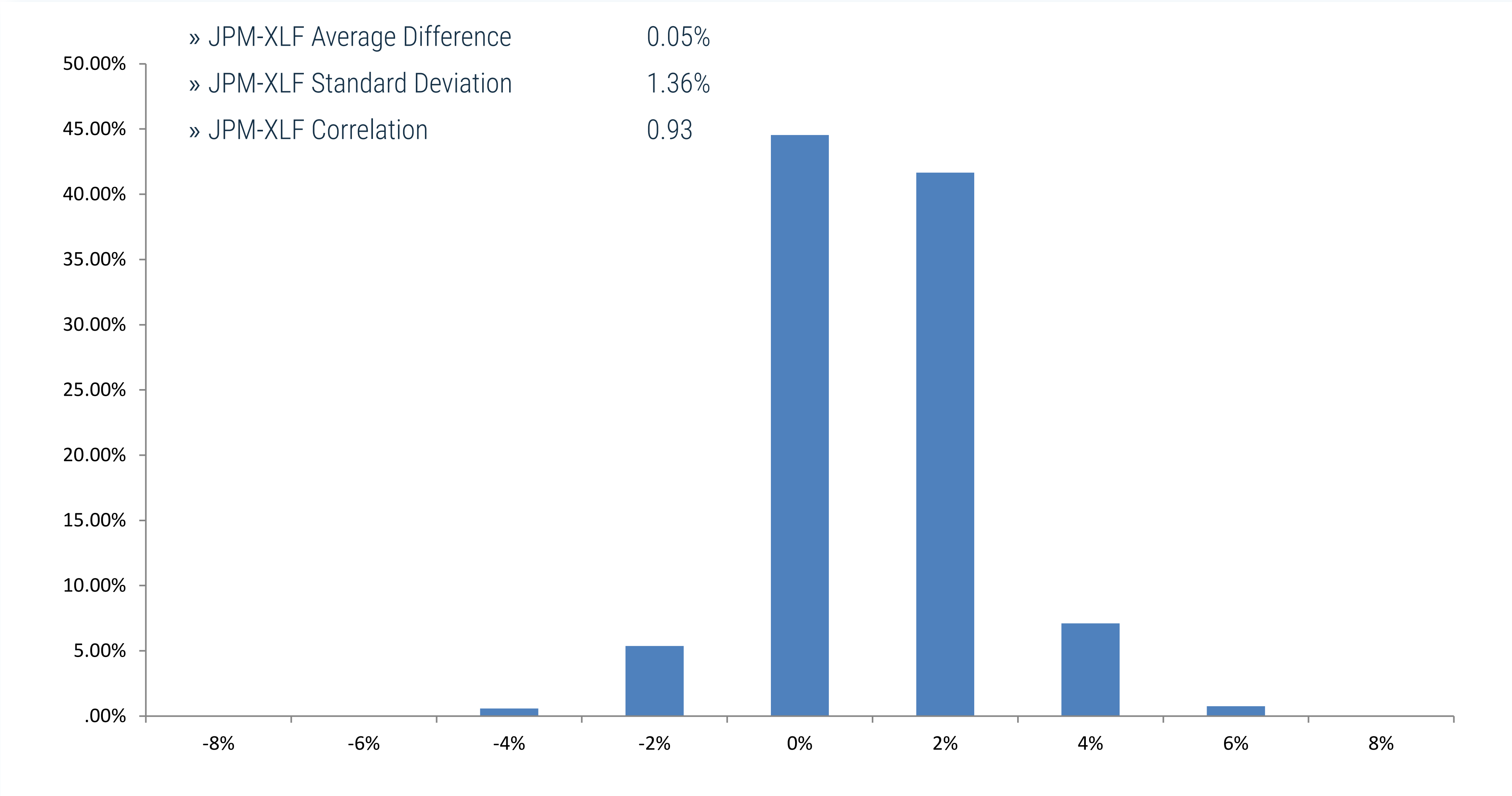
ETF XLF
WHAT DOES ALL OF THIS MEAN?

Scenario Analysis with Recommended Hedge to JPM (Weekly Return Pairs, 2012-2022)



Data Source: Bloomberg
Data Timeframe: 07/02/2012 - 09/30/2022

Basis Risk of Recommended Hedge to JPM
(Weekly Return Differences, 2012-2022)



Data Source: Bloomberg
Data Timeframe: 07/02/2012 - 09/30/2022

Contact Us

Eric Metz, CFA
Chief Investment Officer
EMetz@SpiderRockAdvisors.com
312.847.0230

Dave Donnelly
Managing Director
DDonnelly@SpiderRockAdvisors.com
312.847.0220

Maisie Hughes
Head of Family Office Services
MHughes@SpiderRockAdvisors.com
917.478.2881

Adam Butterfield, CAIA
Regional Consultant - West
AButterfield@SpiderRockAdvisors.com
312.847.0222

Andrew McCall, CFA, CMT
Regional Consultant - East
AMcCall@SpiderRockAdvisors.com
312.761.5181

Jake Schmelter
Senior Analyst - Central (North)
JSchmelter@SpiderRockAdvisors.com
312.761.1470

Luke Ford
Regional Consultant - Central (South)
LFord@SpiderRockAdvisors.com
847.275.7801

Headquarters - Chicago, IL
300 South Wacker Drive, Suite 2840
Chicago, IL 60606
(312) 847-0300

Disclosures

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Margin Accounts; Rights Connect with Margined Securities. Margin transactions involve the possibility of greater loss than transactions for which you are not borrowing money. If the value of the securities and other assets in your account falls, you may be required to deposit additional assets to secure your loan. Alternatively, a custodian may sell your securities and other assets to pay down or pay off the loan without prior notice to you and at a loss or at lower prices than under other circumstances. You remain solely liable for any deficiencies arising from such sales.

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