

## Structured Product Details

Name	Reverse Convertible Notes linked to NYSE Euronext		
Issue Size Issue Price Term Annualized C	\$2.80 million \$1,000 6 Months 23.30%		
Pricing Date Issue Date Valuation Dat Maturity Date	February 12, 2008 February 20, 2008 August 12, 2008 August 19, 2008		
Issuer CDS Rate Swap Rate	HSBC 226.86 bps 2.94%		
Reference Ass	et NYSE Euronext's stock		
Initial Leve Trigger Pri Conversion Dividend R Implied Vo Delta <sup>1</sup>	e \$52.48 Price \$42.07 ate 1.08%		
Fair Price at I Realized Retu	#F		
CUSIP SEC Link	4042K0KA2 www.sec.gov/Archives/edgar/ data/83246/000114420408008580/ v103522_424b2.htm		

Structured Products Research Report

Report Prepared On: 12/14/12

# Reverse Convertible Notes linked to NYSE Euronext

# Description

HSBC issued \$2.80 million of Reverse Convertible Notes linked to NYSE Euronext on February 20, 2008 at \$1,000 per note.

These notes are HSBC-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.

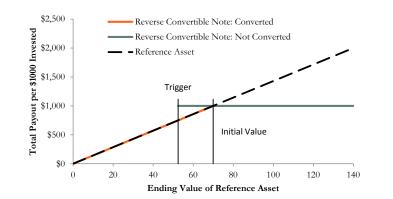
These 6-month notes pay monthly coupons at an annualized rate of 23.30%. In addition to the monthly coupons, at maturity on August 19, 2008 investors will receive the market value of 14.29 shares of NYSE Euronext's stock if on August 12, 2008 NYSE Euronext's stock price closes below \$69.97 (NYSE Euronext's stock price on February 12, 2008) and had ever closed at or below \$52.48 during the term of the notes. Otherwise, investors will receive the \$1,000 face value per note.

# Valuation

This HSBC reverse convertible linked to NYSE Euronext's stock can be valued as a combination of a note from HSBC and a short down-and-in, at-the-money put option on NYSE Euronext's stock. For reasonable valuation inputs this note was worth \$979.41 per \$1,000 when it was issued on February 20, 2008 because investors were effectively being paid only \$89.06 for giving HSBC an option which was worth \$109.65.

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

# "What TiVo and JP Morgan Teach Us about Reverse Convertibles," June 2010.

**Related Research** 

**Research Papers:** 

www.slcg.com/research.php

tors?" December 2006.

• "Are Structured Products Suitable for Retail Inves-

"Structured Products in the Aftermath of Lehman Brothers," November 2009.

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

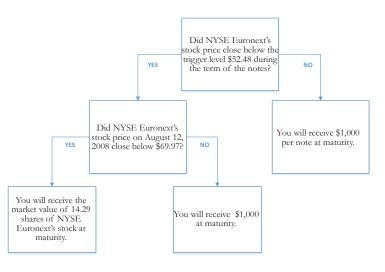
> FIND SLCG STRUCTURED PRODUCTS RESEARCH AT www.SLCG.com

© 2012 SECURITIES LITIGATION & CONSULTING GROUP. ALL RIGHTS RESERVED. 3998 FAIR RIDGE DRIVE, SUITE 250, FAIRFAX, VA 22033 | MAIN (703) 246-9380 | INFO@SLCG.COM 100 WILSHIRE BLVD, SUITE 950, SANTA MONICA, CA 90401 | MAIN (310) 917-1075

## Principal Payback Table

NYSE Euronext's Stock	Converted Note Payoff	Non-Con- verted Note Payoff
\$0.00	\$0.00	
\$7.00	\$100.00	
\$13.99	\$200.00	
\$20.99	\$300.00	
\$27.99	\$400.00	
\$34.99	\$500.00	
\$41.98	\$600.00	
\$48.98	\$700.00	
\$55.98	\$800.00	\$1,000.00
\$62.97	\$900.00	\$1,000.00
\$69.97	\$1,000.00	\$1,000.00
\$76.97	\$1,000.00	\$1,000.00
\$83.96	\$1,000.00	\$1,000.00
\$90.96	\$1,000.00	\$1,000.00
\$97.96	\$1,000.00	\$1,000.00
\$104.96	\$1,000.00	\$1,000.00

#### Maturity Payoff Diagram



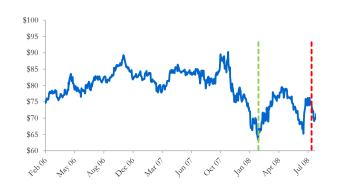
The contingent payoffs of this Reverse Convertible Note.

# Analysis

This reverse convertible's 23.30% coupon rate is higher than the yield HSBC paid on its straight debt but, in addition to HSBC's credit risk, investors bear the risk that they will receive shares of NYSE Euronext's stock when they are worth substantially less than the face value of the note at maturity.

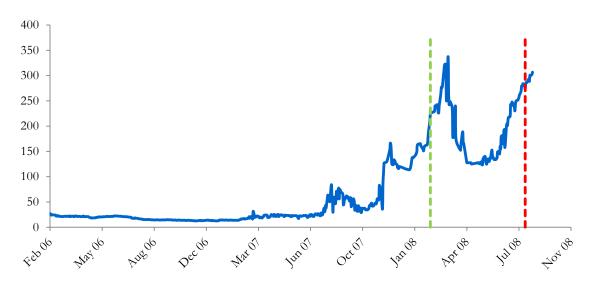
Investors purchasing reverse convertibles effectively sell put options to HSBC and post the note's issue price as collateral to secure satisfaction of the investors' obligations under the option contracts. HSBC pays investors a "coupon" that is part payment for the put options and part interest on the 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 HSBC pays on its straight debt equals the value of the put option investors are giving to HSBC. 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 HSBC was suitable for the investor.

#### **HSBC's Stock Price**



The graph above shows the adjusted closing price of the issuer HSBC for the past several years. The stock price of the issuer is an indication of the financial strength of HSBC. 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 HSBC. 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 HSBC's debt, including outstanding Reverse Convertible Note. Fluctuations in HSBC's CDS rate impact the market value of the notes in the secondary market.

### \$120 \$110 \$100 \$90 \$80 \$70 \$60 \$50 \$40 \$30 JunoT P.21.08 AUGO MarOT Octor 12108 72108 £<sup>2006</sup> A2706 Declo

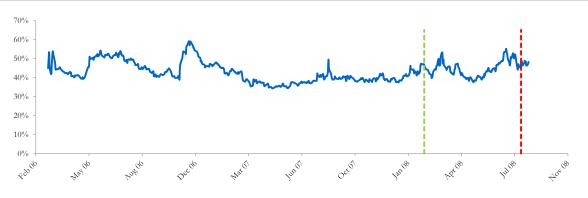
#### NYSE Euronext's Stock Price

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

### **Realized Payoff**

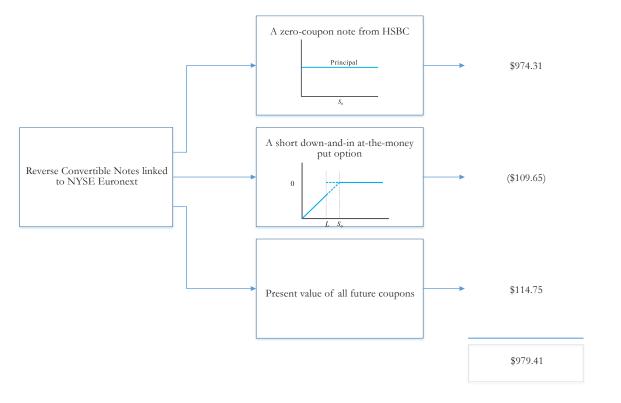
This note matured on August 19, 2008 and investors received \$611.84 per note (or equal to the value of 14.29 shares of NYSE Euronext stock's closing price on August 12, 2008).

## Reference Asset NYSE Euronext's Stock's Implied Volatility



The annualized implied volatility of NYSE Euronext's stock on February 12, 2008 was 46.48%, meaning that options contracts on NYSE Euronext's stock were trading at prices that reflect an expected annual volatility of 46.48%. The higher the implied volatility, the larger the expected fluctuations of NYSE Euronext's stock price and of the Note's market value during the life of the Notes.

#### Decomposition of this Reverse Convertible 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 Convertible Note.

- Delta measures the sensitivity of the price of the note to the NYSE Euronext's stock price on February 12, 2008.
  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 NYSE Euronext's stock on February 12, 2008.
  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.

©2012 Securities Litigation and Consulting Group. All Rights Reserved. This research report and its contents are for informational and educational purposes only. The views and opinions on this document are those of the authors and should not be considered investment advice. Decisions based on information obtained from this document are your sole responsibility, and before making any decision on the basis of this information, you should consider whether the information is appropriate in light of your particular investment needs, objectives and financial circumstances. Investors should seek financial advice regarding the suitability of investing in any securities or following any investment strategies.