

# **Structured Product Details**

Name Trigger Yield Optimization Notes linked to Fluor Corporation

Issue Size	\$6.81 million
Issue Price	\$72.76
Term	12 Months
Annualized Coupon	9.35%
Pricing Date Issue Date	March 29, 2011 March 31, 2011
Valuation Date	March 26, 2012
Maturity Date	March 30, 2012
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 Issuer
 Morgan Stanley

 CDS Rate
 30.99 bps

 Swap Rate
 0.78%

Reference Asset Fluor Corporation's stock

Initial Level	\$72.76
Conversion Price	\$72.76
Trigger Price	\$58.21
Dividend Rate	0.68%
Implied Volatility	34.92%
Delta <sup>1</sup>	0.41
Fair Price at Issue	\$70.51

 Realized Return
 9.73%

 CUSIP
 90267G426

CUSIP 90267G426 SEC Link www.sec.gov/Archives/edgar/ data/1114446/000139340111000193/ c216803\_600621-424b2.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.

# Trigger Yield Optimization Notes linked to Fluor Corporation

# Description

Report Prepared On: 10/25/12

Morgan Stanley issued \$6.81 million of Trigger Yield Optimization Notes linked to Fluor Corporation on March 31, 2011 at \$72.76 per note.

These notes are Morgan Stanley-branded single observation reverse convertibles. Single observation reverse convertibles pay periodic interest coupons and at maturity convert into shares of the reference security if the price of the reference security at the notes' maturity is below the trigger price determined when the notes were issued.

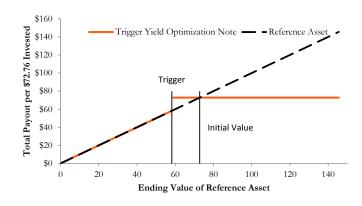
These 12-month notes pay monthly coupons at an annualized rate of 9.35%. In addition to the monthly coupons, on March 30, 2012 investors will receive the market value of one share of Fluor Corporation's stock if on March 26, 2012 Fluor Corporation's stock closes below \$58.21 (80% of Fluor Corporation's stock price on March 29, 2011). Otherwise, investors will receive the \$72.76 face value per note.

## Valuation

This Morgan Stanley single observation reverse convertible linked to Fluor Corporation's stock can be valued as a combination of a note from Morgan Stanley and a short European out-of-the-money cash-or-nothing put option, and a short European out-of-the-money put option on Fluor Corporation's stock. For reasonable valuation inputs this note was worth \$70.51 per \$72.76 when it was issued on March 31, 2011 because investors were effectively being paid only \$5.97 for giving Morgan Stanley options which were worth \$8.22.

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



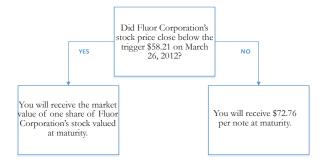
The payoff diagram shows the final payoff of this note given Fluor Corporation's stock price (borizontal axis). For comparison, the dashed line shows the payoff if you invested in Fluor Corporation's stock directly.

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#### Principal Payback Table

Fluor Corporation's Stock	Note Payoff
\$0.00	\$0.00
\$7.28	\$7.28
\$14.55	\$14.55
\$21.83	\$21.83
\$29.10	\$29.10
\$36.38	\$36.38
\$43.66	\$43.66
\$50.93	\$50.93
\$58.21	\$58.21
\$65.48	\$72.76
\$72.76	\$72.76
\$80.04	\$72.76
\$87.31	\$72.76
\$94.59	\$72.76
\$101.86	\$72.76
\$109.14	\$72.76

#### Maturity Payoff Diagram



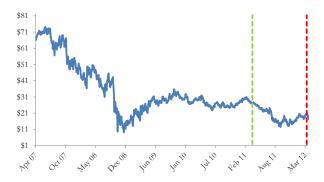
The contingent payoffs of this Trigger Yield Optimization Note.

# **Analysis**

This single observation reverse convertible's 9.35% coupon rate is higher than the yield Morgan Stanley paid on its straight debt but, in addition to Morgan Stanley's credit risk, investors bear the risk that they will receive shares of Fluor Corporation's stock when those shares are worth substantially less than the face value of the note at maturity.

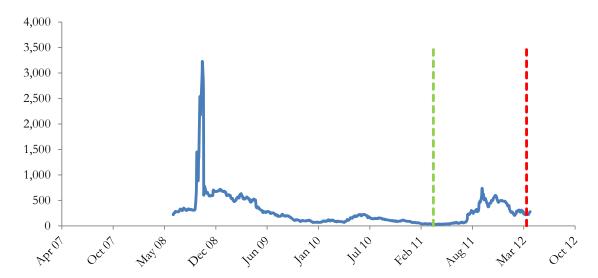
Investors purchasing these reverse convertibles effectively sell put options to Morgan Stanley and post the note's issue price as collateral to secure satisfaction of the investors' obligations under the option contracts. Morgan Stanley pays investors a "coupon" that is part payment for the put options and part interest on the investors' posted collateral. This reverse convertible is fairly priced if and only if the difference between the reverse convertible's "coupon rate" and interest paid on Morgan Stanley's straight debt equals the value of the put option investors are giving to Morgan Stanley. Whether this reverse convertible is suitable or not is identically equivalent to whether selling put options on the reference stock at the option premium being paid by Morgan Stanley was suitable for the investor.

## Morgan Stanley's Stock Price



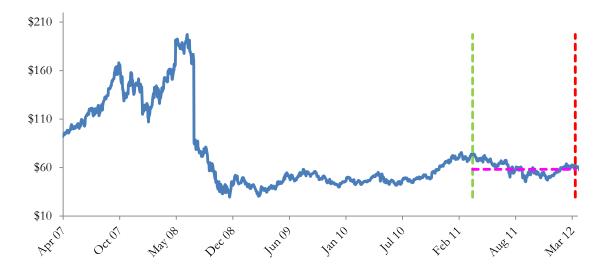
The graph above shows the adjusted closing price of the issuer Morgan Stanley for the past several years. The stock price of the issuer is an indication of the financial strength of Morgan Stanley. The adjusted price shown above incorporates any stock split, reverse stock split, etc.

# 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 Trigger Yield Optimization Note. Fluctuations in Morgan Stanley's CDS rate impact the market value of the notes in the secondary market.

#### Fluor Corporation's Stock Price

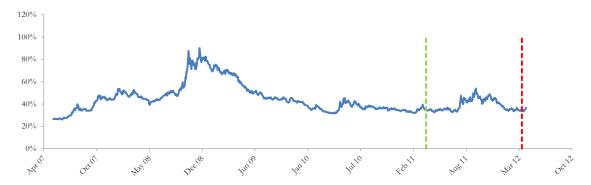


The graph above shows the historical levels of Fluor Corporation's stock for the past several years. The final payoff of this note is determined by Fluor Corporation's stock price at maturity. Higher fluctuations in Fluor Corporation's stock price correspond to a greater uncertainty in the final payout of this Trigger Yield Optimization Note.

# Realized Payoff

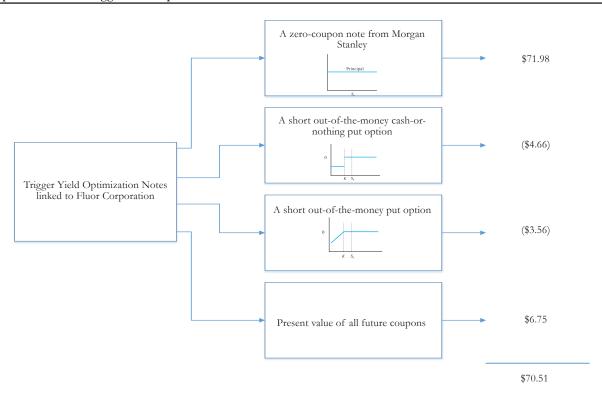
This note matured on March 30, 2012 and investors received \$72.76 per note.

# Reference Asset Fluor Corporation's Stock's Implied Volatility



The annualized implied volatility of Fluor Corporation's stock on March 29, 2011 was 34.92%, meaning that options contracts on Fluor Corporation's stock were trading at prices that reflect an expected annual volatility of 34.92%. The higher the implied volatility, the larger the expected fluctuations of Fluor Corporation's stock price and of the Note's market value during the life of the Notes.

#### Decomposition of this Trigger Yield Optimization Note



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 Trigger Yield Optimization Note.

- Delta measures the sensitivity of the price of the note to the Fluor Corporation's stock price on March 29, 2011.
   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 Fluor Corporation's stock on March 29, 2011.
   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.