# STATE STREET GLOBAL ADVISORS.

# **University of Western Ontario**

**February 4, 2013** 

Emiliano Rabinovich, CFA Marco Larocque



## Thank you for your time today. We welcome your questions.



#### **Emiliano Rabinovich, CFA**

Emiliano is a Vice President of State Street Global Advisors, Ltd. and Head of the Canadian Passive Equities Team. He leads a team of portfolio managers that are involved in the passive and synthetic management of international and North American index portfolios, research and product development. He joined the company in 2006. Prior to this he was the Director of Business Development for PerOs Systems Technologies and has over 5 years experience as a financial analyst.

Emiliano holds a BA in Economics from the University of Buenos Aires and a Master of Arts in Economics from the University of CEMA. He has also earned the CFA Designation and is a member of the Montreal CFA Society.



#### **Marco Larocque**

Marco is Vice President and Senior Relationship Manager of State Street Global Advisors Ltd. He is responsible for managing institutional client relationships in Ontario and Western Canada. Prior to joining the Toronto office, he was an Investment Services Manager in the SSgA offices of London, England responsible for the accounting and performance measurement of balanced mandates. Prior to London, Marco was the Assistant Director of Operations in Montreal. Marco first joined SSgA Montreal in 1995 as an investment accountant.

Marco obtained his Bachelor of Commerce with a Major in Accountancy from Concordia University and has earned the Certified Management Accountant designation.

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# **Managed Volatility Overview**



## **Managed Volatility: Addressing Client Concerns**

#### What we are hearing from investors

- "We are concerned about the volatility of our portfolio"
- "Our portfolio needs to grow to meet future commitments"
- "Another drawdown in the equity market may restrain us from meeting our investment objectives"

#### One solution to address these concerns

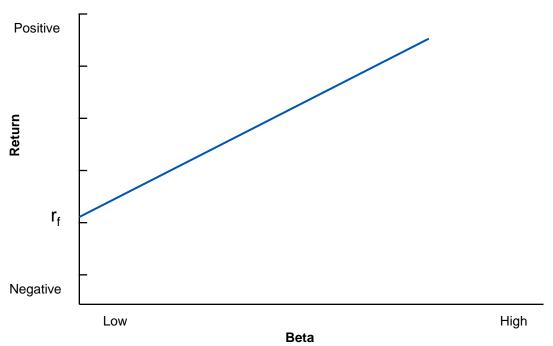
- Implement a Managed Volatility equity strategy within portfolio
  - Seeks to reduce volatility of returns, while maintaining equity growth potential, over long term
  - Can be applied to all equity universes (developed markets, emerging markets, etc.)

#### **Potential benefits**

- Reduce drawdown of equity portfolio in declining market environments
- Improve the Sharpe ratio of equity allocation, and overall asset portfolio
- Achieve growth potential by maintaining full exposure to equities
- Reduce funding ratio volatility

## **CAPM Assumes the Market Is Mean-Variance Efficient**

#### We can test the CAPM to understand if the market appears efficient



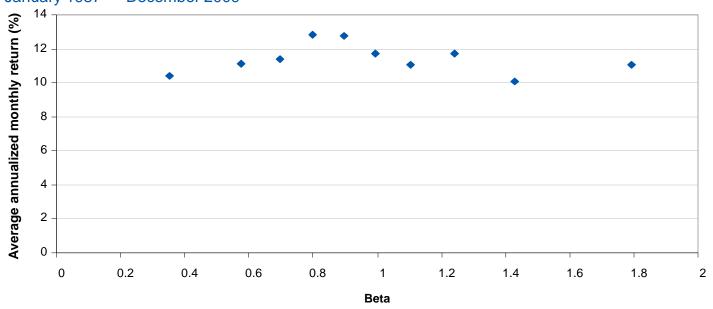
#### **Assumptions**

- Returns should increase with beta
- Returns should be linearly related to beta
- The zero-beta portfolio should equal the risk-free rate

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## **High Beta Doesn't Necessarily Mean High Returns**

Average Annualized Monthly Return versus Beta for Equal Weighted Portfolios Formed on Expected Beta (Russell 3000®) January 1987 — December 2009



- Returns should be linearly increasing in beta but are flat or declining
- Low beta stocks have historically performed much better than expected
- High beta stocks have historically performed much worse than expected

Source: SSgA As of December 2009

Past performance is not a guarantee of future results

#### **Conclusions**

#### High volatility stocks have not been compensated with higher returns historically

- Stocks with higher expected volatility are associated with glamour
  - These stocks tend to be associated with high beta, perform worst during market drawdowns
- Investors should choose portfolios that maximize expected return per unit of expected risk

#### Managed Volatility approach to equity investing is appealing

- Offers potential to improve total return per unit of total risk of equity portfolio
  - Performance evaluation focused on risk-adjusted performance
- Complementary to traditional equity strategies
  - Downside protection in falling markets while participating in upside during rising markets
- Attractive to broad range of investors
  - Pensions and insurance companies
  - Endowments and foundations
  - Retail investors

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# **US Managed Volatility Strategy and Process**



Investing involves risk including the risk of loss of principal.

## SSgA's Advanced Beta Capabilities

#### **Advanced Beta**

Categorized as any objective, transparent and unbiased method of capturing a return stream



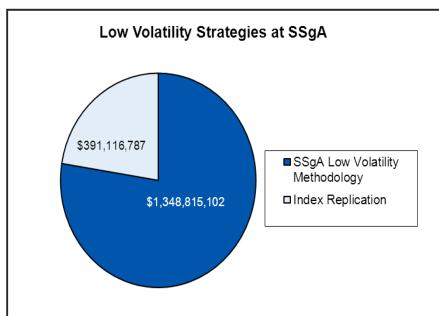
FTSE® is a trade mark of the Exchange and the FT. Fundamental Index® and RAFI® trade names and patent-pending concept are the exclusive property of Research Affiliates®, LLC. Patent pending: US-2005-0171884-A1, US - 2006-0015433-A1, US-2006-0149645-A1, US-2007-00555598-A1.

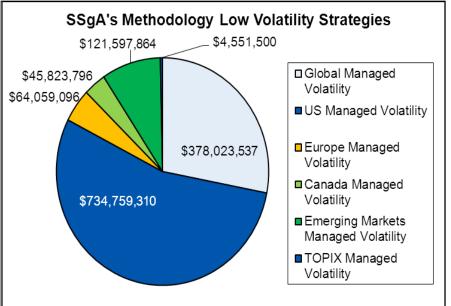
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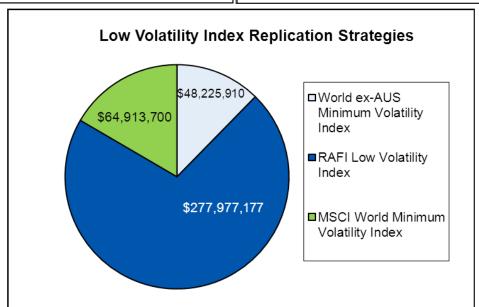
Standard & Poor's (S&P) Equal Weighted S&P 500° is a registered trademark of Standard & Poor's Financial Services LLC.

The MSCI Alternatively Weighted Index is a trademark of MSCI Inc.

## **Low Volatility Assets Under Management**







## **Global Equity Beta Solutions Managed Volatility Team**

- Experienced portfolio management team
- Investment strategy in place since 2008
- \$1.3 billion under management as of December 31, 2012

Team Members	
Portfolio Management	Years of Experience
Lynn Blake, CFA, Head of GEBS	25
David Arrighini, CFA	21
Juan Acevedo	13
Susan Darroch	27
Selim Dekali	7
Nobuya Endo, CFA	17
Richard Hannam, ASIP	25
Frédéric Jamet	23
Emiliano Rabinovich, CFA	8
Eric Viliott, CFA, CFP	17
Research	
Eric Brandhorst, CFA, Head of Research	24
Chris Cheung, CFA	9
Taie Wang, CFA	9



# **US Managed Volatility Strategy**

Objective	<ul> <li>Seeks to provide competitive returns, while maintaining low volatility, compared to the benchmark over the long term by constructing a portfolio of stocks with low expected volatility relative to the benchmark</li> </ul>
Benchmark	• Russell 3000® Index
Investment Universe	• Russell 3000 <sup>®</sup> Index
Risk Management	Focus on managing total risk of portfolio, not benchmark-relative risk
Risk Parameters*	<ul> <li>Maximum security weight of 1% (grandfathering allowed up to 1.25%)</li> <li>Maximum sector weight of 25%</li> <li>Maximum industry weight of 10%</li> <li>Control for size: +/- 50% Std. Dev. of risk model's risk factor relative to the Index</li> <li>Liquidity: 20% of 20-day ADV trade limit, per security</li> </ul>
Expected Turnover	• 25% per annum (one way)
Trading	<ul> <li>SSgA's global trading desks focus on cost minimization and trade effectiveness</li> <li>Seeks to be fully invested</li> </ul>

At time of trade

## **Analyzing Risk Through Multiple Dimensions**

Multi-factor fundamental risk model decomposes returns into common factors and stock specific characteristics

#### Style (capture behaviour on an asset level, net of market):

- Market Sensitivity or "beta" (for single country)
- Liquidity
- Growth

Size

**Volatility** 

- **Short Term Momentum**
- Leverage
- **Value**

- **Medium Term Momentum**
- **Exchange-Rate Sensitivity** (for regional strategies)

**Industry (capture trends on the broad market level)** 

Accounts for a company's particular business

**Country and Currency (for regional strategies)** 

Stock specific risk (what cannot be attributed to a specific factor)

Correlation between risk factors

Accounts for the movement between the 9 style factors and 21 industries

Total **Portfolio** Risk

Common **Factor Risks** 

Correlation Between **Factors** 

Stock + **Specific** Risk

Common **Factors** 

## **Portfolio Characteristics and Top 10 Holdings**

# Risk Management focused on absolute exposure, not benchmark-relative risk As of December 31, 2012

	US Managed Volatility	Russell 3000 <sup>®</sup> Index
Weighted Average Cap (\$ Billions)	35.8	86.9
No. of Securities	137	2,969
Beta	0.6	1.0
Price / Book (x)	2.1	2.1
Dividend Yield (%)	3.4	2.1
Price / Earnings	15.8	14.1
Total risk	7.9	11.0
Active risk (70% coming from style)	5.5	0

#### Top 10 Holdings for the portfolio

Stock	Portfolio Weight	30 Day Volatility	Beta	Index Weight
Newmont Mining Corp.	1.1%	1.35	0.53	0.1%
SBA Communications Corp.	1.0	0.60	0.37	0.1
Bofi Holding Inc.	1.0	1.41	0.83	0.0
Capitol Federal Financial Inc.	1.0	0.61	0.24	0.0
Eli Lilly & Co.	1.0	1.07	0.95	0.3
Retail Opportunity Inv. Corp.	1.0	0.52	0.38	0.0
Kellogg Co.	1.0	0.48	0.27	0.1
DaVita HealthCare Partners	1.0	0.98	0.60	0.1
ConAgra Foods Inc.	1.0	1.09	0.40	0.1
McCormick & Co. Inc.	1.0	0.88	0.39	0.1
Total	10.1			0.9

Top 10 Holdings for the index

28% Reduction

Stock	Index Weight	30 Day Volatility	Beta	Portfolio Weight
Apple Inc.	3.2%	2.11	1.85	0.0%
Exxon Mobil Corp.	2.6	0.88	0.96	0.9
General Electric Co.	1.4	1.14	1.31	0.0
Chevron Corp.	1.4	0.92	1.07	0.0
International Business Machines	1.3	0.71	0.87	0.9
Microsoft Corp.	1.3	1.15	1.21	0.0
AT&T Inc.	1.3	0.79	0.74	0.9
Johnson & Johnson	1.2	0.47	0.42	1.0
Pfizer Inc.	1.2	0.80	0.60	1.0
Procter & Gamble Co.	1.2	0.69	-0.61	1.0
Total	16.1			5.5

Source: SSgA

Past performance is not a guarantee of future results.

Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income.

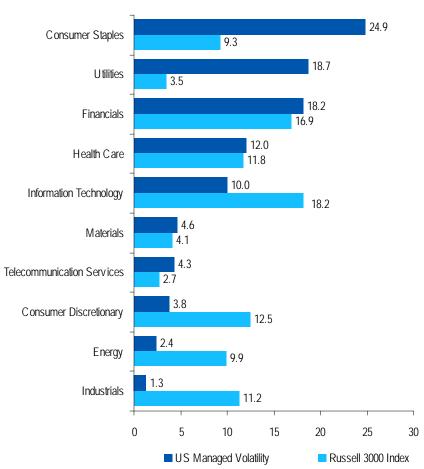
The characteristics and holdings shown of the paper portfolio are as of the date indicated and, are subject to change. This information should not be considered a recommendation to invest in any particular sector or to buy or sell any security shown.

It is not known whether the sectors or securities shown will be profitable in the future.

The above information is considered supplemental to the GIPS presentation for this Composite, which can be found in the Appendix or was previously presented. A GIPS presentation is also available upon request.

## **Sector Weights**





Source: SSgA

As of December 31, 2012

The sectors shown of the portfolio are as of the date indicated and, are subject to change. This information should not be considered a recommendation to invest in any particular sector or to buy or sell any security shown

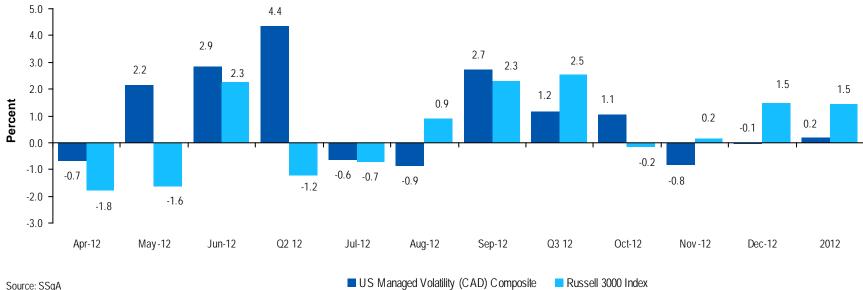
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## **US Managed Volatility Composite Strategy**

#### Gross annualized returns for the period ending December 31, 2012\*\* (CAD\$)

	Since Inception†
US Managed Volatility (CAD) Composite	5.77%
Russell 3000® Index	2.76
Difference*	3.01



Source: SSqA

† Inception date: April 2012

\*The value added returns may show rounding differences.

The performance shown is of a composite consisting of all discretionary accounts using this investment strategy. There is no minimum account size required for inclusion in the composite. New funds or accounts are added to the composite upon the first full month of operation and closed funds or accounts are removed from the composite upon the last full month of operation. The above information is considered supplemental. A complete description of this composite as well as a complete presentation that complies with the requirements of the GIPS® standards is provided in the Appendix or was previously presented. A GIPS® presentation is also available upon request. Past performance is not a quarantee of future results. Performance returns for periods of less than one year are not annualized. The performance figures contained herein are provided on a gross of fees basis and do not reflect the deduction of advisory or other fees which could reduce the return. The performance includes the reinvestment of dividends and other corporate earnings and is calculated in CAD dollars. The index returns are unmanaged and do not reflect the deduction of any fees or expenses.

The index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income.

<sup>\*\*</sup>The performance is based on preliminary data, which has not been finalized and may contain inaccurate information.

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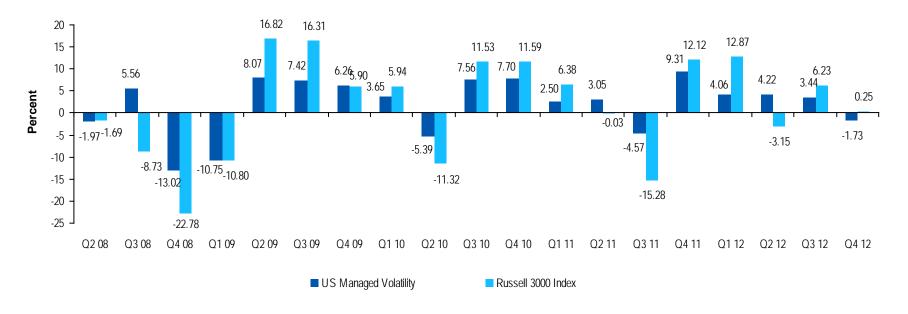
# **Appendix A: US Managed Volatility Strategy**



## **US Managed Volatility: Live Performance**

#### Gross annualized composite returns for the period ending December 31, 2012 (USD)

					(Apr-Dec)			Since	Standard	Volatility	Sharpe
	YTD	2011	2010	2009	2008	1 Year	3 Years	Inception†	Deviation*	Reduction	Ratio
US Managed Volatility Composite	10.24%	10.19%	13.60%	10.09%	-10.00%	10.24%	11.33%	6.81%	12.62%	-37%	0.52
Russell 3000® Index	16.42	1.03	16.93	28.34	-30.71	16.42	11.20	4.33	19.99		0.20
Difference**	-6.18	9.16	-3.33	-18.25	20.71	-6.18	0.13	2.48	-7.37		0.31



Source: SSqA

The performance shown is of a composite consisting of all discretionary accounts using this investment strategy. There is no minimum account size required for inclusion in the composite. New funds or accounts are added to the composite upon the first full month of operation and closed funds or accounts are removed from the composite upon the last full month of operation. The above information is considered supplemental to the GIPS presentation for this Composite, which can be found in the Appendix or was previously presented. A GIPS presentation is also available upon request.

Past performance is not a guarantee of future results. Performance returns for periods of less than one year are not annualized. Returns are expressed gross of management fees. Some members of the composite may accrue administration fees. The performance includes the reinvestment of dividends and other corporate earnings and is calculated in USD.

The index returns are unmanaged and do not reflect the deduction of any fees or expenses. The index returns reflect all items of income,

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<sup>&</sup>lt;sup>†</sup> Inception: 4/2008; Partial year performance not annualized.

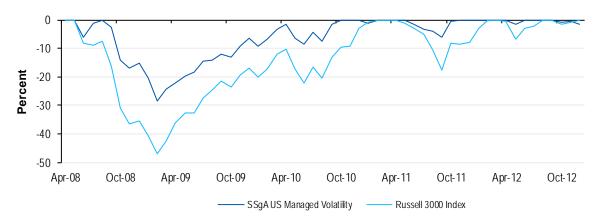
<sup>\*</sup> Annualized standard deviation of monthly returns since inception.

<sup>\*\*</sup> The value added returns may show rounding differences.

## **US Managed Volatility — Live Performance**

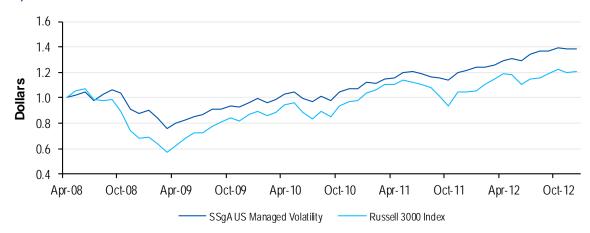
#### **Historical Drawdown**

April 2008 - December 2012



#### **Cumulative Growth of \$1**

April 2008 - December 2012



- Seeks to deliver downside protection, while also participating in rising markets
- Low exposure to higher volatile, higher beta (glamour) stocks
- By limiting downside in falling markets, the strategy seeks to benefit from compounding effects over the long term

Source: SSaA

The US Managed Volatility Strategy was incepted on April 1, 2008.

For illustrative purposes only.

Past performance is not a guarantee of future results.

Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income.

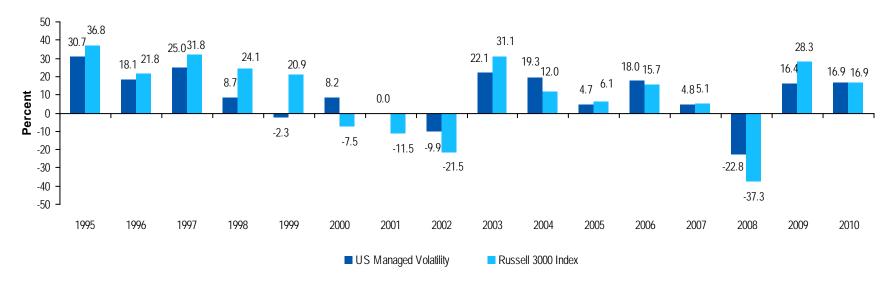
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trademark of Russell Investment Group.

## **US Managed Volatility: Simulated Performance**

#### Gross annualized returns for the period ending December 31, 2010 (USD)

	1 Year	3 Years	5 Years	10 Years	Since Inception <sup>†</sup>	Standard Deviation*	Volatility Reduction	Sharpe Ratio
US Managed Volatility	16.87%	1.65%	5.36%	5.96%	8.97%	11.04%	-32%	0.50
Russell 3000® Index	16.93	-2.01	2.74	2.16	8.66	16.25		0.32
Difference**	-0.06	3.66	2.63	3.80	0.31	-5.21		0.18



#### Strategy returns are not expected to be significantly different than index over long term

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The above information is considered supplemental to the GIPS presentation for this Composite, which can be found in the Appendix

or was previously presented. A GIPS presentation is also available upon request.

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<sup>†</sup> Inception date of simulation is January 1995.

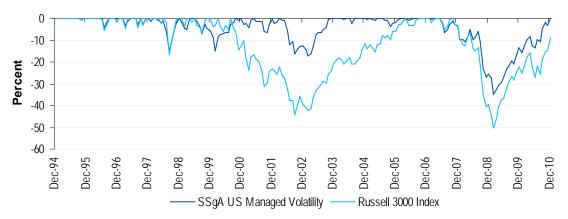
<sup>\*</sup> Annualized standard deviation of monthly returns since inception.

<sup>\*\*</sup> The value added returns may show rounding differences.

## **US Managed Volatility: Simulated Performance**

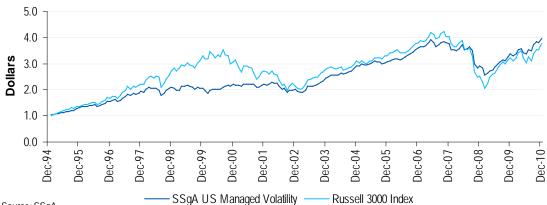
#### **Historical Drawdown**

January 1995 – December 2010



#### **Cumulative Growth of \$1**

January 1995 - December 2010



Source: SSaA

Simulation period: January 1995 – December 2010.

The simulated performance shown is not indicative of actual future performance, which could differ substantially. Please see the Appendix for additional Simulation Disclosure.

The above information is considered supplemental to the GIPS presentation for this Composite, which can be found in the Appendix or was

previously presented. A GIPS presentation is also available upon request.

Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income.

- Seeks to deliver downside protection, while also participating in rising markets
- Low exposure to higher volatile, higher beta (glamour) stocks
- By limiting downside in falling markets, the strategy seeks to benefit from compounding effects over the long term

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# **Appendix B: Important Disclosures and GIPS® Presentations**



#### **US Managed Volatility Simulation Footnotes**

#### **US Managed Volatility Performance:**

Returns are simulated from January 1, 1995 to December 31, 2010, started with \$1 billion USD asset size, and assume 50bp transaction costs each way. Average turnover was approximately 25% annually (oneway), with quarterly rebalancing.

The results shown do not represent the results of actual trading using client assets but were achieved by means of the retroactive application of a model that was designed with the benefit of hindsight. The simulated performance was compiled after the end of the period depicted and does not represent the actual investment decisions of the advisor. These results do not reflect the effect of material economic and market factors on decision making.

The simulated performance shown was created by the Global Equity Beta Solutions team. The simulated performance data is reported on a gross of fees basis, but net of administrative costs. Additional fees, such as the advisory fee, would reduce the return. For example, if an annualized gross return of 10% was achieved over a 5-year period and a management fee of 1% per year was charged and deducted annually, then the resulting return would be reduced from 61% to 54%. The performance includes the reinvestment of dividends and other corporate earnings and is calculated in US dollars.

The simulated performance is not necessarily indicative of future performance, which could differ substantially. The Benchmark is the Russell 3000 Index. The index returns are unmanaged and do not reflect the deduction of any fees or expenses. The index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income. Russell 3000® Index measures the performance of the 3,000 largest U.S. companies based on total market capitalization, which represents approximately 98% of the investable U.S. equity market.

The strategy described may be executed in a commingled fund managed by SSgA which is not insured by the FDIC or by another governmental agency; it is not an obligation of the FDIC nor is it a deposit or obligation of or guaranteed by State Street Bank and Trust Company. All SSgA commingled funds pay State Street Bank and Trust Company for services as custodian, transfer agent, and shareholder servicing agent and may pay affiliates of State Street Bank and Trust Company for investment advisory services.

Not all products will be available to all investors, please contact SSgA for further information regarding this strategy.

The performance information should not be shown without these accompanying notes.

#### **Backtest Creation:**

The testing methodology used an optimization model to generate historical portfolios. The data used was only that data which would have been available at the time when the historical portfolios were generated, not what is available now. These processes help to eliminate various forms of survivorship bias, both in terms of a "smarter model" and in terms of making decisions based on information that was not available at the time.

Quarterly portfolios were created, and returns are the result of a buy and hold assumption on each of these portfolios. Transaction costs were assumed as stated above.

This US Managed Volatility process was backtested in May 2011.

#### **MSCI Index Disclaimer**

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#### **Important Risk Disclosures**

Risk associated with equity investing include stock values which may fluctuate in response to the activities of individual companies and general market and economic conditions.

Although bonds generally present less short-term risk and volatility risk than stocks, bonds contain interest rate risks; the risk of issuer default; issuer credit risk; liquidity risk; and inflation risk. This effect is usually pronounced for longer-term securities. Any fixed income security sold or redeemed prior to maturity may be subject to a substantial gain or loss.

This document provides summary information regarding the Strategy. This document should be read in conjunction with the Strategy's Disclosure Document, which is available from SSgA. The Strategy Disclosure Document contains important information about the Strategy, including a description of a number of risks.

Investing in foreign domiciled securities may involve risk of capital loss from unfavorable fluctuation in currency values, withholding taxes, from differences in generally accepted accounting principles or from economic or political instability in other nations.

Investments in emerging or developing markets may be more volatile and less liquid than investing in developed markets and may involve exposure to economic structures that are generally less diverse and mature and to political systems which have less stability than those of more developed countries.

The views expressed in this material are the views of the Global Equity Beta Solutions Group through the period ended September 2012 and are subject to change based on market and other conditions. This document contains certain statements that may be deemed forward-looking statements. Please note that any such statements are not guarantees of any future performance and actual results or developments may differ materially from those projected.

Investing involves risk including the risk of loss of principal.

Derivative investments may involve risks such as potential illiquidity of the markets and additional risk of loss of principal.

Investing in futures is highly risky. Futures positions are considered highly leveraged because the initial margins are significantly smaller than the cash value of the contracts. The smaller the value of the margin in comparison to the cash value of the futures contract, the higher the leverage. There are a number of risks associated with futures investing including but not limited to counterparty credit risk, currency risk, derivatives risk, foreign issuer exposure risk, sector concentration risk, leveraging and liquidity risks.

Asset Allocation is a method of diversification which positions assets among major investment categories. Asset Allocation may be used in an effort to manage risk and enhance returns. It does not, however, guarantee a profit or protect against loss.

# GIPS® Report: US Managed Volatility Composite

As of December 31, 2011

#### **Gross Returns**

			1	3	5	10	Inception
	Quarter	YTD	Year	Years	Years	Years	Apr 2008
US Managed Volatility Composite	9.31	10.19	10.19	11.28	N/A	N/A	5.91
Russell 3000® Index	12.12	1.03	1.03	14.88	N/A	N/A	1.32

Year	US Managed Volatility Composite	Russell 3000 <sup>®</sup> Index
2011	10.19	1.03
2010	13.60	16.93
2009	10.09	28.34
2008 (Apr-Dec)	-10.00	-30.71
2007	<del>_</del>	<del>_</del>
2006	<del>-</del>	_
2005	<u> </u>	<del>_</del>
2004	<del>-</del>	_
2003	<del></del>	<del>_</del>
2002	_	_

Year	No. of Portfolios	Composite Dispersion	3 Yr Annualized Standard Deviation - Composite	Standard Deviation -	Total Assets at End of Period	% of Firm's Assets	Total Firm Assets (\$ mil)
2011	*	N/A	12.24	19.35	3,082,834	0.00	1,789,204
2010	*	N/A	**	**	2,796,463	0.00	1,519,244
2009	*	N/A	**	**	2,462,570	0.00	1,360,125
2008 (Apr-Dec)	*	N/A	**	**	2,259,474	0.00	949,988
2007	_	_	_	_	_	_	_
2006	_	_	_	_	_	_	_
2005	_	_	_	_	_	_	_
2004	_	_	_	_	_	_	_
2003	_	_	_	_	_	_	_
2002	_	_	_	_	_	_	_

#### aUSMVA

Less than 5 accounts

\*\* Less than 3 years Quarterly and YTD returns are not annualized

#### **Footnotes**

Composite Description: The U.S. Managed Volatility Composite seeks to provide attractive returns while controlling risk. The Composite's performance objective is to exceed the return of the Russell 3000 Index.

Firm Definition: For the purpose of complying with the Global Investment Performance Standards (GIPS®), the firm ('SSqA-Global') is defined as all portfolios managed across the global offices of State Street Global Advisors (SSqA) and SSqA Funds Management, Inc., with the exception of business units which are held out to the market place as distinct business entities - the Office of the Fiduciary Advisor (OFA) and Charitable Asset Management (CAM). Prior to 1/1/2011, SSgA-Global also excluded its wrap fee business (Intermediary Business Group [IBG]) and assets accounted for on a book value basis (global cash and stable value assets).

List Available: A complete list of the firm's composites and their descriptions is available upon request. Compliance Statement: SSqA-Global has prepared and presented this report in compliance with the Global Investment Performance Standards (GIPS®). SSqA-Global claims compliance with GIPS® from January 1,

Creation Date: The composite was created on 1 Jan 09.

Verification Statement: SSgA-Global claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS® standards. SSgA-Global has been verified for the periods from 1 January 2000 through 31 December 2009 by an independent third party. A copy of the verification report is available upon request. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation.

Benchmark Description: The benchmark for the composite is the Russell 3000(R) Index. The index returns are unmanaged and do not reflect the deduction of any fees or expenses. The index returns reflect all items of income, gain and loss.

Currency: Performance is presented in USD.

Use of Subadvisors: None.

Fees: Returns are expressed gross of management fees. Some members of this composite may accrue administration fees.

Fee Schedule: For Commingled funds, management fees are ,20% of the first \$50,000,000; ,18% of the next \$50,000,000; and .15% thereafter. The annual minimum management fee for these accounts is \$10,000. For separately managed accounts, as above. The minimum annual management fee for separately managed accounts is \$50,000. Management fees may be adjusted based upon specific client requirements. Presently, 100% of the assets in this composite are non-management fee paying assets, but net of custody and

Derivatives Use: SSgA may use futures and other derivatives from time to time in the management of the Strategy generally as a temporary substitute for cash investments or for hedging purposes and not with the purpose of creating investment leverage.

Calculation Methodology: Additional information regarding the firm's policies and procedures for calculating and reporting performance results is available upon request.

Annualized Returns: All returns for periods greater than one year have been annualized

Withholding Taxes Differences: None.

Exchange Rates Differences Between Composite & Benchmark: None.

Minimum Asset Level for Inclusion: 0.

Dispersion: Asset-Weighted standard deviation is calculated using the annual returns of the accounts that were included in the composite for all periods of the year.

Significant Events: In November 2007, on the departure of the North America CIO Sean Flannery, Global asset class CIOs were appointed (Alistair Lowe, Asset Allocation and Currency CIO; Mark Marinella, Fixed Income CIO; Steve Meier, Cash CIO and Arlene Rockefeller, Equities CIO).

Past and Future Performance: Historic performance is not necessarily indicative of actual future investment performance, which could differ substantially.