

### Structured Product Details

Name PLUS linked to Russell 2000 Index **Issue Size** \$1.29 million **Issue Price** \$10 13 Months Term Annualized Coupon 0.00% **Pricing Date** February 20, 2009 Issue Date February 27, 2009 March 23, 2010 Valuation Date Maturity Date March 26, 2010 IPMorgan Issuer 128.12 bps 2.02% CDS Rate Swap Rate **Reference Asset** the Russell 2000 Index Initial Level 410.96 2.70% **Dividend Rate** 44.55% **Implied Volatility** Delta1 0.69 Fair Price at Issue \$9.05 **Realized Return** 35.43% CUSIP 46625H431

www.sec.gov/Archives/edgar/ data/19617/000089109209000843/ e34630 424b2.htm Structured Products Research Report

Report Prepared On: 08/02/13

# PLUS linked to Russell 2000 Index

## Description

JPMorgan issued \$1.29 million of PLUS linked to Russell 2000 Index on February 27, 2009 at \$10 per note.

These notes are JPMorgan-branded PLUS securities that do not pay periodic coupons, but instead pay a single amount at maturity depending on the Russell 2000 Index level at maturity.

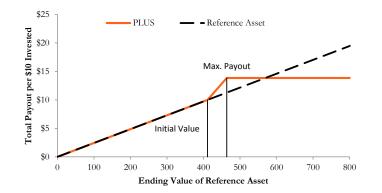
If the Russell 2000 Index level on March 23, 2010 is higher than 410.96, but lower than 463.7, the notes pay a return equal to the percentage increase in the Russell 2000 Index multiplied by 3.0. If on March 23, 2010 the Russell 2000 Index level is above the 463.7, the notes pay the maximum payout of \$13.85. If on March 23, 2010 the Russell 2000 Index level is below 410.96, 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 JPMorgan, a short at-the-money put option, three long at-the-money call options, and three short out-of-the-money call options. The short at-the-money put option exposes investors to any decline in the Russell 2000 Index. The three short out-of-the-money call options has the strike price of 463.7, and limits the maximum return of the notes beyond the cap level. For reasonable valuation inputs this note was worth \$9.05 when it was issued on February 27, 2009 because the value of the options investors gave JPMorgan plus the interest investors would have received on JPMorgan's straight debt was worth \$0.95 more than the call options investors received from JPMorgan.

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.

**Tim Dulaney, Ph.D.,** Senior Financial Economist, SLCG (+1) 703.539.6777 TimDulaney@slcg.com

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**Related Research** 

SEC Link

### **Research Papers:**

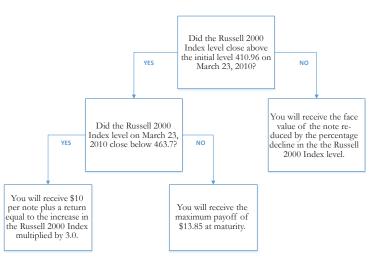
www.slcg.com/research.php

- "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	\$0.00
41.10	\$1.00
82.19	\$2.00
123.29	\$3.00
164.38	\$4.00
205.48	\$5.00
246.58	\$6.00
287.67	\$7.00
328.77	\$8.00
369.86	\$9.00
410.96	\$10.00
452.06	\$13.00
493.15	\$13.85
534.25	\$13.85
575.34	\$13.85
616.44	\$13.85

#### Maturity Payoff Diagram

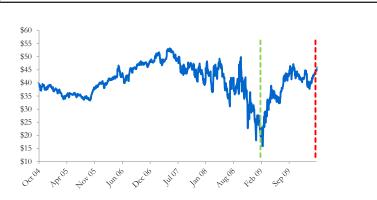


The contingent payoffs of this PLUS.

### Analysis

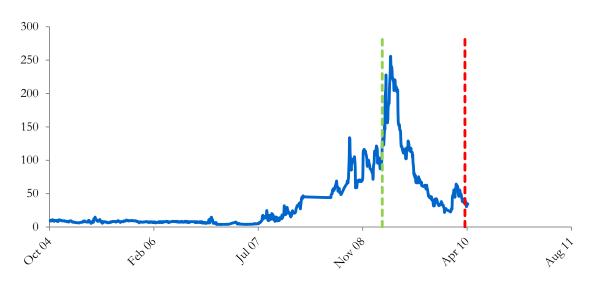
This PLUS pays investors the increase in the Russell 2000 Index multiplied by 3.0 capped at 38.50%, but if the Russell 2000 Index declines over the term of the note, investors will suffer losses equal to the percentage decline in the Russell 2000 Index. In addition, investors bear the credit risk of JPMorgan. Investors purchasing this PLUS effectively sell at-the-money put and out-of-the-money call options to JPMorgan, buy at-the-money call options, and a zero-coupon note from JPMorgan. This PLUS is fairly priced if and only if the market value of the options investors received from JPMorgan equals the market value of the options investors gave JPMorgan plus the interest investors would have received on JPMorgan's straight debt.

### JPMorgan's Stock Price

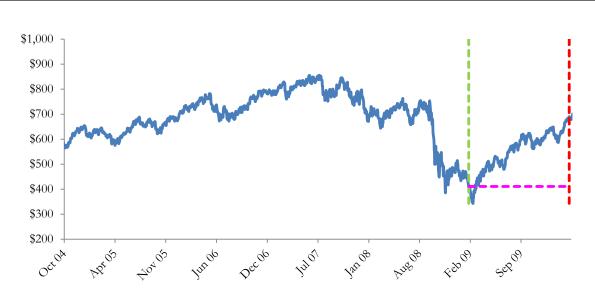


The graph above shows the adjusted closing price of the issuer JPMorgan for the past several years. The stock price of the issuer is an indication of the financial strength of JPMorgan. The adjusted price shown above incorporates any stock split, reverse stock split, etc.

### JPMorgan's CDS Rate



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



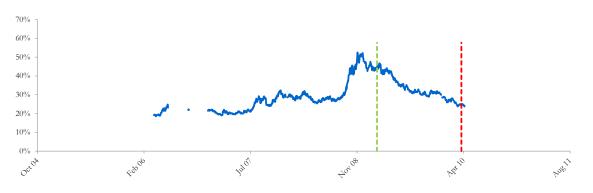
### The Russell 2000 Index Level

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 PLUS.

#### **Realized Payoff**

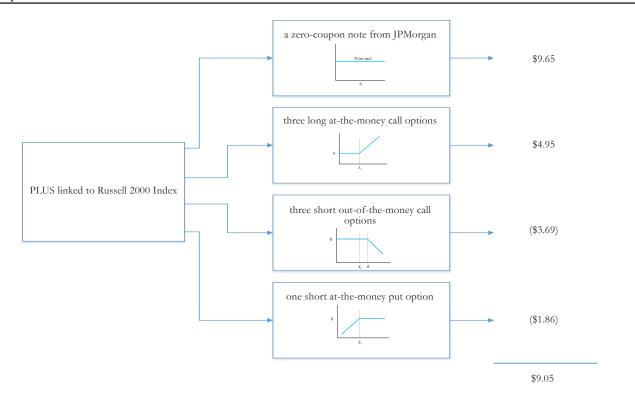
This note matured on March 26, 2010 and investors received \$13.85 per note.

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



The annualized implied volatility of the Russell 2000 Index on February 20, 2009 was 44.55%, meaning that options contracts on the Russell 2000 Index were trading at prices that reflect an expected annual volatility of 44.55%. 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 PLUS



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 PLUS.

- Delta measures the sensitivity of the price of the note to the the Russell 2000 Index level on February 20, 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.
  Fair price evaluation is based on the Black-Scholes model of the the Russell 2000 Index on February 20, 2009.
  Calculated payout at maturity is only an approximation, and may differ from actual payouts at maturity.
  Our evaluation does not include any transaction fees, broker commissions, or liquidity discounts on the notes.

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