

## **Structured Product Details**

Name Performance Leveraged Upside Securities linked to ISHARES MSCI TAIWAN INDEX FD

 Pricing Date
 March 24, 2008

 Issue Date
 March 31, 2008

 Valuation Date
 June 18, 2009

 Maturity Date
 June 20, 2009

IssuerMorgan StanleyCDS Rate241.6 bpsSwap Rate2.43%

**Reference Asset** ISHARES MSCI TAIWAN INDEX FD's stock

Initial Level \$17.27 Dividend Rate 2.24% Implied Volatility 42.01% Delta<sup>1</sup> 0.55

Fair Price at Issue \$8.39 Realized Return -38.63%

CUSIP 61747W216
SEC Link www.sec.gov/Archives/edgar/
data/895421/000095010308000796/
dp09247\_424b2-ps537.htm

# Related Research

#### Research Papers:

www.slcg.com/research.php

- "Are Structured Products Suitable for Retail Investors?" December 2006.
- "Structured Products in the Aftermath of Lehman Brothers," November 2009.
- "What TiVo and JP Morgan Teach Us about Reverse Convertibles," June 2010.

# Performance Leveraged Upside Securities linked to ISHARES MSCI TAIWAN INDEX FD

# Description

Report Prepared On: 08/02/13

Morgan Stanley issued \$5.00 million of Performance Leveraged Upside Securities linked to ISHARES MSCI TAIWAN INDEX FD on March 31, 2008 at \$10 per note.

These notes are Morgan Stanley-branded Buffered PLUS securities that do not pay periodic coupons, but instead pay a single amount at maturity depending on the final level of ISHARES MSCI TAIWAN INDEX FD's stock.

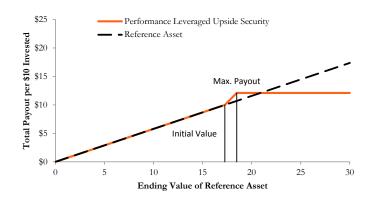
If on June 18, 2009 ISHARES MSCI TAIWAN INDEX FD's stock price is higher than \$17.27, but lower than \$18.48, the notes pay a return equal to the percentage increase in ISHARES MSCI TAIWAN INDEX FD's stock multiplied by 3.0, up to a cap of 21.00%. If on June 18, 2009 the refe is below \$17.27 but not below \$17.27, investors receive \$10 face value per note. If ISHARES MSCI TAIWAN INDEX FD's stock price on June 18, 2009 is lower than \$17.27, investors receive face value per note reduced by the amount the reference asset is below \$17.27 as a percent of the initial level, \$17.27.

# **Valuation**

This product can be valued as a combination of a note from Morgan Stanley, one short out-of-the-money put option, three long at-the-money call options, and three short out-of-the-money call options. For reasonable valuation inputs this note was worth \$8.39 when it was issued on March 31, 2008 because the value of the options investors gave Morgan Stanley plus the interest investors would have received on Morgan Stanley's straight debt was worth \$1.61 more than the options investors received from Morgan Stanley.

There is no active secondary market for most structured products. Structured products, including this note, therefore are much less liquid than simple stocks, bonds, notes and mutual funds. Investors are likely to receive less than the structured product's estimated market value if they try to sell the structured product prior to maturity. Our valuations do not incorporate this relative lack of liquidity and therefore should be considered an upper bound on the value of the structured product.

#### Payoff Curve at Maturity



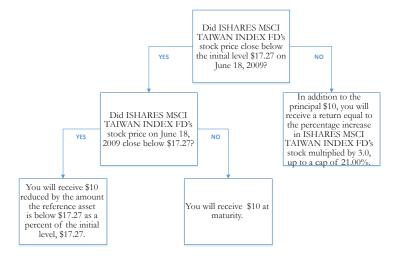
The payoff diagram shows the final payoff of this note given ISHARES MSCI TAIWAN INDEX FD's stock price (horizontal axis). For comparison, the dashed line shows the payoff if you invested in ISHARES MSCI TAIWAN INDEX FD's stock directly.

Tim Husson, Ph.D., Senior Financial Economist, SLCG (+1) 703.890.0743 TimHusson@slcg.com

#### Principal Payback Table

ISHARES MSCI TAIWAN INDEX FD's Stock	Note Payoff
\$0.00	\$0.00
\$1.73	\$1.00
\$3.45	\$2.00
\$5.18	\$3.00
\$6.91	\$4.00
\$8.64	\$5.00
\$10.36	\$6.00
\$12.09	\$7.00
\$13.82	\$8.00
\$15.54	\$9.00
\$17.27	\$10.00
\$19.00	\$12.10
\$20.72	\$12.10
\$22.45	\$12.10
\$24.18	\$12.10
\$25.91	\$12.10

#### Maturity Payoff Diagram

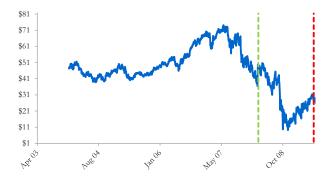


The contingent payoffs of this Performance Leveraged Upside Security.

# **Analysis**

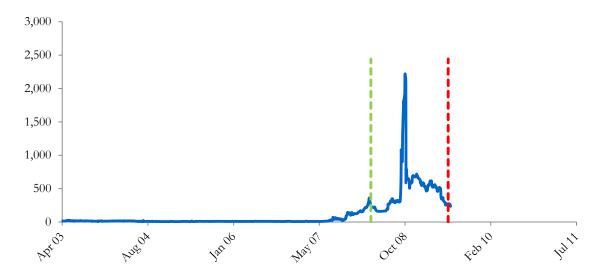
This Performance Leveraged Upside Security pays investors the increase in ISHARES MSCI TAIWAN INDEX FD's stock multiplied by 3.0 capped at 21.00%, but if ISHARES MSCI TAIWAN INDEX FD's stock declines over the term of the note, investors will suffer losses equal to the percentage decline in ISHARES MSCI TAIWAN INDEX FD's stock. In addition, investors bear the credit risk of Morgan Stanley. Investors purchasing this Performance Leveraged Upside Security effectively sell at-the-money put and out-of-the-money call options to Morgan Stanley, buy at-the-money call options, and a zero-coupon note from Morgan Stanley. This Performance Leveraged Upside Security is fairly priced if and only if the market value of the options investors received from Morgan Stanley equals the market value of the options investors gave Morgan Stanley plus the interest investors would have received on Morgan Stanley's straight debt.

# Morgan Stanley's Stock Price



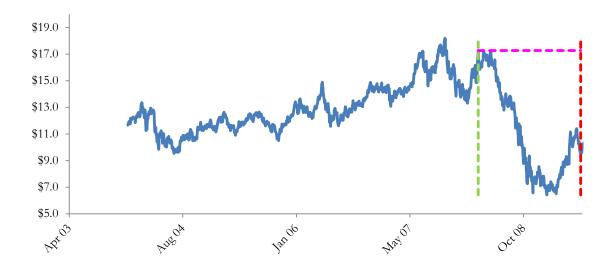
The graph above shows the adjusted closing price of the issuer Morgan Stanley for the past several years. The stock price of the issuer is an indication of the financial strength of Morgan Stanley. The adjusted price shown above incorporates any stock split, reverse stock split, etc.

## Morgan Stanley's CDS Rate



Credit default swap (CDS) rates are the market price that investors require to bear credit risk of an issuer such as Morgan Stanley. CDS rates are usually given in basis points (bps). One basis point equals 0.01%. Higher CDS rates reflect higher perceived credit risk, higher required yields, and therefore lower market value of Morgan Stanley's debt, including outstanding Performance Leveraged Upside Security. Fluctuations in Morgan Stanley's CDS rate impact the market value of the notes in the secondary market.

#### ISHARES MSCI TAIWAN INDEX FD's Stock Price

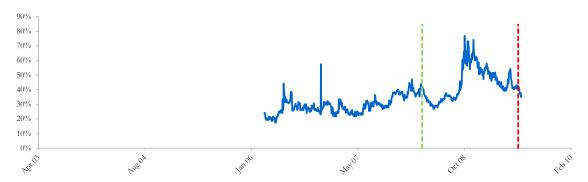


The graph above shows the historical levels of ISHARES MSCI TAIWAN INDEX FD's stock for the past several years. The final payoff of this note is determined by ISHARES MSCI TAIWAN INDEX FD's stock price at maturity. Higher fluctuations in ISHARES MSCI TAIWAN INDEX FD's stock price correspond to a greater uncertainty in the final payout of this Performance Leveraged Upside Security.

# Realized Payoff

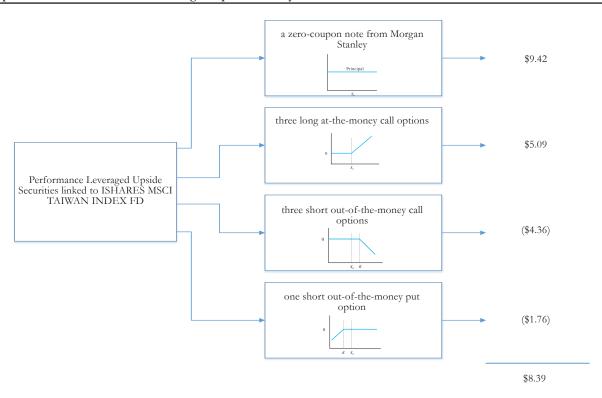
This note matured on June 20, 2009 and investors received \$5.51 per note.

#### Reference Asset ISHARES MSCI TAIWAN INDEX FD's Stock's Implied Volatility



The annualized implied volatility of ISHARES MSCI TAIWAN INDEX FD's stock on March 24, 2008 was 42,01%, meaning that options contracts on ISHARES MSCI TAIWAN INDEX FD's stock were trading at prices that reflect an expected annual volatility of 42.01%. The higher the implied volatility, the larger the expected fluctuations of ISHARES MSCI TAIWAN INDEX FD's stock price and of the Note's market value during the life of the Notes.

#### Decomposition of this Performance Leveraged Upside Security



This note can be decomposed into different components, and each component can be valued separately. The chart above shows the value of each component of this Performance Leveraged Upside Security.

- Delta measures the sensitivity of the price of the note to the ISHARES MSCI TAIWAN INDEX FD's stock price on March 24, 2008.
   CDS rates can be considered a measure of the probability that an issuer will default over a certain period of time and the likely loss given a default. The lower the CDS rate, the lower the default probability. CDS rate is given in basis points (1 basis point equals 0.01%), and is considered as a market premium, on top of the risk-free rate, that investors require to insure against a potential default.
   Fair price evaluation is based on the Black-Scholes model of the ISHARES MSCI TAIWAN INDEX FD's stock on March 24, 2008.
   Calculated payout at maturity is only an approximation, and may differ from actual payouts at maturity.
   Our evaluation does not include any transaction fees, broker commissions, or liquidity discounts on the notes.