SECURITIES LITIGATION & CONSULTING GROUP

# Structured Products Research Report

**Report Prepared On: 08/02/13**

## Structured Product Details

| | |
|---|---|
| **Name** | Performance Leveraged Upside Securities linked to NIKKEI 225 Index |
| **Issue Size** | $14.50 million |
| **Issue Price** | $10 |
| **Term** | 13 Months |
| **Annualized Coupon** | 0.00% |
| **Pricing Date** | January 24, 2008 |
| **Issue Date** | January 31, 2008 |
| **Valuation Date** | February 18, 2009 |
| **Maturity Date** | February 20, 2009 |
| **Issuer** | Morgan Stanley |
| **CDS Rate** | 167.85 bps |
| **Swap Rate** | 2.85% |
| **Reference Asset** | the NIKKEI 225 Index |
| **Initial Level** | 13 |
| **Dividend Rate** | 1.59% |
| **Implied Volatility** | 44.27% |
| **Delta**[1] | 0.55 |
| **Fair Price at Issue** | $8.57 |
| **Realized Return** | 18.82% |
| **CUSIP** | 61747W349 |
| **SEC Link** | www.sec.gov/Archives/edgar/data/895421/000095010308000177/dp08374_424b2-ps473.htm |

# Performance Leveraged Upside Securities linked to NIKKEI 225 Index

## Description

Morgan Stanley issued $14.50 million of Performance Leveraged Upside Securities linked to NIKKEI 225 Index on January 31, 2008 at $10 per note.

These notes are Morgan Stanley-branded PLUS securities that do not pay periodic coupons, but instead pay a single amount at maturity depending on the NIKKEI 225 Index level at maturity.

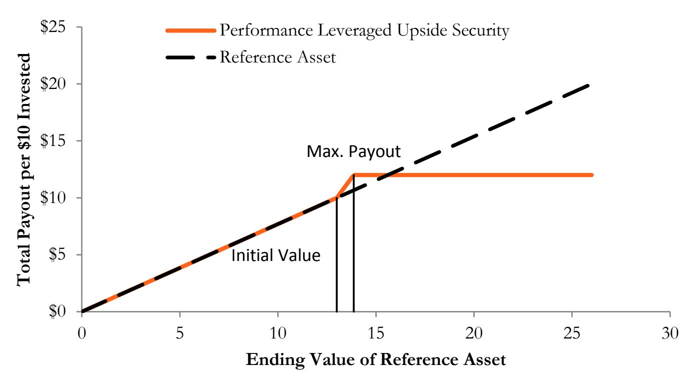
If the NIKKEI 225 Index level on February 18, 2009 is higher than 13, but lower than 13.87, the notes pay a return equal to the percentage increase in the NIKKEI 225 Index multiplied by 3.0. If on February 18, 2009 the NIKKEI 225 Index level is above the 13.87, the notes pay the maximum payout of $12.00. If on February 18, 2009 the NIKKEI 225 Index level is below 13, investors receive the face value per note reduced by the percentage decline in the reference asset. The notes will pay nothing at maturity if the reference asset declines to zero.

## Valuation

This note can be valued as a combination of a note from Morgan Stanley, a short at-the-money put option, three long at-the-money call options, and three short out-of-the-money call options. The short at-the-money put option exposes investors to any decline in the NIKKEI 225 Index. The three short out-of-the-money call options has the strike price of 13.87, and limits the maximum return of the notes beyond the cap level. For reasonable valuation inputs this note was worth $8.57 when it was issued on January 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 $1.43 more than the call 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 the NIKKEI 225 Index level (horizontal axis). For comparison, the dashed line shows the payoff if you invested in the NIKKEI 225 Index directly.*

### 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.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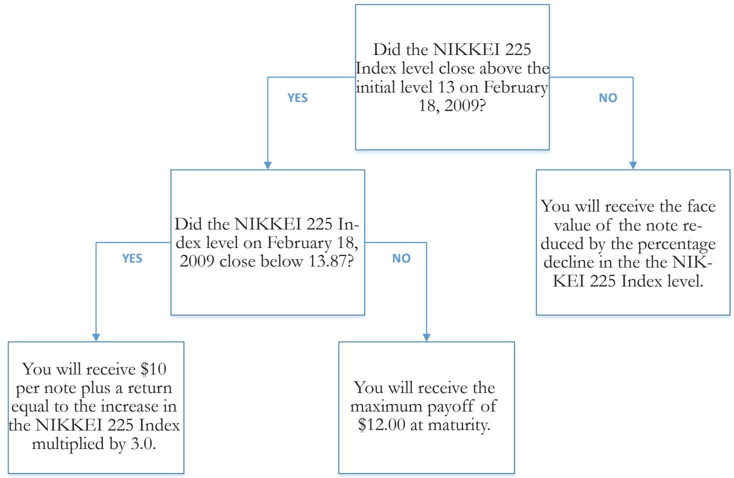
## Principal Payback Table

| The NIKKEI 225 Index | Note Payoff |
|---|---|
| 0.00 | $0.00 |
| 1.30 | $1.00 |
| 2.60 | $2.00 |
| 3.90 | $3.00 |
| 5.20 | $4.00 |
| 6.50 | $5.00 |
| 7.80 | $6.00 |
| 9.10 | $7.00 |
| 10.40 | $8.00 |
| 11.70 | $9.00 |
| **13.00** | **$10.00** |
| 14.30 | $12.00 |
| 15.60 | $12.00 |
| 16.90 | $12.00 |
| 18.20 | $12.00 |
| 19.50 | $12.00 |

## Maturity Payoff Diagram

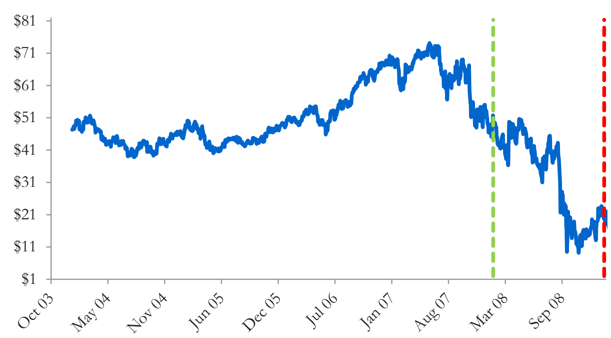



*The contingent payoffs of this Performance Leveraged Upside Security.*

# Analysis

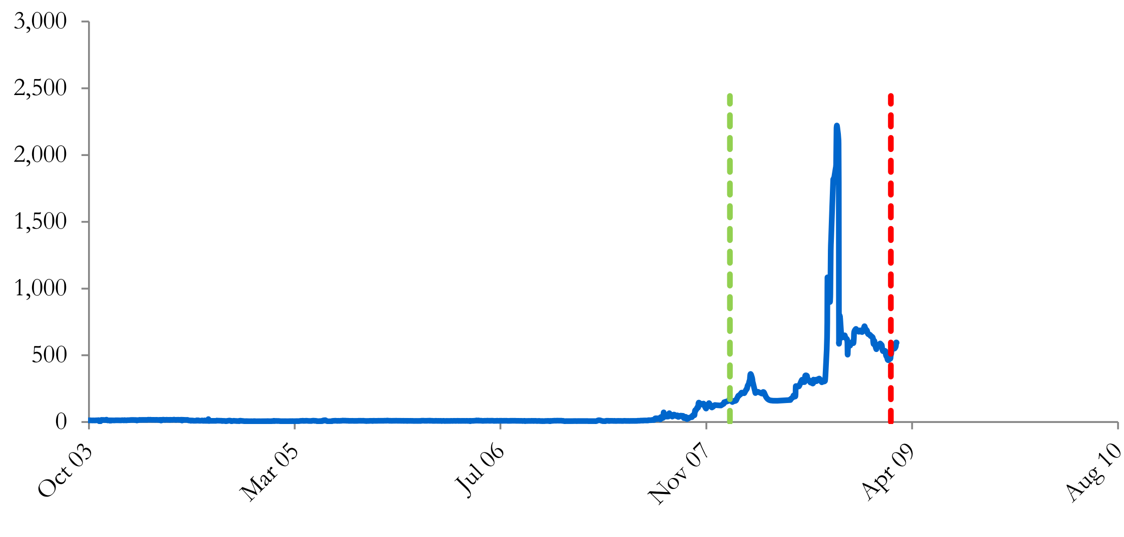
This Performance Leveraged Upside Security pays investors the increase in the NIKKEI 225 Index multiplied by 3.0 capped at 20.00%, but if the NIKKEI 225 Index declines over the term of the note, investors will suffer losses equal to the percentage decline in the NIKKEI 225 Index. In addition, investors 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



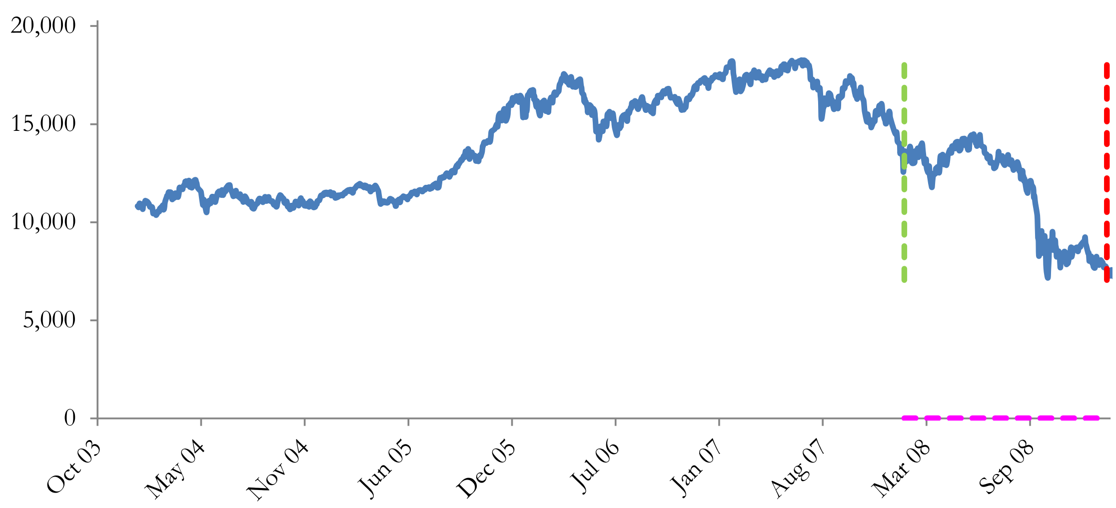

*The graph above shows the adjusted closing price of the issuer Morgan Stanley for the past several years. The stock price of the issuer is an indication of the financial strength of Morgan Stanley. The adjusted price shown above incorporates any stock split, reverse stock split, etc.*

**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.*

**The NIKKEI 225 Index Level**

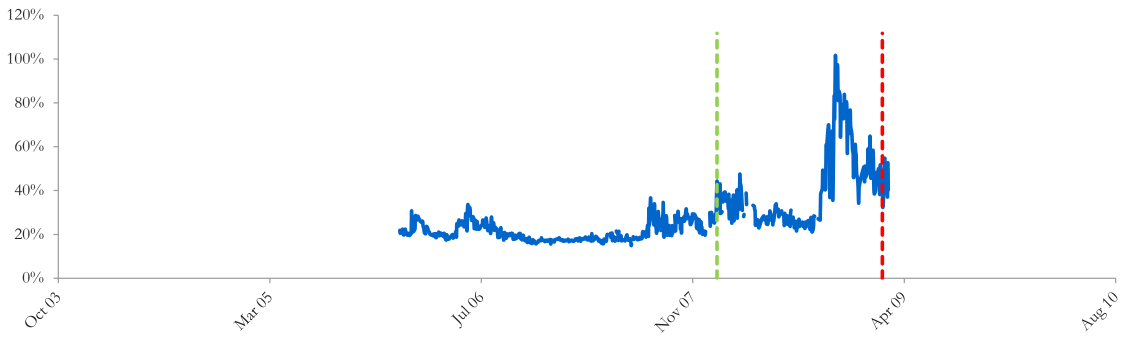



*The graph above shows the historical levels of the NIKKEI 225 Index for the past several years. The final payoff of this note is determined by the NIKKEI 225 Index level at maturity. Higher fluctuations in the NIKKEI 225 Index level correspond to a greater uncertainty in the final payout of this Performance Leveraged Upside Security.*

**Realized Payoff**

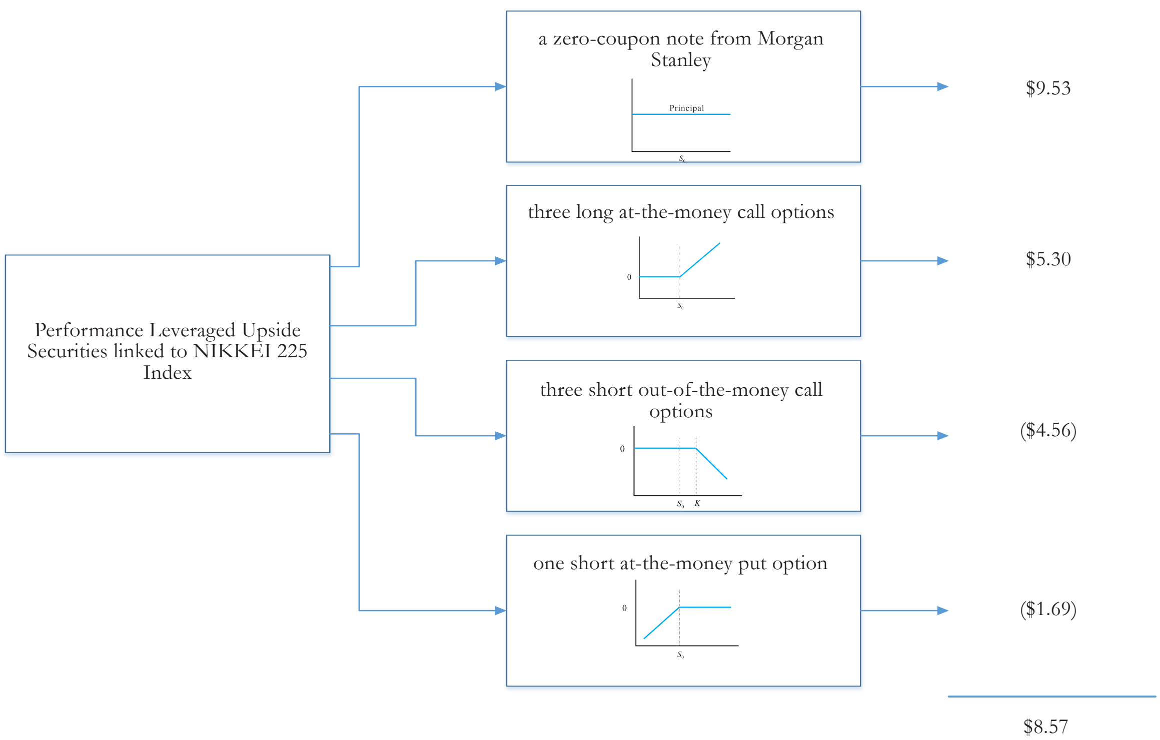
This note matured on February 20, 2009 and investors received $12.00 per note.

## Reference Asset The NIKKEI 225 Index's Implied Volatility




*The annualized implied volatility of the NIKKEI 225 Index on January 24, 2008 was 44.27%, meaning that options contracts on the NIKKEI 225 Index were trading at prices that reflect an expected annual volatility of 44.27%. The higher the implied volatility, the larger the expected fluctuations of the NIKKEI 225 Index level 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.*

1. Delta measures the sensitivity of the price of the note to the the NIKKEI 225 Index level on January 24, 2008.
2. 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.
3. Fair price evaluation is based on the Black-Scholes model of the the NIKKEI 225 Index on January 24, 2008.
4. Calculated payout at maturity is only an approximation, and may differ from actual payouts at maturity.
5. Our evaluation does not include any transaction fees, broker commissions, or liquidity discounts on the notes.