

## Structured Product Details

Name Secu	ame Capped Buffered Underlying Securities (BUyS) linked to Russell 2000 Index	
Issue Size	\$1.65 million	
Issue Price	\$1,000	
Term	18 Months	
Annualized Coupe	on 0.00%	
Pricing Date	August 19, 2009	
Issue Date	August 24, 2009	
Valuation Date	February 18, 2011	
Maturity Date	February 24, 2011	
Issuer	Deutsche Bank	
CDS Rate	107.2 bps	
Swap Rate	1.39%	
Reference Asset	the Russell 2000 Index	
Initial Level	561.65	
Dividend Rate	1.68%	
Implied Volatili	32.09%	
Delta <sup>1</sup>	0.51	
Fair Price at Issue	\$930.94	
Realized Return	13.79%	
CUSIP SEC Link	2515A0P49 www.sec.gov/Archives/edgar/ data/1159508/000095010309002058/ dp14541_424b2-708j.htm	

Structured Products Research Report

Report Prepared On: 08/02/13

# Capped Buffered Underlying Securities (BUyS) linked to Russell 2000 Index

## Description

Deutsche Bank issued \$1.65 million of Capped Buffered Underlying Securities (BUyS) linked to Russell 2000 Index on August 24, 2009 at \$1,000 per note.

These notes are Deutsche Bank-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 Russell 2000 Index.

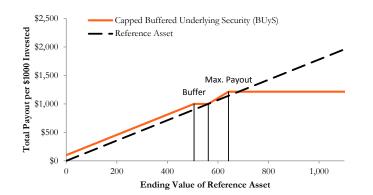
If on February 18, 2011 the Russell 2000 Index level is higher than 561.65, but lower than 641.97, the notes pay a return equal to the percentage increase in the Russell 2000 Index multiplied by 1.5, up to a cap of 21.45%. If on February 18, 2011 the refe is below 561.65 but not below 505.49, investors receive \$1,000 face value per note. If the Russell 2000 Index level on February 18, 2011 is lower than 505.49, investors receive face value per note reduced by the amount the reference asset is below 505.49 as a percent of the initial level, 561.65.

## Valuation

This product can be valued as a combination of a note from Deutsche Bank, one short out-of-the-money put option, 1.5 long at-the-money call options, and 1.5 short out-of-the-money call options. For reasonable valuation inputs this note was worth \$930.94 when it was issued on August 24, 2009 because the value of the options investors gave Deutsche Bank plus the interest investors would have received on Deutsche Bank's straight debt was worth \$69.06 more than the options investors received from Deutsche Bank.

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 Russell 2000 Index level (borizontal axis). For comparison, the dashed line shows the payoff if you invested in the Russell 2000 Index directly.

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#### **Related Research**

#### **Research Papers:**

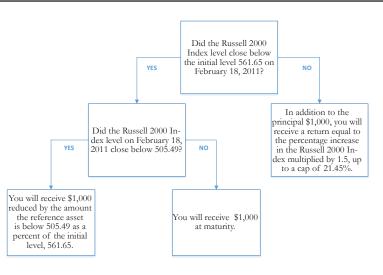
www.slcg.com/research.php

- "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 Reverse Convertibles," June 2010.

#### Principal Payback Table

The Russell 2000 Index	Note Payoff
0.00	\$100.00
56.17	\$200.00
112.33	\$300.00
168.50	\$400.00
224.66	\$500.00
280.83	\$600.00
336.99	\$700.00
393.16	\$800.00
449.32	\$900.00
505.49	\$1,000.00
561.65	\$1,000.00
617.82	\$1,150.00
673.98	\$1,214.50
730.15	\$1,214.50
786.31	\$1,214.50
842.48	\$1,214.50

#### Maturity Payoff Diagram

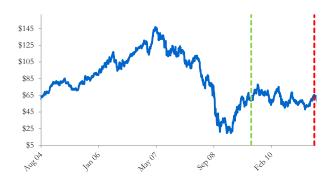


The contingent payoffs of this Capped Buffered Underlying Security (BUyS).

### Analysis

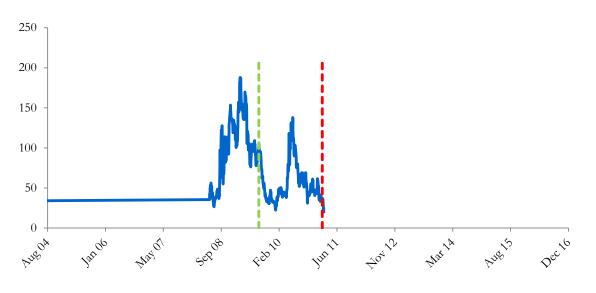
This Capped Buffered Underlying Security (BUyS) pays investors the increase in the Russell 2000 Index multiplied by 1.5 capped at 21.45%, but if the Russell 2000 Index declines over the term of the note, investors will suffer losses equal to the percentage decline in the Russell 2000 Index. In addition, investors bear the credit risk of Deutsche Bank. Investors purchasing this Capped Buffered Underlying Security (BUyS) effectively sell at-the-money put and out-of-the-money call options to Deutsche Bank, buy at-the-money call options, and a zero-coupon note from Deutsche Bank. This Capped Buffered Underlying Security (BUyS) is fairly priced if and only if the market value of the options investors gave Deutsche Bank plus the interest investors would have received on Deutsche Bank's straight debt.

#### Deutsche Bank's Stock Price

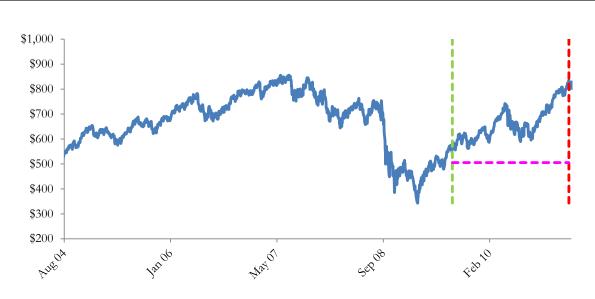


The graph above shows the adjusted closing price of the issuer Deutsche Bank for the past several years. The stock price of the issuer is an indication of the financial strength of Deutsche Bank. The adjusted price shown above incorporates any stock split, reverse stock split, etc.

#### Deutsche Bank's CDS Rate



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



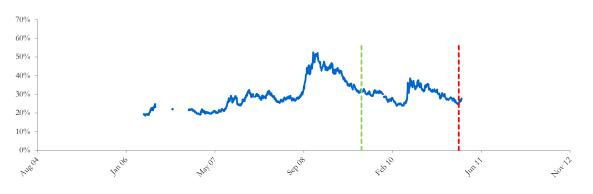
#### The Russell 2000 Index Level

The graph above shows the historical levels of the Russell 2000 Index for the past several years. The final payoff of this note is determined by the Russell 2000 Index level at maturity. Higher fluctuations in the Russell 2000 Index level correspond to a greater uncertainty in the final payout of this Capped Buffered Underlying Security (BUyS).

#### **Realized Payoff**

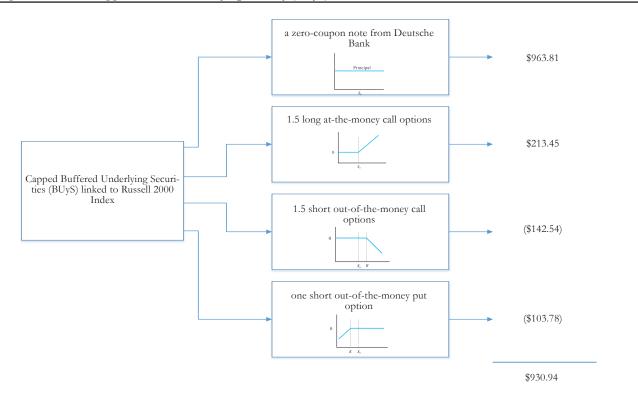
This note matured on February 24, 2011 and investors received \$1,214.50 per note.

#### Reference Asset The Russell 2000 Index's Implied Volatility



The annualized implied volatility of the Russell 2000 Index on August 19, 2009 was 32.09%, meaning that options contracts on the Russell 2000 Index were trading at prices that reflect an expected annual volatility of 32.09%. The higher the implied volatility, the larger the expected fluctuations of the Russell 2000 Index level and of the Note's market value during the life of the Notes.

#### Decomposition of this Capped Buffered Underlying Security (BUyS)



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 Capped Buffered Underlying Security (BUyS).

- Delta measures the sensitivity of the price of the note to the the Russell 2000 Index level on August 19, 2009.
  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 Russell 2000 Index on August 19, 2009.
  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.

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