



ARIN RISK ADVISORS  
LLC

*Where smart money becomes brilliant.*

# Volatility Management & Options Overlay

For Financial Professional Use Only

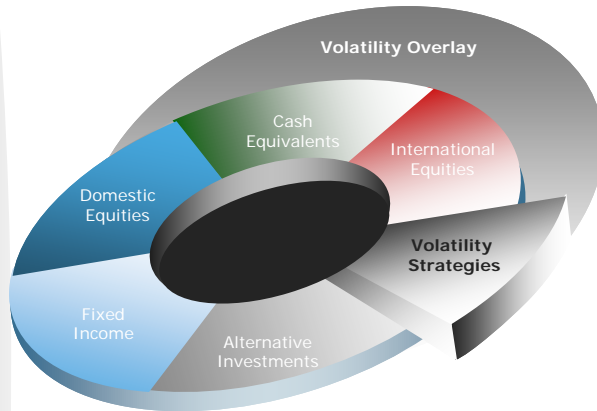
Protect  
Assets

Differentiate  
Returns

Enhance  
Solutions

## ABOUT ARIN RISK ADVISORS, LLC

Arin Risk Advisors, LLC (Arin) is a fee-only, options strategies advisory firm registered with the SEC <sup>(1)</sup> that provides asset, risk and volatility management services through strategies and products. Both tools complement the efforts of fellow fiduciaries like bank trust departments, independent investment advisors, and family offices as well as asset managers such as hedge funds or mutual funds.



Protect Assets

Enhance Returns

Replace Risks

Differentiate Alpha Sources

Fellow Fiduciary

Risk Management Partner

Outsourced "Prop" Desk

## INVESTMENT STRATEGIES

Arin believes strategic and tactical volatility management is essential to meeting today's client expectations and that dynamic risk management should be indoctrinated into the portfolio construction and investment management process.

All investors, from individuals to fund managers, can employ the volatility of their existing investments in an effort to improve risk adjusted returns, enhance yield, or mitigate risk.

Arin works with fellow fiduciaries and asset managers as an independent separate account manager or sub-advisor to collaborate on and implement strategies to exploit the volatility embedded in desired exposures to achieve investment objectives.

The implementation of these strategies enables advisors and managers to provide the sophistication their clients require with daily pricing and position level transparency. The tax results for most programs are reported on Form 1099 and avoid the delays and expense of a K-1 tax form.

## PHILOSOPHY AND APPROACH

Arin's approach enables fiduciaries to work with their clients and provide customized solutions around their existing holdings and current market view to extend or reduce the risk of the total portfolio based upon market conditions.

The basic buy-sell rule for each position centers on a proprietary trading algorithm "True Vol". True Vol provides a scoring system that is frequently calibrated based upon:

- Volatility Term Structure & Skew
- Asset and Option Liquidity
- Stock Specific Events
- Ability to Borrow Shares for Short Positions
- Economic Announcements

Arin's proprietary trading methodology is a flexible, combinatory approach to investing created through the fusion of expertise from years of making markets in options and empirical models. Arin trades in both the cash and derivatives markets depending upon current and expected pricing.

## SUB-ADVISORY INVESTMENT SERVICES

Arin is committed to providing sub-advisory investment services with the objective of delivering consistent Net After-Tax, Risk-Adjusted Real Returns. Arin's proactive support is geared to help its partners attract and retain clientele.

Arin views each client relationship as a collaborative partnership designed to fulfill all investment and regulatory objectives. Robust risk management embedded in our trading systems allows Arin to meet compliance requirements, while experienced portfolio managers seek to deliver superior performance. Many clients use custodians that have special reporting requirements or specific investment restrictions, and Arin customizes trade structures and reports to meet these views.

**(1) Merely being registered with the SEC does not imply any level of skill nor independent verification of investment ability or process.**

## INTRODUCTION TO VOLATILITY

### DEFINITIONS

*Volatility* can be defined as a measure of the historical rate of change for prices (Realized Volatility) and/or the market's expectations for future price fluctuations (Implied Volatility).

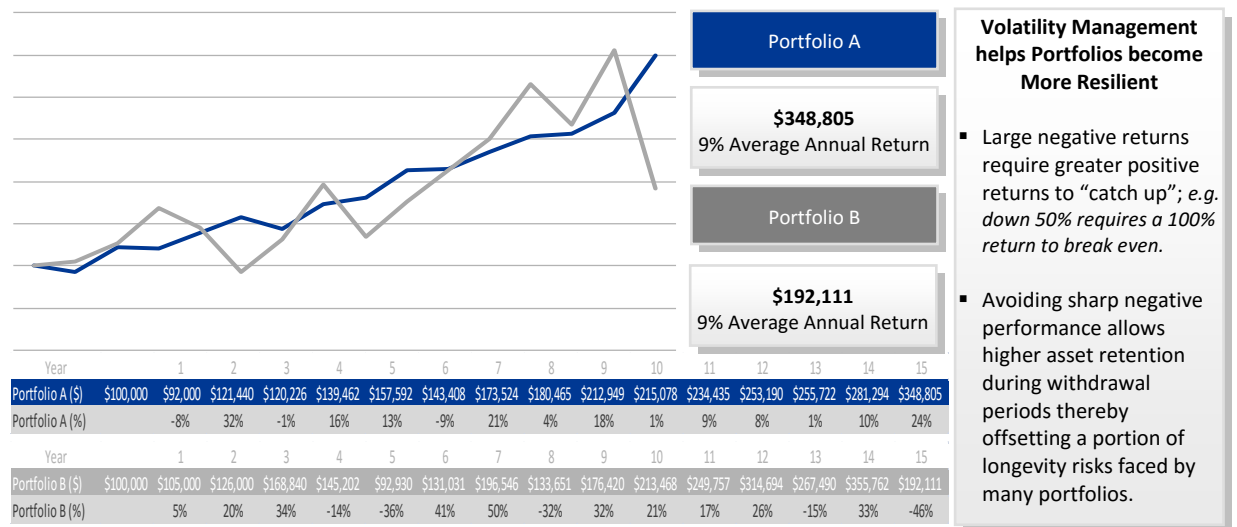
*Risk* is the calculated result of the probability of a potential event multiplied by the impact of the event.

*Uncertainty* is a result of an unknown probability of an event multiplied by unknown consequences of the event.

### WHY VOLATILITY MATTERS

Volatility is related to, but is not synonymous with, risk. Risk is generally associated with an undesirable outcome, such as loss of capital or impairment. When volatility is used to measure uncertainty, the result could be due to a positive outcome. Investors often overlook this important difference and its implications on their portfolios' returns and wealth.

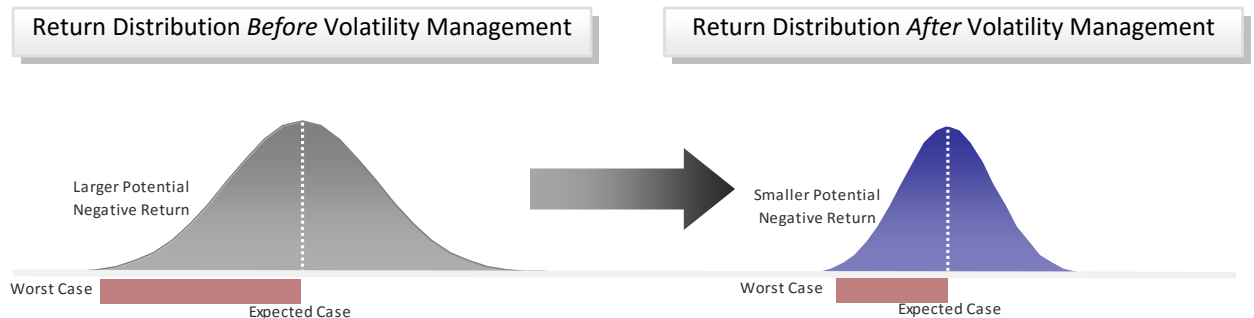
Below is an example of two hypothetical investment portfolios. Both portfolios assume an Average Annual Return of 9%; however, Portfolio A outperformed Portfolio B on a total return basis due to volatility's effect on compounding. Consistent results with lower volatility may lead to superior long term investment returns.



*Hypothetical portfolios do not reflect the performance of an actual product, are for illustrative purposes only and should not be considered investment advice. Past performance is no guarantee of future results.*

### MANAGING VOLATILITY

Prudent investment management should incorporate volatility analysis on an individual security and portfolio level. There are several strategies that can be employed to reduce the volatility of an investor's portfolio. Regardless of the technique used, properly managing the portfolio's volatility may reduce the potential for large negative returns.



#### Volatility Definition:

A statistical measure of the dispersion of returns for a given security or market index. Volatility can either be measured by using the standard deviation or variance between returns from that same security or market index. Commonly, the higher the volatility, the riskier the security.

Source: Investopedia

## VOLATILITY AS AN ASSET

### ASSET ALLOCATION

Academic studies demonstrate how asset allocation is one of the key determinants of a portfolio's return and risk dynamics. Asset allocation describes the manner in which one's investments are spread across different asset classes, such as equities, fixed income, real assets and currencies. It is important to limit one's reliance on asset allocation as the sole driver of the variation in portfolio returns.

As market volatility and cross asset class correlations increase, many familiar portfolio construction techniques have been challenged. Many investors no longer believe traditionally diversified portfolios will avoid large, negative returns.

Portfolio construction based upon strategic asset allocation and other conventional management styles presume to have some level of insight as to the exact nature of future return distributions. The form of the distribution (lognormal, etc.) and by default any given outcome's probability of an occurrence must be deemed unknown.

If investors desire to control their diversified portfolios during times of risk aversion, through methods other than those that rely upon the statistical frailties of usual portfolio design methods, there is a well-documented asset available that retains its negative correlation to nearly all assets across most market climates: **Volatility**.

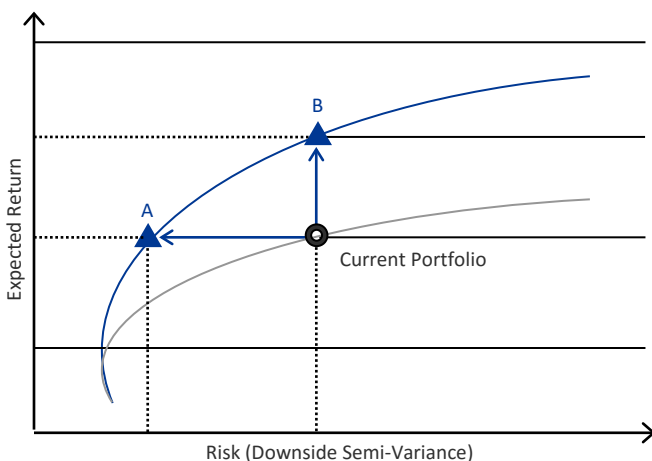
### INVESTABILITY

In the past, it was far too complex and costly to include volatility as a stable component for most investors. Direct exposure to volatility is now much easier through the creation of many standardized instruments. There are three complementary ways to capitalize on Volatility:

- Harvest the Volatility Premium, e.g. covered calls
- Volatility Arbitrage, e.g. strike to strike
- Predict its direction, *Arin only does this at the direction of the client as we deem this too unpredictable*

These strategies are consistent with the traditional rationales required by investors to participate in an asset class: potential for return enhancement or risk diversification. Combining these strategies may provide an effective hedge during periods of market stress while significantly improving portfolio return for a given level of risk<sup>2</sup>.

<sup>2</sup>Source: M. Brière, A. Burgues and O. Signori



#### Benefits of Adding Volatility

- The low expected correlation of long volatility strategies to traditional assets coupled with the positive expected returns derived from short volatility exposures favorably shifts the efficient frontier.
- In other words, for the same amount of expected return, the investor may experience a lower level of risk (downside semi-variance) as depicted in point A.
- Equivalently, for the same amount of incurred risk, the investor may achieve a higher expected return as shown in point B.
- Results are time period sensitive.

### WHAT IS THE VIX?

The CBOE Volatility Index® (VIX®) is a key measure of market expectations of near-term volatility conveyed by S&P 500 stock index option prices. Since its introduction in 1993, VIX has been considered by many to be the world's premier barometer of investor sentiment and market volatility.

Source: CBOE

### CONCLUSION

Whether investors have a view on the direction of volatility, want to hedge their portfolios, or add incremental income by selling risk premium, volatility instruments can provide investors with new tools to help manage portfolios.

Strategic long and/or short volatility position may deliver negative excess returns, therefore an active and passive approach to volatility exposure may be appropriate.

### CASE STUDIES

*A Trust Bank Portfolio Manager wishes to enhance a client's diversified portfolio income.*

Arin designs a customized yield enhancement program using call options selling strategies potentially generating 2% - 4% incremental income while reducing the probability of having shares "called away" or sold upon exercise.

*A High Net Worth investor with a low tax basis concentrated stock position seeks to protect the portfolio gains.*

Arin develops a tailored dynamic hedge offering the investor downside protection while retaining upside return potential.

*A Registered Investment Advisor requests a non-correlated asset class to augment a client's strategic asset allocation.*

Arin constructs a separately managed portfolio aimed at exploiting intra-market valuation discrepancies to capitalize on the market's volatility thereby making volatility a unique asset class.

*A Mutual Fund Portfolio Manager explores ways to improve the fund's equity exposure.*

Arin provides consultative services to optimize the implementation of the manager's point of view through synthetic replication hence maximizing the desired risk-return profile.

## FIVE STEP INVESTMENT PROCESS

Serving in the role of Volatility Manager, Arin becomes part of the investment process. All clients have distinct risk tolerances, different cost basis for each security, gains and losses from outside assets, unmanaged securities such as company stock or stock options, and other factors that influence how their portfolios should be managed.

### Step 1 – Establish Client Objective

#### Wealth Preservation:

Static or Dynamic Portfolio Hedging

#### Cash Flow Augmentation:

Overwrite or Underwrite Programs

Synthetic Dividend

#### Opportunistic Trading:

Long and Short Volatility Exposures

#### Exposure Management:

Synthetic Replication

### Step 2 – Assess Viability of Objective

#### Determine Capacity

##### Constraints:

- Underlying Liquidity
- Listed vs. FLEX vs. OTC
- Breadth and Depth of Market Evaluation
- Strike Price Diversity
- Calendar Availability
- Open Interest
- Ability to Borrow Underlying

##### Ascertain Volatility Characteristics:

- Volatility Surface
- Implied vs. Realized Volatility
- Expected Company News
- Underlying Asset/Market Technical Pattern
- Credit Default Swap Pricing
- Arin Calculated Return Path Probabilities

### Step 3 – Portfolio Construction

#### Portfolio Modeling:

- Forward Price Estimator
- Short-Term Volatility Forecast
- Skew and Term Structure Analysis

#### Position Assembly:

- Identify Option Expiration Dates
- Diversify Option Strike Prices
- Delta Adjusted Notional Valuation

### Step 4 – Active Management

#### Risk Management:

- Real-Time Position Monitoring
- Opportunistic Volatility Arbitrage
- Conditional Tail Risk Hedging
- Intrinsic vs. Time Value Ratio
- Counterparty Inspection

#### Portfolio Management:

- Opportunistic Price Arbitrage

#### Option Close Outs & Rolls

##### Trade Execution:

- Direct Market Access
- Listed vs. Flex vs. OTC Execution

### Step 5 – Reporting and Review

#### Reporting:

- Complete Portfolio Transparency
- On-Demand Performance Reports
- Volatility & Risk Reporting
- Quarterly Client Statements

#### Account Review:

- Daily Internal Portfolio & Risk Report
- Performance vs. Objectives Review
- Objectives Confirmation

## IMPLEMENTATION

### OUTSOURCING

Many investors are now evaluating the addition of volatility into their investment programs but realize the need for continuous position and risk monitoring, exposure hedging, etc. is substantial. Introducing volatility to a portfolio requires considerable expertise since these strategies are generally implemented through derivative products. Because derivatives require limited capital, the amount of portfolio risk needs to be properly calibrated and monitored. Employing a specialized volatility manager, with fiduciary standards, provides the assurance that the client's interest will be held at the forefront while attempting to achieve best trade execution. Professional asset managers normally demand institutional pricing for listed instruments and have multiple relationships with OTC dealers allowing them to negotiate favorable terms for each client situation.

### OPERATIONS

Arin works with clients to provide several alternatives to meet their investment needs. For example, overlay programs, such as option writing or hedging strategies are implemented on a notional basis and do not require having full access to the underlying position(s). However, for specific custodial arrangements, certain operational constraints may include margin requirements, which can be satisfied through escrow agreements.

## KEY CONSIDERATIONS

### Safety and Control

Clients retain possession of the assets at the custodian of their choice.

### Transparency

Underlying positions and options are reflected on custodian's statements and, if available, on-line.

### Liquidity

Unlike hedge funds, all strategies may be terminated within a few days.

### Customized

Clients may modify their parameters according to their own objectives or changing market conditions.

## STRATEGY METHODOLOGY

### CASH FLOW AUGMENTATION

Arin designs customized cash flow augmentation strategies that may meet client's specific yield/income objectives based upon an existing or newly defined security/market exposure. Clients provide Arin with a detailed list of exposure levels which are entered into a proprietary options scanning system. Arin's algorithm analyzes exchange traded options and seeks to identify the most favorable combination of contracts to generate incremental yield. Each underlying position and options contract is carefully evaluated and given a rank based upon a proprietary scoring system. This output provides data regarding the appropriate quantity of contracts to sell and the proper exposure relative to the underlying securities ranking, i.e. buy, sell or hold for a desired Dynamic Delta Exposure (DDE).

Arin applies a highly disciplined and systematic approach to monitoring all positions daily seeking to improve the income potential from the stock or index position. As the underlying securities and market conditions fluctuate, Arin performs a series of analytics and may trade the option positions aiming to capitalize or mitigate risk from these movements in accordance with each DDE.

Under	Asset Name	Option	Pos	Last	Tex Date	Tax Class	Cost	Cur
ABT	Abbott Labs		10,000	55.26	5/5/2002	Long	31.5	552
AVY	Avey Dennison		1,000	32.88	2/4/2010	Short	33.64	32.88
BP	BP Amoco		4,000	54	6/7/2005	Long	40.63	216
BP	BP Amoco	Jun10 60 Call	-40	2.65	1/14/2010	Short	3.15	-12

Under	Asset Name	Option	PosQty	Last	Bid	Strike	PresCall	% OTM	Delta	AlphaFlat	StdRet
ABT	Abbott Labs	May10 55 Call	60	3.05	3.00	55	1.74		.59		189
ABT	Abbott Labs	May10 60 Call	75	1.35	1.35	60	1.35	.086	.33		146
ABT	Abbott Labs	Aug10 55 Call	40	4.25	4.20	55	3.94		.65		171
AVY	Avey Dennison	Apr10 35 Call	10	1.10	.85	35	1.1	.064	.32		310
AVY	Avey Dennison	Aug10 35 Call	10	2.35	2.35	35	2.35	.064	.38		175
AVY	Avey Dennison	Aug10 30 Call	10	4.65	4.60	30	1.72		.72		126

### WEALTH PRESERVATION

Arin's wealth preservation strategies work similarly to its cash flow augmentation programs. The same rigorous risk management, transparency and a repeatable investment process is applied to the analysis of put options to provide downside protection. In most cases, Arin will perform a parallel regression analysis to determine if the portfolio protection is more advantageous utilizing proxy hedging, after adjusting for basis risk, versus contracts on individual holdings.

### OPPORTUNISTIC TRADING

For clients seeking to utilize volatility as an asset, Arin employs several strategies to exploit market conditions resulting in long, short or combined exposure to implied volatility. These strategies include: relative value trades, dispersion trades, convergence trades and other arbitrage style programs.

Real-time monitoring, adaptive modeling and interpretation of the options markets are required to capitalize on most arbitrage opportunities. Due to the short-term nature of most arbitrage conditions, ever changing correlations and transaction costs, Arin is well positioned as a specialized volatility manager to help its clients profit from these situations.

### EXPOSURE MANAGEMENT

For clients wishing to maximize their target risk- return profile, Arin utilizes the systematic and rules-based approach offered by DDE. Arin can help increase or decrease risk exposures during favorable or unfavorable risk-reward scenarios by synthetically replicating positions when appropriate and cost effective.

## FAQ

### Where are assets held?

Clients retain possession of the assets at the custodian of their choice.

### What is an options writing strategy?

An options writing strategy combines the underlying securities and selling call and/or put options against that position. The seller of the option contract receives a premium (income) thereby obligating them to sell (call) or purchase (put) a specific quantity of the underlying security at a specified price on a future date.

### Are options risky?

Investing in options is often misunderstood or improperly utilized. If properly applied and professionally managed, many option strategies can decrease the risk of a portfolio.

### How much does this service cost?

Arin's management fees are strategy based:

Static Hedge	.20%
Overwrite	.40%
Dynamic	
Exposure Mgmt	.60%
Opportunistic	.80%

Transactions costs, margin expense and other fees may apply.

### What are the tax consequences of employing options based strategies?\*

If an option expires worthless, the premium received is treated as a short-term capital gain at maturity.

If the option is exercised and the underlying security is delivered, the premium is added to the total proceeds of the security sale and is treated as a capital gain.

If the option is repurchased prior to maturity, the gain or loss is treated as a short-term capital gain or loss.

\* This detail is for informational use only. This is not meant to serve as tax advice. Please consult with your tax accountant or attorney for tax advice.



#### Disclosures

*This document is provided for informational purposes only, and is not intended to be construed as an offer or solicitation. The strategies and instruments described herein are not insured or guaranteed by the FDIC or any other government agency.*

*Please review Arin's Form ADV Part 2a for more details on Arin's processes and fees.*

*Derivatives and options strategies are not suitable for every investor, may involve a high degree of risk, and may be appropriate investments only for sophisticated investors who are capable of understanding and assuming the risks involved. Full details of the terms and conditions, including risk factors, associated with this strategy and instruments are described in the Characteristics and Risks of Standardized Options, which should be read carefully before investing or trading any option contract. The options risk disclosure document can be accessed at the following web address: <http://www.optionsclearing.com/about/publications/character-risks.jsp>*

*None of the information contained herein is intended to form the basis for a specific investment decision, and no specific recommendations are intended.*

*Option transactions may produce tax consequences. Arin Risk Advisors, LLC (Arin) does not render legal, accounting or tax advice and all investors should consult with their advisors regarding the consequences of the transactions described in this presentation and how options and underlying holdings transactions will affect your tax situation.*

*All investment strategies have the potential for profit or loss. Changes in investment strategies, contributions or withdrawals, may materially alter the performance and results of an investor's portfolio.*

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