

## **Structured Product Details**

Name Reverse Convertibles linked to Green Mountain Coffee Roasters,

Pricing Date January 6, 2014
Issue Date January 9, 2014
Valuation Date April 7, 2014
Maturity Date April 10, 2014

IssuerUBSCDS Rate61.42 bpsSwap Rate0.24%

Reference Asset

Initial Level
Trigger Price
Conversion Price
Dividend Rate
Implied Volatility
Delta¹
Green Mountain Coffee
Roasters, Inc.'s stock
\$76.95
Tools \$55.40
\$0.00%
TBD
0.00%
46.90%
0.44

Fair Price at Issue \$974.43

CUSIP 90270KAT6 SEC Link www.sec.gov/Archives/edgar/ data/1114446/000111444614000074/ stp1387147f\_1fwp.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.

# Reverse Convertibles linked to Green Mountain Coffee Roasters, Inc.

# Description

Report Prepared On: 01/22/14

UBS issued \$285,000 of Reverse Convertibles linked to Green Mountain Coffee Roasters, Inc. on January 9, 2014 at \$1,000 per note.

These notes are UBS-branded reverse convertibles. Reverse convertibles pay periodic interest coupons and at maturity convert into shares of the reference security if the price of the reference stock at the notes' maturity is below its price when the notes were issued and had closed below a specified "trigger" during the term of the notes.

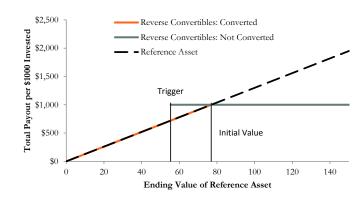
These 3-month notes pay monthly coupons at an annualized rate of 12.01%. In addition to the monthly coupons, at maturity on April 10, 2014 investors will receive the market value of 13.00 shares of Green Mountain Coffee Roasters, Inc.'s stock if on April 7, 2014 Green Mountain Coffee Roasters, Inc.'s stock price closes below \$76.95 (Green Mountain Coffee Roasters, Inc.'s stock price on January 6, 2014) and had ever closed at or below \$55.40 during the term of the notes. Otherwise, investors will receive the \$1,000 face value per note.

# **Valuation**

This UBS reverse convertible linked to Green Mountain Coffee Roasters, Inc.'s stock can be valued as a combination of a note from UBS and a short down-and-in, at-the-money put option on Green Mountain Coffee Roasters, Inc.'s stock. For reasonable valuation inputs this note was worth \$974.43 per \$1,000 when it was issued on January 9, 2014 because investors were effectively being paid only \$28.17 for giving UBS an option which was worth \$53.73.

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 Green Mountain Coffee Roasters, Inc.'s stock price (hortzontal axis). For comparison, the dashed line shows the payoff if you invested in Green Mountain Coffee Roasters, Inc.'s stock directly.

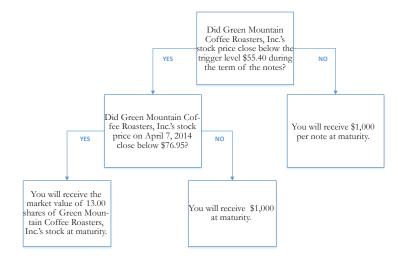
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#### Principal Payback Table

Green Mountain Coffee Roasters, Inc.'s Stock	Converted Note Payoff	Non-Con- verted Note Payoff
\$0.00	\$0.00	
\$7.70	\$100.00	
\$15.39	\$200.00	
\$23.09	\$300.00	
\$30.78	\$400.00	
\$38.48	\$500.00	
\$46.17	\$600.00	
\$53.87	\$700.00	
\$61.56	\$800.00	\$1,000.00
\$69.26	\$900.00	\$1,000.00
\$76.95	\$1,000.00	\$1,000.00
\$84.65	\$1,000.00	\$1,000.00
\$92.34	\$1,000.00	\$1,000.00
\$100.04	\$1,000.00	\$1,000.00
\$107.73	\$1,000.00	\$1,000.00
\$115.43	\$1,000.00	\$1,000.00

## Maturity Payoff Diagram



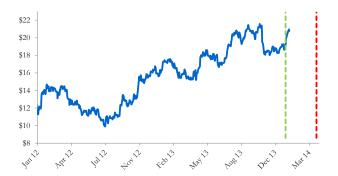
The contingent payoffs of this Reverse Convertibles.

# **Analysis**

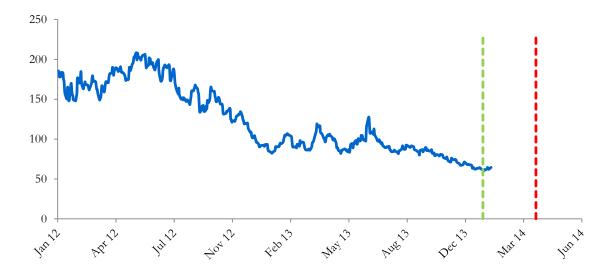
This reverse convertible's 12.01% coupon rate is higher than the yield UBS paid on its straight debt but, in addition to UBS's credit risk, investors bear the risk that they will receive shares of Green Mountain Coffee Roasters, Inc.'s stock when they are worth substantially less than the face value of the note at maturity.

Investors purchasing reverse convertibles effectively sell put options to UBS and post the note's issue price as collateral to secure satisfaction of the investors' obligations under the option contracts. UBS 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 excess of the reverse convertible's "coupon rate" above the interest UBS pays on its straight debt equals the value of the put option investors are giving to UBS. Whether the reverse convertible is suitable or not is equivalent to whether selling put options on the reference stock at the option premium being paid by UBS was suitable for the investor.

## **UBS's Stock Price**

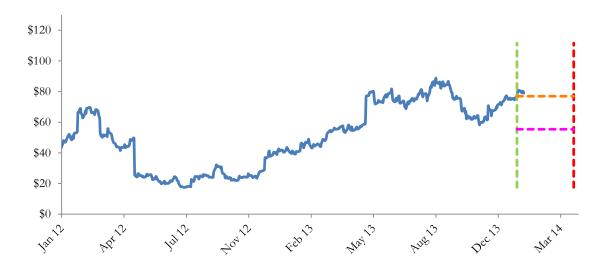


The graph above shows the adjusted closing price of the issuer UBS for the past several years. The stock price of the issuer is an indication of the financial strength of UBS. The adjusted price shown above incorporates any stock split, reverse stock split, etc.



Credit default swap (CDS) rates are the market price that investors require to bear credit risk of an issuer such as UBS. 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 UBS's debi, including outstanding Reverse Convertibles. Fluctuations in UBS's CDS rate impact the market value of the notes in the secondary market.

#### Green Mountain Coffee Roasters, Inc.'s Stock Price

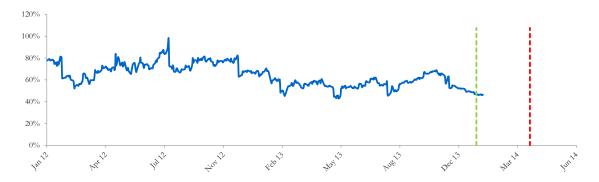


The graph above shows the historical levels of Green Mountain Coffee Roasters, Inc.'s stock for the past several years. The final payoff of this note is determined by Green Mountain Coffee Roasters, Inc.'s stock price at maturity. Higher fluctuations in Green Mountain Coffee Roasters, Inc.'s stock price correspond to a greater uncertainty in the final payout of this Reverse Convertibles.

## Realized Payoff

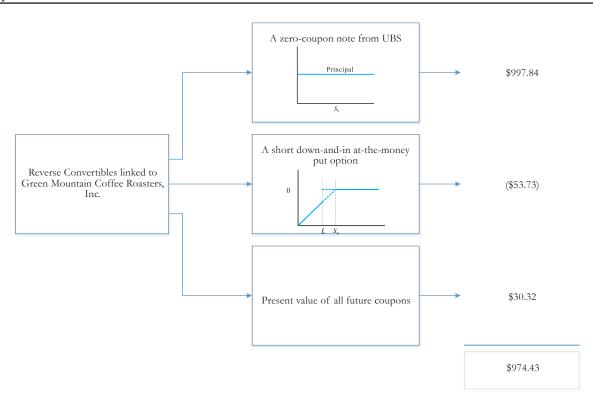
This product will mature on April 10, 2014.

## Reference Asset Green Mountain Coffee Roasters, Inc.'s Stock's Implied Volatility



The annualized implied volatility of Green Mountain Coffee Roasters, Inc.'s stock on January 6, 2014 was 46.90%, meaning that options contracts on Green Mountain Coffee Roasters, Inc.'s stock were trading at prices that reflect an expected annual volatility of 46.90%. The higher the implied volatility, the larger the expected fluctuations of Green Mountain Coffee Roasters, Inc.'s stock price and of the Note's market value during the life of the Notes.

#### Decomposition of this Reverse Convertibles



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 Reverse Convertibles.

- 1. Delta measures the sensitivity of the price of the note to the Green Mountain Coffee Roasters, Inc.'s stock price on January 6, 2014.

  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 Green Mountain Coffee Roasters, Inc.'s stock on January 6, 2014.

  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.