

**Structured Product Details** 

Trigger Yield Optimization Notes linked to Occidental Petroleum

\$5.92 million Issue Size Issue Price \$100.40 Term 12 Months **Annualized Coupon** 8.52% **Pricing Date** May 20, 2011

May 25, 2011 May 25, 2011 May 21, 2012 Issue Date Valuation Date Maturity Date May 25, 2012

JPMorgan Issuer CDS Rate 16.68 bps 0.73% Swap Rate

Reference Asset Occidental Petroleum Corp.'s stock \$100.40 Initial Level **Conversion Price** \$100.40 Trigger Price \$80.32 1.58% Dividend Rate 31.82% Implied Volatility Delta1 0.42

\$97.61 Fair Price at Issue Realized Return 8.88%

CUSIP 46634X211 SEC Link www.sec.gov/Archives/edgar/ data/19617/000089109211003448/ e43693 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.

Report Prepared On: 10/25/12

# Trigger Yield Optimization Notes linked to Occidental Petroleum Corp.

# Description

JPMorgan issued \$5.92 million of Trigger Yield Optimization Notes linked to Occidental Petroleum Corp. on May 25, 2011 at \$100.40 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.

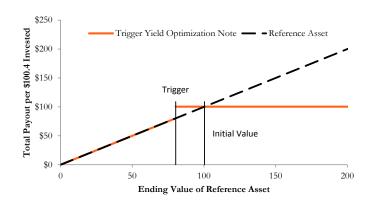
These 12-month notes pay monthly coupons at an annualized rate of 8.52%. In addition to the monthly coupons, on May 25, 2012 investors will receive the market value of one share of Occidental Petroleum Corp.'s stock if on May 21, 2012 Occidental Petroleum Corp.'s stock closes below \$80.32 (80% of Occidental Petroleum Corp.'s stock price on May 20, 2011). Otherwise, investors will receive the \$100.40 face value per note.

### Valuation

This JPMorgan single observation reverse convertible linked to Occidental Petroleum Corp.'s stock can be valued as a combination of a note from JPMorgan and a short European out-of-the-money cash-or-nothing put option, and a short European out-of-the-money put option on Occidental Petroleum Corp.'s stock. For reasonable valuation inputs this note was worth \$97.61 per \$100.40 when it was issued on May 25, 2011 because investors were effectively being paid only \$7.67 for giving JPMorgan options which were

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



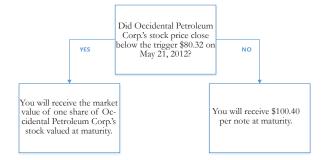
The payoff diagram shows the final payoff of this note given Occidental Petroleum Corp.'s stock price (horizontal axis). For comparison, the dashed line shows the payoff if you invested in Occidental Petroleum Corp.'s stock directly.

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### Maturity Payoff Diagram

Occidental Petro- leum Corp.'s Stock	Note Payoff
\$0.00	\$0.00
\$10.04	\$10.04
\$20.08	\$20.08
\$30.12	\$30.12
\$40.16	\$40.16
\$50.20	\$50.20
\$60.24	\$60.24
\$70.28	\$70.28
\$80.32	\$100.40
\$90.36	\$100.40
\$100.40	\$100.40
\$110.44	\$100.40
\$120.48	\$100.40
\$130.52	\$100.40
\$140.56	\$100.40
\$150.60	\$100.40



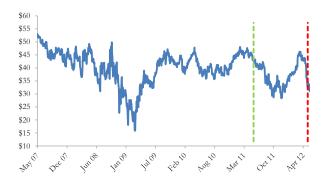
The contingent payoffs of this Trigger Yield Optimization Note.

# **Analysis**

This single observation reverse convertible's 8.52% 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 Occidental Petroleum Corp.'s stock when those shares are worth substantially less than the face value of the note at maturity.

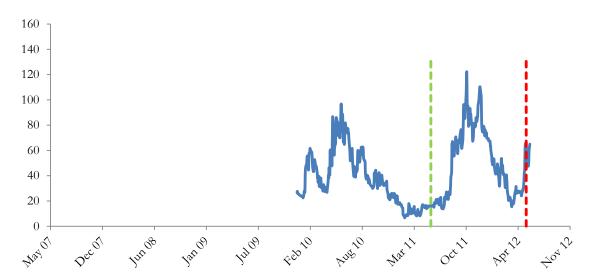
Investors purchasing these reverse convertibles effectively sell put options to JPMorgan and post the note's issue price as collateral to secure satisfaction of the investors' obligations under the option contracts. JPMorgan pays investors a "coupon" that is part payment for the put options and part 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



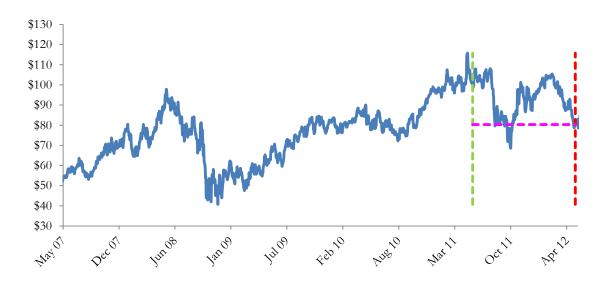
The graph above shows the adjusted closing price of the issuer JPMorgan for the past several years. The stock price of the issuer is an indication of the financial strength of JPMorgan. The adjusted price shown above incorporates any stock split, reverse stock split, etc.

## 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.

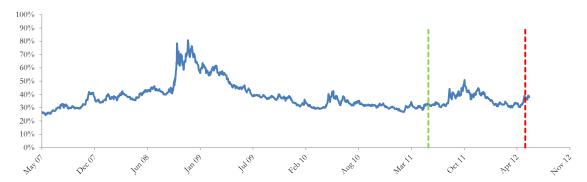
### Occidental Petroleum Corp.'s Stock Price



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

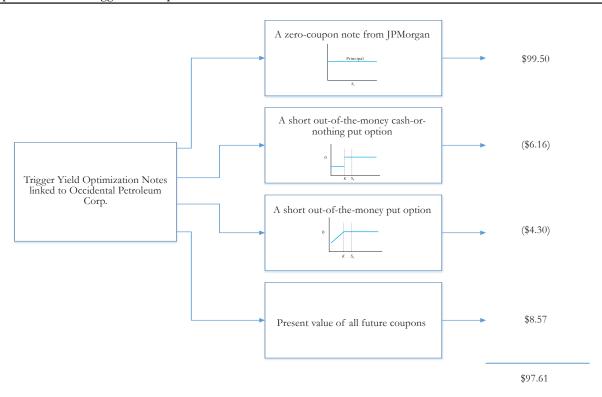
### Realized Payoff

This note matured on May 25, 2012 and investors received \$100.40 per note.



The annualized implied volatility of Occidental Petroleum Corp.'s stock on May 20, 2011 was 31.82%, meaning that options contracts on Occidental Petroleum Corp.'s stock were trading at prices that reflect an expected annual volatility of 31.82%. The higher the implied volatility, the larger the expected fluctuations of Occidental Petroleum Corp.'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.

- Delta measures the sensitivity of the price of the note to the Occidental Petroleum Corp's stock price on May 20, 2011.
  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 Occidental Petroleum Corp's stock on May 20, 2011.
  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.