

## Structured Product Details

Name I Issue Size Issue Price	everaged Buffered Index Fund- Linked Notes linked to iShares MSCI Emerging Markets Index Fund \$1.58 million et 000
Term Annualized Cou	\$1,000 18 Months 0.00%
Pricing Date Issue Date Valuation Date Maturity Date	February 16, 2012 February 24, 2012 August 16, 2013 August 23, 2013
Issuer CDS Rate Swap Rate	Goldman Sachs 240.8 bps 0.83%
Reference Asset Initial Level Dividend Rat Implied Volat Delta <sup>1</sup>	
Fair Price at Iss	ue \$934.29
CUSIP SEC Link	38147A309 www.sec.gov/Archives/edgar/ data/886982/000119312512070574/ d305624d424b2.htm

Report Prepared On: 02/02/13

# Leveraged Buffered Index Fund-Linked Notes linked to iShares MSCI Emerging Markets Index Fund

**Structured Products Research Report** 

# Description

Goldman Sachs issued \$1.58 million of Leveraged Buffered Index Fund-Linked Notes linked to iShares MSCI Emerging Markets Index Fund on February 24, 2012 at \$1,000 per note.

These notes are Goldman Sachs-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 Emerging Markets Index Fund.

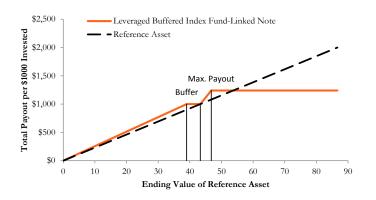
If on August 16, 2013 iShares MSCI Emerging Markets Index Fund's share price is higher than \$43.32, but lower than \$46.79, the notes pay a return equal to the percentage increase in iShares MSCI Emerging Markets Index Fund multiplied by 3.0, up to a cap of 24.00%. If on August 16, 2013 the refe is below \$43.32 but not below \$38.99, investors receive \$1,000 face value per note. If iShares MSCI Emerging Markets Index Fund's share price on August 16, 2013 is lower than \$38.99, investors receive face value per note reduced by 1.11 times the amount the reference asset is below \$38.99 as a percent of the initial level, \$43.32.

## Valuation

This product can be valued as a combination of a note from Goldman Sachs, 1.11 short out-of-the-money put options, three long at-the-money call options, and three short outof-the-money call options. For reasonable valuation inputs this note was worth \$934.29 when it was issued on February 24, 2012 because the value of the options investors gave Goldman Sachs plus the interest investors would have received on Goldman Sachs's straight debt was worth \$65.71 more than the options investors received from Goldman Sachs.

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



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The payoff diagram shows the final payoff of this note given iShares MSCI Emerging Markets Index Fund's share price (horizontal axis). For comparison, the dashed line shows the payoff if you invested in iShares MSCI Emerging Markets Index Fund directly.

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**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 Re-verse Convertibles," June 2010.

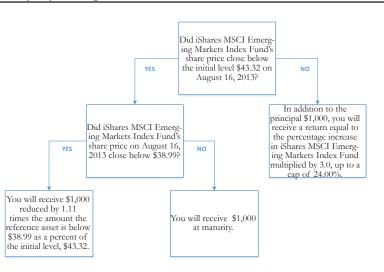
Tim Husson, Ph.D.,

TimHusson@slcg.com

#### Principal Payback Table

iShares MSCI Emerging Markets Index Fund	Note Payoff
\$0.00	\$0.01
\$4.33	\$111.12
\$8.66	\$222.23
\$13.00	\$333.34
\$17.33	\$444.45
\$21.66	\$555.56
\$25.99	\$666.67
\$30.32	\$777.78
\$34.66	\$888.89
\$38.99	\$1,000.00
\$43.32	\$1,000.00
\$47.65	\$1,240.00
\$51.98	\$1,240.00
\$56.32	\$1,240.00
\$60.65	\$1,240.00
\$64.98	\$1,240.00

#### Maturity Payoff Diagram

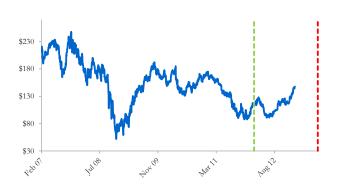


The contingent payoffs of this Leveraged Buffered Index Fund-Linked Note.

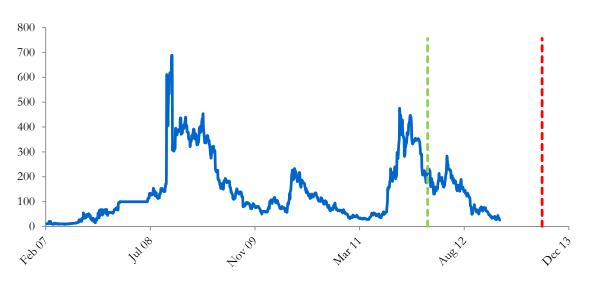
### Analysis

This Leveraged Buffered Index Fund-Linked Note pays investors the increase in iShares MSCI Emerging Markets Index Fund multiplied by 3.0 capped at 24.00%, but if iShares MSCI Emerging Markets Index Fund declines over the term of the note, investors will suffer losses equal to the percentage decline in iShares MSCI Emerging Markets Index Fund. In addition, investors bear the credit risk of Goldman Sachs. Investors purchasing this Leveraged Buffered Index Fund-Linked Note effectively sell at-the-money put and out-of-the-money call options to Goldman Sachs, buy at-the-money call options, and a zero-coupon note from Goldman Sachs. This Leveraged Buffered Index Fund-Linked Note is fairly priced if and only if the market value of the options investors received from Goldman Sachs equals the market value of the options investors gave Goldman Sachs plus the interest investors would have received on Goldman Sachs' straight debt.

#### **Goldman Sachs's Stock Price**

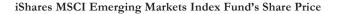


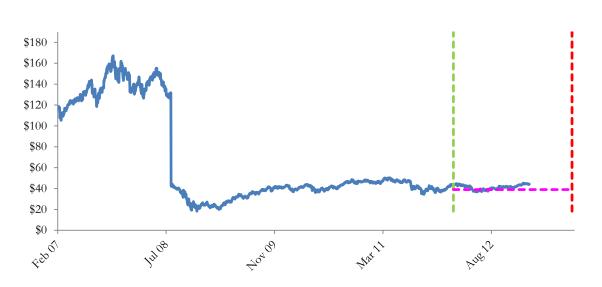
The graph above shows the adjusted closing price of the issuer Goldman Sachs for the past several years. The stock price of the issuer is an indication of the financial strength of Goldman Sachs. The adjusted price shown above incorporates any stock split, reverse stock split, etc.



#### Goldman Sachs's CDS Rate

Credit default swap (CDS) rates are the market price that investors require to bear credit risk of an issuer such as Goldman Sachs. 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 Goldman Sachs's debt, including outstanding Leveraged Buffered Index Fund-Linked Note. Fluctuations in Goldman Sachs's CDS rate impact the market value of the notes in the secondary market.

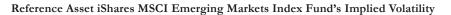


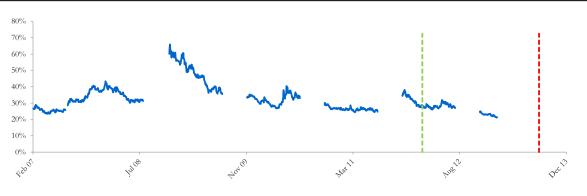


The graph above shows the historical levels of iShares MSCI Emerging Markets Index Fund for the past several years. The final payoff of this note is determined by iShares MSCI Emerging Markets Index Fund's share price at maturity. Higher fluctuations in iShares MSCI Emerging Markets Index Fund's share price correspond to a greater uncertainty in the final payout of this Leveraged Buffered Index Fund-Linked Note.

#### **Realized Payoff**

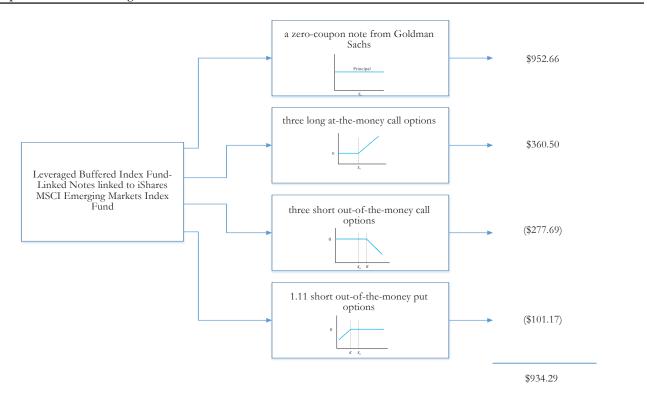
This product will mature on August 23, 2013.





The annualized implied volatility of iShares MSCI Emerging Markets Index Fund on February 16, 2012 was 28.60%, meaning that options contracts on iShares MSCI Emerging Markets Index Fund were trading at prices that reflect an expected annual volatility of 28.60%. The higher the implied volatility, the larger the expected fluctuations of iShares MSCI Emerging Markets Index Fund's share price and of the Note's market value during the life of the Notes.

#### Decomposition of this Leveraged Buffered Index Fund-Linked 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 Leveraged Buffered Index Fund-Linked Note.

- Delta measures the sensitivity of the price of the note to the iShares MSCI Emerging Markets Index Fund's share price on February 16, 2012.
  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 Emerging Markets Index Fund on February 16, 2012.
  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.

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