

Report Prepared On: 08/06/13

Structured Product Details

Name	Leveraged Buffered Equity Index-Linked Notes linked to Tempur-Pedic International
Issue Size	\$2.19 million
Issue Price	\$1,000
Term	10 Months
Annualized Coupon	0.00%
Pricing Date	February 27, 2012
Issue Date	March 5, 2012
Valuation Date	December 21, 2012
Maturity Date	December 31, 2012
Issuer	Royal Bank of Canada
CDS Rate	114.42 bps
Swap Rate	0.94%
Reference Asset	Tempur-Pedic International's stock
Initial Level	\$839.76
Dividend Rate	0.00%
Implied Volatility	39.65%
Delta¹	0.54
Fair Price at Issue	\$910.77
Realized Return	-96.60%
CUSIP	78008C754
SEC Link	www.sec.gov/Archives/edgar/data/1000275/000121465912000926/f228121424b2.htm

Leveraged Buffered Equity Index-Linked Notes linked to Tempur-Pedic International

Description

Royal Bank of Canada issued \$2.19 million of Leveraged Buffered Equity Index-Linked Notes linked to Tempur-Pedic International on March 5, 2012 at \$1,000 per note.

These notes are Royal Bank of Canada-branded Buffered PLUS securities that do not pay periodic coupons, but instead pay a single amount at maturity depending on the final level of Tempur-Pedic International's stock.

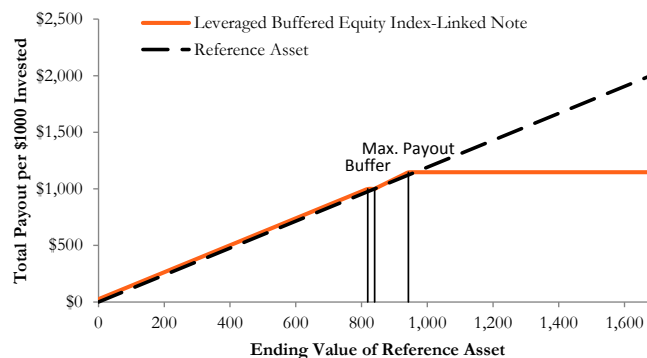
If on December 21, 2012 Tempur-Pedic International's stock price is higher than \$839.76, but lower than \$942.63, the notes pay a return equal to the percentage increase in Tempur-Pedic International's stock multiplied by 1.2, up to a cap of 14.70%. If on December 21, 2012 the refe is below \$839.76 but not below \$818.77, investors receive \$1,000 face value per note. If Tempur-Pedic International's stock price on December 21, 2012 is lower than \$818.77, investors receive face value per note reduced by the amount the reference asset is below \$818.77 as a percent of the initial level, \$839.76.

Valuation

This product can be valued as a combination of a note from Royal Bank of Canada, one short out-of-the-money put option, 1.2 long at-the-money call options, and 1.2 short out-of-the-money call options. For reasonable valuation inputs this note was worth \$910.77 when it was issued on March 5, 2012 because the value of the options investors gave Royal Bank of Canada plus the interest investors would have received on Royal Bank of Canada's straight debt was worth \$89.23 more than the options investors received from Royal Bank of Canada.

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 Tempur-Pedic International's stock price (horizontal axis). For comparison, the dashed line shows the payoff if you invested in Tempur-Pedic International's stock directly.

Related Research

Research Papers:

www.slcg.com/research.php

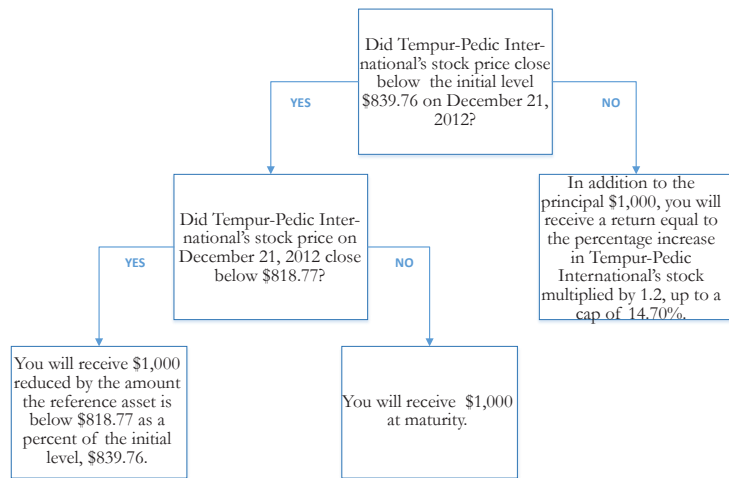
- "Are Structured Products Suitable for Retail Investors?" December 2006.
- "Structured Products in the Aftermath of Lehman Brothers," November 2009.
- "What TiVo and JP Morgan Teach Us about Reverse Convertibles," June 2010.

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Principal Payback Table

Tempur-Pedic International's Stock	Note Payoff
\$0.00	\$25.00
\$83.98	\$125.00
\$167.95	\$225.00
\$251.93	\$325.00
\$335.90	\$425.00
\$419.88	\$525.00
\$503.86	\$625.00
\$587.83	\$725.00
\$671.81	\$825.00
\$755.79	\$925.00
\$839.76	\$1,000.00
\$923.74	\$1,120.00
\$1,007.71	\$1,147.00
\$1,091.69	\$1,147.00
\$1,175.67	\$1,147.00
\$1,259.64	\$1,147.00

Maturity Payoff Diagram

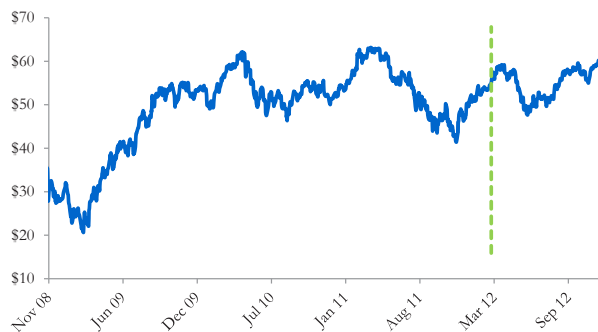


The contingent payoffs of this Leveraged Buffered Equity Index-Linked Note.

Analysis

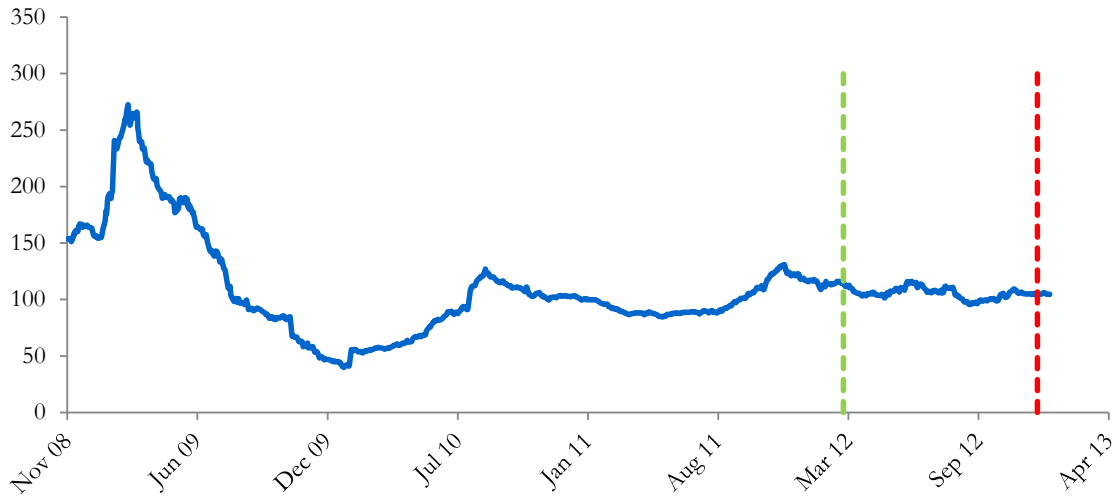
This Leveraged Buffered Equity Index-Linked Note pays investors the increase in Tempur-Pedic International's stock multiplied by 1.2 capped at 14.70%, but if Tempur-Pedic International's stock declines over the term of the note, investors will suffer losses equal to the percentage decline in Tempur-Pedic International's stock. In addition, investors bear the credit risk of Royal Bank of Canada. Investors purchasing this Leveraged Buffered Equity Index-Linked Note effectively sell at-the-money put and out-of-the-money call options to Royal Bank of Canada, buy at-the-money call options, and a zero-coupon note from Royal Bank of Canada. This Leveraged Buffered Equity Index-Linked Note is fairly priced if and only if the market value of the options investors received from Royal Bank of Canada equals the market value of the options investors gave Royal Bank of Canada plus the interest investors would have received on Royal Bank of Canada's straight debt.

Royal Bank of Canada's Stock Price



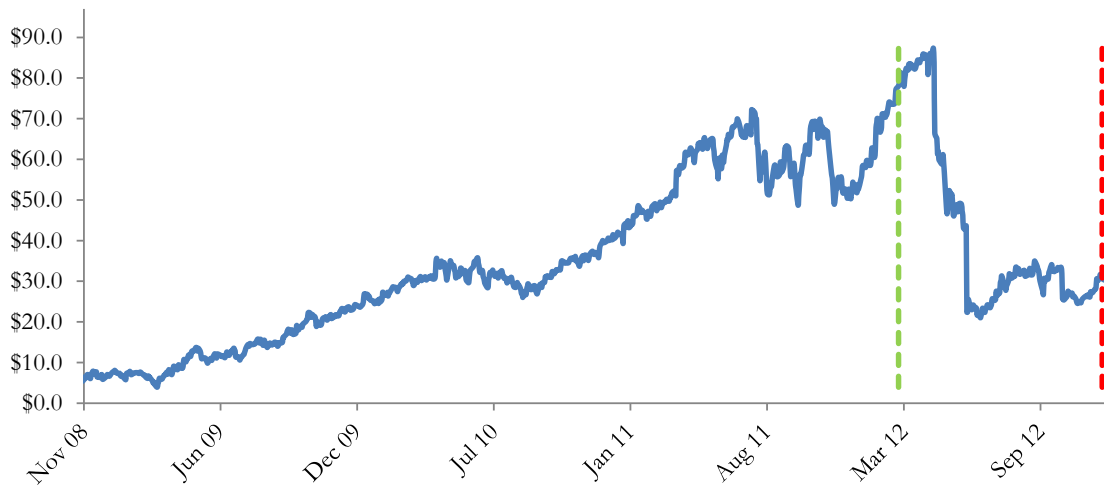
The graph above shows the adjusted closing price of the issuer Royal Bank of Canada for the past several years. The stock price of the issuer is an indication of the financial strength of Royal Bank of Canada. The adjusted price shown above incorporates any stock split, reverse stock split, etc.

Royal Bank of Canada's CDS Rate



Credit default swap (CDS) rates are the market price that investors require to bear credit risk of an issuer such as Royal Bank of Canada. 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 Royal Bank of Canada's debt, including outstanding Leveraged Buffered Equity Index-Linked Note. Fluctuations in Royal Bank of Canada's CDS rate impact the market value of the notes in the secondary market.

Tempur-Pedic International's Stock Price

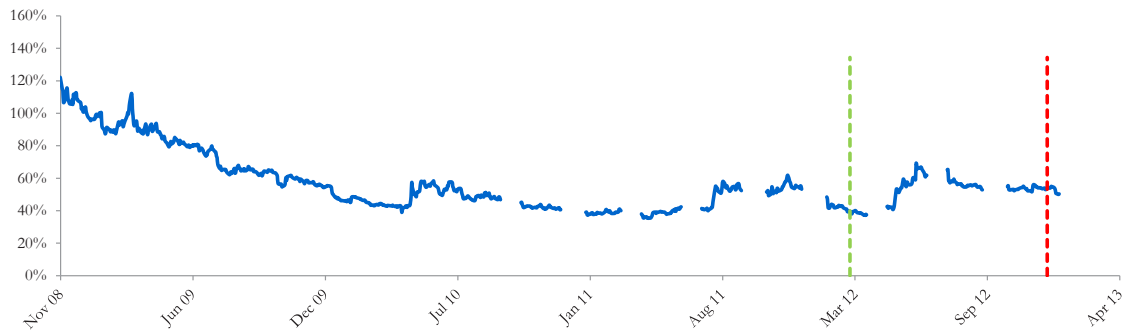


The graph above shows the historical levels of Tempur-Pedic International's stock for the past several years. The final payoff of this note is determined by Tempur-Pedic International's stock price at maturity. Higher fluctuations in Tempur-Pedic International's stock price correspond to a greater uncertainty in the final payout of this Leveraged Buffered Equity Index-Linked Note.

Realized Payoff

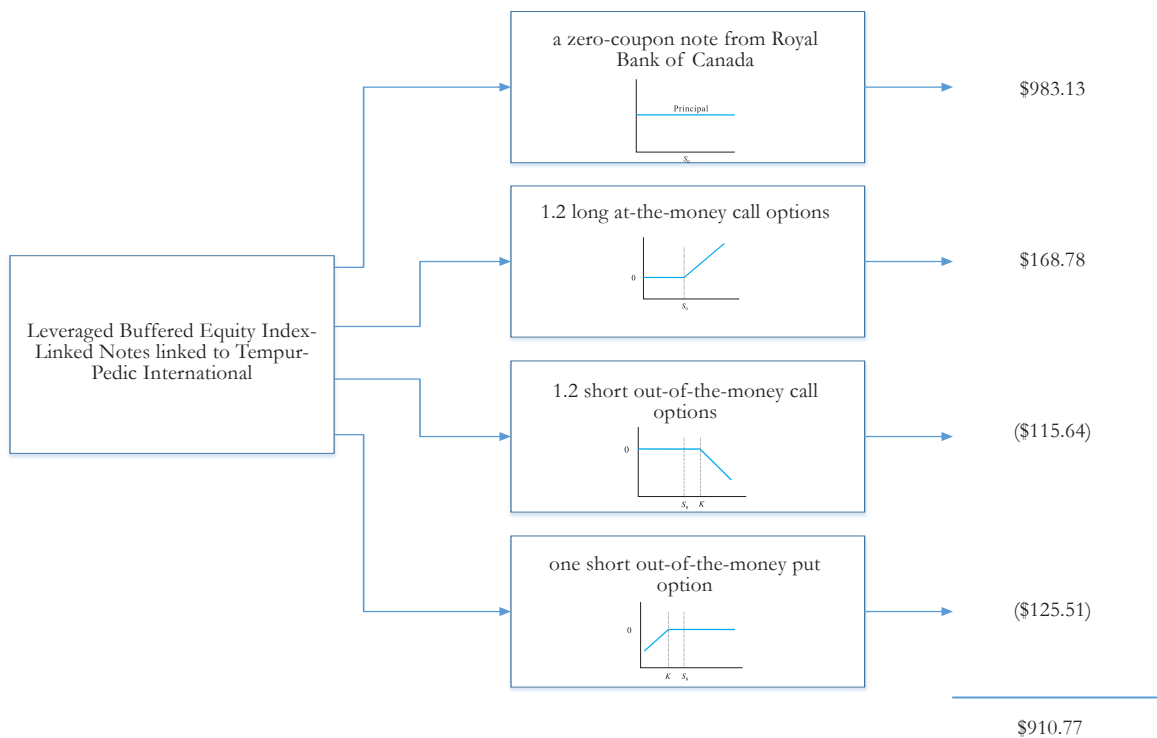
This note matured on December 31, 2012 and investors received \$61.56 per note.

Reference Asset Tempur-Pedic International's Stock's Implied Volatility



The annualized implied volatility of Tempur-Pedic International's stock on February 27, 2012 was 39.65%, meaning that options contracts on Tempur-Pedic International's stock were trading at prices that reflect an expected annual volatility of 39.65%. The higher the implied volatility, the larger the expected fluctuations of Tempur-Pedic International's stock price and of the Note's market value during the life of the Notes.

Decomposition of this Leveraged Buffered Equity Index-Linked 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 Leveraged Buffered Equity Index-Linked Note.

1. Delta measures the sensitivity of the price of the note to the Tempur-Pedic International's stock price on February 27, 2012.
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 Tempur-Pedic International's stock on February 27, 2012.
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.