

Report Prepared On: 08/02/13

**Structured Product Details**

<b>Name</b>	Leveraged Buffered Index-Linked Notes linked to MSCI EAFE Index
<b>Issue Size</b>	\$4.60 million
<b>Issue Price</b>	\$1,000
<b>Term</b>	18 Months
<b>Annualized Coupon</b>	0.00%
<b>Pricing Date</b>	August 23, 2012
<b>Issue Date</b>	August 30, 2012
<b>Valuation Date</b>	February 24, 2014
<b>Maturity Date</b>	February 27, 2014
<b>Issuer</b>	Royal Bank of Canada
<b>CDS Rate</b>	102.26 bps
<b>Swap Rate</b>	0.74%
<b>Reference Asset</b>	the MSCI EAFE Index
<b>Initial Level</b>	1,495.65
<b>Dividend Rate</b>	3.67%
<b>Implied Volatility</b>	25.39%
<b>Delta<sup>1</sup></b>	0.6
<b>Fair Price at Issue</b>	\$953.83
<b>CUSIP</b>	78008W214
<b>SEC Link</b>	<a href="http://www.sec.gov/Archives/edgar/data/1000275/000121465912003832/f823121424b2.htm">www.sec.gov/Archives/edgar/ data/1000275/000121465912003832/ f823121424b2.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.

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**Leveraged Buffered Index-Linked Notes  
 linked to MSCI EAFE Index**

**Description**

Royal Bank of Canada issued \$4.60 million of Leveraged Buffered Index-Linked Notes linked to MSCI EAFE Index on August 30, 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 the MSCI EAFE Index.

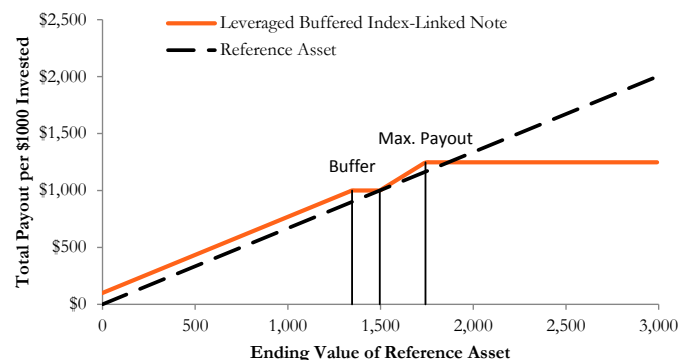
If on February 24, 2014 the MSCI EAFE Index level is higher than 1,495.65, but lower than 1,742.43, the notes pay a return equal to the percentage increase in the MSCI EAFE Index multiplied by 1.5, up to a cap of 24.75%. If on February 24, 2014 the refe is below 1,495.65 but not below 1346.09, investors receive \$1,000 face value per note. If the MSCI EAFE Index level on February 24, 2014 is lower than 1346.09, investors receive face value per note reduced by the amount the reference asset is below 1346.09 as a percent of the initial level, 1,495.65.

**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, 1.5 long at-the-money call options, and 1.5 short out-of-the-money call options. For reasonable valuation inputs this note was worth \$953.83 when it was issued on August 30, 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 \$46.17 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**

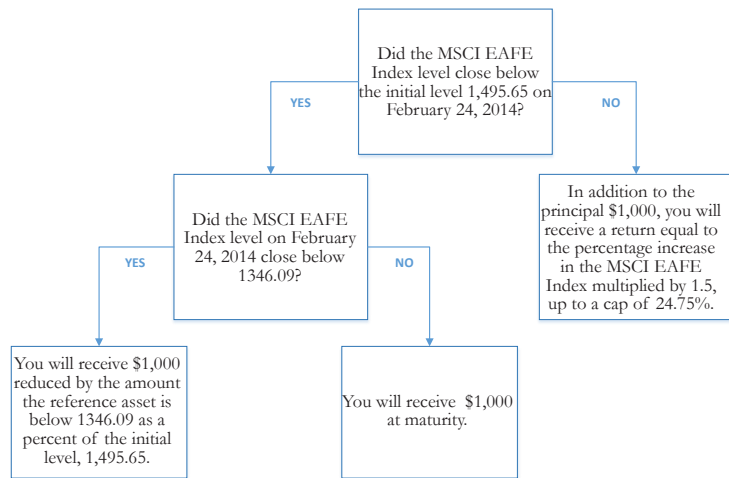


The payoff diagram shows the final payoff of this note given the MSCI EAFE Index level (horizontal axis). For comparison, the dashed line shows the payoff if you invested in the MSCI EAFE Index directly.

**Principal Payback Table**

The MSCI EAFE Index	Note Payoff
0.00	\$100.00
149.57	\$200.00
299.13	\$300.00
448.70	\$400.00
598.26	\$500.00
747.83	\$600.00
897.39	\$700.00
1,046.96	\$800.00
1,196.52	\$900.00
1,346.09	\$1,000.00
<b>1,495.65</b>	<b>\$1,000.00</b>
1,645.22	\$1,150.00
1,794.78	\$1,247.50
1,944.35	\$1,247.50
2,093.91	\$1,247.50
2,243.48	\$1,247.50

**Maturity Payoff Diagram**

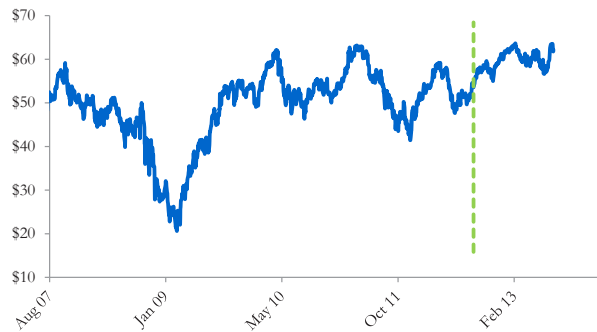


The contingent payoffs of this Leveraged Buffered Index-Linked Note.

**Analysis**

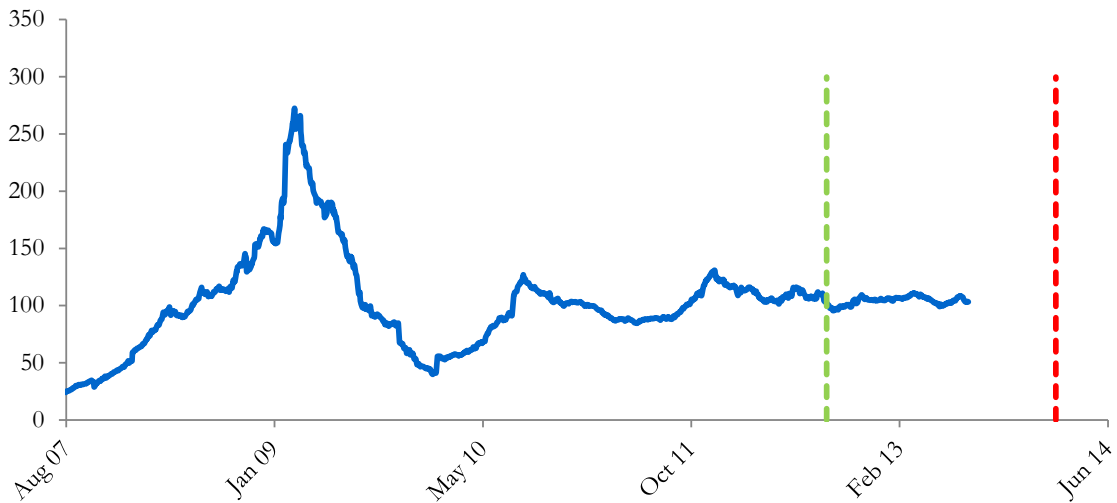
This Leveraged Buffered Index-Linked Note pays investors the increase in the MSCI EAFE Index multiplied by 1.5 capped at 24.75%, but if the MSCI EAFE Index declines over the term of the note, investors will suffer losses equal to the percentage decline in the MSCI EAFE Index. In addition, investors bear the credit risk of Royal Bank of Canada. Investors purchasing this Leveraged Buffered 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 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**



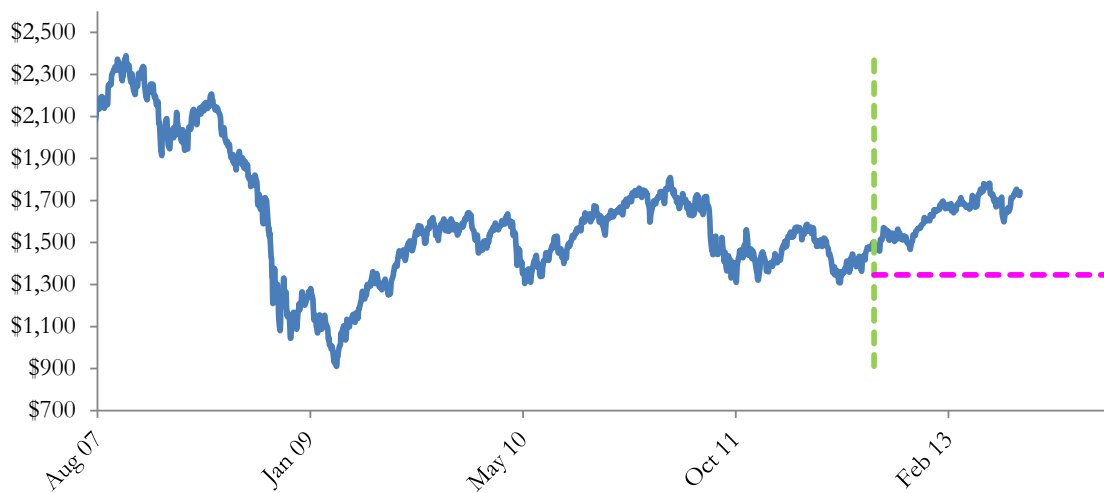
The graph above shows the adjusted closing price of the issuer Royal Bank of Canada for the past several years. The stock price of the issuer is an indication of the financial strength of Royal Bank of Canada. The adjusted price shown above incorporates any stock split, reverse stock split, etc.

**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 Index-Linked Note. Fluctuations in Royal Bank of Canada's CDS rate impact the market value of the notes in the secondary market.

**The MSCI EAFE Index Level**

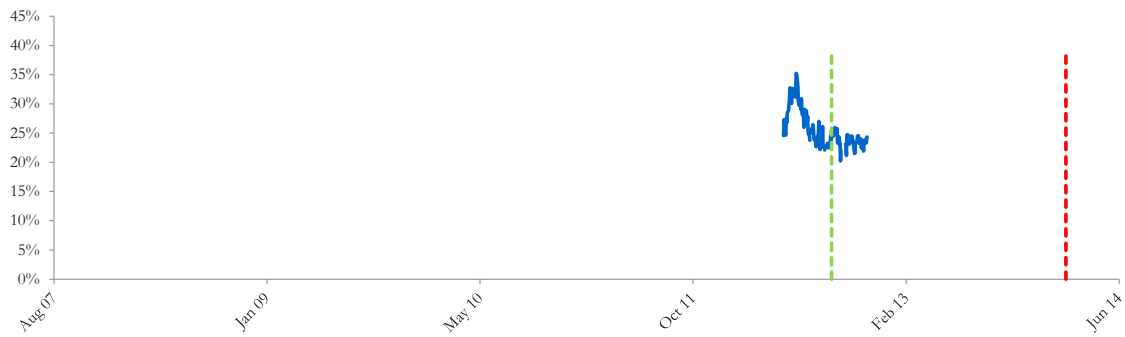


The graph above shows the historical levels of the MSCI EAFE Index for the past several years. The final payoff of this note is determined by the MSCI EAFE Index level at maturity. Higher fluctuations in the MSCI EAFE Index level correspond to a greater uncertainty in the final payout of this Leveraged Buffered Index-Linked Note.

**Realized Payoff**

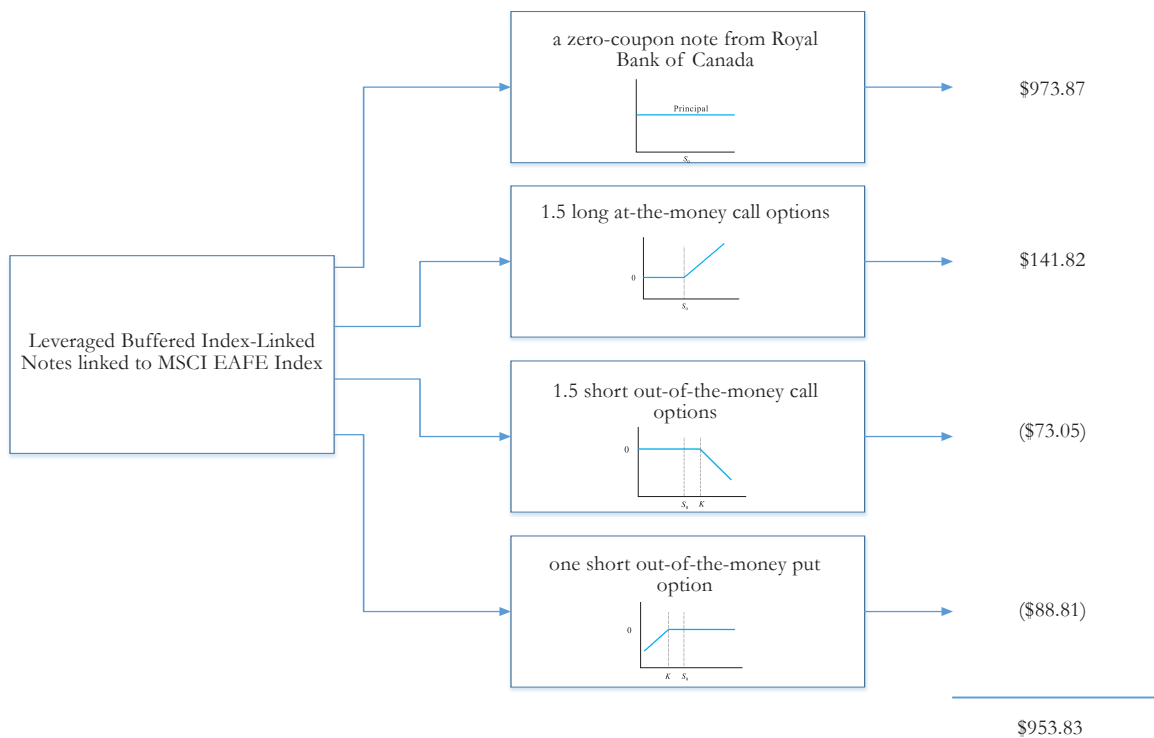
This product will mature on February 27, 2014.

**Reference Asset The MSCI EAFE Index's Implied Volatility**



The annualized implied volatility of the MSCI EAFE Index on August 23, 2012 was 25.39%, meaning that options contracts on the MSCI EAFE Index were trading at prices that reflect an expected annual volatility of 25.39%. The higher the implied volatility, the larger the expected fluctuations of the MSCI EAFE Index level and of the Note's market value during the life of the Notes.

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

1. Delta measures the sensitivity of the price of the note to the the MSCI EAFE Index level on August 23, 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 the MSCI EAFE Index on August 23, 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.