Structured Products
Research Report

Report Prepared On: 08/02/13

Buffered PLUS linked to Market Vectors Gold Miners ETF

Structured Product Details

Name	Buffered PLUS linked to Market Vectors Gold Miners ETF
Issue Size	$10.46 million
Issue Price	$10
Term	24 Months
Annualized Coupon	0.00%
Pricing Date	January 27, 2012
Issue Date	January 31, 2012
Valuation Date	January 27, 2014
Maturity Date	January 30, 2014
Issuer	Citigroup
CDS Rate	157.72 bps
Swap Rate	0.54%
Reference Asset	Market Vectors Gold Miners ETF's stock
Initial Level	$57.14
Dividend Rate	0.26%
Implied Volatility	33.74%
Delta[1]	0.63
Fair Price at Issue	$9.70
CUSIP	17317U253
SEC Link	www.sec.gov/Archives/edgar/data/831001/000095010312000478/dp28442_424b2-0182.htm

Description

Citigroup issued $10.46 million of Buffered PLUS linked to Market Vectors Gold Miners ETF on January 31, 2012 at $10 per note.

These notes are Citigroup-branded Buffered PLUS securities that do not pay periodic coupons, but instead pay a single amount at maturity depending on the final level of Market Vectors Gold Miners ETF's stock.

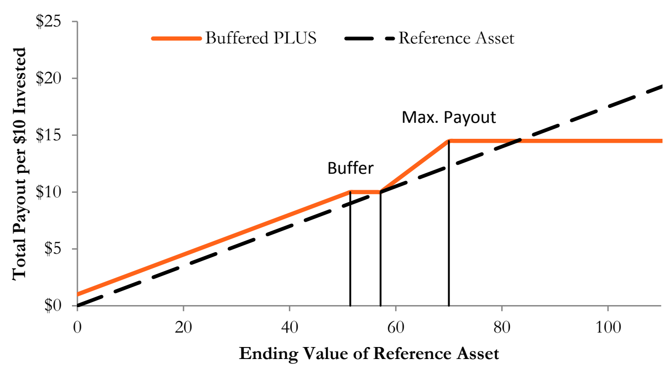
If on January 27, 2014 Market Vectors Gold Miners ETF's stock price is higher than $57.14, but lower than $70.00, the notes pay a return equal to the percentage increase in Market Vectors Gold Miners ETF's stock multiplied by 2.0, up to a cap of 45.00%. If on January 27, 2014 the refe is below $57.14 but not below $51.43, investors receive $10 face value per note. If Market Vectors Gold Miners ETF's stock price on January 27, 2014 is lower than $51.43, investors receive face value per note reduced by the amount the reference asset is below $51.43 as a percent of the initial level, $57.14.

Valuation

This product can be valued as a combination of a note from Citigroup, one short out-of-the-money put option, two long at-the-money call options, and two short out-of-the-money call options. For reasonable valuation inputs this note was worth $9.70 when it was issued on January 31, 2012 because the value of the options investors gave Citigroup plus the interest investors would have received on Citigroup's straight debt was worth $0.30 more than the options investors received from Citigroup.

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 Market Vectors Gold Miners ETF's stock price (horizontal axis). For comparison, the dashed line shows the payoff if you invested in Market Vectors Gold Miners ETF's stock 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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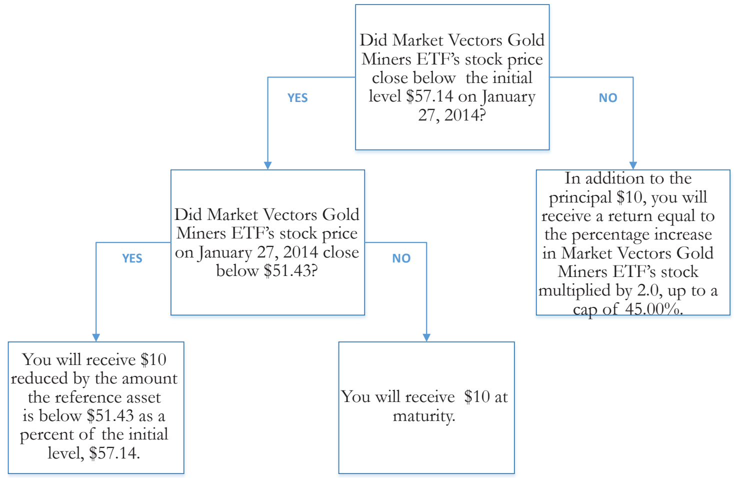
Principal Payback Table

Market Vectors Gold Miners ETF's Stock	Note Payoff
$0.00	$1.00
$5.71	$2.00
$11.43	$3.00
$17.14	$4.00
$22.86	$5.00
$28.57	$6.00
$34.28	$7.00
$40.00	$8.00
$45.71	$9.00
$51.43	$10.00
$57.14	**$10.00**
$62.85	$12.00
$68.57	$14.00
$74.28	$14.50
$80.00	$14.50
$85.71	$14.50

Maturity Payoff Diagram

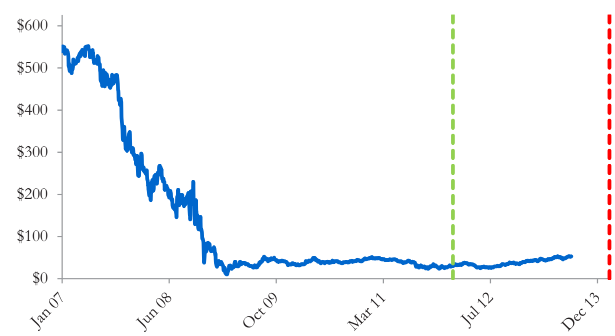


The contingent payoffs of this Buffered PLUS.

Analysis

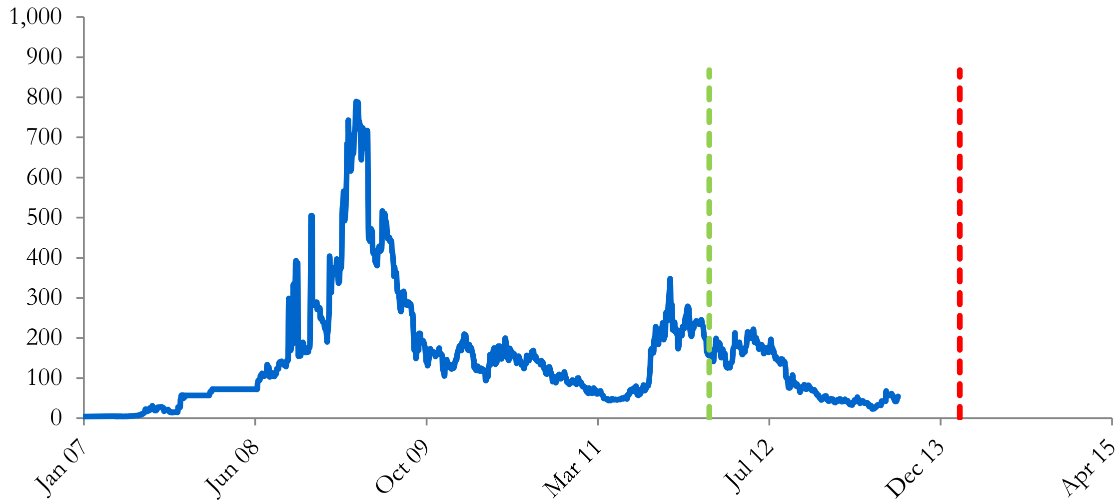
This Buffered PLUS pays investors the increase in Market Vectors Gold Miners ETF's stock multiplied by 2.0 capped at 45.00%, but if Market Vectors Gold Miners ETF's stock declines over the term of the note, investors will suffer losses equal to the percentage decline in Market Vectors Gold Miners ETF's stock. In addition, investors bear the credit risk of Citigroup. Investors purchasing this Buffered PLUS effectively sell at-the-money put and out-of-the-money call options to Citigroup, buy at-the-money call options, and a zero-coupon note from Citigroup. This Buffered PLUS is fairly priced if and only if the market value of the options investors received from Citigroup equals the market value of the options investors gave Citigroup plus the interest investors would have received on Citigroup's straight debt.

Citigroup's Stock Price



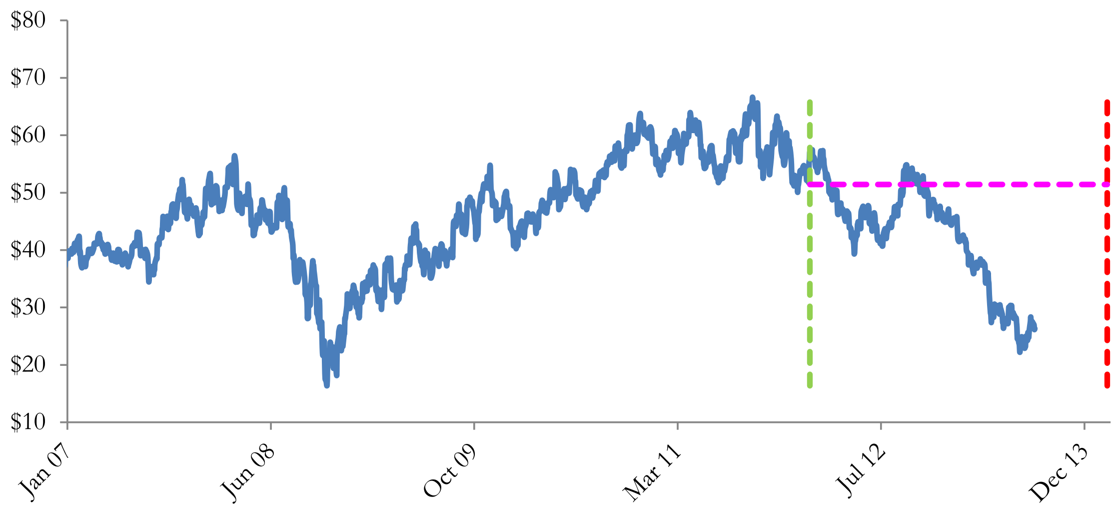
The graph above shows the adjusted closing price of the issuer Citigroup for the past several years. The stock price of the issuer is an indication of the financial strength of Citigroup. The adjusted price shown above incorporates any stock split, reverse stock split, etc.

Citigroup's CDS Rate



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

Market Vectors Gold Miners ETF's Stock Price

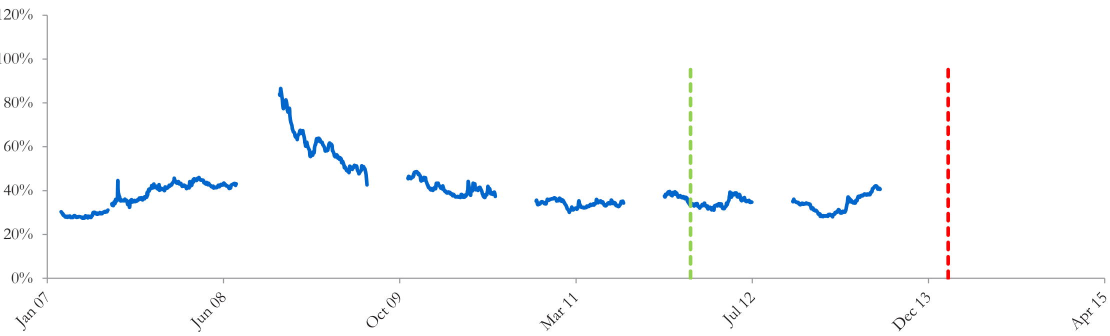


The graph above shows the historical levels of Market Vectors Gold Miners ETF's stock for the past several years. The final payoff of this note is determined by Market Vectors Gold Miners ETF's stock price at maturity. Higher fluctuations in Market Vectors Gold Miners ETF's stock price correspond to a greater uncertainty in the final payout of this Buffered PLUS.

Realized Payoff

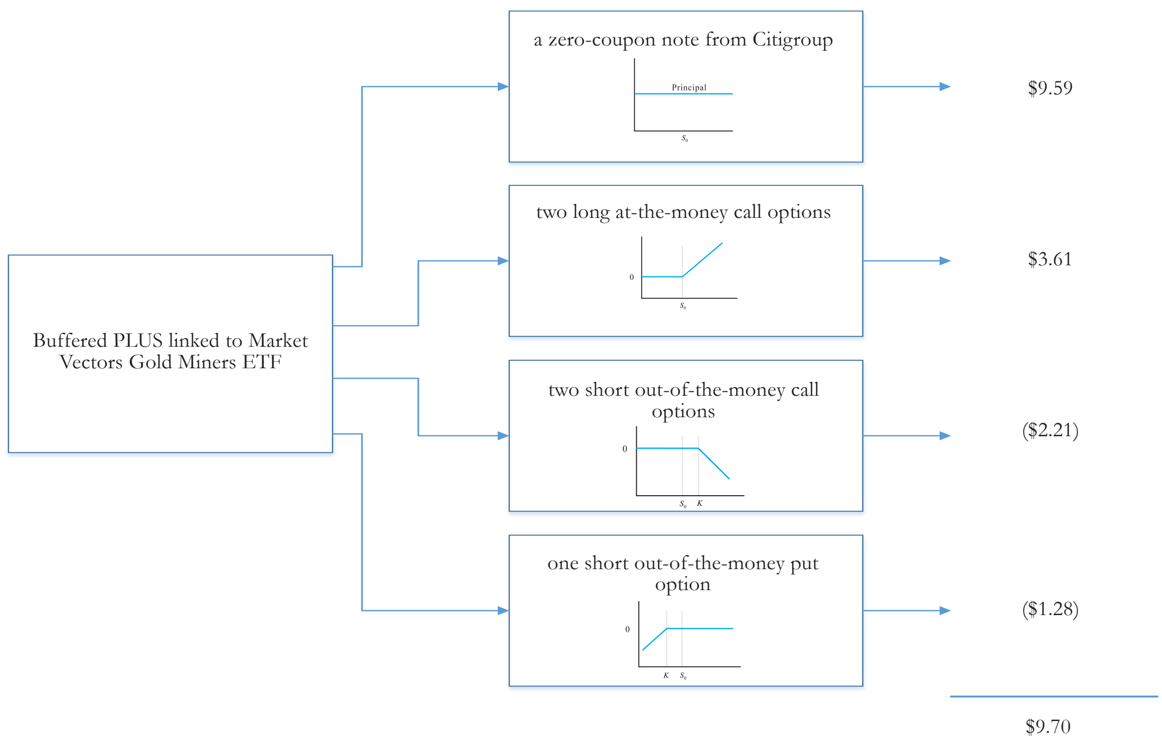
This product will mature on January 30, 2014.

Reference Asset Market Vectors Gold Miners ETF's Stock's Implied Volatility



The annualized implied volatility of Market Vectors Gold Miners ETF's stock on January 27, 2012 was 33.74%, meaning that options contracts on Market Vectors Gold Miners ETF's stock were trading at prices that reflect an expected annual volatility of 33.74%. The higher the implied volatility, the larger the expected fluctuations of Market Vectors Gold Miners ETF's stock price and of the Note's market value during the life of the Notes.

Decomposition of this Buffered PLUS



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 Buffered PLUS.

1. Delta measures the sensitivity of the price of the note to the Market Vectors Gold Miners ETF's stock price on January 27, 2012.
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 Market Vectors Gold Miners ETF's stock on January 27, 2012.
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.