Structured Product Details

Report Prepared On: 10/25/12

Trigger Phoenix Autocallable Optimization Securities linked to Apple, Inc.

Name	Trigger Phoenix Autocallable Optimization Securities linked to Apple, Inc.
Issue Size	$255,000
Issue Price	$10
Term	12 Months
Annualized Coupon	16.91%
Pricing Date	September 28, 2011
Issue Date	October 3, 2011
Valuation Date	September 28, 2012
Maturity Date	October 5, 2012
Issuer	UBS
CDS Rate	152.12 bps
Swap Rate	0.85%
Reference Asset	Apple, Inc.'s stock
Initial Level	$396.92
Dividend Rate	0.00%
Implied Volatility	37.91%
Fair Price at Issue	$9.57
CUSIP	90268F161
SEC Link	www.sec.gov/Archives/edgar/data/1114446/000111444611010049/stp261956f_1fwp.htm

Description

UBS issued $255,000 of Trigger Phoenix Autocallable Optimization Securities linked to Apple, Inc. on October 3, 2011 at $10 per note.
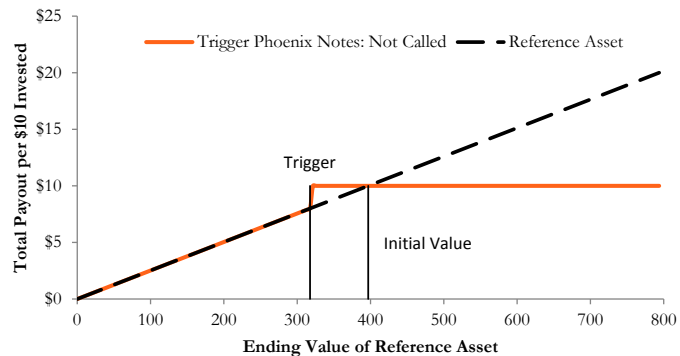
These 12-month notes are UBS-branded reverse convertible notes. On the quarterly coupon observation date, if the notes are not called back, they pay either quarterly coupon at an annualized rate of 16.91% if Apple, Inc.'s stock price closes above the coupon barrier $317.54, or no coupon if the stock price closes below the barrier. The first coupon observation date is December 28, 2011. This Trigger Phoenix Autocallable Optimization Security will be called back if the reference stock price on any quarterly call observation date after December 28, 2011 exceeds the initial stock price. In this case, investors receive the principal plus any unpaid coupons. At maturity, the notes convert into shares of the reference security—0.03 share of Apple, Inc.'s stock in this case—if the market value of the reference stock at the note's maturity is below the trigger price $317.54 (80% of Apple, Inc.'s stock price on September 28, 2011). Otherwise, investors will receive the $10 face value.

Valuation

This UBS Trigger Phoenix Autocallable Optimization Securities linked to Apple, Inc. 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 Apple, Inc.'s stock. For reasonable valuation inputs this note was worth $9.57 per $10 face value when it was issued on October 3, 2011, including $9.86 for the present value of the zero-coupon note, ($0.91) for the short put options, and $0.62 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.

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.

Payoff Curve at Maturity

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

Olivia Wang, Ph.D.,
Senior Financial Economist, SLCG
(+1) 703.539.6770
OliviaWang@slcg.com

Principal Payback Table

Apple, Inc.'s Stock	Note Payoff
$0.00	$0.00
$39.69	$1.00
$79.38	$2.00
$119.08	$3.00
$158.77	$4.00
$198.46	$5.00
$238.15	$6.00
$277.84	$7.00
$317.54	$8.00
$357.23	$10.00
$396.92	**$10.00**
$436.61	$10.00
$476.30	$10.00
$516.00	$10.00
$555.69	$10.00
$595.38	$10.00

**Maturity Payoff Diagram**
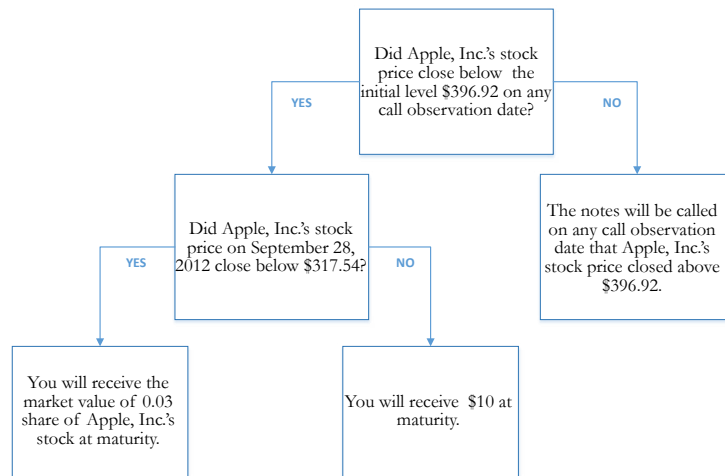
The contingent payoffs of this Trigger Phoenix Autocallable Optimization Security.

Analysis

The 16.91% coupon rate on this Trigger Phoenix Autocallable Optimization Security 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 Apple, Inc.'s stock when Apple, 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 Trigger Phoenix Autocallable Optimization Security 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 Trigger Phoenix Autocallable Optimization Security 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.
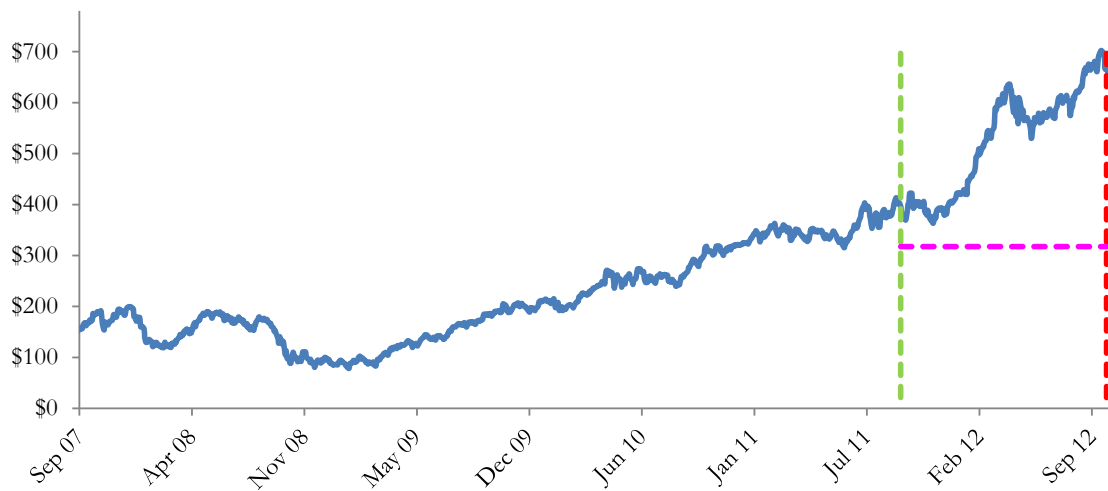
UBS's Stock Price
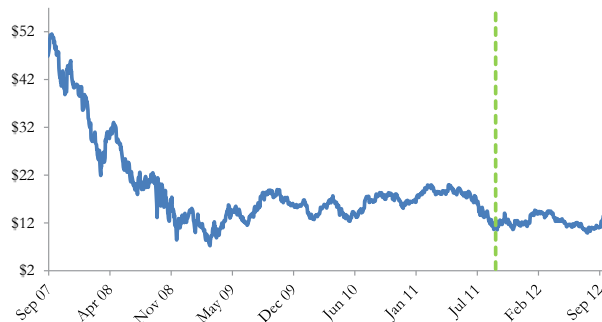
The graph above shows the adjusted closing price of the issuer UBS for the past several years. The stock price of the issuer is an indication of the financial strength of UBS. The adjusted price shown above incorporates any stock split, reverse stock split, etc.

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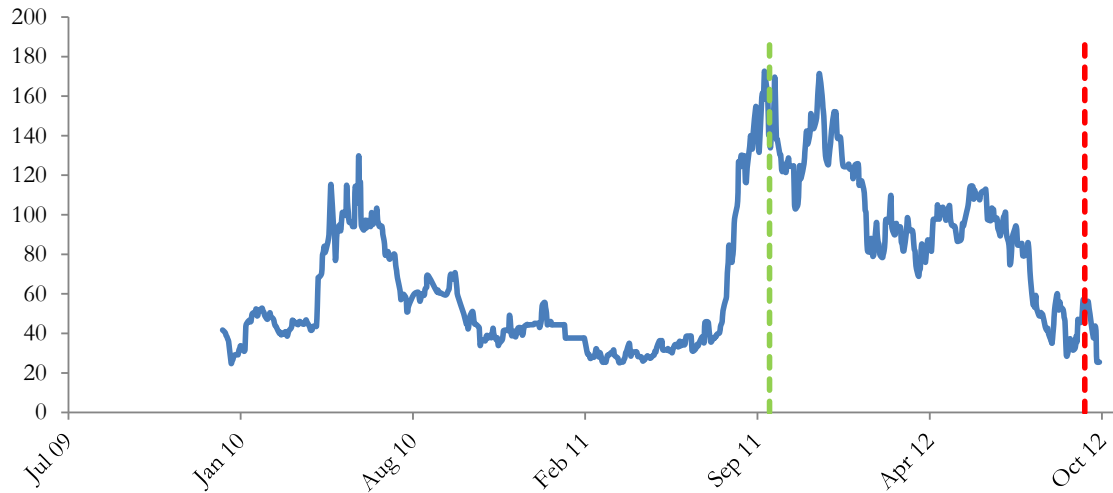
Credit default swap (CDS) rates are the market price that investors require to bear credit risk of an issuer such as UBS. CDS rates are usually given in basis points (bps). One basis point equals 0.01%. Higher CDS rates reflect higher perceived credit risk, higher required yields, and therefore lower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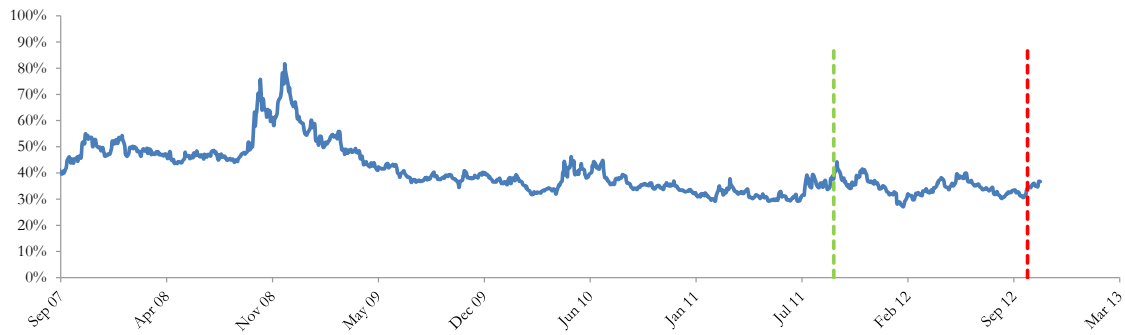
Apple, Inc.'s Stock Price

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

Realized Payoff
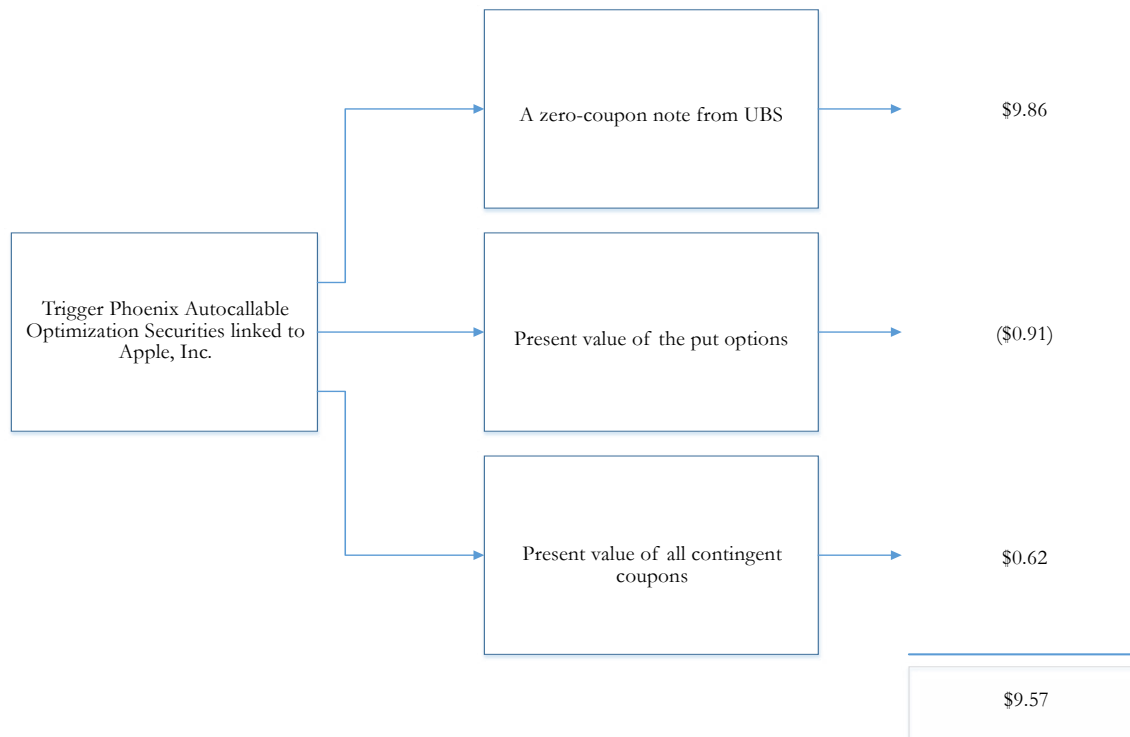
This note was early terminated on December 28, 2011 due to its automatic call feature. The Apple, Inc.'s stock price on December 28, 2011 was $402.64, higher than the initial level $396.92. Investors received $10 per note plus any unpaid coupons.

Reference Asset Apple, Inc.'s Stock's Implied Volatility

The annualized implied volatility of Apple, Inc.'s stock on September 28, 2011 was 37.91%, meaning that options contracts on Apple, Inc.'s stock were trading at prices that reflect an expected annual volatility of 37.91%. The higher the implied volatility, the larger the expected fluctuations of Apple, Inc.'s stock price and of the Note's market value during the life of the Notes.

Decomposition of this Trigger Phoenix Autocallable Optimization Security

A zero-coupon note from UBS	$9.86
Present value of the put options	($0.91)
Present value of all contingent coupons	$0.62
	$9.57

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 Phoenix Autocallable Optimization Security.

1. Delta measures the sensitivity of the price of the note to the Apple, Inc.'s stock price on September 28, 2011.
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 Apple, Inc.'s stock on September 28, 2011.
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.