Seeking Absolute Returns Using the S&P Dynamic Asset Exchange Index Series

Introduction
The extent and duration of recent market weakness has altered the way investors think about risk. While relative risk remains important, institutional and private investors are now looking at strategies based on absolute risk. As such, absolute return concepts are gaining popularity. Absolute return concepts lessen investors’ dependency on performance benchmarks and follow the concept of using capital investments to generate absolute returns in excess of the money market over a long period.

Traditionally, investors have used diversification strategies to address their risk-return concerns. However, diversification within and across asset classes has yielded limited benefits as asset classes have become increasingly correlated. These strategies also tend to be static, meaning that asset allocation does not change swiftly enough to keep pace with market conditions. Volatile markets aggravate these concerns, and dynamic asset allocation strategies have gained importance as a means to mitigate them.

What Are Dynamic Asset Allocation Strategies?
Dynamic asset allocation strategies consist of basic shifting rules-based strategies such as constant mix allocation (CMA); portfolio insurance strategies such as synthetic put, constant-proportion portfolio insurance (CPPI), options-based portfolio insurance (OBPI), and time invariant portfolio protection (TIPP); and “best of” strategies, which combine elements of two or more strategies. (see Exhibit 1 below).

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Variants</th>
<th>Strategy profile</th>
<th>Key success factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic shifting rules-based</td>
<td>CMA</td>
<td>Maintain target allocation</td>
<td>Oscillating markets/sideways markets</td>
</tr>
<tr>
<td>Portfolio insurance strategies</td>
<td>Synthetic put, CPPI, OBPI, TIPP</td>
<td>Absolute downside protection because possible losses are limited to a prespecified level or “floor,” and asymmetric, right-skewed return distribution</td>
<td>Trend markets</td>
</tr>
<tr>
<td>“Best of” strategies</td>
<td>Best of two, best of three with risk-free, best of three or more with risk-free</td>
<td>Relative or absolute downside protection and asymmetric, right-skewed return distribution</td>
<td>Trend markets and low cross-correlation</td>
</tr>
</tbody>
</table>

S&P Dynamic Asset Exchange Index Series
The S&P Dynamic Asset Exchange Index Series provides a best of index-based dynamic asset allocation strategy that has historically provided a high return with significantly reduced mid- to long-term risk. The strategy includes:
- Systematic and sustainable reduction of loss potential;
- High upside potential;
- Asymmetric, right-skewed return distributions; and
- Asymmetric correlations to equity market (i.e., a low correlation in negative equity market and a high correlation in strong up-markets).

The S&P Dynamic Asset Exchange Index Series are long-only indices that dynamically allocate between two underlying low-correlated asset classes. The series’ goal is to obtain the returns of the better-performing asset minus strategy costs. This is achieved by dynamically moving into the better-performing asset to participate in the upside while limiting possible losses. Each index starts with an equal allocation.

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Seeking Absolute Returns Using the S&P Dynamic Asset Exchange Index Series

of both underlying asset classes on the last trading day of a calendar year and typically rebalances into
the better-performing asset class on the last trading day of each month. Currently there are two indices in
the series:

- **S&P Dynamic Asset Exchange – US** (S&P 500® versus S&P 10-Year Treasury Note Futures Total
  Return Index), which seeks to capture the return of the better-performing asset class between U.S.
equities and U.S. government bonds.
- **S&P Dynamic Asset Exchange – Europe** (S&P Euro 75 versus the S&P Euro-Bund Futures Total
  Return Index), which seeks to capture the return of the better-performing asset class between
European equities and European government bonds.

The underlying assets for both indices are chosen for their liquidity and low correlation. Liquidity is
important for ease of replication of the index, which is one of the reasons why futures are used as the
fixed-income asset in the above indices. The index could have similar performance characteristics if a
comparable bond index was used instead of futures.

*The Margrabe Option*

The allocation between the underlying assets is determined by an algorithm that seeks to synthetically
replicate a long position in a Margrabe, or exchange option, portfolio. William Margrabe¹ developed a
model for determining the fair value to exchange one Asset (A) for another Asset (B) at the end of a given
period. The owner of the option would only make the exchange if Asset B was worth more than Asset A at
the end of the period (assuming both assets are normalized to the same value at the beginning of the
period). Thus, at period end, the option owner holds the better-performing asset less the option premium.
The Margrabe option value depends on:

- Relative performance of Assets A and B;
- Volatilities of Assets A and B;
- Correlation between Assets A and B; and
- Time remaining.

The option value is most affected by the relative performance of the two assets. Intuitively, the better
Asset B performs with respect to Asset A, the more expensive it would be to exchange Asset A for Asset
B. If the returns of Assets A and B were highly positively correlated, the option cost would be lower
because their returns would be expected to move in tandem. It would be ineffective to swap one into
another, especially after accounting for turnover costs. Volatility has a smaller impact on the option price
compared to relative performance and correlation of the assets.

*Looking Behind the Dynamic Asset Exchange Strategy*

The strategy behind the Dynamic Asset Exchange index is a refinement of the Margrabe theory. It is used
to synthetically replicate a portfolio comprising asset A and an option to exchange Asset A for Asset B.
The strategy does not contain the exchange option itself, but instead a portfolio of Asset A and Asset B
with weights determined by the strategy. The payoff profile of this portfolio replicates the payoff of the
exchange option, which is the return of the better of the two assets less strategy costs.

Because the index performance replicates the payout profile of the Margrabe option, the question that
often comes up is whether having a synthetic replication makes more sense than holding the option itself.
S&P Indices believes that the synthetic replication of the option is a better method. There is liquidity risk
associated with trading the option because the exchange option has no liquid market and is traded over
the counter (OTC). Lack of liquidity in the OTC market for these options makes them vulnerable to
mispricing. The option buyer is also exposed to the counterparty risk of the option seller. Also, the option
itself is usually priced taking into account the implied volatility, which is usually higher than the realized

volatility. The Dynamic Asset Exchange strategy uses realized volatility to determine portfolio weights, so the costs are lower.

**Index Construction, Reset and Rebalancing**

At the beginning of each year, the index resets the weights of both underlying assets to 50%. The mean reversion approach is used to preserve the unbiased nature of the strategy’s forecasts. At the beginning, no asset is presumed to be better performing than the other.

On the last trading day of each month, the index rebalances into the better-performing asset class. Under a purely theoretical approach, the concept would call for immediate adjustment of the allocation structure in line with market movements. These immediate adjustments, particularly those made in response to minor opposing market movements that are very common in the real world, would result in adjustments that are irrelevant for risk management purposes but that generate ever-increasing trading costs. As such, a monthly adjustment is carried out to minimize these trading (volatility) costs but also incorporates risk-relevant market movements into the investment structure. In addition, comprehensive simulations have shown that the key strategy considerations remain intact even if the weights of Asset A and Asset B are adjusted on a monthly basis.

Several options are considered regarding the reset interval as well as terms beginning at different times of the year (instead of the last trading day of the previous year). It was determined that the long-term success of the strategy is not affected by such choices in the medium to long term (three or more years) – most of the impact is in the near term (up to three years). Many investors seem to prefer products based on the calendar year, so that was the basis of the reset date.

**Performance Characteristics of the Index**

The Dynamic Asset Exchange strategy has historically provided a high return with significantly reduced risk in the medium to long term. The return characteristics of the Dynamic Asset Exchange indices show that the cumulative returns of each index (excluding and including transaction costs) beat the cumulative returns of their underlying indices over three to nine years (see Exhibit 2 below, Exhibit 3 and 4 on the following page, and Exhibit 5 on page 5). The nine-year period ended September 30, 2011, was characterized by significant bull and bear markets as well as periods of highly volatile sideways markets.

**Exhibit 2: Performance Comparison of Dynamic Asset Exchange – U.S. Strategy**

![Exhibit 2: Performance Comparison of Dynamic Asset Exchange – U.S. Strategy](chart)

Source: Standard & Poor’s. Data as of September 30, 2011. Charts and tables are provided for illustrative purposes. This chart may reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.
Exhibit 3: Performance Details of Dynamic Asset Exchange – US Index

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Year</td>
<td>5.30%</td>
<td>1.14%</td>
<td>7.15%</td>
<td>6.14%</td>
</tr>
<tr>
<td>3-Year</td>
<td>13.62%</td>
<td>1.23%</td>
<td>8.97%</td>
<td>7.07%</td>
</tr>
<tr>
<td>5-Year</td>
<td>10.14%</td>
<td>-1.18%</td>
<td>9.04%</td>
<td>4.97%</td>
</tr>
<tr>
<td>7-Year</td>
<td>8.83%</td>
<td>2.29%</td>
<td>7.24%</td>
<td>5.54%</td>
</tr>
<tr>
<td>9-Year</td>
<td>9.48%</td>
<td>5.79%</td>
<td>6.64%</td>
<td>6.72%</td>
</tr>
</tbody>
</table>

Performance since Index started in December 2001

<table>
<thead>
<tr>
<th></th>
<th>Cumulative</th>
<th>Annualized</th>
<th>Max Calendar Year</th>
<th>Max Year</th>
<th>Maximum Drawdown</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Year</td>
<td>137.56%</td>
<td>9.54%</td>
<td>2003</td>
<td>2005</td>
<td>13.6%</td>
</tr>
<tr>
<td>3-Year</td>
<td>19.26%</td>
<td>3.57%</td>
<td>2003</td>
<td>2008</td>
<td>55.3%</td>
</tr>
<tr>
<td>5-Year</td>
<td>108.21%</td>
<td>7.08%</td>
<td>2008</td>
<td>2009</td>
<td>9.0%</td>
</tr>
<tr>
<td>7-Year</td>
<td>64.14%</td>
<td>5.55%</td>
<td>2003</td>
<td>2008</td>
<td>24.9%</td>
</tr>
<tr>
<td>9-Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Maximum Drawdown

<table>
<thead>
<tr>
<th></th>
<th>High Date</th>
<th>Low Date</th>
<th>Recovery Date</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Drawdown</td>
<td>Jan. 6, 2009</td>
<td>March 9, 2009</td>
<td>July 23, 2009</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oct. 9, 2007</td>
<td>March 9, 2009</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dec. 18, 2008</td>
<td>June 8, 2009</td>
<td>May 20, 2010</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dec. 6, 2007</td>
<td>March 16, 2010</td>
<td>March 16, 2010</td>
<td></td>
</tr>
</tbody>
</table>

Source: Standard & Poor’s. Data as of September 30, 2011. Charts and tables are provided for illustrative purposes. This table may reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Exhibit 4: Performance Comparison of Dynamic Asset Exchange – Europe Strategy

Source: Standard & Poor’s. Data as of September 30, 2011. Charts and tables are provided for illustrative purposes. This chart may reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

2 The S&P Balanced Equity & Bond – Moderate Index takes a long position in the S&P 500 Total Return Index (50% weight), and long position in the S&P/BGCantor 7-10 Year U.S. Treasury Bond Index (50% weight). It is rebalanced quarterly. We use this as a proxy for a constant mix portfolio but it should be noted that this index uses actual bonds and not futures, which are used by the DAE index.
### Exhibit 5: Performance Details of Dynamic Asset Exchange – Europe Index

<table>
<thead>
<tr>
<th></th>
<th>S&amp;P Dynamic Asset Exchange – Europe</th>
<th>S&amp;P Euro 75</th>
<th>S&amp;P Euro-Bund Futures Index</th>
<th>Constant Mix Allocation³</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Year</td>
<td>-2.85%</td>
<td>-17.43%</td>
<td>7.42%</td>
<td>-4.94%</td>
</tr>
<tr>
<td>3-Year</td>
<td>9.31%</td>
<td>-5.50%</td>
<td>9.44%</td>
<td>2.72%</td>
</tr>
<tr>
<td>5-Year</td>
<td>7.96%</td>
<td>-5.00%</td>
<td>6.82%</td>
<td>1.55%</td>
</tr>
<tr>
<td>7-Year</td>
<td>9.97%</td>
<td>2.49%</td>
<td>6.32%</td>
<td>5.04%</td>
</tr>
<tr>
<td>9-Year</td>
<td>9.71%</td>
<td>5.52%</td>
<td>6.29%</td>
<td>6.64%</td>
</tr>
</tbody>
</table>

Performance since Index started in December 2001

<table>
<thead>
<tr>
<th></th>
<th>Cumulative</th>
<th>Annualized</th>
<th>Max Calendar Year</th>
<th>Max Year</th>
<th>Maximum Drawdown</th>
<th>Recovery Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>122.82%</td>
<td>8.80%</td>
<td>2009</td>
<td>2009</td>
<td>-13.6%</td>
<td>Aug. 18, 2009</td>
</tr>
<tr>
<td>Performance</td>
<td>-6.04%</td>
<td>-0.65%</td>
<td>2009</td>
<td>2008</td>
<td>-59.4%</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>90.35%</td>
<td>7.01%</td>
<td>2008</td>
<td>2006</td>
<td>-8.3%</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>44.45%</td>
<td>3.95%</td>
<td>2008</td>
<td>2008</td>
<td>-30.1%</td>
<td>Feb. 23, 2011</td>
</tr>
</tbody>
</table>

Max Calendar Year: 2009
Max Year: 2002

Maximum Drawdown:

<table>
<thead>
<tr>
<th></th>
<th>High Date</th>
<th>Low Date</th>
<th>Recovery Date</th>
</tr>
</thead>
</table>

Source: Standard & Poor's. Data as of September 30, 2011. Charts and tables are provided for illustrative purposes. This table may reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

As a general rule, the strategy is more successful in a trend-driven market in either direction (e.g., the U.S. market in 2003 or 2008). In either market, the asset allocation shifts to the higher-yielding asset class and stays till the reset at the end of the calendar year (see Exhibit 6 on the following page and Exhibit 7 on page 7). This shift creates a significant participation in the upside with limited losses on the downside. In the two most significant bear markets of 2002 and 2008, the strategy generated returns close to the bond returns, and hugged the equity returns closely during the bull markets of 2003 and 2009 (see Exhibit 8 on page 7).³

³ The Constant Mix Allocation portfolio takes a long position in the S&P Euro-Bund Futures Index (50% weight), and long position in the S&P Euro 75 Index (50% weight). It is rebalanced monthly on the same date as the DAE index.
Exhibit 6: Performance in a Bull Market

Source: Standard & Poor’s. Data from January 1, 2003 through December 31, 2003. Charts and tables are provided for illustrative purposes. This chart may reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.
Exhibit 7: Performance in a Bear Market

Equity return less than -10%  Equity return greater than 20%

Exhibit 8: Performance Characteristics – Significant Upside Participation in Bull Markets and Limited Downside Loss in Bear Markets

Source: Standard & Poor’s. Data from January 1, 2008 through December 31, 2008. Charts and tables are provided for illustrative purposes. This chart may reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.
However, the strategy may not work as well in volatile sideways markets where the fluctuations have no clear trend and especially in markets with sharp corrections followed by sharp recovery (e.g., the U.S. in 2005; see Exhibit 9 below). In such a scenario, portfolio adjustments from one asset to another have no impact on performance.

**Exhibit 9: Performance in a Volatile (Oscillating) Market**

![Graph showing performance in a volatile market]

Source: Standard & Poor's. Data from January 1, 2005 through December 30, 2005. Charts and tables are provided for illustrative purposes. This chart may reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

**Strategy Costs**

S&P Indices defines the cost of the strategy as the difference between the performance of the better of the two underlying assets and the performance of the Dynamic Asset Exchange index over a calendar year. Strategy costs can be thought of as the cost of pursuing the Dynamic Asset Exchange strategy versus owning only the better asset at the beginning of the calendar year excluding the replication costs (turnover).

The absolute strategy costs tend to be higher in very steeply trending markets. However, the ratio of the total gap between the returns (the difference of the returns of the two underlying assets) to the strategy costs is lowest during those years. This means that even though it would be expensive to hold the option to switch into the better-performing asset class on an absolute basis, it is worth the option because the gap between the returns is highest in those bull or bear markets. For example, the difference between equity and bond returns was 57.5% in 2008 (see Exhibit 10 on the following page). Although strategy costs were 9.33%, it was only 16% of the gap and hence a small price to pay compared to investments in the worse-performing asset class.
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>11.23%</td>
<td>-37.00%</td>
<td>20.56%</td>
<td>9.33%</td>
<td>57.56%</td>
<td>16%</td>
</tr>
<tr>
<td>2002</td>
<td>6.29%</td>
<td>-22.10%</td>
<td>17.95%</td>
<td>11.66%</td>
<td>40.05%</td>
<td>29%</td>
</tr>
<tr>
<td>2006</td>
<td>11.89%</td>
<td>15.79%</td>
<td>3.30%</td>
<td>3.91%</td>
<td>12.49%</td>
<td>31%</td>
</tr>
<tr>
<td>2003</td>
<td>20.11%</td>
<td>28.68%</td>
<td>2.86%</td>
<td>8.57%</td>
<td>25.83%</td>
<td>33%</td>
</tr>
<tr>
<td>2009</td>
<td>15.63%</td>
<td>26.46%</td>
<td>-4.35%</td>
<td>10.83%</td>
<td>30.81%</td>
<td>35%</td>
</tr>
<tr>
<td>2011 YTD</td>
<td>3.32%</td>
<td>-8.68%</td>
<td>11.24%</td>
<td>7.92%</td>
<td>19.92%</td>
<td>40%</td>
</tr>
<tr>
<td>2004</td>
<td>6.52%</td>
<td>10.88%</td>
<td>5.47%</td>
<td>4.37%</td>
<td>5.41%</td>
<td>81%</td>
</tr>
<tr>
<td>2007</td>
<td>6.50%</td>
<td>5.49%</td>
<td>10.95%</td>
<td>4.45%</td>
<td>5.46%</td>
<td>82%</td>
</tr>
<tr>
<td>2010</td>
<td>8.14%</td>
<td>15.06%</td>
<td>7.60%</td>
<td>6.92%</td>
<td>7.47%</td>
<td>93%</td>
</tr>
<tr>
<td>2005</td>
<td>2.03%</td>
<td>4.91%</td>
<td>2.85%</td>
<td>2.89%</td>
<td>2.06%</td>
<td>140%</td>
</tr>
</tbody>
</table>

Source: Standard & Poor’s. Data as of September 30, 2011. Charts and tables are provided for illustrative purposes. This table may reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance. The data in this chart is arranged from the year with the lowest ratio (Strategy Cost/Gap) to the highest ratio.

Dynamic Asset Exchange Strategy versus Peer Strategies

The Dynamic Asset Exchange strategy performs better than the dynamic asset allocation techniques such as CMA, CPPI and the risk control strategies used in the S&P Risk Control Indices.

CMA strategies maintain an exposure to certain asset classes (stock and cash or bonds) that are at constants ratio to the overall portfolio value. For example, a typical “balanced” portfolio would contain 50% of its value in stocks and 50% in cash or notes. The strategy seeks to rebalance at defined intervals in order to preserve the target ratio of the underlying assets. In a bear market the strategy would buy stocks as they fall in value and in a bull market would sell stocks as they rise in value. This gives rise to a concave payoff curve. As such, in trending environments, buy-and-hold strategies would perform better than constant mix strategies; however, constant mix strategies work better in volatile but flat markets.

The Dynamic Asset Exchange strategy tends to outperform CMA strategies because Dynamic Asset Exchange can allocate the maximum to one asset class based on relative performance if market signals point in that direction (see Exhibits 6 on page 6 and Exhibit 7 on page 7). One key difference between Dynamic Asset Exchange and CMA strategies is that Dynamic Asset Exchange is mean-reverting—the weights of the asset classes reset to 50-50 at the beginning of a calendar year. Using Bootstrap and Monte Carlo simulations, we can show that the Dynamic Asset Exchange strategy exhibits lower loss probability and a substantially lower mean loss and generates a higher annual return than a CMA strategy.

CPPI strategies provide right-skewed returns with some principal protection. The strategies require an exposure to equities that is a constant multiple of a cushion, which is the difference between the asset value and a floor. As expected, the payoff of CPPI strategies is convex (it becomes much steeper as value of stocks rise). In sharply upward-trending environments, the returns on CPPI strategies may be higher than those of Dynamic Asset Exchange strategies. However, even though CPPI strategies come with a floor, the floor becomes endangered in highly volatile environments if return on stocks falls below 1/multiple (e.g., the return falls 50% with a multiple of two) before the portfolio rebalances.

The risk control methodology underlying the S&P Risk Control Index Series also addresses dynamic portfolio. This index series seeks to maintain the volatility of a portfolio below a certain level by shifting
allocation between equities and cash (S&P 500 Risk Control [RC-1]) or between equities and bonds (S&P 500 RC 2 [RC-2]). The return of the S&P Dynamic Asset Exchange – US outperforms both RC-1 (see Exhibit 11 below) and RC-2 (see Exhibit 12 on the following page). This can be explained by the risk control indices allocating into cash to cap the volatility of the portfolio—so if the markets are trending up, the risk control indices might cap the upside while there is no such limit with the Dynamic Asset Exchange index. On the downside, the Dynamic Asset Exchange index would limit the gain to close to the return on a pure bond portfolio whereas RC-2 would maintain an equity allocation as long as the volatility level of the portfolio remained below the predetermined level.

Exhibit 11: S&P Dynamic Asset Exchange – US Index versus the S&P 500 Risk Control Index Series

Source: Standard & Poor’s. Data as of September 30, 2011. Charts and tables are provided for illustrative purposes. This chart may reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Conclusion

Momentum-based strategies such as the one underlying Dynamic Asset Exchange have gained importance recently as a means to move into relatively better-performing stocks. The key difference between Dynamic Asset Exchange and other dynamic asset allocation strategies is that Dynamic Asset Exchange strategies are mean-reverting and use momentum to allocate between asset classes (and not within a certain asset class).

The Dynamic Asset Exchange strategy lends itself to any low-correlated asset classes (stocks and bonds, stocks and commodities, commodities and bonds, emerging market equities and T-bills, etc.). As long as the correlation between the asset classes is low, Dynamic Asset Exchange has historically provided strong medium- to long-term results.

Source: Standard & Poor’s. Data as of September 30, 2011. Charts and tables are provided for illustrative purposes. This chart may reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Performance Disclosure

The inception date of the S&P Dynamic Asset Exchange – US index and the S&P Dynamic Asset Exchange – Europe Index was June 6, 2011, at the market close. All information presented prior to the index inception date is back-tested. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. Complete index methodology details are available at www.indices.standardandpoors.com.

The inception date of the S&P Balanced Equity and Bond - Moderate Index was December 30, 2010, at the market close. All information presented prior to the index inception date is back-tested. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. Complete index methodology details are available at www.indices.standardandpoors.com.

The inception date of the S&P 10-Year U.S. Treasury Note Futures Index was March 28, 2011, at the market close. All information presented prior to the index inception date is back-tested. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. Complete index methodology details are available at www.indices.standardandpoors.com.

The inception date of the S&P 500 Daily Risk Control 10% Index was May 13, 2009, at the market close. All information presented prior to the index inception date is back-tested. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. Complete index methodology details are available at www.indices.standardandpoors.com.

The inception date of the S&P 500 Daily Risk Control 15% Index was September 10, 2009, at the market close. All information presented prior to the index inception date is back-tested. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. Complete index methodology details are available at www.indices.standardandpoors.com.

The inception date of the S&P 500 Daily Risk Control 12% Index was April 21, 2010, at the market close. All information presented prior to the index inception date is back-tested. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. Complete index methodology details are available at www.indices.standardandpoors.com.

The inception date of the S&P Euro 75 Index was November 29, 2009, at the market close. All information presented prior to the index inception date is back-tested. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. Complete index methodology details are available at www.indices.standardandpoors.com.

The inception date of the S&P Euro-Bund Futures Index was March 28, 2011, at the market close. All information presented prior to the index inception date is back-tested. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. Complete index methodology details are available at www.indices.standardandpoors.com.

The inception date of the S&P 500 Daily RC2 Indices (8%, 10%, 12%, and 15%) were May 26, 2011, at the market close. All information presented prior to the index inception date is back-tested. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. Complete index methodology details are available at www.indices.standardandpoors.com.

Past performance is not an indication of future results. Prospective application of the methodology used to construct these indices may not result in performance commensurate with the back-test returns shown. The back-test period does not necessarily correspond to the entire available history of the index. Please refer to the methodology paper for the index, available at www.standardandpoors.com for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations. It is not possible to invest directly in an Index.

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