

**Structured Product Details** 

Issue Size Issue Price

**Annualized Coupon** 

Term

Name Leveraged Return Securities linked to Dow Jones EURO STOXX 50 Index

\$5.00 million \$1,000 13 Months

0.00%

Pricing Date November 16, 2007 Issue Date November 21, 2007 Valuation Date December 19, 2008 Maturity Date December 29, 2008

IssuerDeutsche BankCDS Rate36.41 bpsSwap Rate4.39%

Reference Asset the Dow Jones EURO STOXX 50 Index
Initial Level 4,282.40
Dividend Rate 3.32%
Implied Volatility Delta¹ 0.83

Fair Price at Issue \$951.39 Realized Return -39.75%

CUSIP 2515A0GE7 SEC Link www.sec.gov/Archives/edgar/ddata/1159508/000119312507251289/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.

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# Leveraged Return Securities linked to Dow Jones EURO STOXX 50 Index

# Description

Report Prepared On: 08/02/13

Deutsche Bank issued \$5.00 million of Leveraged Return Securities linked to Dow Jones EURO STOXX 50 Index on November 21, 2007 at \$1,000 per note.

These notes are Deutsche Bank-branded PLUS securities that do not pay periodic coupons, but instead pay a single amount at maturity depending on the Dow Jones EURO STOXX 50 Index level at maturity.

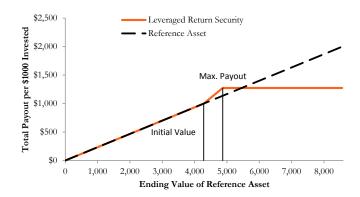
If the Dow Jones EURO STOXX 50 Index level on December 19, 2008 is higher than 4,282.40, but lower than 4,869.09, the notes pay a return equal to the percentage increase in the Dow Jones EURO STOXX 50 Index multiplied by 2.0. If on December 19, 2008 the Dow Jones EURO STOXX 50 Index level is above the 4,869.09, the notes pay the maximum payout of \$1,274.00. If on December 19, 2008 the Dow Jones EURO STOXX 50 Index level is below 4,282.40, investors receive the face value per note reduced by the percentage decline in the reference asset. The notes will pay nothing at maturity if the reference asset declines to zero.

### **Valuation**

This note can be valued as a combination of a note from Deutsche Bank, a short at-themoney put option, two long at-the-money call options, and two short out-of-the-money call options. The short at-the-money put option exposes investors to any decline in the Dow Jones EURO STOXX 50 Index. The two short out-of-the-money call options has the strike price of 4,869.09, and limits the maximum return of the notes beyond the cap level. For reasonable valuation inputs this note was worth \$951.39 when it was issued on November 21, 2007 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 \$48.61 more than the call 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

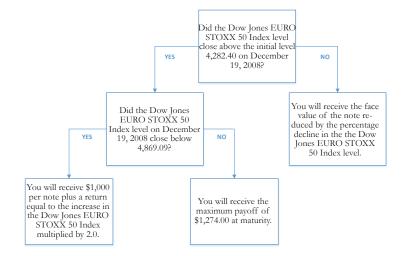


The payoff diagram shows the final payoff of this note given the Dow Jones EURO STOXX 50 Index level (horizontal axis). For comparison, the dashed line shows the payoff if you invested in the Dow Jones EURO STOXX 50 Index directly.

### Principal Payback Table

The Dow Jones EURO STOXX 50 Index	Note Payoff
0.00	\$0.00
428.24	\$100.00
856.48	\$200.00
1,284.72	\$300.00
1,712.96	\$400.00
2,141.20	\$500.00
2,569.44	\$600.00
2,997.68	\$700.00
3,425.92	\$800.00
3,854.16	\$900.00
4,282.40	\$1,000.00
4,710.64	\$1,200.00
5,138.88	\$1,274.00
5,567.12	\$1,274.00
5,995.36	\$1,274.00
6,423.60	\$1,274.00

### Maturity Payoff Diagram

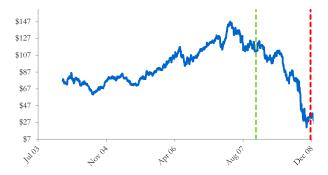


The contingent payoffs of this Leveraged Return Security.

# **Analysis**

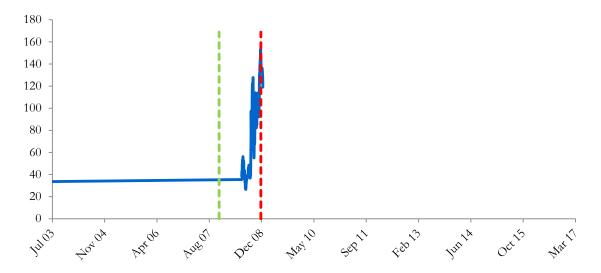
This Leveraged Return Security pays investors the increase in the Dow Jones EURO STOXX 50 Index multiplied by 2.0 capped at 27.40%, but if the Dow Jones EURO STOXX 50 Index declines over the term of the note, investors will suffer losses equal to the percentage decline in the Dow Jones EURO STOXX 50 Index. In addition, investors bear the credit risk of Deutsche Bank. Investors purchasing this Leveraged Return Security 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 Leveraged Return Security 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



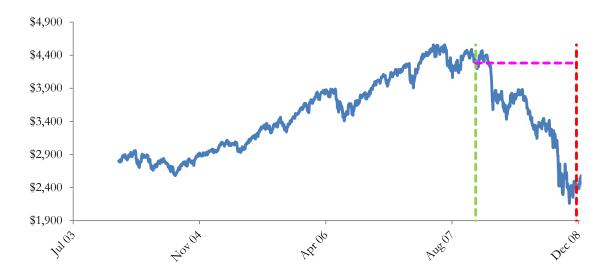
The graph above shows the adjusted closing price of the issuer Deutsche Bank for the past several years. The stock price of the issuer is an indication of the financial strength of Deutsche Bank. The adjusted price shown above incorporates any stock split, reverse stock split, etc.

### 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 Leveraged Return Security. Fluctuations in Deutsche Bank's CDS rate impact the market value of the notes in the secondary market.

# The Dow Jones EURO STOXX 50 Index Level

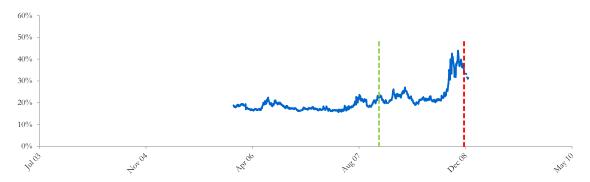


The graph above shows the historical levels of the Dow Jones EURO STOXX 50 Index for the past several years. The final payoff of this note is determined by the Dow Jones EURO STOXX 50 Index level correspond to a greater uncertainty in the final payout of this Leveraged Return Security.

### Realized Payoff

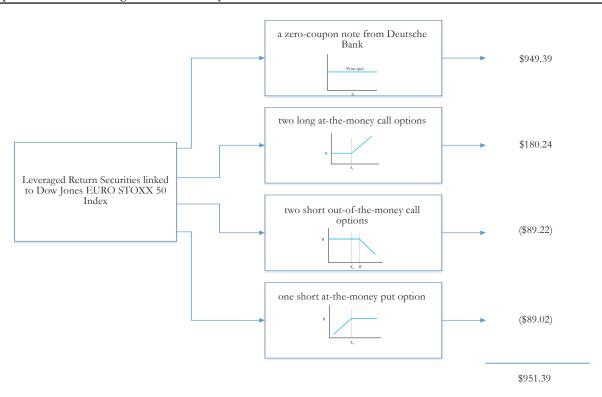
This note matured on December 29, 2008 and investors received \$570.74 per note.

### Reference Asset The Dow Jones EURO STOXX 50 Index's Implied Volatility



The annualized implied volatility of the Dow Jones EURO STOXX 50 Index on November 16, 2007 was 22.67%, meaning that options contracts on the Dow Jones EURO STOXX 50 Index were trading at prices that reflect an expected annual volatility of 22.67%. The higher the implied volatility, the larger the expected fluctuations of the Dow Jones EURO STOXX 50 Index level and of the Note's market value during the life of the Notes.

### Decomposition of this Leveraged Return 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 Leveraged Return Security.

- 1. Delta measures the sensitivity of the price of the note to the the Dow Jones EURO STOXX 50 Index level on November 16, 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 the Dow Jones EURO STOXX 50 Index on November 16, 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.