

## Structured Product Details

Name	Phoenix Au	tocallable Notes linked to Google Inc.
Issue Size Issue Price Term Annualized	Coupon	\$500,000 \$1,000 12 Months 7.30%
Pricing Date Issue Date Valuation Da Maturity Da	ate	July 16, 2014 July 21, 2014 July 30, 2015 August 4, 2015
Issuer CDS Rate Swap Rate		UBS 15.18 bps 0.56%
Reference A	sset	Google Inc.'s stock
Initial Lev Dividend Implied V	Rate	\$582.66 0.00% 22.10%
Fair Price at	Issue	\$975.59
CUSIP		90270KDA4

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SEC Link	www.sec.gov/Archives/edgar/
020200	data/1114446/000119312514272971/
	d760589d424b2.htm

Structured Products Research Report

Report Prepared On: 11/19/14

# Phoenix Autocallable Notes linked to Google Inc.

## Description

UBS issued \$500,000 of Phoenix Autocallable Notes linked to Google Inc. on July 21, 2014 at \$1,000 per note.

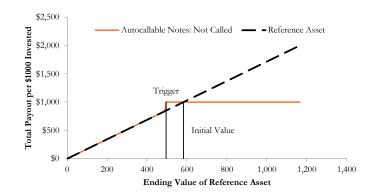
These 12-month notes are UBS-branded reverse convertible notes. On the quarterly coupon observation date, if the notes are not called back, they pay either quarterly coupon at an annualized rate of 7.30% if Google Inc.'s stock price closes above the coupon barrier \$495.26, or no coupon if the stock price closes below the barrier. The first coupon observation date is October 30, 2014. This autocallable notes will be called back if the reference stock price on any quarterly call observation date after October 30, 2014 exceeds the initial stock price \$582.66. In this case, investors receive the principal plus any unpaid coupons. At maturity, the notes convert into shares of the reference stock at the note's maturity is below the trigger price \$495.26 (85% of the reference asset on July 16, 2014). Otherwise, investors will receive the \$1,000 face value.

## Valuation

This note can be viewed as a combination of a zero-coupon note from UBS, a series of contingent coupon payments, and a short put option on the reference asset. For reasonable valuation inputs this note was worth \$975.59 per \$1,000 face value when it was issued on July 21, 2014, including \$996.01 for the present value of the zero-coupon note, (\$50.38) for the short put options, and \$29.96 for the present value of all future contingent coupon payments.

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 Google Inc.'s stock price (borizontal axis). For comparison, the dashed line shows the payoff if you invested in Google Inc.'s stock directly.

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Related Research

#### **Research Papers:**

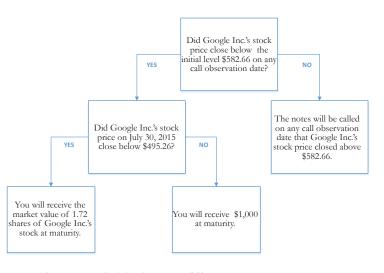
www.slcg.com/research.php

- "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.

#### Principal Payback Table

Google Inc.'s Stock	Note Payoff
\$0.00	\$0.00
\$58.27	\$100.00
\$116.53	\$200.00
\$174.80	\$300.00
\$233.06	\$400.00
\$291.33	\$500.00
\$349.60	\$600.00
\$407.86	\$700.00
\$466.13	\$800.00
\$524.39	\$1,000.00
\$582.66	\$1,000.00
\$640.93	\$1,000.00
\$699.19	\$1,000.00
\$757.46	\$1,000.00
\$815.72	\$1,000.00
\$873.99	\$1,000.00

#### Maturity Payoff Diagram



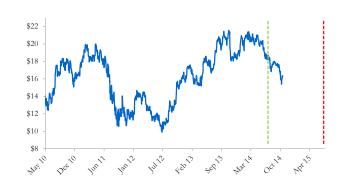
The contingent payoffs of this Phoenix Autocallable Note.

## Analysis

The 7.30% coupon rate on this Phoenix Autocallable Note is higher than those paid by UBS on its straight debts but, in addition to UBS's credit risk, investors bear the risk that, 1) the note may be called; 2) the note may pay zero coupon because of the coupon contingency; 3) and the note will be converted into shares of Google Inc.'s stock when Google Inc.'s stock is worth substantially less than the face value of the note.

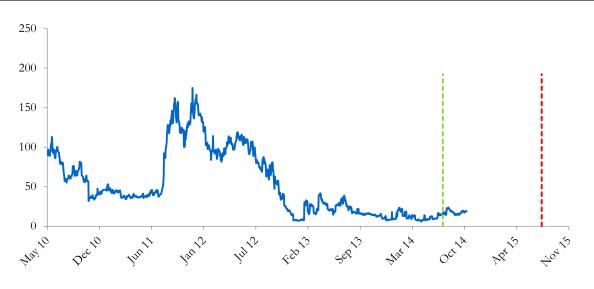
Investors purchasing these autocallable phoenix notes effectively sell contingent put options to UBS and post the note's issue price as collateral to secure satisfaction of the investors' obligations under the option contracts. UBS pays investors a contingent coupon that is part payment for the put options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

#### **UBS's Stock Price**

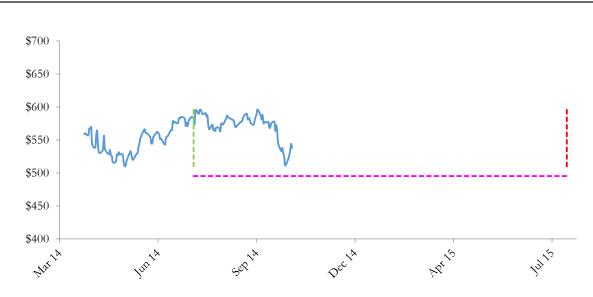


The graph above shows the adjusted closing price of the issuer UBS for the past several years. The stock price of the issuer is an indication of the financial strength of UBS. The adjusted price shown above incorporates any stock split, reverse stock split, etc.





Credit default swap (CDS) rates are the market price that investors require to bear credit risk of an issuer such as UBS. CDS rates are usually given in basis points (bps). One basis point equals 0.01%. Higher CDS rates reflect bigher perceived credit risk, higher required yields, and therefore lower market value of UBS's debt, including outstanding Phoenix Autocallable Note. Fluctuations in UBS's CDS rate impact the market value of the notes in the secondary market.



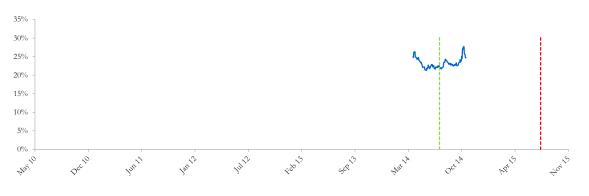
Google Inc.'s Stock Price

The graph above shows the historical levels of Google Inc.'s stock for the past several years. The final payoff of this note is determined by Google Inc.'s stock price at maturity. Higher fluctuations in Google Inc.'s stock price correspond to a greater uncertainty in the final payout of this Phoenix Autocallable Note.

#### **Realized Payoff**

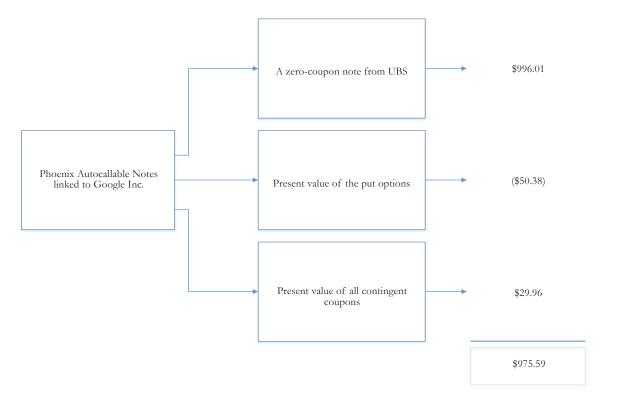
This product will mature on August 4, 2015.

#### Reference Asset Google Inc.'s Stock's Implied Volatility



The annualized implied volatility of Google Inc.'s stock on July 16, 2014 was 22.10%, meaning that options contracts on Google Inc.'s stock were trading at prices that reflect an expected annual volatility of 22.10%. The higher the implied volatility, the larger the expected fluctuations of Google Inc.'s stock price and of the Note's market value during the life of the Notes.

#### Decomposition of this Phoenix Autocallable 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 Phoenix Autocallable Note.

- Delta measures the sensitivity of the price of the note to the Google Inc.'s stock price on July 16, 2014.
  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 Google Inc.'s stock on July 16, 2014.
  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.

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