

Report Prepared On: 08/02/13

## Structured Product Details

<b>Name</b>	Capped Buffered Underlying Securities (BUyS) linked to S&P 500 Index
<b>Issue Size</b>	\$9.25 million
<b>Issue Price</b>	\$1,000
<b>Term</b>	13 Months
<b>Annualized Coupon</b>	0.00%
<b>Pricing Date</b>	April 9, 2009
<b>Issue Date</b>	April 15, 2009
<b>Valuation Date</b>	May 12, 2010
<b>Maturity Date</b>	May 17, 2010
<b>Issuer</b>	Deutsche Bank
<b>CDS Rate</b>	135.06 bps
<b>Swap Rate</b>	1.90%
<b>Reference Asset</b>	the S&P 500 Index
<b>Initial Level</b>	856.56
<b>Dividend Rate</b>	3.28%
<b>Implied Volatility</b>	35.24%
<b>Delta<sup>1</sup></b>	0.54
<b>Fair Price at Issue</b>	\$939.82
<b>Realized Return</b>	20.78%
<b>CUSIP</b>	2515A0C35
<b>SEC Link</b>	<a href="http://www.sec.gov/Archives/edgar/data/1159508/0000950103090000802/dp13124_424b2-631j.htm">www.sec.gov/Archives/edgar/data/1159508/0000950103090000802/dp13124_424b2-631j.htm</a>

## Related Research

### Research Papers:

[www.slcg.com/research.php](http://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.

**Tim Husson, Ph.D.,**  
Senior Financial Economist, SLCG  
(+1) 703.890.0743  
[TimHusson@slcg.com](mailto:TimHusson@slcg.com)

## Capped Buffered Underlying Securities (BUyS) linked to S&P 500 Index

### Description

Deutsche Bank issued \$9.25 million of Capped Buffered Underlying Securities (BUyS) linked to S&P 500 Index on April 15, 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 S&P 500 Index.

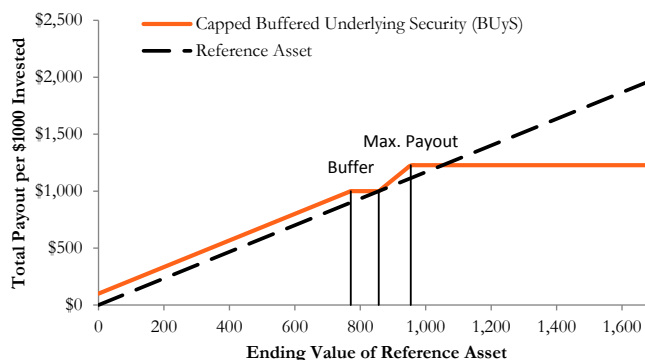
If on May 12, 2010 the S&P 500 Index level is higher than 856.56, but lower than 954.21, the notes pay a return equal to the percentage increase in the S&P 500 Index multiplied by 2.0, up to a cap of 22.80%. If on May 12, 2010 the refe is below 856.56 but not below 770.9, investors receive \$1,000 face value per note. If the S&P 500 Index level on May 12, 2010 is lower than 770.9, investors receive face value per note reduced by the amount the reference asset is below 770.9 as a percent of the initial level, 856.56.

### Valuation

This product can be valued as a combination of a note from Deutsche Bank, one short out-of-the-money put option, two long at-the-money call options, and two short out-of-the-money call options. For reasonable valuation inputs this note was worth \$939.82 when it was issued on April 15, 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 \$60.18 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

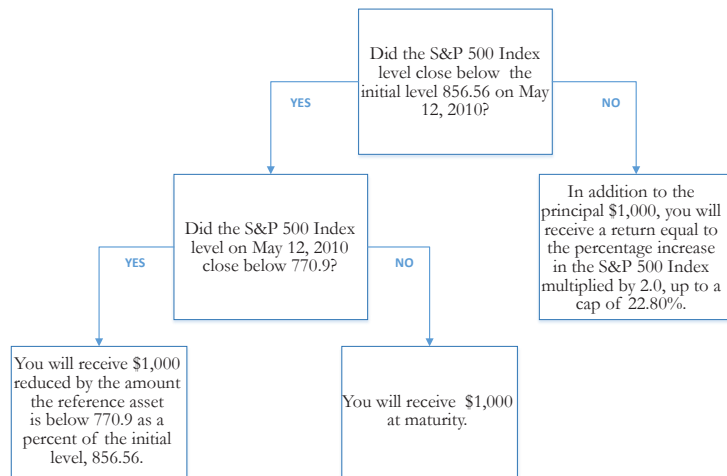


The payoff diagram shows the final payoff of this note given the S&P 500 Index level (horizontal axis). For comparison, the dashed line shows the payoff if you invested in the S&P 500 Index directly.

## Principal Payback Table

The S&P 500 Index	Note Payoff
0.00	\$100.00
85.66	\$200.00
171.31	\$300.00
256.97	\$400.00
342.62	\$500.00
428.28	\$600.00
513.94	\$700.00
599.59	\$800.00
685.25	\$900.00
770.90	\$1,000.00
<b>856.56</b>	<b>\$1,000.00</b>
942.22	\$1,200.00
1,027.87	\$1,228.00
1,113.53	\$1,228.00
1,199.18	\$1,228.00
1,284.84	\$1,228.00

## Maturity Payoff Diagram

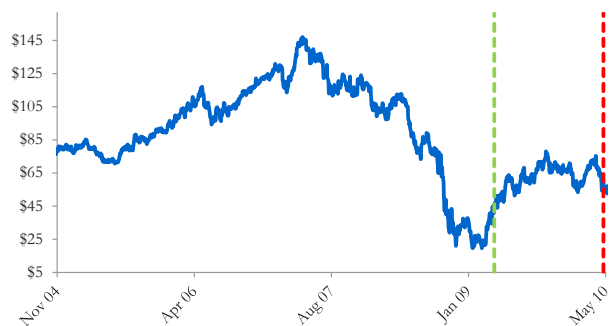


*The contingent payoffs of this Capped Buffered Underlying Security (BUyS).*

## Analysis

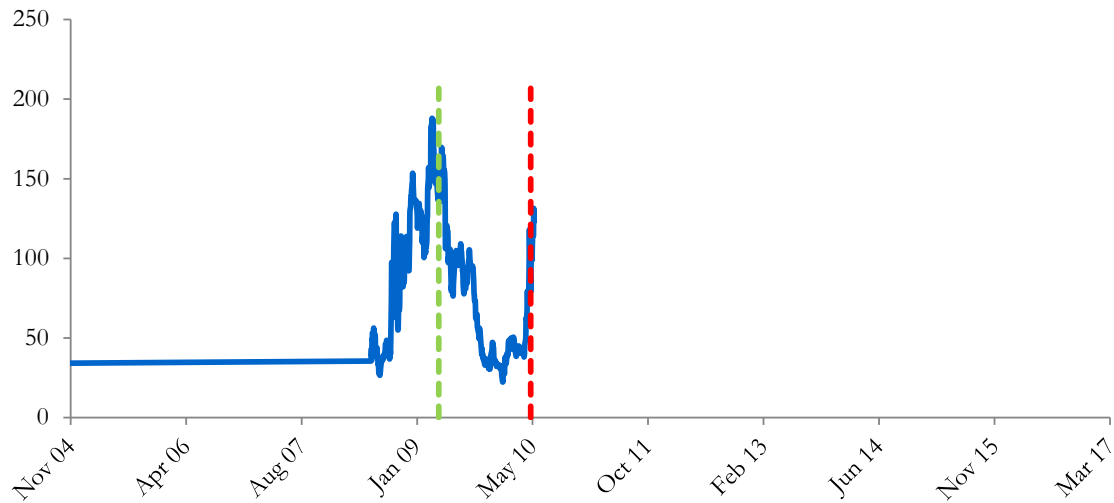
This Capped Buffered Underlying Security (BUyS) pays investors the increase in the S&P 500 Index multiplied by 2.0 capped at 22.80%, but if the S&P 500 Index declines over the term of the note, investors will suffer losses equal to the percentage decline in the S&P 500 Index. In addition, investors bear 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 received from Deutsche Bank equals 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



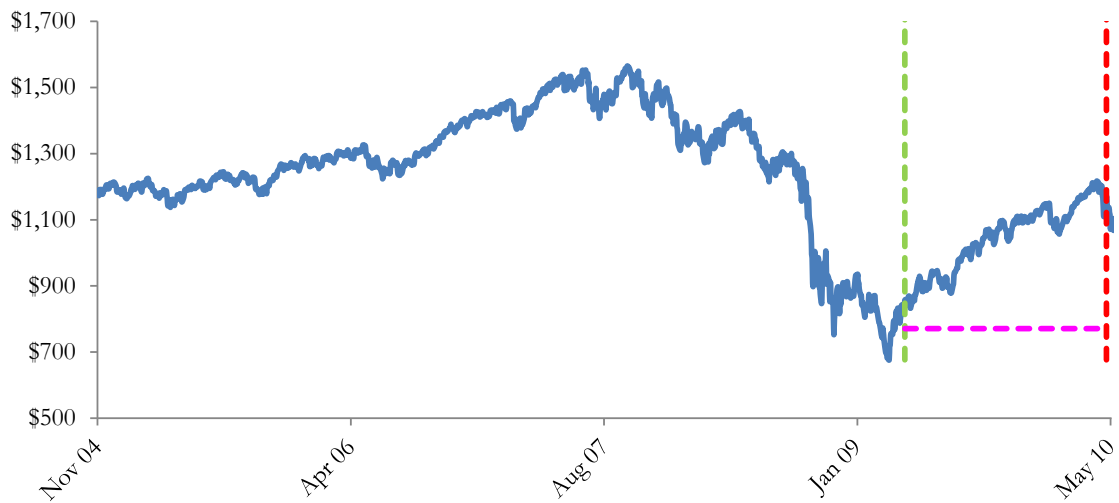
*The graph above shows the adjusted closing price of the issuer Deutsche Bank for the past several years. The stock price of the issuer is an indication of the financial strength of Deutsche Bank. The adjusted price shown above incorporates any stock split, reverse stock split, etc.*

## 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 S&P 500 Index Level

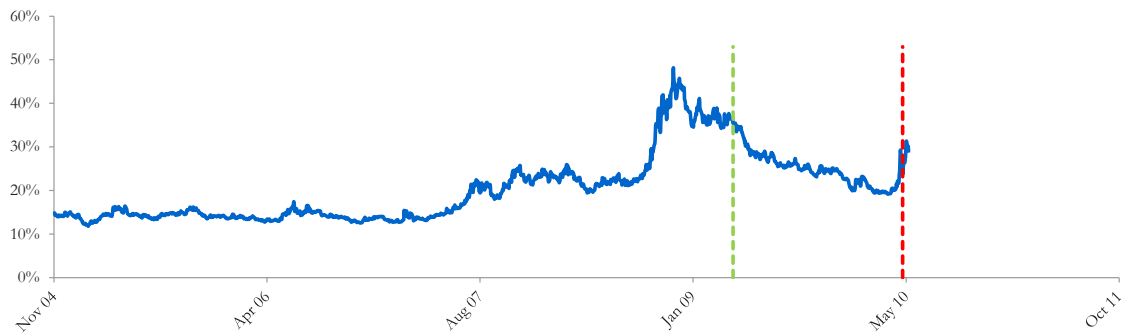


The graph above shows the historical levels of the S&P 500 Index for the past several years. The final payoff of this note is determined by the S&P 500 Index level at maturity. Higher fluctuations in the S&P 500 Index level correspond to a greater uncertainty in the final payout of this Capped Buffered Underlying Security (BUyS).

## Realized Payoff

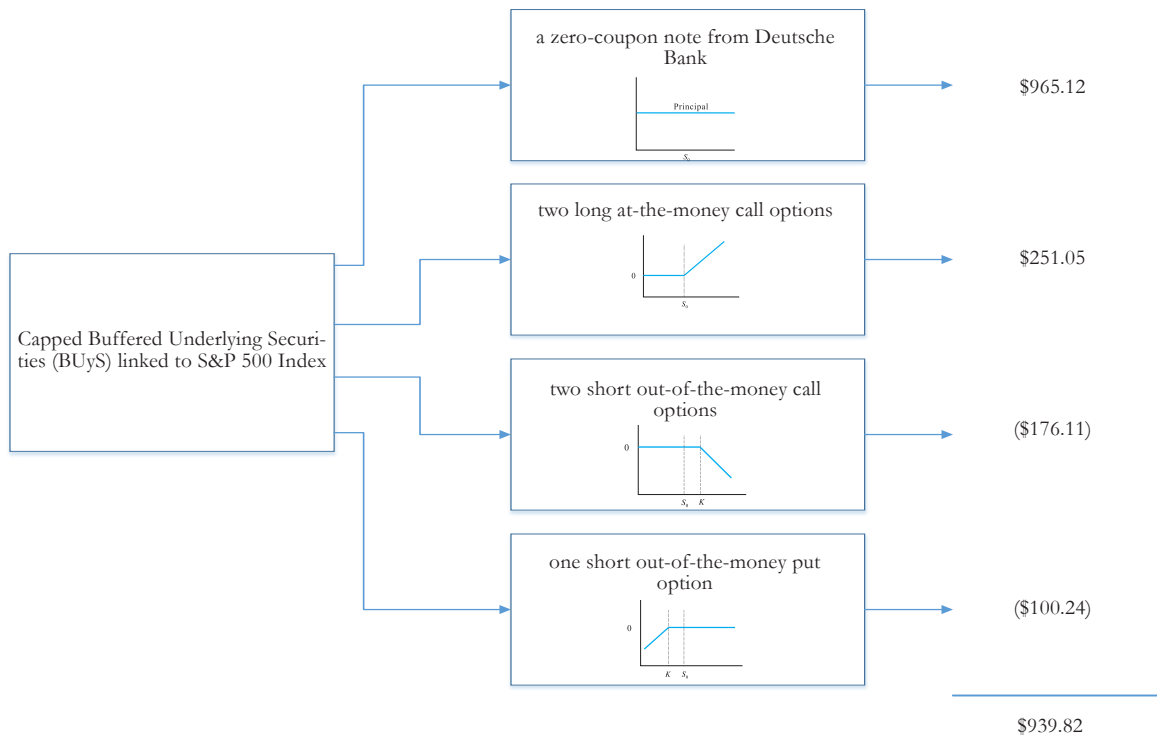
This note matured on May 17, 2010 and investors received \$1,228.00 per note.

## Reference Asset The S&P 500 Index's Implied Volatility



The annualized implied volatility of the S&P 500 Index on April 9, 2009 was 35.24%, meaning that options contracts on the S&P 500 Index were trading at prices that reflect an expected annual volatility of 35.24%. The higher the implied volatility, the larger the expected fluctuations of the S&P 500 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).

1. Delta measures the sensitivity of the price of the note to the S&P 500 Index level on April 9, 2009.
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 S&P 500 Index on April 9, 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.