Structured Product Details

Name	Reverse Exchangeable Notes linked to Citigroup, Inc.
Issue Size	$2.96 million
Issue Price	$1,000
Term	6 Months
Annualized Coupon	12.50%
Pricing Date	September 7, 2007
Issue Date	September 12, 2007
Valuation Date	March 7, 2008
Maturity Date	March 12, 2008
Issuer	Lehman Brothers
CDS Rate	87.24 bps
Swap Rate	5.50%
Reference Asset	Citigroup, Inc.'s stock
Initial Level	$45.48
Trigger Price	$36.38
Conversion Price	$20.91
Dividend Rate	4.53%
Implied Volatility	31.18%
Delta[1]	0.46
Fair Price at Issue	$960.20
Realized Return	-74.31%
CUSIP	524908M31
SEC Link	www.sec.gov/Archives/edgar/ data/806085/000119312507198407/d424b2.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.

Geng Deng, Ph.D., FRM
Director, SLCG
(+1) 703.890.0741
GengDeng@slcg.com

Reverse Exchangeable Notes linked to Citigroup, Inc.

Description

Lehman Brothers issued $2.96 million of Reverse Exchangeable Notes linked to Citigroup, Inc. on September 12, 2007 at $1,000 per note.

These notes are Lehman Brothers-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.
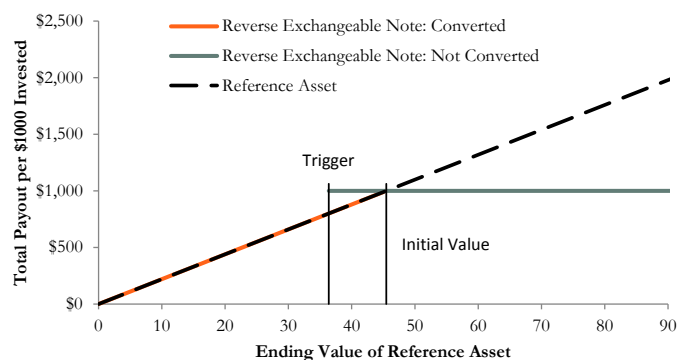
These 6-month notes pay monthly coupons at an annualized rate of 12.50%. In addition to the monthly coupons, at maturity on March 12, 2008 investors will receive the market value of 21.99 shares of Citigroup, Inc.'s stock if on March 7, 2008 Citigroup, Inc.'s stock price closes below $45.48 (Citigroup, Inc.'s stock price on September 7, 2007) and had ever closed at or below $36.38 during the term of the notes. Otherwise, investors will receive the $1,000 face value per note.

Valuation

This Lehman Brothers reverse convertible linked to Citigroup, Inc.'s stock can be valued as a combination of a note from Lehman Brothers and a short down-and-in, at-the-money put option on Citigroup, Inc.'s stock. For reasonable valuation inputs this note was worth $960.20 per $1,000 when it was issued on September 12, 2007 because investors were effectively being paid only $30.00 for giving Lehman Brothers an option which was worth $69.80.

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 Citigroup, Inc.'s stock price (horizontal axis). For comparison, the dashed line shows the payoff if you invested in Citigroup, Inc.'s stock directly.

Principal Payback Table

Citigroup, Inc.'s Stock	Converted Note Payoff	Non-Converted Note Payoff
$0.00	$0.00	
$4.55	$100.00	
$9.10	$200.00	
$13.64	$300.00	
$18.19	$400.00	
$22.74	$500.00	
$27.29	$600.00	
$31.84	$700.00	
$36.38	$800.00	$1,000.00
$40.93	$900.00	$1,000.00
$45.48	**$1,000.00**	**$1,000.00**
$50.03	$1,000.00	$1,000.00
$54.58	$1,000.00	$1,000.00
$59.12	$1,000.00	$1,000.00
$63.67	$1,000.00	$1,000.00
$68.22	$1,000.00	$1,000.00

Maturity Payoff Diagram
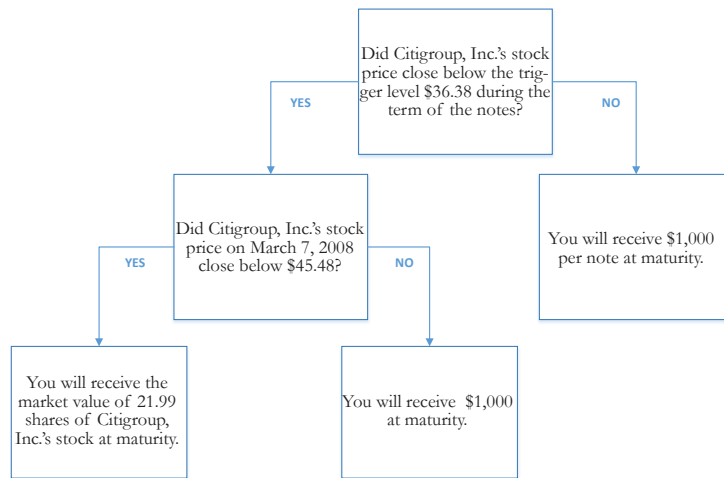

The contingent payoffs of this Reverse Exchangeable Note.

Analysis

This reverse convertible's 12.50% coupon rate is higher than the yield Lehman Brothers paid on its straight debt but, in addition to Lehman Brothers's credit risk, investors bear the risk that they will receive shares of Citigroup, 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 Lehman Brothers and post the note's issue price as collateral to secure satisfaction of the investors' obligations under the option contracts. Lehman Brothers 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 Lehman Brothers pays on its straight debt equals the value of the put option investors are giving to Lehman Brothers. 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 Lehman Brothers was suitable for the investor.

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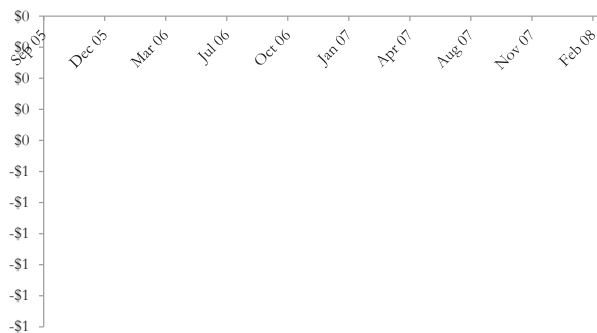
The graph above shows the adjusted closing price of the issuer Lehman Brothers for the past several years. The stock price of the issuer is an indication of the financial strength of Lehman Brothers. The adjusted price shown above incorporates any stock split, reverse stock split, etc.

Lehman Brothers's CDS Rate
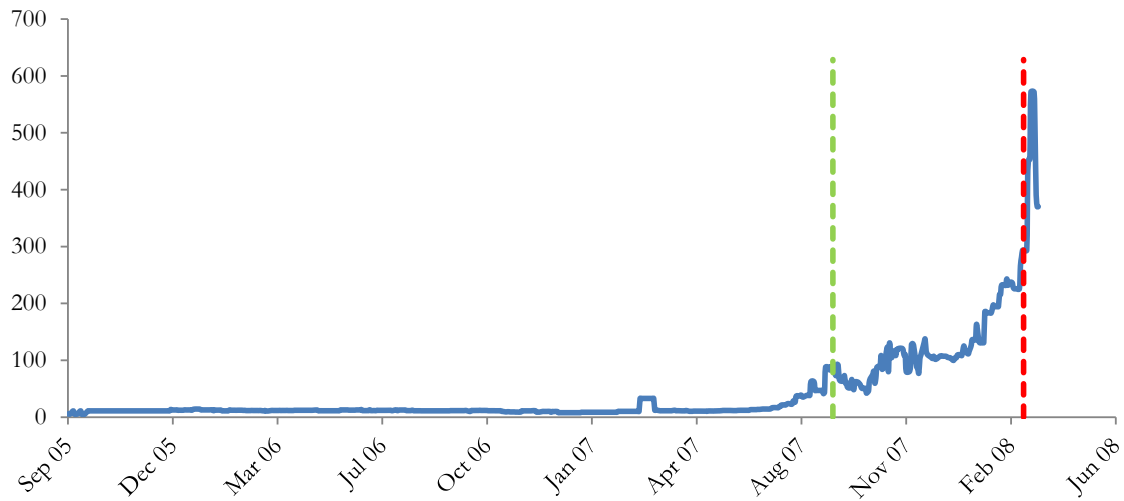
Credit default swap (CDS) rates are the market price that investors require to bear credit risk of an issuer such as Lehman Brothers. CDS rates are usually given in basis points (bps). One basis point equals 0.01%. Higher CDS rates reflect higher perceived credit risk, higher required yields, and therefore lower market value of Lehman Brothers's debt, including outstanding Reverse Exchangeable Note. Fluctuations in Lehman Brothers's CDS rate impact the market value of the notes in the secondary market.
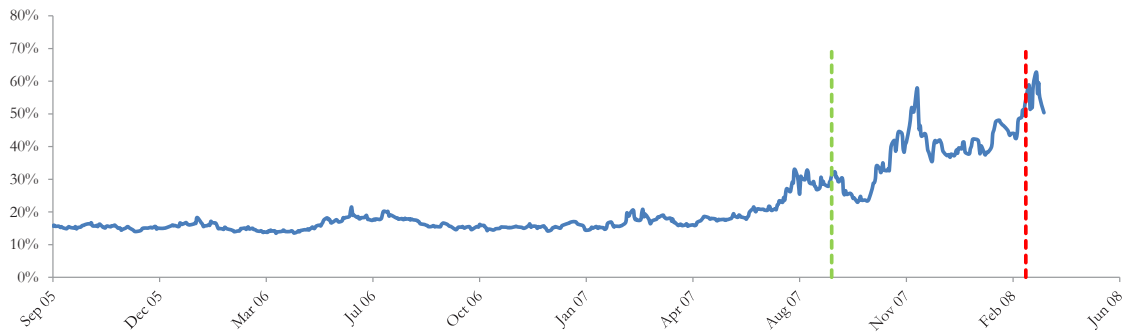
Citigroup, Inc.'s Stock Price
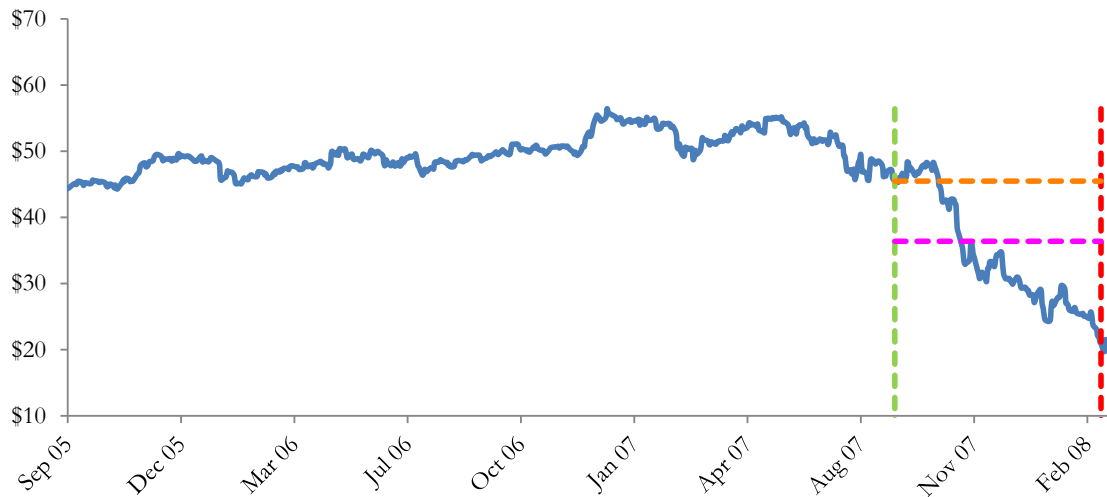
The graph above shows the historical levels of Citigroup, Inc.'s stock for the past several years. The final payoff of this note is determined by Citigroup, Inc.'s stock price at maturity. Higher fluctuations in Citigroup, Inc.'s stock price correspond to a greater uncertainty in the final payout of this Reverse Exchangeable Note.

Realized Payoff

This note matured on March 12, 2008 and investors received $459.76 per note (or equal to the value of 21.99 shares of Citigroup, Inc. stock's closing price on March 7, 2008).

Reference Asset Citigroup, Inc.'s Stock's Implied Volatility

The annualized implied volatility of Citigroup, Inc.'s stock on September 7, 2007 was 31.18%, meaning that options contracts on Citigroup, Inc.'s stock were trading at prices that reflect an expected annual volatility of 31.18%. The higher the implied volatility, the larger the expected fluctuations of Citigroup, Inc.'s stock price and of the Note's market value during the life of the Notes.

Decomposition of this Reverse Exchangeable Note
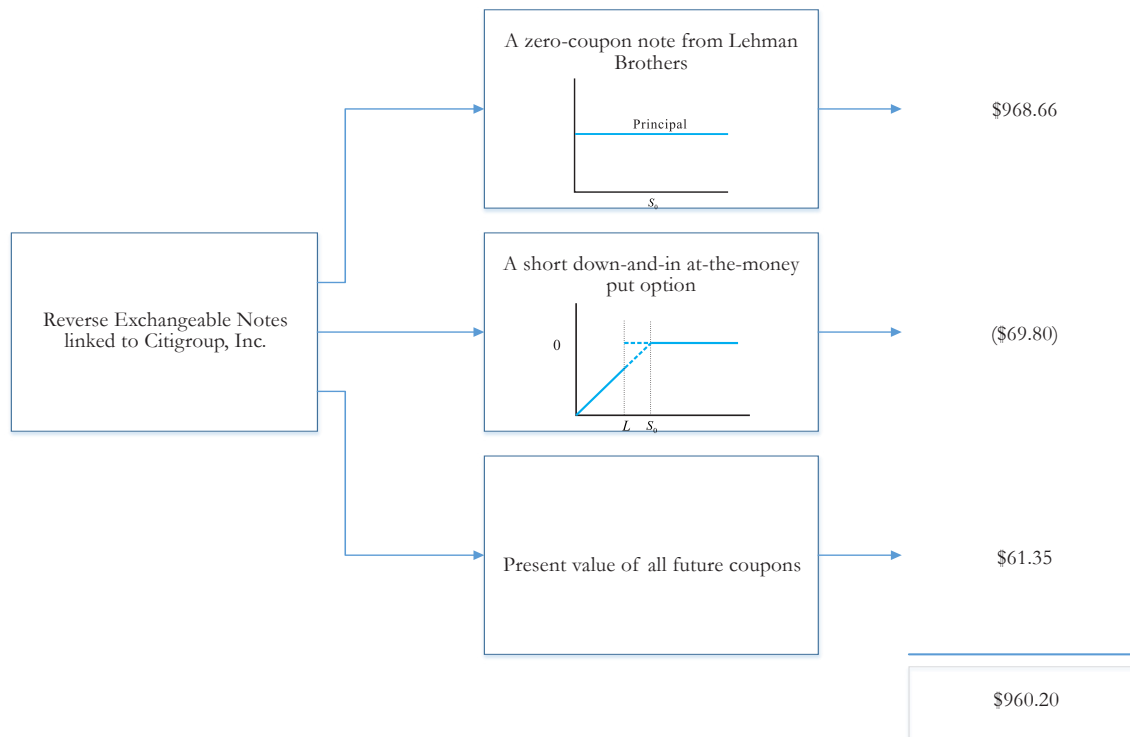
This note can be decomposed into different components, and each component can be valued separately. The chart above shows the value of each component of this Reverse Exchangeable Note.

1. Delta measures the sensitivity of the price of the note to the Citigroup, Inc.'s stock price on September 7, 2007.
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 Citigroup, Inc.'s stock on September 7, 2007.
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.