

**Structured Product Details** 

Name Buffered Uncapped Market Participation Securities linked to

Dow Jones Industrial Average Index

 Pricing Date
 May 28, 2013

 Issue Date
 May 31, 2013

 Valuation Date
 May 25, 2017

 Maturity Date
 May 31, 2017

 $\begin{array}{ccc} \textbf{Issuer} & \textbf{HSBC} \\ \textbf{CDS Rate} & 34.92 \text{ bps} \\ \textbf{Swap Rate} & 0.94\% \end{array}$ 

Reference Asset the Dow Jones Industrial
Average Index
15,409.39

Dividend Rate 2.32%
Implied Volatility 16.67%
Delta 0.7

Fair Price at Issue \$979.48

CUSIP 40432XEM9
SEC Link www.sec.gov/Archives/edgar/
data/83246/000114420413032384/

v346534\_424b2.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.

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# Buffered Uncapped Market Participation Securities linked to Dow Jones Industrial Average Index

### Description

Report Prepared On: 07/30/13

HSBC issued \$7.34 million of Buffered Uncapped Market Participation Securities linked to Dow Jones Industrial Average Index on May 31, 2013 at \$1,000 per note.

These notes are HSBC-branded Buffered PLUS securities that do not pay periodic coupons, but instead pay a single amount at maturity depending on the final level of the Dow Jones Industrial Average Index.

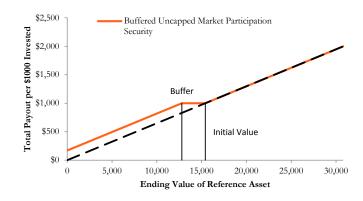
If on May 25, 2017 the Dow Jones Industrial Average Index level is higher than 15,409.39, the notes pay a return equal to the percentage increase in the Dow Jones Industrial Average Index. If on May 25, 2017 the refe is below 15,409.39 but not below 12789.79, investors receive \$1,000 face value per note. If the Dow Jones Industrial Average Index level on May 25, 2017 is lower than 12789.79, investors receive face value per note reduced by the amount the reference asset is below 12789.79 as a percent of the initial level, 15,409.39.

### **Valuation**

This product can be valued as a combination of a note from HSBC, one short out-of-themoney put option, and one long at-the-money call option. For reasonable valuation inputs this note was worth \$979.48 when it was issued on May 31, 2013 because the value of the options investors gave HSBC plus the interest investors would have received on HSBC's straight debt was worth \$20.52 more than the options investors received from HSBC.

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

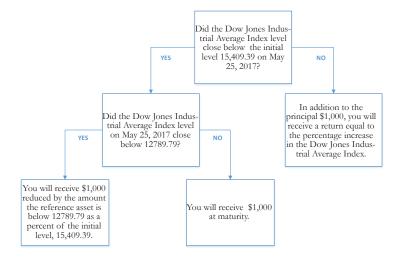


The payoff diagram shows the final payoff of this note given the Dow Jones Industrial Average Index level (horizontal axis). For comparison, the dashed line shows the payoff if you invested in the Dow Jones Industrial Average Index directly.

#### Principal Payback Table

The Dow Jones Industrial Average Index	Note Payoff
0.00	\$170.00
1,540.94	\$270.00
3,081.88	\$370.00
4,622.82	\$470.00
6,163.76	\$570.00
7,704.70	\$670.00
9,245.63	\$770.00
10,786.57	\$870.00
12,327.51	\$970.00
13,868.45	\$1,000.00
15,409.39	\$1,000.00
16,950.33	\$1,100.00
18,491.27	\$1,200.00
20,032.21	\$1,300.00
21,573.15	\$1,400.00
23,114.09	\$1,500.00

### Maturity Payoff Diagram

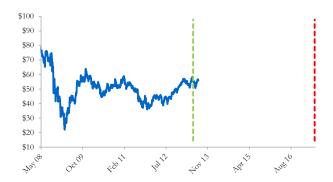


The contingent payoffs of this Buffered Uncapped Market Participation Security.

## **Analysis**

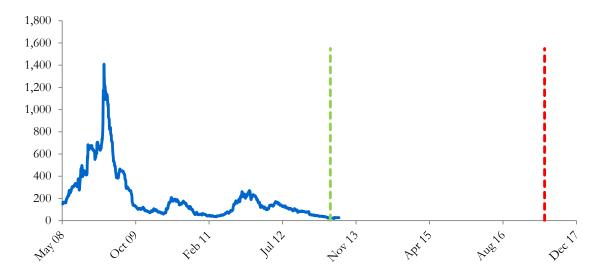
This Buffered Uncapped Market Participation Security pays investors the increase in the Dow Jones Industrial Average Index, but if the Dow Jones Industrial Average Index declines over the term of the note, investors will suffer losses equal to the percentage decline in the Dow Jones Industrial Average Index. In addition, investors bear the credit risk of HSBC. Investors purchasing this Buffered Uncapped Market Participation Security effectively sell at-the-money put options to HSBC, buy at-the-money call options, and a zero-coupon note from HSBC. This Buffered Uncapped Market Participation Security is fairly priced if and only if the market value of the options investors received from HSBC equals the market value of the options investors gave HSBC plus the interest investors would have received on HSBC's straight debt.

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



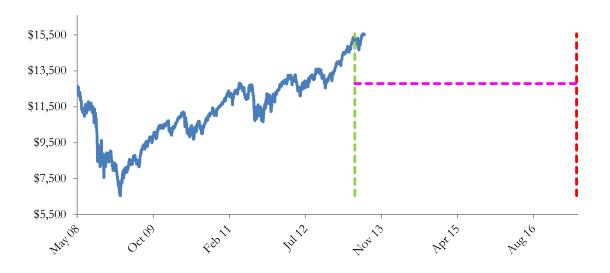
The graph above shows the adjusted closing price of the issuer HSBC for the past several years. The stock price of the issuer is an indication of the financial strength of HSBC. The adjusted price shown above incorporates any stock split, reverse stock split, etc.

### HSBC's CDS Rate



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 Buffered Uncapped Market Participation Security. Fluctuations in HSBC's CDS rate impact the market value of the notes in the secondary market.

### The Dow Jones Industrial Average Index Level

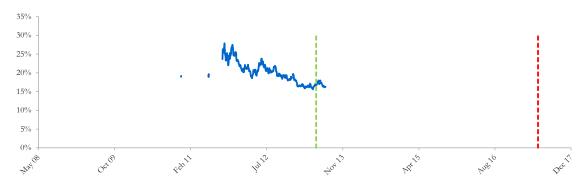


The graph above shows the historical levels of the Dow Jones Industrial Average Index for the past several years. The final payoff of this note is determined by the Dow Jones Industrial Average Index level correspond to a greater uncertainty in the final payout of this Buffered Uncapped Market Participation Security.

### Realized Payoff

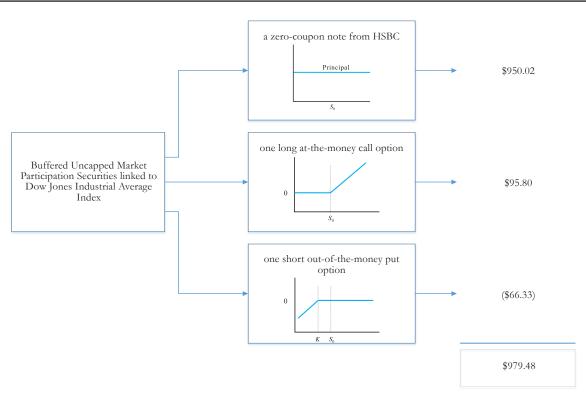
This product will mature on May 31, 2017.

### Reference Asset The Dow Jones Industrial Average Index's Implied Volatility



The annualized implied volatility of the Dow Jones Industrial Average Index on May 28, 2013 was 16.67%, meaning that options contracts on the Dow Jones Industrial Average Index were trading at prices that reflect an expected annual volatility of 16.67%. The higher the implied volatility, the larger the expected fluctuations of the Dow Jones Industrial Average Index level and of the Note's market value during the life of the Notes.

### Decomposition of this Buffered Uncapped Market Participation Security



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 Uncapped Market Participation Security.

- 1. Delta measures the sensitivity of the price of the note to the the Dow Jones Industrial Average Index level on May 28, 2013.

  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 the Dow Jones Industrial Average Index on May 28, 2013.

  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.