slcg SECURITIES LITIGATION & CONSULTING GROUP

**Structured Products Research Report**

**Report Prepared On: 02/02/13**

# Trigger Yield Optimization Notes linked to The Interpublic Group of Companies Inc.

## Description

JPMorgan issued $822,761 of Trigger Yield Optimization Notes linked to The Interpublic Group of Companies Inc. on April 25, 2012 at $10.87 per note.

These notes are JPMorgan-branded single observation reverse convertibles. Single observation reverse convertibles pay periodic interest coupons and at maturity convert into shares of the reference security if the price of the reference security at the notes' maturity is below the trigger price determined when the notes were issued.

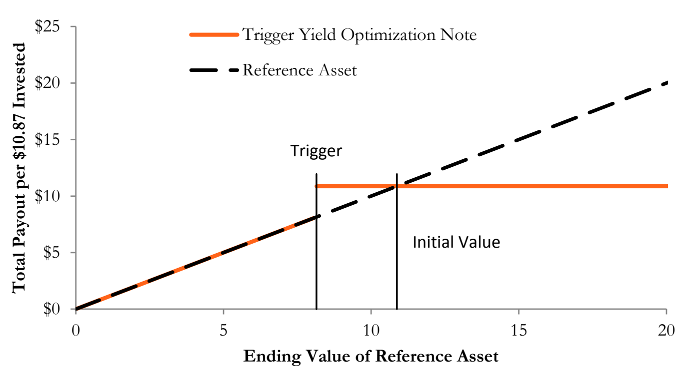
These 12-month notes pay monthly coupons at an annualized rate of 9.90%. In addition to the monthly coupons, on April 26, 2013 investors will receive the market value of one share of Interpublic Group of Companies Inc.'s stock if on April 22, 2013 Interpublic Group of Companies Inc.'s stock closes below $8.15 (75% of Interpublic Group of Companies Inc.'s stock price on April 20, 2012). Otherwise, investors will receive the $10.87 face value per note.

## Valuation

This JPMorgan single observation reverse convertible linked to Interpublic Group of Companies Inc.'s stock can be valued as a combination of a note from JPMorgan and a short European out-of-the-money cash-or-nothing binary put option, and a short European out-of-the-money put option on Interpublic Group of Companies Inc.'s stock. For reasonable valuation inputs this note was worth $10.53 per $10.87 when it was issued on April 25, 2012 because investors were effectively being paid only $0.91 for giving JPMorgan options which were worth $1.26.

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 Interpublic Group of Companies Inc.'s stock price (horizontal axis). For comparison, the dashed line shows the payoff if you invested in Interpublic Group of Companies Inc.'s stock directly.*

## Structured Product Details

| | |
|---|---|
| **Name** | Trigger Yield Optimization Notes linked to The Interpublic Group of Companies Inc. |
| **Issue Size** | $822,761 |
| **Issue Price** | $10.87 |
| **Term** | 12 Months |
| **Annualized Coupon** | 9.90% |
| **Pricing Date** | April 20, 2012 |
| **Issue Date** | April 25, 2012 |
| **Valuation Date** | April 22, 2013 |
| **Maturity Date** | April 26, 2013 |
| **Issuer** | JPMorgan |
| **CDS Rate** | 38.03 bps |
| **Swap Rate** | 1.04% |
| **Reference Asset** | Interpublic Group of Companies Inc.'s stock |
| **Initial Level** | $10.87 |
| **Trigger Price** | $8.15 |
| **Conversion Price** | TBD |
| **Dividend Rate** | 2.18% |
| **Implied Volatility** | 36.99% |
| **Delta[1]** | 0.41 |
| **Fair Price at Issue** | $10.53 |
| **CUSIP** | 46637G793 |
| **SEC Link** | www.sec.gov/Archives/edgar/data/19617/000089109212002307/e48172_424b2.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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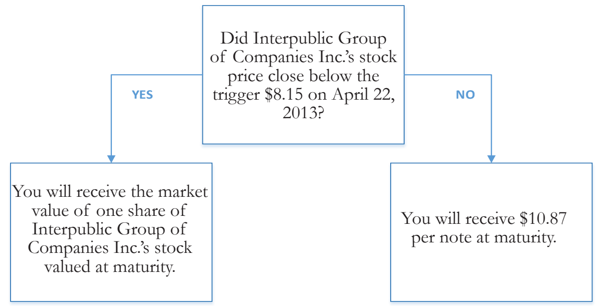
### Principal Payback Table

| Interpublic Group of Companies Inc.'s Stock | Note Payoff |
|---|---|
| $0.00 | $0.00 |
| $1.09 | $1.09 |
| $2.17 | $2.17 |
| $3.26 | $3.26 |
| $4.35 | $4.35 |
| $5.44 | $5.44 |
| $6.52 | $6.52 |
| $7.61 | $7.61 |
| $8.70 | $10.87 |
| $9.78 | $10.87 |
| **$10.87** | **$10.87** |
| $11.96 | $10.87 |
| $13.04 | $10.87 |
| $14.13 | $10.87 |
| $15.22 | $10.87 |
| $16.31 | $10.87 |

### Maturity Payoff Diagram



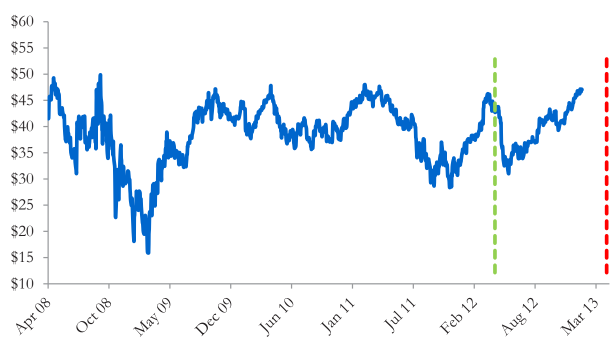

*The contingent payoffs of this Trigger Yield Optimization Note.*

# Analysis

This single observation reverse convertible's 9.90% coupon rate is higher than the yield JPMorgan paid on its straight debt but, in addition to JPMorgan's credit risk, investors bear the risk that they will receive shares of Interpublic Group of Companies Inc.'s stock when those shares are worth substantially less than the face value of the note at maturity.

Investors purchasing these reverse convertibles effectively sell put options to JPMorgan and post the note's issue price as collateral to secure satisfaction of the investors' obligations under the option contracts. JPMorgan pays investors a "coupon" that is part payment for the put options and part interest on the investors' posted collateral. This reverse convertible is fairly priced if and only if the difference between the reverse convertible's "coupon rate" and interest paid on JPMorgan's straight debt equals the value of the put option investors are giving to JPMorgan. Whether this reverse convertible is suitable or not is identically equivalent to whether selling put options on the reference stock at the option premium being paid by JPMorgan was suitable for the investor.

### JPMorgan's Stock Price

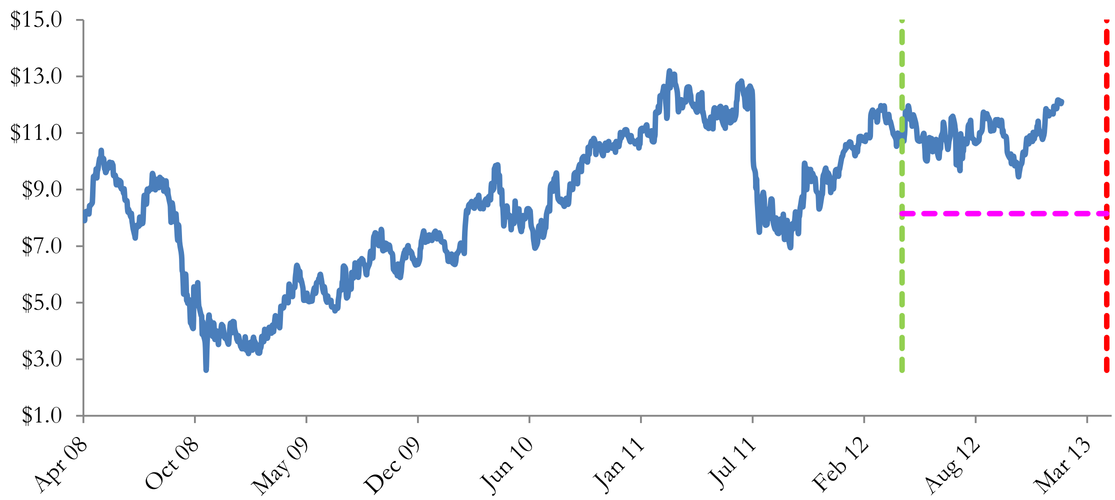



*The graph above shows the adjusted closing price of the issuer JPMorgan for the past several years. The stock price of the issuer is an indication of the financial strength of JPMorgan. The adjusted price shown above incorporates any stock split, reverse stock split, etc.*

**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 Trigger Yield Optimization Note. Fluctuations in JPMorgan's CDS rate impact the market value of the notes in the secondary market.*

**Interpublic Group of Companies Inc.'s Stock Price**

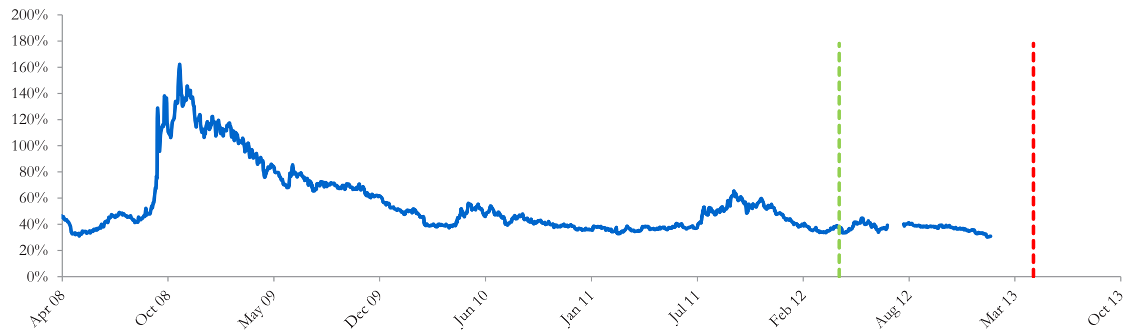



*The graph above shows the historical levels of Interpublic Group of Companies Inc.'s stock for the past several years. The final payoff of this note is determined by Interpublic Group of Companies Inc.'s stock price at maturity. Higher fluctuations in Interpublic Group of Companies Inc.'s stock price correspond to a greater uncertainty in the final payout of this Trigger Yield Optimization Note.*

**Realized Payoff**

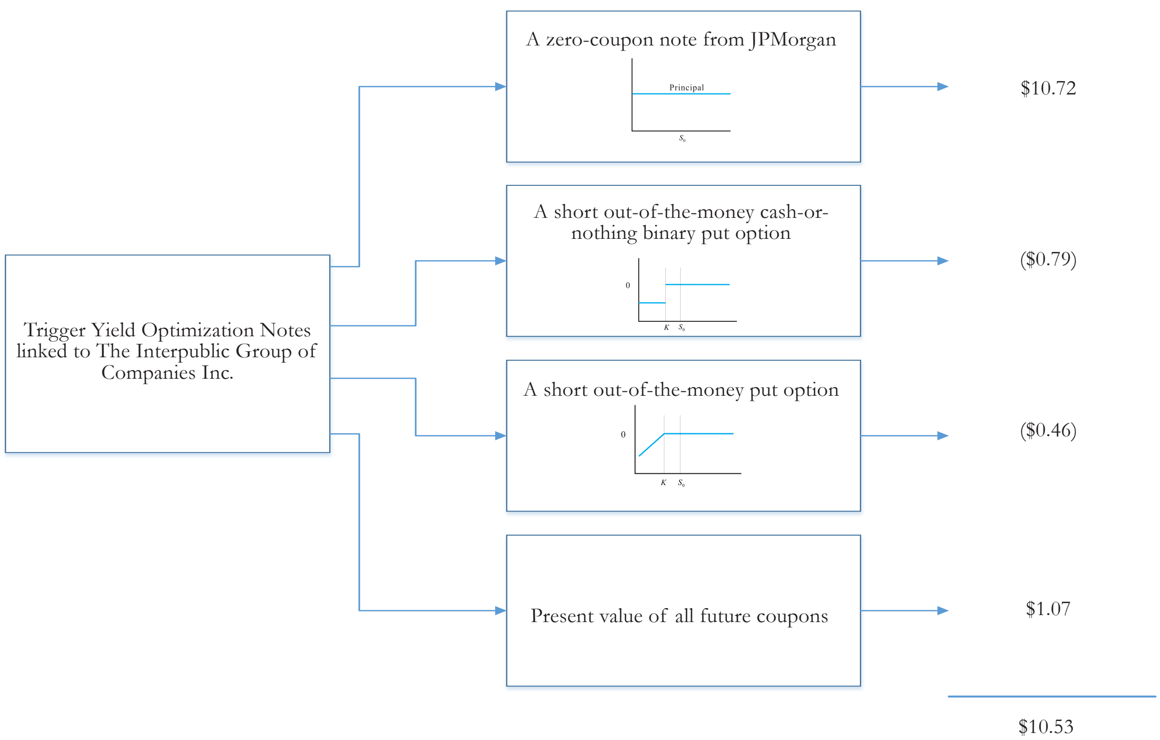
This product will mature on April 26, 2013.

## Reference Asset Interpublic Group of Companies Inc.'s Stock's Implied Volatility




*The annualized implied volatility of Interpublic Group of Companies Inc.'s stock on April 20, 2012 was 36.99%, meaning that options contracts on Interpublic Group of Companies Inc.'s stock were trading at prices that reflect an expected annual volatility of 36.99%. The higher the implied volatility, the larger the expected fluctuations of Interpublic Group of Companies Inc.'s stock price and of the Note's market value during the life of the Notes.*

## Decomposition of this Trigger Yield Optimization 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 Trigger Yield Optimization Note.*

1. Delta measures the sensitivity of the price of the note to the Interpublic Group of Companies Inc.'s stock price on April 20, 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 Interpublic Group of Companies Inc.'s stock on April 20, 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.