

# Investments Through Time:

## The Evolution of Investment Products and How They are Sold

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## My Background

- Education
  - UCLA PhD, Chartered Financial Analyst, Series 7 and 63 registrations.
- Professional
  - Former Academic.
  - Securities and Exchange Commission, KPMG, NERA, LECG.
  - Founded SLCG in 2000.
  - Hundreds of complex investments related engagements.
  - Testified in state and federal court and before NASD, NYSE, AAA and JAMS arbitration panels.
  - Consultant to SEC and many state governments on structured finance.
- Biographical Links

Resume [www.slcg.com/securities-consulting-professionals.php?c=securities-litigation-experts-resumes&i=10](http://www.slcg.com/securities-consulting-professionals.php?c=securities-litigation-experts-resumes&i=10)

LinkedIn [www.linkedin.com/profile/view?locale=en\\_US&trkInfo=tas%3Acraig+mccann%2Cidx%3A1-1-1&id=8979590&trk=tyah](http://www.linkedin.com/profile/view?locale=en_US&trkInfo=tas%3Acraig+mccann%2Cidx%3A1-1-1&id=8979590&trk=tyah)

SSRN Author Page [http://papers.ssrn.com/sol3/cf\\_dev/AbsByAuth.cfm?per\\_id=1771232](http://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=1771232)

## Summary

- Retail investments are **much more complex in 2015** than they were 10 or 20 years ago and investors are worse off for it.
- **Structured products** evolved from companies' capital structures to a source of brokerage firm profits, shifting market and credit risks without compensation.
- The evolution has included ever more complicated products(reverse convertibles, dual directionals, autocallables, etc.).
- In addition, the underlying assets have evolved from stocks and stock indexes, through interest rates and currencies, to **commodities** and **volatility**.
- Futures and other derivative contracts are used to take risks retail investors were not exposed to 10 years ago and to add leverage.
- Exchange traded funds (**ETFs**) and exchange traded notes (**ETNs**) have similarly evolved from SPY to FAZ, USO, TVIX and worse.
- This is the age-old problem of selling illiquid, risky investments for a lot more than they are worth without adequate disclosure of the risks and the conflicts of interest. **Non-traded REITs** are the perfect example of this **old timey** **grift**.

## Structured Products

## Structured Product Developments Have Made Regulators' Jobs More Difficult

- Equity-linked notes in the late 1980s and early 1990s were issued by operating companies in financial distress. These mandatory convertible securities, branded PERCS, PRIDES, DECS, ACES, PEPS etc., provided rating agency equity capital and preserved deductibility of interest payments.
- Early equity-linked notes were also used by corporations and wealthy investors to “monetize” highly appreciated stock positions, shedding risk and deferring taxes.
- Structured products evolved as underwriters began issuing their own notes with payoffs set by other companies’ stocks prices – ELKS, SPARQS, YACHTS, YEELDS and STEEPENERS for example.
- Structures have become more complex and the linked assets include esoteric and proprietary indexes. Also, the different incentives of underwriters today serving as underwriter and issuer may lead to more complex, less valuable structured products.
- These changes make reasonable basis and client specific suitability analysis and regulatory oversight much more difficult.

# In the Beginning

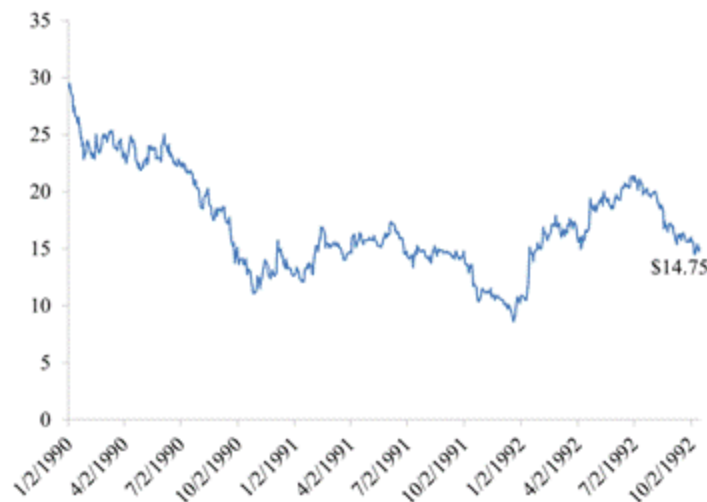
## Issuers Issued, Underwriters Underwrote

# Citicorp's 8.25%, 3-Year PERCS, October 15, 1992

Citicorp's 1992 \$1 billion Preferred Equity Redemption Cumulative Stock (PERCS) is an early structured product.

This 3-year mandatory convertible paid an 8.25% annual dividend quarterly.

It was issued at a time when Citicorp was in financial difficulty. Citicorp's stock price had declined from over \$30 to under \$15 in the prior two years.



**PROSPECTUS**

68,000,000 Shares  
**CITICORP**  
\$1.217 DEPOSITARY SHARES  
EACH REPRESENTING ONE-TWELFTH OF A SHARE OF  
CONVERSION PREFERRED STOCK, SERIES 15  
(Preferred Equity Redemption Cumulative Stock - PERCS)  
(Subject to Conversion into Shares of Common Stock, Par Value \$1.00 Per Share)

...  
...

The Depository Shares have been approved for listing on the New York Stock Exchange.

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

**PRICE \$14 1/4 A DEPOSITARY SHARE**

	Price to Public(1)	Underwriting Discounts and Commissions(2)	Proceeds to Citicorp(1)(3)
Per Depositary Share	\$14.750	\$.369	\$14.381
Total(4)	\$1,003,000,000	\$26,092,000	\$977,908,000

(1) Plus a proportionate amount of the accrued dividends on the PERCS, if any, from the date of issue.  
(2) Citicorp has agreed to indemnify the Underwriters against certain liabilities, including liabilities under the Securities Act of 1933. See "Underwriters."  
(3) Before deducting expenses payable by Citicorp estimated at \$700,000.  
(4) Citicorp has granted the Underwriters an option, exercisable within 30 days from the date hereof, to purchase up to an aggregate of 10,000,000 additional Depositary Shares at the Price to Public, less Underwriting Discounts and Commissions, for the purpose of covering over-allotments, if any. If the Underwriters exercise such option in full, the total Price to Public, Underwriting Discounts and Commissions and Proceeds to Citicorp will be \$1,153,460,000, \$28,855,800 and \$1,124,604,200. See "Underwriters."

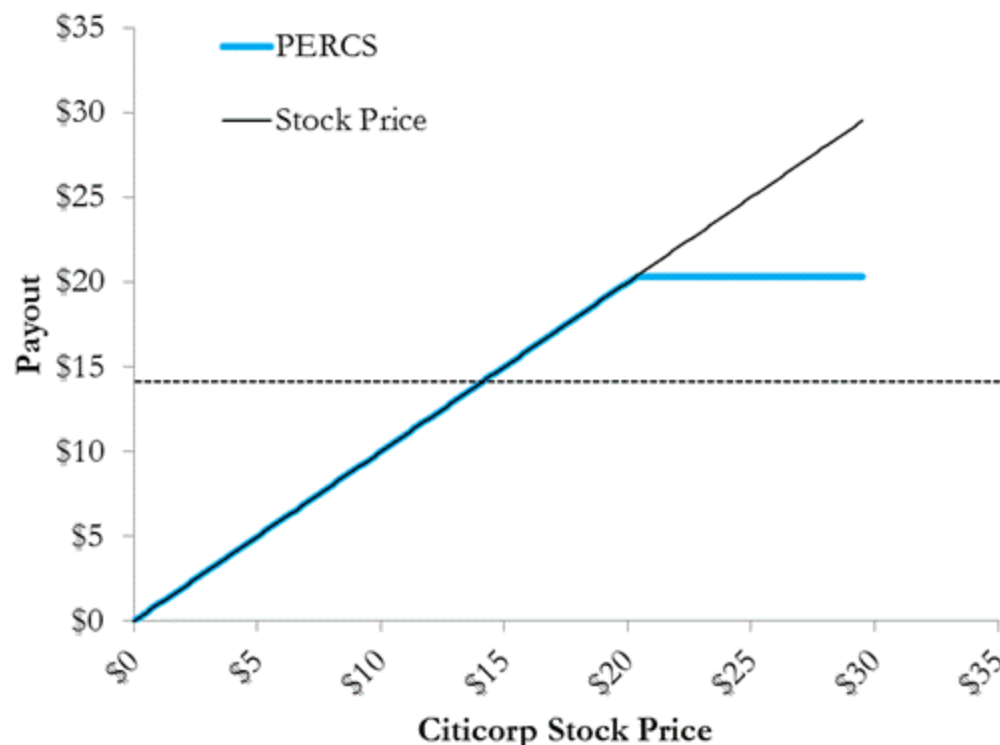
The Depository Shares are offered subject to prior sale, when, as and if accepted by the Underwriters named herein, and subject to approval of certain legal matters by Sullivan & Cromwell, counsel for the Underwriters. It is expected that delivery of the Depositary Receipts evidencing the Depositary Shares will be made on or about October 22, 1992 at the office of Morgan Stanley & Co. Incorporated, New York, New York, against payment therefor in New York funds.

**MORGAN STANLEY & CO.**  
Incorporated

October 15, 1992

## Citicorp's 8.25%, 3-Year PERCS, October 15, 1992

- At maturity, Citicorp paid the lesser of
  - the value of a share of 1 share of Citicorp stock
  - \$20.28.
- Citicorp had suspended its dividend but was expected to begin paying \$1 per share annual dividend.
- PERCS paid \$0.30425 dividend quarterly.
- Setting aside the PERCS' dividend and the expected Citicorp dividend, this payoff similar to owning Citicorp (at \$14.75) and selling a 3-year call option with a \$20.28 strike price.





# Reynolds Metals 7%, 4-Year PRIDES, January 18, 1994

RULE 424B4  
FILE NO. 33-51631

- Reynolds Metals issued PRIDES in 1994 to raise equity capital
- This mandatory convertible was issued at a time when Reynolds Metals was in financial difficulty.



[LOGO]

## PROSPECTUS

10,000,000 Shares

REYNOLDS METALS COMPANY

7% PRIDES\*

Convertible Preferred Stock, Stated Value \$47.25 per Share

The shares offered hereby are 10,000,000 shares of Preferred Redeemable Increased Dividend Equity Securities\*, 7% PRIDES\*, Convertible Preferred Stock, stated value \$47.25 per share ("PRIDES"), of Reynolds Metals Company (the "Company").

## INVESTMENT CONSIDERATIONS

### Recent Losses

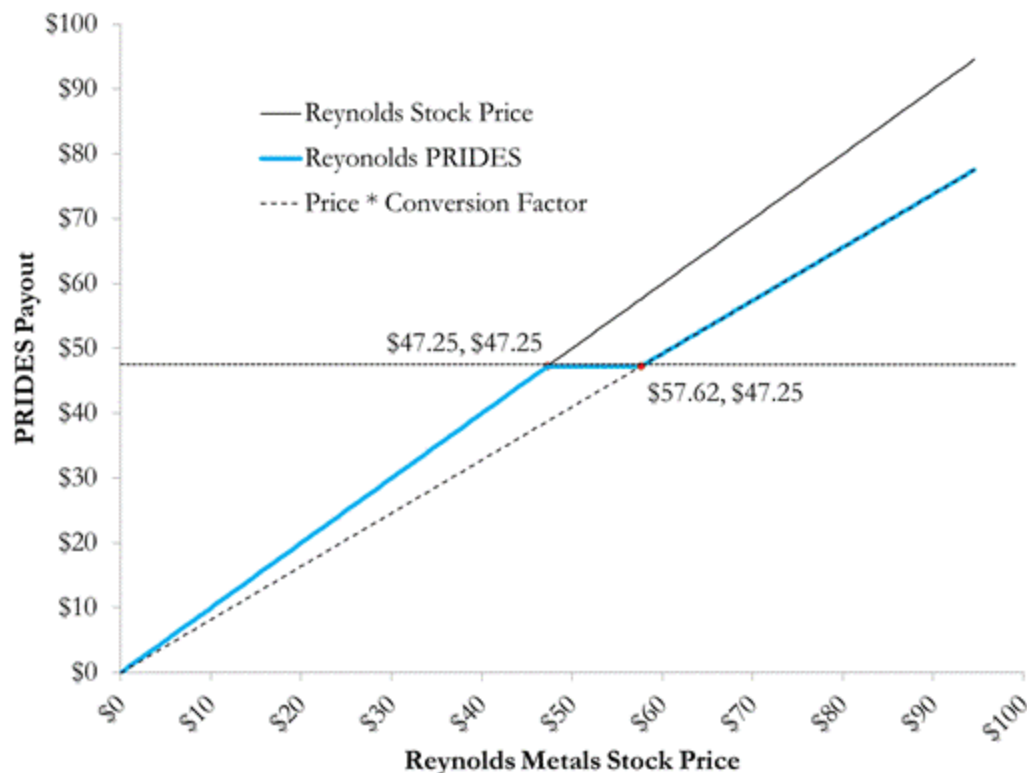
The Company has reported net losses in recent periods and anticipates a loss for 1993. For 1992, the Company reported a net loss of \$748.8 million, or \$12.56 per share. Of that amount, \$639.6 million represented the cumulative effects of adopting Statement of Financial Accounting Standards No. 106-Employers' Accounting for Postretirement Benefits Other Than Pensions and No. 109-Accounting for Income Taxes. See "Selected Financial Information - Accounting Changes". For the first nine months of 1993, the Company reported a net loss of \$83.5 million, or \$1.40 per share. Earnings were insufficient to cover combined fixed charges and preferred stock dividends in 1992 and for the first nine months of 1993. See "Selected Financial Information". No assurance can be given that earnings will be adequate in future periods to cover such amounts.

The Company expects to report an operating loss for the fourth quarter of 1993. In addition, the Company has decided to take restructuring actions that will result in after-tax charges for 1993 of approximately \$200 million to \$225 million, or \$3.35 to \$3.75 per share. See "Recent Developments". Unless the aluminum pricing conditions discussed below improve, it will be difficult for the Company to return to profitability in 1994.

In the second quarter of 1993, the Board of Directors of the Company reduced the quarterly dividend on the Common Stock from \$0.45 to \$0.25 per share, citing current and expected business conditions over the next twelve to eighteen months. The dividend reduction will reduce the Company's cash outlays by approximately \$48 million per year. See "Common Stock Prices and Dividends".

## Reynolds Metals 7%, 4-Year PRIDES, January 18, 1994

- At maturity, Reynolds paid the lesser of
  - the value of a share of 1 share of Reynolds stock
 or
  - \$47.25 plus 82% of any excess above \$57.62.
- PRIDES paid a \$0.8275 dividend quarterly; Reynolds stock paid \$1.00 recently reduced from \$1.80.
- Setting aside the dividends, this payoff similar to owning Reynolds (at \$47.25) and selling a at-the-money call option and buying 0.82 call options with a \$57.62 strike price all expiring in 4 years.



## Times Mirror's \$39.25 PEPS Linked to Netscape, March 13, 1996

Times Mirror issued PEPS (Premium Equity Participating Securities) linked to the price of Netscape.

Times Mirror had acquired pre-IPO Netscape shares and seen their value skyrocket and start to fall back to earth.

The PEPS allowed Times Mirror to sell its Netscape stock without triggering capital gains taxes and deduct interest payments.

This filing is made pursuant to Rule 424(b)(2) under the Securities Act of 1933 in connection with Registration No. 33-62165

PROSPECTUS SUPPLEMENT  
(To Prospectus dated February 28, 1996)

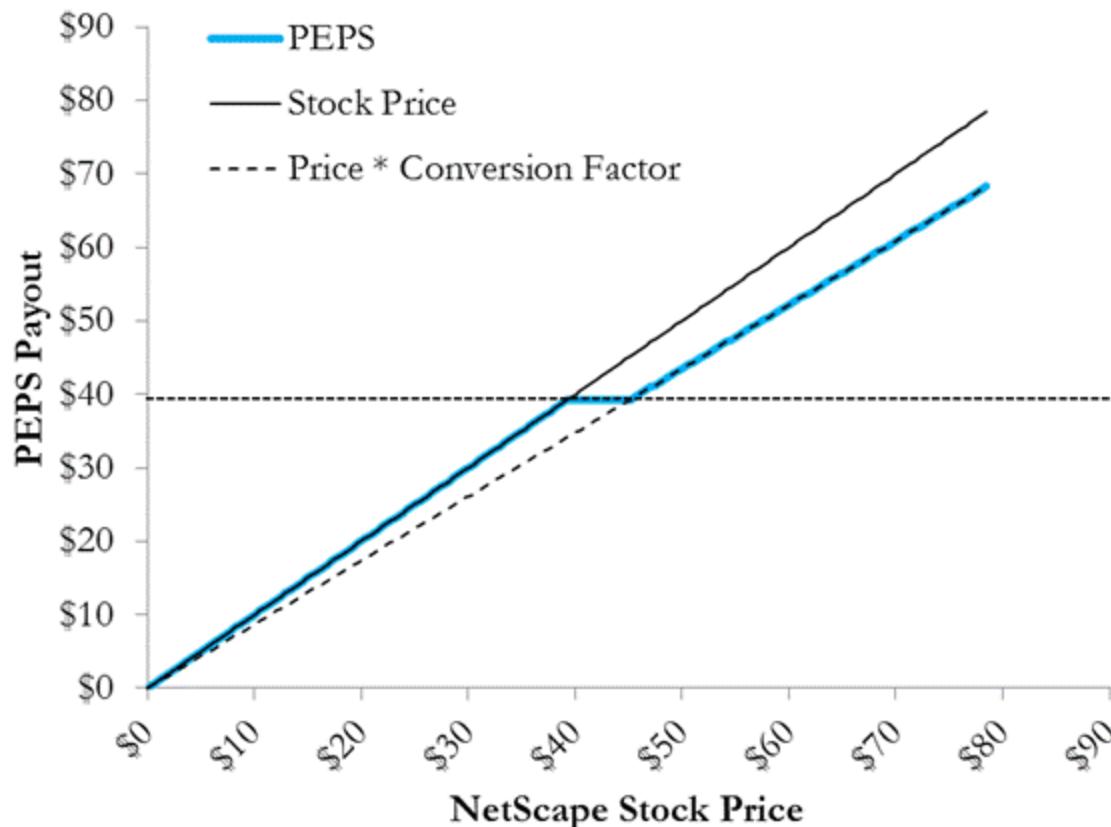
1,305,000 PEPS SM  
Premium Equity Participating Securities  
The Times Mirror Company  
4 1/4% PEPS DUE MARCH 15, 2001

Amount Payable at Maturity Determined by Reference to the per  
Share Price of Common Stock of  
Netscape Communications Corporation



## Times Mirror's \$39.25 PEPS Linked to Netscape, March 13, 1996

- Times Mirror paid 4 1/4% interest.
- At maturity, Times Mirror paid
  - 1) the value of a share of 1 share of Netscape stock if < \$39.25,
  - or
  - 2) \$39.25 plus 87% of any excess above \$45.14.
- Times Mirror deferred taxes for 5 years, shed the downside risk in Netscape, kept the first 15% upside, and 15% of any further gains.



## Select Articles on Early Equity-linked Securities

Morgan Stanley Dean Witter “*Guide to PEPS Premium Exchangeable Participating Securities*”, December 1998.

[www.slcg.com/OtherStructuredProductResearch/MSDW%20Guide%20to%20PEPS.pdf](http://www.slcg.com/OtherStructuredProductResearch/MSDW%20Guide%20to%20PEPS.pdf)

Arzac, Enrique R. “Percs, Decs and Other Mandatory Convertibles” *Journal of Applied Corporate Finance* Volume 10 Number 1 • Spring 1997

[www.slcg.com/OtherStructuredProductResearch/Percs%20decs%20and%20other%20mandatory%20convertibles.pdf](http://www.slcg.com/OtherStructuredProductResearch/Percs%20decs%20and%20other%20mandatory%20convertibles.pdf)

Chemmanur, Thomas, Debarshi Nandy and An Yan, *Designing Innovative Securities in Response to Market Imperfections : A Theory of Mandatory Convertibles*, 2006.

[www.slcg.com/OtherStructuredProductResearch/Designing%20Innovative%20Securities%20in%20Response%20to%20Market%20Imperfections.pdf](http://www.slcg.com/OtherStructuredProductResearch/Designing%20Innovative%20Securities%20in%20Response%20to%20Market%20Imperfections.pdf)

Chen, Andrew H.Y., K.C. Chen, and Scott Howell, “An Analysis of Dividend Enhanced Convertible Stocks” *International Review of Economics and Finance* Volume 8 (1999) 327–338

[www.slcg.com/OtherStructuredProductResearch/An%20analysis%20of%20dividend%20enhanced%20convertible%20stocks%201999.pdf](http://www.slcg.com/OtherStructuredProductResearch/An%20analysis%20of%20dividend%20enhanced%20convertible%20stocks%201999.pdf)

# Underwriters as Issuers

## Create Significant Additional Conflicts of Interest



# Lehman Brothers' 5% YEELDS Linked to Cisco Systems, March 3, 1998

Lehman's 1998 \$1 million Yield Enhanced Equity Linked Debt Security (YEELDS) is an early example of a structured product being issued by a brokerage firm linked to the stock of another company.

This 3-year product paid an 5% annual interest quarterly.

Lehman Brothers had the option to settle in cash or in stock.

Filed Pursuant to Rule 424(B) (5)  
Registration No. 033-53651

PROSPECTUS SUPPLEMENT  
(To Prospectus dated February 17, 1998)

1,000,000 YEELDS-SM-  
LEHMAN BROTHERS HOLDINGS INC.

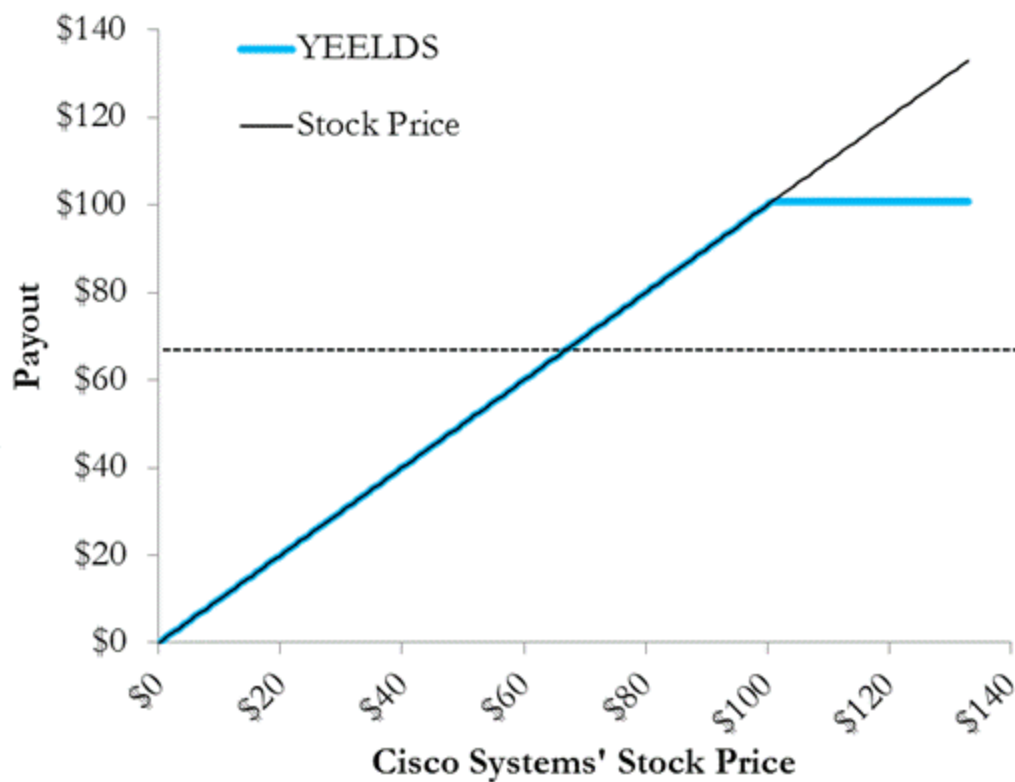
5% Cisco Systems Yield Enhanced Equity Linked Debt Securities Due 2001  
(ISSUE PRICE AND PRINCIPAL AMOUNT BASED ON THE PRICE OF CISCO SYSTEMS, INC.  
COMMON STOCK)

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The 5% Cisco Systems Yield Enhanced Equity Linked Debt Securities Due 2001 (a "YEELD" or a "Security", and in the aggregate, the "YEELDS" or the "Securities") of Lehman Brothers Holdings Inc. ("Holdings") are being offered at an issue price (the "Issue Price") of \$66.50. The YEELDS will mature on February 26, 2001, subject to extension upon the occurrence of certain Non-Trading Days. The YEELDS are to be issued as a series of Debt Securities under the Senior Indenture described in the accompanying Prospectus and will constitute "Senior Debt" of Holdings as described in the accompanying Prospectus. The YEELDS may not be redeemed prior to maturity and are not subject to any sinking fund.

The principal amount of each YEELD payable at maturity (the "Principal Amount") will equal the lesser of (A) 151.5% of the Issue Price (the "Cap") and (B) (i) if Holdings elects the Cash Settlement Option (as defined below), the average of the Closing Prices on the ten Trading Days immediately prior to the maturity date (the "Ten Day Average Closing Price") of the common stock (the "Cisco Common Stock") of Cisco Systems, Inc. ("Cisco") or (ii) if Holdings elects the Stock Settlement Option (as defined below), the Closing Price of the Cisco Common Stock on the date of maturity. As a result, the Principal Amount will not under any circumstances exceed \$100.7475. At maturity, the Principal Amount will be paid by Holdings either in cash (the "Cash Settlement Option") or in shares of Cisco Common Stock based upon the Principal Amount (the "Stock Settlement Option"), at Holdings' sole option. Holdings will, by written notice

## Lehman Brothers' 5% YEELDS Linked to Cisco Systems, March 3, 1998

- At maturity, Lehman paid the lesser of
  - the value of a share of 1 share of Cisco Systems' stock (or the stock itself at Lehman's option)
 and
  - \$100.75.
- YEELDS paid \$0.83 dividend quarterly.
- Setting aside the YEELDS' dividend and the expected Cisco Systems' dividend, this payoff similar to owning Cisco Systems (at \$66.50) and selling a 3-year call option with a \$100.75 strike price.
- Looks a lot like the Citicorp PERC on slides 4 and 5.





# Lehman Brothers \$1,000 Notes linked to Cendant, February 16, 2001

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Filed Pursuant To Rule 424(b)2  
Registration No. 033-53651

PROSPECTUS SUPPLEMENT  
(TO PROSPECTUS DATED FEBRUARY 17, 1998)

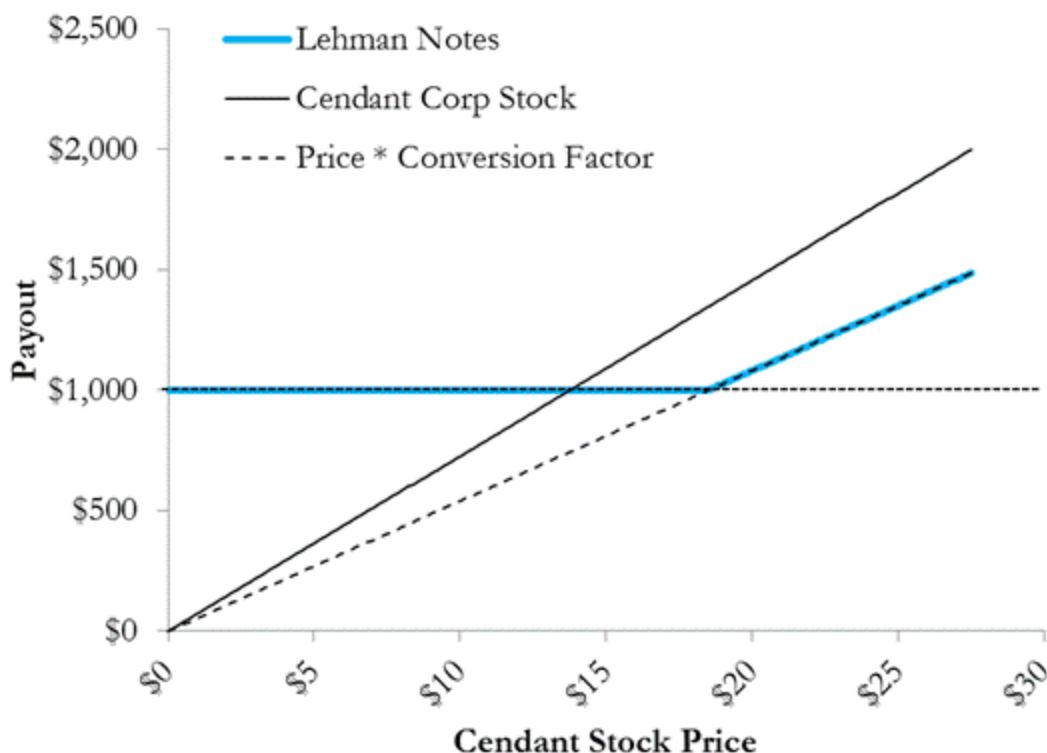
\$15,560,000  
LEHMAN BROTHERS HOLDINGS INC.  
NOTES DUE FEBRUARY 27, 2006  
PERFORMANCE LINKED TO CENDANT CORPORATION (CD) COMMON STOCK

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GENERAL

- Senior unsecured debt securities of Lehman Brothers Holdings.
- Performance linked to the common stock of Cendant Corporation. Cendant is not involved in this offering and has no obligation with respect to the notes.
- Denominations: \$1,000 and whole multiples of \$1,000.
- Stated maturity date: February 27, 2006, subject to postponement if a market disruption event occurs.

## Lehman Brothers \$1,000 Notes linked to Cendant, February 16, 2001

- Lehman Brothers issued 5-year, 0.25% (annual, paid semi-annually).
- At maturity, Lehman Brother paid the accrued interest and the greater of 1) \$1,000 and 2) \$1,000 plus 74% of any excess above 134.6% of the initial Cendant stock price.
- This was an early “principal protected note”, or PPN.



# Lehman Brothers \$1,000 RANGERS, March 8, 2001

Filed Pursuant to Rule 424(b)(2)  
Registration No. 033-53651

- Lehman Brothers issued 1-year, Risk Adjusting Equity Range Securities ("RANGERS") notes with zero coupon.
- This was an early reverse convertible.

PROSPECTUS SUPPLEMENT  
(To prospectus dated February 17, 1998)

\$20,000,000  
LEHMAN BROTHERS HOLDINGS INC.  
NASDAQ-100 INDEX-REGISTERED TRADEMARK- RANGERS(SM)  
Risk Adjusting Equity Range Securities(SM) Notes Due March 20, 2002  
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GENERAL:

- Senior unsecured debt securities of Lehman Brothers Holdings.
- Performance linked to the Nasdaq-100 Index, as calculated by the Nasdaq Stock Market, Inc.

...

...

PAYMENTS:

- No interest or other payments prior to maturity.
- On the stated maturity date, Lehman Brothers Holdings will pay to you, per \$1,000 note, the lesser of:
  - (1) \$1,140; and
  - (2) the alternative redemption amount.

The alternative redemption amount per \$1,000 note is equal to \$140 plus the product of:

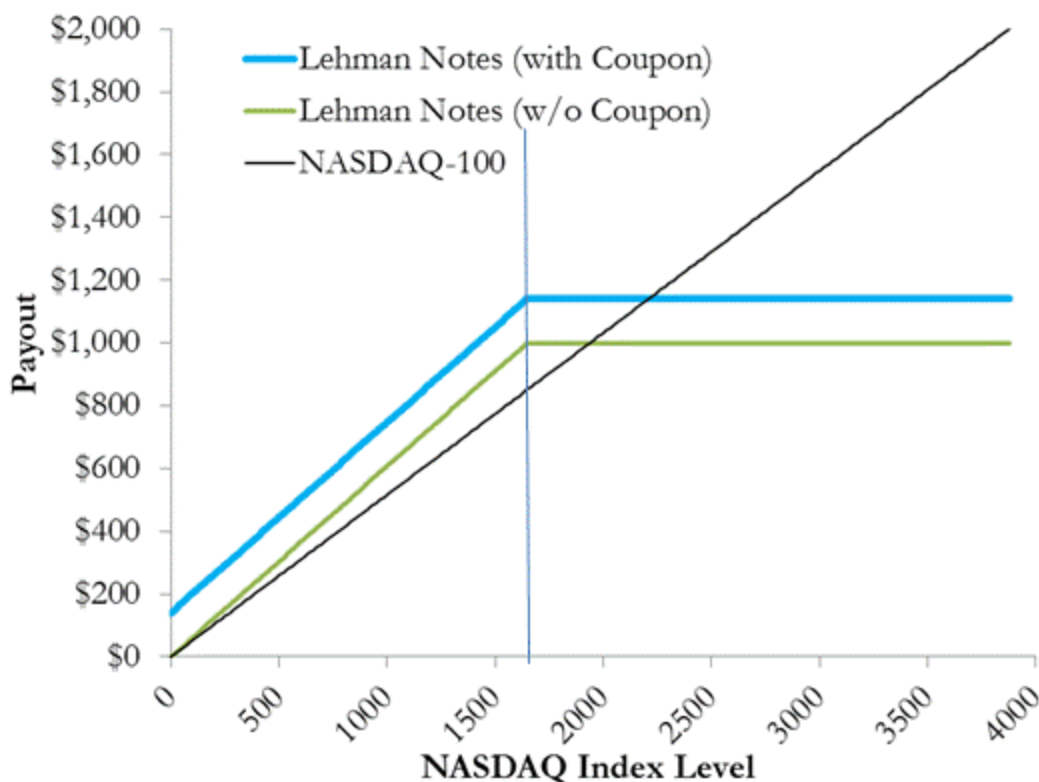
- (1) \$1,000; and
- (2) the closing index level of the Nasdaq-100 Index on the valuation date, divided by 1647.43.

1647.43 represents 85% of 1938.15, which is the closing level of the Nasdaq-100 Index on March 8, 2001.

As a result, you will only receive per \$1,000 note the maximum amount of \$1,140, if the closing index level of the Nasdaq-100 Index on the valuation date is at least 1647.43. If the closing index level of the Nasdaq-100 Index on that date is less than 1647.43, you will receive less than \$1,140 per \$1,000 note; you may receive as little as \$140 per \$1,000 note.

## Lehman Brothers \$1,000 RANGERS, March 8, 2001

1. At maturity, Lehman Brother paid \$140 plus the lesser of
  - \$1,000 or
  - \$1,000 times the ratio of final NASDAQ-100 index level to 85% of the 1,938.15 initial level.
2. \$140 looks like accumulated coupons paid in arrears at maturity but is largely option premium for granting LB short, 15% out-of-the-money put options on the NASDAQ.



# Barclays Reverse Convertible Linked to TiVo, 2010

Pricing Supplement  
(To the Prospectus dated February 10, 2009, and  
the Prospectus Supplement dated March 1, 2010)

Filed Pursuant to Rule 424(b)(2)  
Registration No. 333-145845

April 27, 2010



## Barclays Reverse Convertible Notes<sup>SM</sup>

All Asset Classes and Structures Under One Roof<sup>SM</sup>

Terms used in this pricing supplement are described or defined in the prospectus supplement. The reverse convertible notes (the "Notes") offered will have the terms described in the prospectus supplement and the prospectus, as supplemented by this pricing supplement. **THE NOTES DO NOT GUARANTEE ANY RETURN OF PRINCIPAL AT MATURITY.**

Each reference asset below is in the form of a linked share and represents a separate Note offering. The purchaser of a Note will acquire a security linked to a single linked share (not a basket or index of linked shares). The following terms relate to each separate Note offering:

- Issuer:** Barclays Bank PLC (Rated AA-/Aa3)
- Issue date:** April 30, 2010
- Initial valuation date:** April 27, 2010
- Final valuation date:** July 27, 2010
- Maturity date:** July 30, 2010
- Final price:** Closing price of the linked share on the final valuation date.
- Protection price:** The protection level multiplied by the initial price, rounded to the nearest cent as appropriate.
- Interest payment dates:** Paid monthly in arrears on the same day of the month as the issue date and calculated on a 30/360 basis, commencing on the month following the issue date.
- Initial public offering price:** 100%
- Tax allocation of coupon rate:**  
Deposit income\*: 1.04%  
Put premium: The coupon rate minus the deposit income.

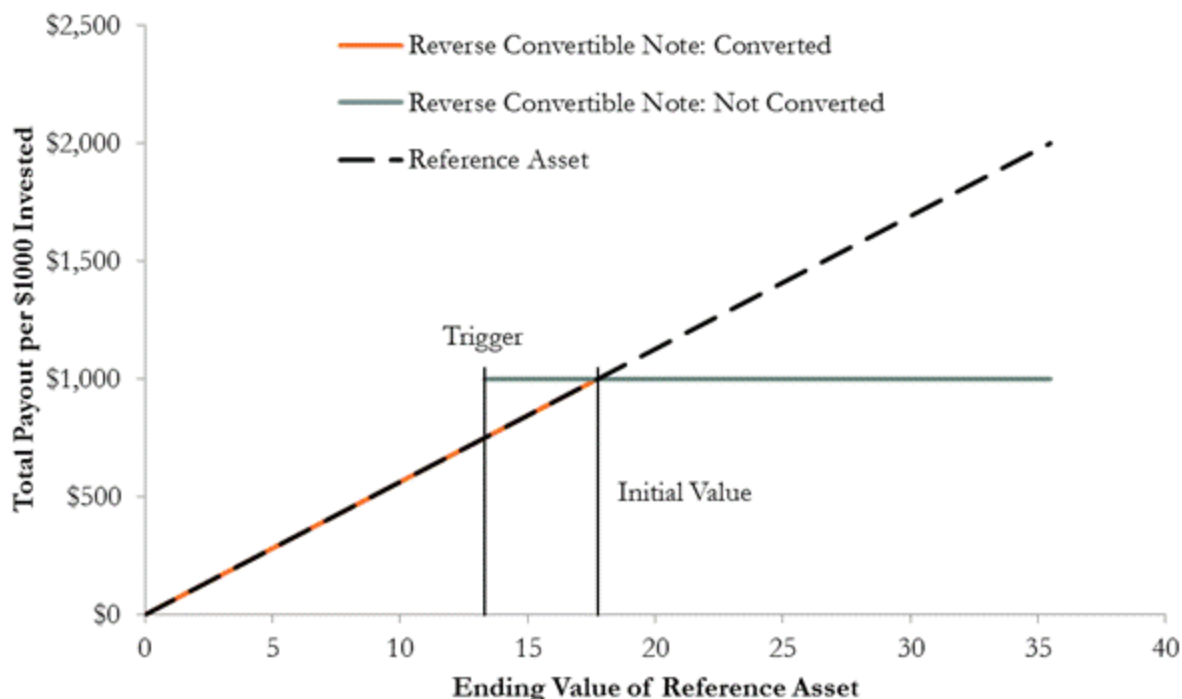
The Notes are not rated by Standard & Poor's Ratings Services ("S&P") or Moody's Investors Service ("Moody's") as a result of certain policy changes by these organizations. As announced in December 2009, S&P no longer rates obligations, such as the Notes, with variable principal payments linked to commodity prices, equity prices or indices linked to either commodity or equity prices. However, the other senior unsecured debt securities of a maturity of more than one year of Barclays Bank PLC unaffected by this policy change are rated AA- by S&P. In addition, as announced in June 2009, Moody's no longer issues public ratings of notes, such as the Notes, for which repayment of principal is dependent on the occurrence of a non-credit event. However, the other senior unsecured debt securities of Barclays Bank PLC unaffected by this policy change are rated Aa3 by Moody's. The ratings mentioned in this paragraph are subject to downward revision, suspension or withdrawal at any time by the assigning rating organization and are not a recommendation to buy, sell or hold securities.

The following terms relate to the specific Note offering for each respective linked share:

Linked Share	Initial Share Price	Page Number	Ticker Symbol	Principal Amount	Coupon Rate*	Protection Level	Percentage Proceeds to Issuer	Aggregate Proceeds to Issuer	Percentage Discount or Commission**	Aggregate Discount or Commission**	Note Issuance#	CUSIP/EIN
Alpha Natural Resources, Inc.	\$ 49.73	PS-8	ANR	\$ 750,000	11.00%	80.0%	98.625%	\$ 739,687.50	1.375%	\$ 10,312.50	E-4904	06740LFP5/ US06740LFP58
Cliffs Natural Resources Inc.	\$ 68.54	PS-9	CLF	\$ 750,000	14.50%	80.0%	98.625%	\$ 739,687.50	1.375%	\$ 10,312.50	E-4906	06740LFR1/ US06740LFR15
Dana Holding Corporation	\$ 12.77	PS-10	DAN	\$ 750,000	10.00%	75.0%	98.625%	\$ 739,687.50	1.375%	\$ 10,312.50	E-4907	06740LFS9/ US06740LFS97
Patriot Coal Corporation	\$ 22.01	PS-11	PCX	\$ 750,000	18.75%	75.0%	98.625%	\$ 739,687.50	1.375%	\$ 10,312.50	E-4909	06740LFU4/ US06740LFU44
Billerica Mining Company	\$ 16.51	PS-12	SWC	\$ 750,000	12.00%	75.0%	98.625%	\$ 739,687.50	1.375%	\$ 10,312.50	E-4910	06740LFPV2/ US06740LFPV21
TiVo Inc.	\$ 17.74	PS-13	TIVO	\$ 750,000	18.00%	75.0%	98.625%	\$ 739,687.50	1.375%	\$ 10,312.50	E-4911	06740LFX0/ US06740LFX00
The Talbots, Inc.	\$ 16.33	PS-14	TLB	\$ 750,000	12.25%	75.0%	98.625%	\$ 739,687.50	1.375%	\$ 10,312.50	E-4912	06740LFXB/ US06740LFXB2
Trina Solar Limited (American depositary shares)	\$ 34.96	PS-15	TSL	\$ 750,000	13.00%	75.0%	98.625%	\$ 739,687.50	1.375%	\$ 10,312.50	E-4913	06740LFY6/ US06740LFY65

## Barclays Reverse Convertible Linked to TiVo, 2010 Payoff diagram

- Paid a 18% coupon.
- Only 3 month term.
- At maturity, the investor receives either \$1,000 or the market value of 56.37 TiVo shares if:
  - The value of TiVo shares is below the initial price (\$17.74) on the maturity date, and
  - The value of TiVo shares was less than \$13.31 on any day before maturity.





## Credit Suisse's Capped and Leveraged Dual Directional, 2012

- Dual Directional structured products have been issued in the US since late 2011.
- They evolved from absolute return barrier notes (ARBNs), which were common before 2010.

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Pricing Supplement No. U696  
To the Underlying Supplement dated March 23, 2012.  
Product Supplement No. U-1 dated March 23, 2012.  
Prospectus Supplement dated March 23, 2012 and  
Prospectus dated March 23, 2012

Filed Pursuant to Rule 424(b)(2)  
Registration Statement No. 333-180300-03  
August 16, 2012

Financial  
Products

**CREDIT SUISSE**

\$1,000,000

Absolute Return Barrier Securities due February 23, 2015

Linked to the Performance of the S&P 500® Index

### General

- The securities are designed for investors who seek a leveraged and capped return at maturity linked to the performance of the S&P 500® Index. Investors should be willing to forgo interest and dividend payments and, if the Final Level is less than the Initial Level and a Knock-In Event has occurred, be willing to lose some or all of their investment. If the Final Level is less than the Initial Level and a Knock-In Event has not occurred, at maturity, investors will be entitled to receive the principal amount of their securities multiplied by the sum of one plus the absolute value of the depreciation percentage of the Underlying from the Initial Level to the Final Level. If the Final Level is greater than or equal to the Initial Level, at maturity investors will be entitled to receive the principal amount of their securities and will have the opportunity to participate in the appreciation of the Underlying, subject to the Maximum Upside Return of 26.25%. Any payment on the securities is subject to our ability to pay our obligations as they become due.
- Senior unsecured obligations of Credit Suisse AG, acting through its Nassau Branch, maturing February 23, 2015.<sup>1</sup>
- Minimum purchase of \$1,000. Minimum denominations of \$1,000 and integral multiples of \$1,000 in excess thereof.
- The securities priced on August 16, 2012 (the "Trade Date") and are expected to settle on August 21, 2012 (the "Settlement Date"). Delivery of the securities in book-entry form only will be made through The Depository Trust Company.

### Key Terms

**Issuer:** Credit Suisse AG ("Credit Suisse"), acting through its Nassau Branch  
**Underlying:** The Underlying is identified in the table below, together with its Bloomberg ticker symbol, Initial Level and Knock-In Level:

Underlying	Ticker	Initial Level	Knock-In Level
S&P 500® Index ("SPX")	SPX	1415.51	990.857

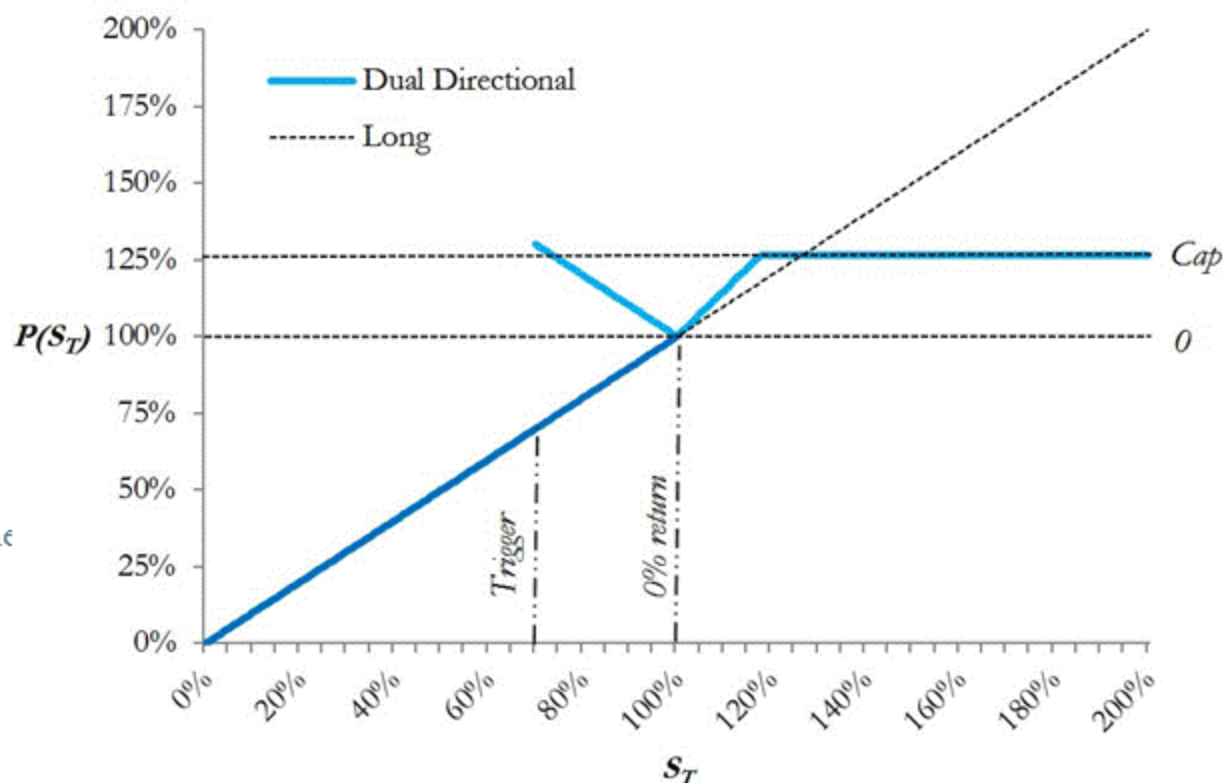
### Redemption Amount:

At maturity, you will be entitled to receive a Redemption Amount that will depend on the performance of the Underlying and whether a Knock-In Event has occurred, determined as follows:

- If the Final Level is greater than or equal to the Initial Level, you will be entitled to receive a Redemption Amount in cash that will equal the principal amount of the securities you hold multiplied by the sum of 1 plus the product of:  
(Upside Participation Rate × Underlying Return); subject to the Maximum Upside Return
- If the Final Level is less than the Initial Level, and:
  - If a Knock-In Event has not occurred, you will be entitled to receive a Redemption Amount in cash that will equal the principal amount of the securities you hold multiplied by the sum of 1 plus the absolute value of the Underlying Return.
  - If a Knock-In Event has occurred, you will be entitled to receive a Redemption Amount in cash that will equal the principal amount of the securities you hold multiplied by the sum of 1 plus the Underlying Return. In this case, the Redemption Amount will be less than the principal amount of your securities, and may be zero. You could lose your entire investment.

## Capped and Leveraged Dual Directional Structures Are Amongst Most Complex

- At maturity, the investor receives 1.5 times the gain, capped at 26%.
- If the index is below the initial value but was always above the trigger, the investor receives as a gain the absolute value of the decline in the index.
- If index is ever below the trigger (70% of initial), the investor suffers losses equal to any decline in the index.





# Autocallable Structured Products are Reverse Convertibles With Even More Unfathomable Contingencies

Report Prepared On: 01/10/13

## Structured Product Details

<b>Name</b>	Phoenix Autocallable Optimization Securities with Contingent Protection linked to Amazon.com, Inc.
<b>Issue Size</b>	\$2.45 million
<b>Issue Price</b>	\$10
<b>Term</b>	12 Months
<b>Annualized Coupon</b>	15.40%
<b>Pricing Date</b>	December 6, 2010
<b>Issue Date</b>	December 9, 2010
<b>Valuation Date</b>	December 7, 2011
<b>Maturity Date</b>	December 13, 2011
<b>Issuer</b>	UBS
<b>CDS Rate</b>	45.77 bps
<b>Swap Rate</b>	0.78%
<b>Reference Asset</b>	Amazon.com, Inc.'s stock
<b>Initial Level</b>	\$178.05
<b>Dividend Rate</b>	0.00%
<b>Implied Volatility</b>	37.49%
<b>Fair Price at Issue</b>	\$9.76

## Phoenix Autocallable Optimization Securities with Contingent Protection linked to Amazon.com, Inc.

### Description

UBS issued \$2.45 million of Phoenix Autocallable Optimization Securities with Contingent Protection linked to Amazon.com, Inc. on December 9, 2010 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 15.40% if Amazon.com, Inc.'s stock price closes above the coupon barrier \$133.54, or no coupon if the stock price closes below the barrier. The first coupon observation date is March 7, 2011. This autocallable notes will be called back if the reference stock price on any quarterly call observation date after March 7, 2011 exceeds the initial stock price \$178.05. In this case, investors receive the principal plus any unpaid coupons. At maturity, the notes convert into shares of the reference security—0.06 share of Amazon.com, Inc.'s stock in this case—if the market value of the reference stock at the note's maturity is below the trigger price \$133.54 (75% of the reference asset on December 6, 2010). Otherwise, investors will receive the \$10 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 \$9.76 per \$10 face value when it was issued on December 9, 2010, including \$9.93 for the present value of the zero-coupon note, (\$0.82) for the short put options, and \$0.65 for the present value of all future contingent coupon payments.

## Our Structured Products Articles (available at [www.slcg.com](http://www.slcg.com))

1. “Dual Directional Structured Products” Geng Deng, Tim Dulaney, Tim Husson and Craig McCann and 2014. *Journal of Derivatives and Hedge Funds*.
2. “Structured Certificates of Deposit: Introduction and Valuation”, Geng Deng, Tim Dulaney, Tim Husson, and Craig McCann, 2014, *Financial Services Review*. Volume 23, Number 3, 2014
3. “Ex-post Structured Product Returns: Index Methodology and Analysis” with Geng Deng, Tim Dulaney, Tim Husson, Craig McCann and Mike Yan, *Journal of Investing*, Summer 2015, Vol. 24, No. 2, pp. 45-58
4. “Valuation of Structured Products” Geng Deng, Tim Husson and Craig McCann, 2014, *Journal of Alternative Investments* Spring 2014, Vol. 16, No. 4: pp. 71–87
5. “Structured Product Based Variable Annuities” with Geng Deng, Tim Dulaney, Tim Husson and Craig McCann, *Journal of Retirement* Winter 2014, Vol. 1, No. 3: pp. 97-111.
6. “Valuation of Reverse Convertibles in the Variance Gamma Economy” Geng Deng, Tim Dulaney and Craig McCann, *Journal of Derivatives and Hedge Funds*. (2013) 19, 244–258.
7. “Crooked Volatility Smiles: Evidence from Leveraged and Inverse ETF Options” Geng Deng, Tim Dulaney, Craig McCann and Mike Yan, *Journal of Derivatives and Hedge Funds*, (2013) 19, 278–294.
8. “The Rise and Fall of Apple-linked Structured Products” Geng Deng, Tim Dulaney, Craig McCann and Mike Yan, 2013.
9. “The Anatomy of Principal Protected Absolute Return Barrier Notes” Geng Deng, Ilan Guedj, Joshua Mallett and Craig McCann, 2011, *Journal of Derivatives*, Winter 2011, Vol. 19, No. 2: pp. 61-70.
10. “Modeling Autocallable Structured Products” Geng Deng, Joshua Mallett and Mike Yan, 2011, *Journal of Derivatives & Hedge Funds* 17, 326–340.
11. “Structured Products in the Aftermath of Lehman Brothers” Geng Deng, Guohua Li and Craig McCann, 2009.
12. “Are Structured Products Suitable for Retail Investors?” Dengpan Luo and Craig McCann, 2006.

# Exchange Traded Funds & Exchange Traded Notes

## What are Exchange Traded Funds (ETFs)?

- Are similar to index mutual funds.
- Unlike mutual funds, ETFs:
  - Are listed on an exchange
  - Trade at varying prices through the day like a stock
- Were first introduced in 1993.
- Have grown rapidly; approximately \$1.5 Trillion invested as of 2012
- Are available to retail investors, but can use highly complex strategies and exotic asset classes that would typically only be available in derivatives markets.

## Leveraged & Inverse ETFs

- Leveraged ETFs return, on a daily basis, a multiple of the return to a particular index.
  - If an index increases by 2%, a 2X levered ETF will increase by 4%.
- Inverse ETFs return, on a daily basis, the opposite return of the index.
  - If an index increases by 2%, an inverse ETF will decrease -2%.
- Inverse Leveraged ETFs return, on a daily basis, a *multiple* of the *opposite* return of the index
  - If an index increases by 2%, a 2X levered ETF will return -4%.
- Importantly, these products are designed to deliver these returns on a daily basis, not over longer terms. They do NOT deliver their stated objectives for longer than one day.

# The SEC warns that inverse and leveraged ETFs are not designed for long-term investments



[Home](#) | [Previous Page](#)

U.S. Securities and Exchange Commission

## Leveraged and Inverse ETFs: Specialized Products with Extra Risks for Buy-and-Hold Investors

The SEC staff and FINRA are issuing this Alert because we believe individual investors may be confused about the performance objectives of leveraged and inverse exchange-traded funds (ETFs). Leveraged and inverse ETFs typically are designed to achieve their stated performance objectives on a daily basis. Some investors might invest in these ETFs with the expectation that the ETFs may meet their stated daily performance objectives over the long term as well. Investors should be aware that performance of these ETFs over a period longer than one day can differ significantly from their stated daily performance objectives.



## The SEC warns that inverse and leveraged ETFs are not designed for long-term investments (cont.)

- **How does the ETF achieve its stated objectives? And what are the risks?** Ask about—and be sure you understand—the techniques the ETF uses to achieve its goals. For example, engaging in short sales and using swaps, futures contracts, and other derivatives can expose the ETF—and by extension ETF investors—to a host of risks.
- **What happens if I hold longer than one trading day?** While there may be trading and hedging strategies that justify holding these investments longer than a day, buy-and-hold investors with an intermediate or long-term time horizon should carefully consider whether these ETFs are appropriate for their portfolio. As discussed above, because leveraged and inverse ETFs reset each day, their performance can quickly diverge from the performance of the underlying index or benchmark. In other words, it is possible that you could suffer significant losses even if the long-term performance of the index showed a gain.

Modified: 08/18/2009

From: <http://www.sec.gov/investor/pubs/leveragedetfs-alert.htm>

## FINRA On Inverse and Leveraged ETFs

# Regulatory Notice

09-31

### Non-Traditional ETFs

#### FINRA Reminds Firms of Sales Practice Obligations Relating to Leveraged and Inverse Exchange-Traded Funds

##### Executive Summary

Exchange-traded funds (ETFs) that offer leverage or that are designed to perform inversely to the index or benchmark they track—or both—are growing in number and popularity. While such products may be useful in some sophisticated trading strategies, they are highly complex financial instruments that are typically designed to achieve their stated objectives on a daily basis. Due to the effects of compounding, their performance over longer periods of time can differ significantly from their stated daily objective. Therefore, inverse and leveraged ETFs that are reset daily typically are unsuitable for retail investors who plan to hold them for longer than one trading session, particularly in volatile markets.<sup>1</sup>

This Notice reminds firms of their sales practice obligations in connection with leveraged and inverse ETFs. In particular, recommendations to

June 2009

##### Notice Type

- Guidance

##### Suggested Routing

- Compliance
- Legal
- Retail
- Senior Management

##### Key Topics

- Communications With the Public
- ETFs
- Leveraged and Inverse ETFs
- Suitability
- Supervision
- Training



## NYSE on Leveraged and Inverse ETFs

### What You Should Know About Leveraged and Inverse ETFs

#### **What are leveraged and inverse ETFs?**

As described above, ETFs that seek to produce a return that is a multiple of the return of its benchmarked index are commonly known as “leveraged”. There are currently more than 100 different funds in this category with benchmarks that track commodities, currencies and various stock indexes. Some leveraged ETFs have multipliers of double or triple the benchmark (i.e., 2x or 3x), while others target returns that are based on the inverse of the benchmark (i.e., -1x, -2x or -3x). It is critical to understand the time period for which the leverage applies. Each fund explicitly states this time period in its prospectus.

At the time of this publication, all leveraged and inverse ETFs are designed to generate daily returns that are a positive or negative multiple of the daily return of a specified index. They are not designed to match the return for a holding period that is longer than the objective stated in the prospectus. Therefore, the daily compounded return of a leveraged ETF over one year, one month, one week, or even a two-day period may be significantly different from the returns produced by simply applying the stated multiple to the index's total holding period return. Daily monitoring and adjustment (buying and selling) by the investor could modify the return to match its stated objective over time.<sup>2</sup>

Daily leveraged ETFs may be unsuitable for investors who seek an intermediate-term or long-term holding period. Instead, this type of leveraged ETF may be better suited to traders who wish to increase or hedge their market exposure over a short period of time. Investors are encouraged to consult with their financial advisors or registered representatives to help determine if leveraged or inverse ETFs are suitable for them.

## NYSE has warned about ETFs' extensive use of derivatives

### **What are the additional concerns an investor should review before investing in a leveraged or inverse ETF?**

Inverse ETF fund managers may, at times, be unable to fully carry out their short-selling strategy as a result of difficulties in the derivatives markets, regulatory restrictions, or their inability to locate and borrow shares or for other reasons. This could cause the market price of the ETF to vary from its index target and NAV.<sup>3</sup>

Many leveraged ETFs (of both the long and the short varieties) rely on the use of futures, swaps and other derivative securities, along with other securities or commodities, to achieve their target returns. Some of these derivatives, such as swaps, are unlisted securities that depend on the swap issuer's ability to pay. Therefore, the leveraged ETFs that depend on such swaps may not be able to achieve their stated returns if a swap counterparty should default.

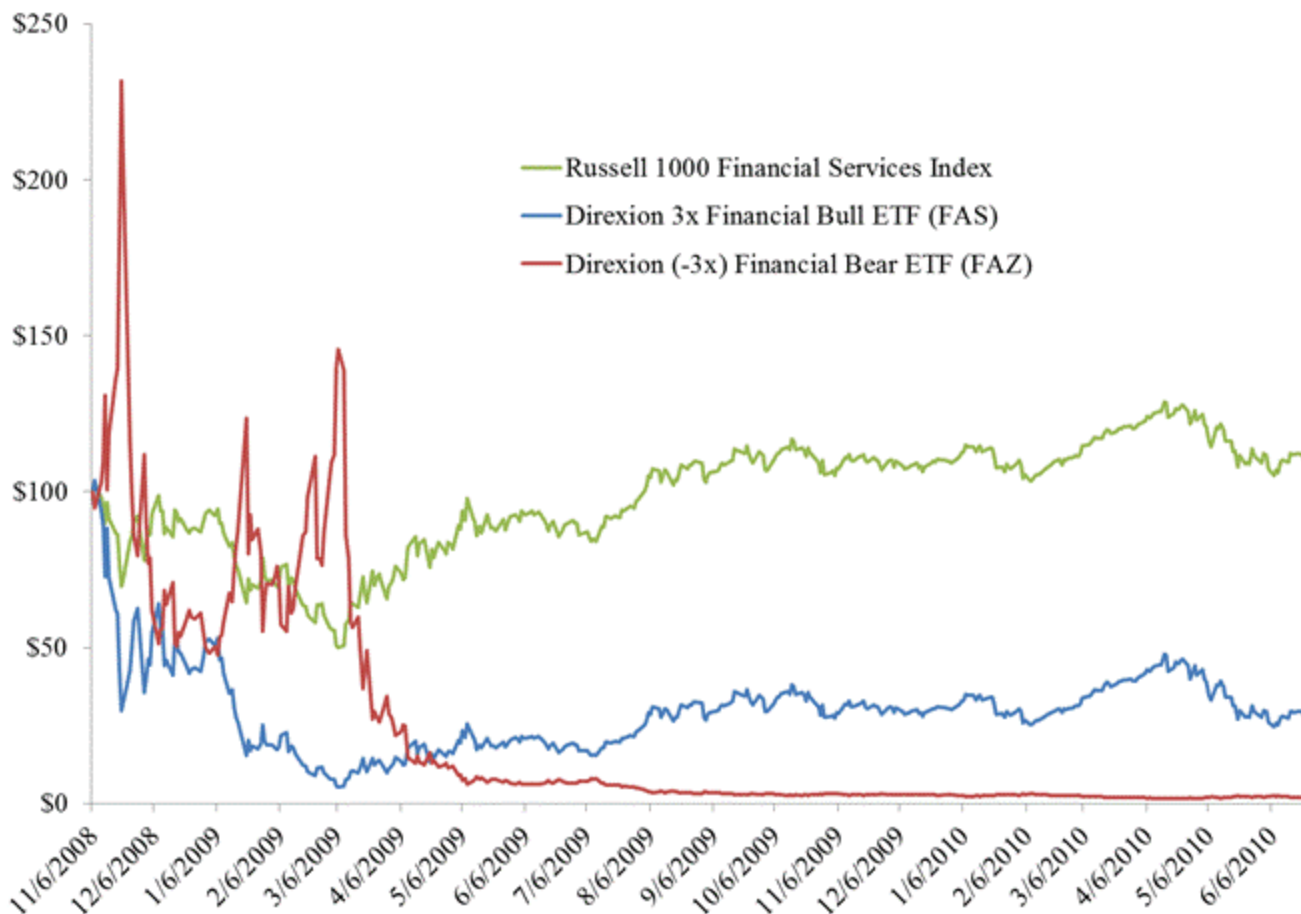
Leveraged and inverse ETFs may be less tax efficient than other ETFs. It is possible for investors to have a tax liability, even in a year in which the leveraged or inverse ETF had a negative overall return. This outcome can result from the fund managers "rebalancing" the investments each day with derivatives to maintain the ETF's multiple. Such rebalancing can produce realized taxable gains with no offsetting losses. As with any potential investment, an investor should consult with his or her tax advisor and carefully read the prospectus to understand the tax consequences of leveraged or inverse ETFs.

## Daily Rebalancing

	Index Returns		Traditional ETFs and Cash or Margin Debt			Leveraged and Inverse ETFs	
	a)	b)	c)	d)	e)	f)	g)
Day	Daily Return	Cumulative Return	Unlevered ETF	\$200 cash, short \$100 ETF	\$200 margin, \$300 ETF	1X I-ETF	3X L-ETF
0			\$100.00	\$100.00	\$100.00	\$100.00	\$100.00
1	23%	23.00%	\$123.00	\$77.00	\$169.00	\$77.00	\$169.00
2	-20%	-1.60%	\$98.40	\$101.60	\$95.20	\$92.40	\$67.60
3	20%	18.08%	\$118.08	\$81.92	\$154.24	\$73.92	\$108.16
4	-23%	-9.08%	\$90.92	\$109.08	\$72.76	\$90.92	\$33.53
5	10%	0.01%	\$100.01	\$99.99	\$100.03	\$81.83	\$43.59

- Even if the value of the asset is unchanged over a holding period, a leveraged or inverse ETF could still lose money.
- The more volatile the underlying asset, the worse the leveraged ETF performs relative to it.

## Leveraged and Inverse ETFs Both Lose



Between November 16, 2008 and November 16, 2009 the Russell 1000 Financial Services Index was up 11.2%. The +3 FAS was down 68% and the -3 FAS was down 97%. Leveraged and inverse ETFs suffer large losses if underlying is volatile because of daily rebalancing.

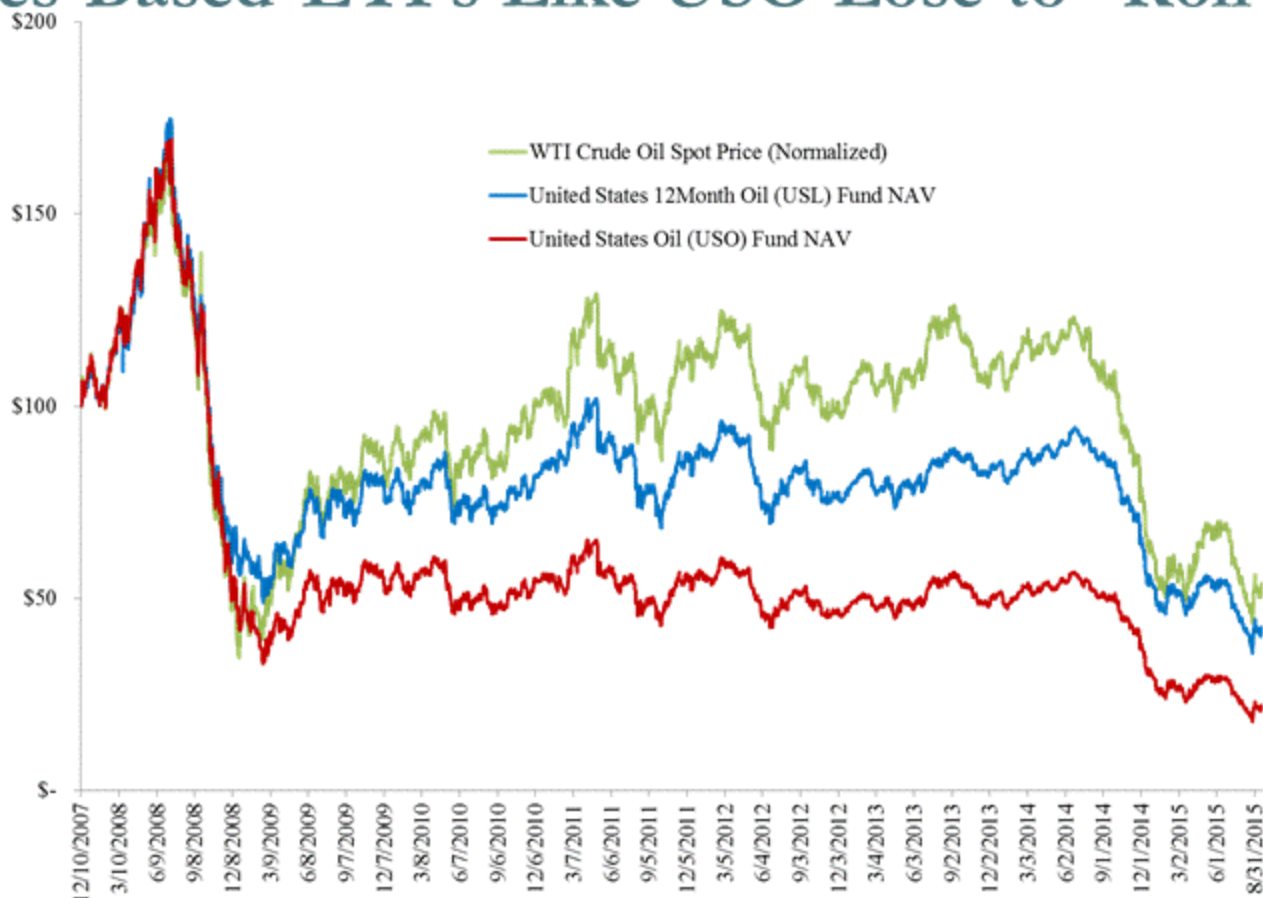
## Upward Sloping Futures Term Structures Cause Losses



VIX and VIX Future Prices on October 4, 2010

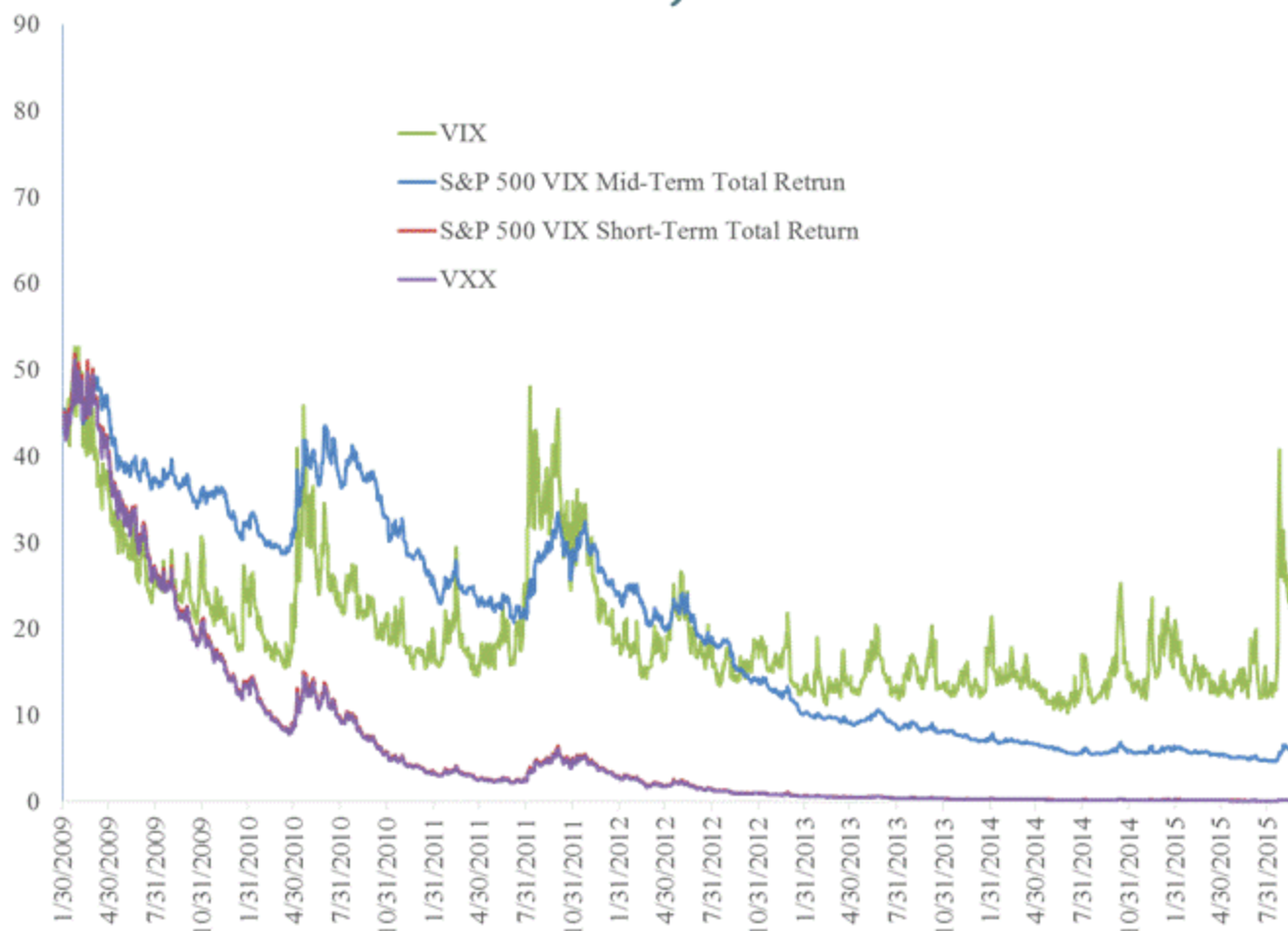


## Futures-Based ETFs Like USO Lose to “Roll Yield”



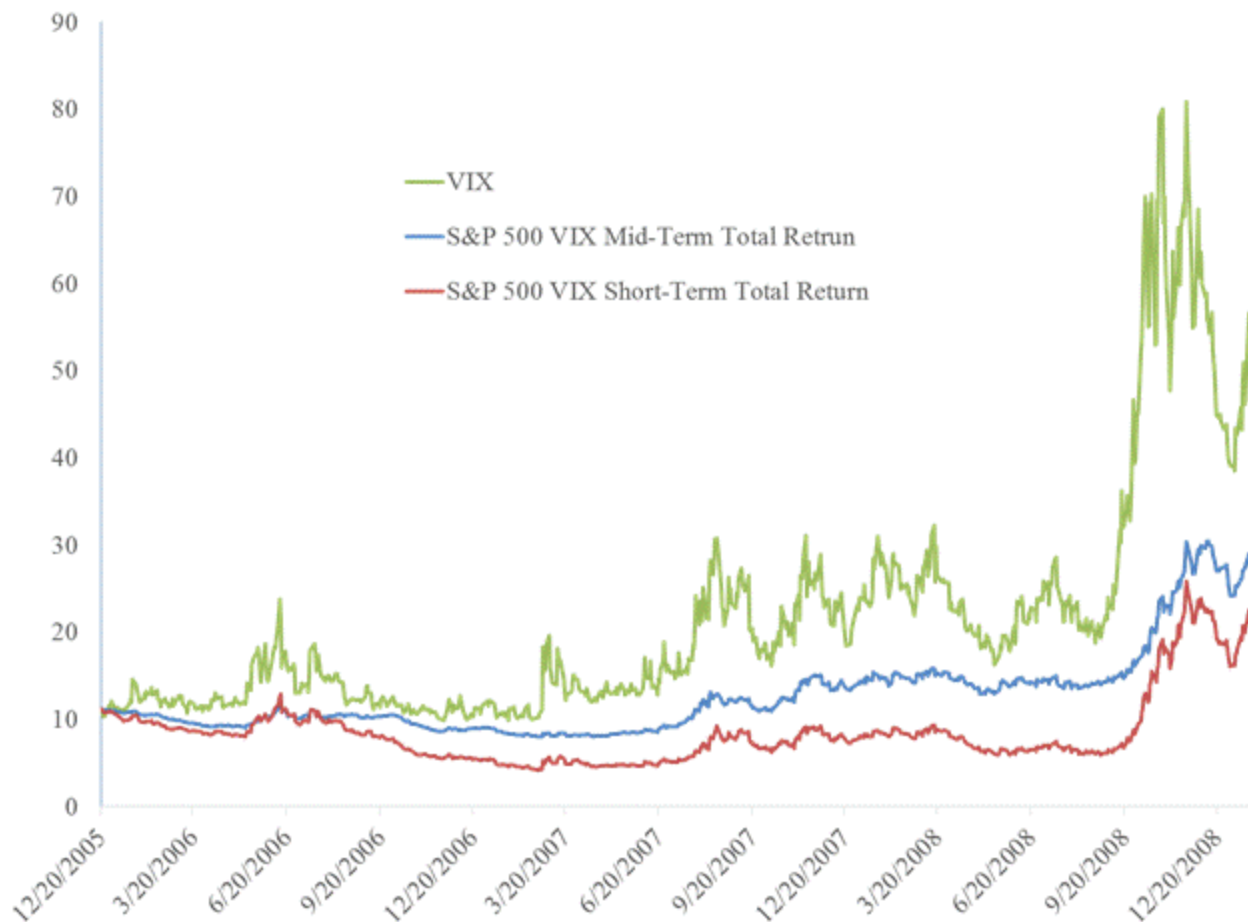
Futures-based ETFs maintain average term of futures contracts, purchasing futures contracts, holding for some time and selling. If the futures term structure is upward sloping and unchanging, the ETF loses value as a result of buying high and selling lower. This is especially true for commodities with high storage costs like oil. WTI Crude spot price was the same on December 10, 2007 and three years later on December 10, 2010. USO was down 46% over that period, USL which trades longer dated oil futures contracts was down only 18.%

## VXX, a Futures-Based ETN, Also Loses to “Roll Yield”



Futures-based ETFs maintain average term of futures contracts, purchasing futures contracts, holding for some time and selling. If the futures term structure is upward sloping and unchanging, the ETF loses value as a result of buying high and selling lower. This is especially

## Losses Due to “Roll Yield” Apparent Before VXX IPO



Futures-based ETFs maintain average term of futures contracts, purchasing futures contracts, holding for some time and selling. If the futures term structure is upward sloping and unchanging, the ETF loses value as a result of buying high and selling lower. This is especially



# Autocallable Structured Products on Crude Oil

## Pricing supplement no. 1282

To prospectus dated November 7, 2014,  
prospectus supplement dated November 7, 2014,  
product supplement no. 2a-I dated November 7, 2014 and  
underlying supplement no. 1a-I dated November 7, 2014

## Registration Statement

No. 333-199966

Dated September 23,  
2015

Rule 424(b)(2)

# JPMORGAN CHASE & CO.

Structured  
Investments

**\$2,477,000**

**Auto Callable Contingent Interest Notes Linked to the S&P GSCI™ Crude Oil Index Excess  
Return due September 27, 2018**

## General

- The notes are designed for investors who seek a Contingent Interest Payment if, on any of the Review Dates, the closing level of the Index on that Review Date is greater than or equal to 70% of the Initial Index Level, which we refer to as the Interest Barrier. Under these circumstances, investors will receive, in addition to the Contingent Interest Payment with respect to that Review Date, any previously unpaid Contingent Interest Payments for prior Review Dates. Investors should be willing to forgo fixed interest payments, in exchange for the opportunity to receive Contingent Interest Payments.
- Investors in the notes should be willing to accept the risk of losing some or all of their principal if a Trigger Event (as defined below) has occurred and the risk that no Contingent Interest Payment may be made with respect to some or all Review Dates.
- The notes will be automatically called if the closing level of the Index on any Review Date (other than the first and final Review Dates) is greater than or equal to the Initial Index Level. The earliest date on which an automatic call may be initiated is March 23, 2016.
- The notes are unsecured and unsubordinated obligations of JPMorgan Chase & Co. **Any payment on the notes is subject to the credit risk of JPMorgan Chase & Co.**
- Minimum denominations of \$1,000 and integral multiples thereof

## Key Terms

Index:	The S&P GSCI™ Crude Oil Index Excess Return (Bloomberg ticker: SPGCCLP)
Contingent Interest Payments:	If the notes have not been automatically called and the closing level of the Index on any Review Date is greater than or equal to the Interest Barrier, you will receive on the applicable Interest Payment Date, for each \$1,000 principal amount note, a Contingent Interest Payment equal to \$26.50 (equivalent to an interest rate of 10.60% per annum, payable at a rate of 2.65% per quarter), <i>plus</i> any previously unpaid Contingent Interest Payments for any prior Review Dates. <b><i>If the Contingent Interest Payment is not paid on any Interest Payment Date, that unpaid Contingent Interest Payment will be paid on a later Interest Payment Date if the closing level of the Index on that Review Date is greater than or equal to the Interest Barrier. You will not receive any unpaid Contingent Interest Payments if the</i></b>

# and 3x Leveraged and Inverse ETNs on Crude Oil

PRICING SUPPLEMENT No. VLS ETN-3/A24<sup>†</sup>  
To the Prospectus Supplement dated May 4, 2015 and  
Prospectus dated May 4, 2015

Filed Pursuant to Rule 424(b)(2)  
Registration Statement Nos. 333-202913 and 333-180300-03  
September 10, 2015



Issued by Credit Suisse AG

\$75,000,000,000\* VelocityShares™ 3x Long Crude Oil ETN linked to the S&P GSCI® Crude Oil Index ER due February 9, 2032\*  
\$32,000,000,000\* VelocityShares™ 3x Long Natural Gas ETN linked to the S&P GSCI® Natural Gas Index ER due February 9, 2032\*  
\$1,000,000,000\* VelocityShares™ 3x Inverse Crude Oil ETN linked to the S&P GSCI® Crude Oil Index ER due February 9, 2032\*  
\$16,000,000,000\* VelocityShares™ 3x Inverse Natural Gas ETN linked to the S&P GSCI® Natural Gas Index ER due February 9, 2032\*

ETNs	Leverage Amount	ETN Type	Exchange Ticker	Indicative Value Ticker	CUSIP	ISIN
3x Long Crude Oil ETNs	3	"Leveraged Long"	UWTI	UWTI.IV	22542D399	US22542D3998
3x Long Natural Gas ETNs	3	"Leveraged Long"	UGAZ	UGAZ.IV	22542D381	US22542D3816
3x Inverse Crude Oil ETNs	-3	"Leveraged Inverse"	DWTI	DWTI.IV	22542D548	US22542D5480
3x Inverse Natural Gas ETNs	-3	"Leveraged Inverse"	DGAZ	DGAZ.IV	22542D530	US22542D5308

We are offering four separate series of exchange traded notes (collectively, the "ETNs"), the VelocityShares™ 3x Long Crude Oil ETN linked to the S&P GSCI® Crude Oil Index ER due February 9, 2032 (the "3x Long Crude Oil ETNs"), the VelocityShares™ 3x Long Natural Gas ETN linked to the S&P GSCI® Natural Gas Index ER due February 9, 2032 (the "3x Long Natural Gas ETNs" and collectively with the 3x Long Crude Oil ETNs, the "Leveraged Long ETNs"), the VelocityShares™ 3x Inverse Crude Oil ETN linked to the S&P GSCI® Crude Oil Index ER due February 9, 2032 (the "3x Inverse Crude Oil ETNs") and the VelocityShares™ 3x Inverse Natural Gas ETN linked to the S&P GSCI® Natural Gas Index ER due February 9, 2032 (the "3x Inverse Natural Gas ETNs" and collectively with the 3x Inverse Crude Oil ETNs, the "Leveraged Inverse ETNs").

We have listed each series of the ETNs on the NYSE Arca under the exchange ticker symbols as set forth in the table above. As long as an active secondary market in the ETNs exists, we expect that investors will purchase and sell the ETNs primarily in this secondary market. We have no obligation to maintain any listing on NYSE Arca or any other exchange or quotation system.

The ETNs are intended to be daily trading tools for sophisticated investors to manage daily trading risks. They are designed to achieve their stated investment objectives on a daily basis, but their performance over different periods of time can differ significantly from their stated daily objectives. The ETNs are riskier than securities that have intermediate or long-term investment objectives, and may not be suitable for investors who plan to hold them for a period other than one day. Accordingly, the ETNs should be purchased only by knowledgeable investors who understand the potential consequences of investing in the applicable Index (as defined below) and of seeking daily compounding leveraged long or leveraged inverse investment results, as applicable. Investors should actively and frequently monitor their investments in the ETNs, even intra-day. It is possible that you will suffer significant losses in the ETNs even if the long-term performance of the applicable Index is positive, in the case of the Leveraged Long ETNs, or negative, in the case of the Leveraged Inverse ETNs.

## SEC Requests Comments on ETFs and ETNs

### D. Broker-Dealer Sales Practices and Investor Understanding and Use of ETPs

The Commission seeks comment on the use of ETPs by investors and the ways in which ETPs are recommended or sold to investors, particularly retail investors. In particular, the Commission seeks comment on the extent to which individual investors buy or sell ETPs with complex investment strategies based on the recommendation of a broker-dealer and the extent to which individual investors understand the nature and operation of such ETPs. The Commission also seeks comment on how broker-dealers meet their obligations to customers when recommending ETPs. ...

36. How effective are the suitability requirements applicable to brokerage accounts in addressing broker-dealer sales practices for ETPs in light of the breadth of available ETP options and the growing complexity of ETP investment strategies?

38. Do investors have access to sufficient information to understand ETPs, how ETP Securities trade, the costs associated with trading ETP Securities, and how their prices and valuations are determined, particularly as ETPs encompass increasingly complex benchmarks, asset classes, and investment strategies? ...

41. Do broker-dealer communications concerning ETPs provide enough information for a retail investor to evaluate the facts concerning ETPs? ...

43. Should broker-dealers have additional responsibility to make available or provide information to investors about the risks of investing in ETPs with complex strategies prior to making a recommendation or accepting a customer order for such securities? ...

## Our ETF and ETN Articles (available at [www.slcg.com](http://www.slcg.com))

1. “Crooked Volatility Smiles: Evidence from Leveraged and Inverse ETF Options” with Geng Deng, Tim Dulaney and Mike Yan, *Journal of Derivatives and Hedge Funds*, (2013) 19, 278–294.
2. “The Properties of Short Term Investing in Leveraged ETFs” with Geng Deng, *Journal of Financial Transformation*, 2012.
3. “Are VIX Futures ETPs Effective Hedges?” with Geng Deng and Olivia Wang, 2012, *Journal of Index Investing*, 3(3):35-48, Winter 2012.
4. “The VXX ETN and Volatility Exposure” with Tim Husson, 2011.
5. “Futures-Based Commodities ETFs” with Ilan Guedj and Guohua Li, *Journal of Index Investing*, Summer 2011 vol. 2, no. 1.
6. “Leveraged ETFs, Holding Periods and Investment Shortfalls” with Ilan Guedj and Guohua Li, 2010, *Journal of Index Investing* Winter 2010 vol. 1, no. 3.

# Proprietary Indexes

## Proprietary Indexes

1. Third-party indexes reflecting zero trading cost investments in broad diversified asset classes have served as benchmarks for 90 years and reference assets for 25 years (*e.g.*, S&P500, DJIA, NASDAQ, LB Bond). These indexes were/are conflict free.
2. Proprietary indexes might be developed to estimate returns to alternative asset classes (commodities, volatility, currencies, interest rates) or to save on licensing costs.
3. Some issuers link payments from ETNs and structured products they issue to proprietary indexes they create with phantom trading costs – huge conflict.
4. Plenty of examples that underwriters are succumbing to the opportunity to publish an index with the primary purpose of linking with their structured products or ETNs.
5. These structured products are much more difficult to value than structured products linked to a third-party index.
6. With structured products linked to proprietary volatility indexes and structured CDs the industry may have jumped the shark.



## SEC Recently Questioned Proprietary Indexes

One significant development we have observed is the increasing use of complex or proprietary indices or non-security assets

The use of complex or proprietary indices in structured notes raises some interesting questions – what type of retail investor are these sold to and how can they understand the disclosure? We have seen many structured notes with payouts and indices that use highly complex formulas to determine how the index is valued, including fees and costs that are embedded into the index performance and therefore impact what an investor may realize on the notes – I’ve heard even learned counsel say that they find certain indices or notes hard to describe narratively and counsel thinks that the formula disclosure provides sufficient information about how investors will be paid on the notes.

I don’t know how many of you are mathematicians who may be able to figure out complex formulas but I can assure you that the retail investor is not – with that – I wonder how disclosure alone of such formulas could provide the retail investor, or even other “reasonable investors” the information they need to make informed investment decisions.

I also wonder how many brokers and advisors who sell these products to retail investors actually understand what they are selling; both how the notes will pay out and what the related risks are in these notes. ...

My office is concerned that for some complex indices or referenced assets or issuers there may be a lack of transparency about the index, asset or issuer at the time of issuance and on an ongoing basis. This raises the potential that there may not be full and fair disclosure to the investor about the structured product that they own or will be purchasing.

\*\*\*Amy M. Starr, Chief, Office of Capital Market Trends, May 14, 2015 “Structured Products – Complexity and Disclosure – Do Retail Investors Really Understand What They Are Buying and What the Risks Are?”  
<http://www.sec.gov/news/speech/speech-amy-starr-structured-products-.html>



# JP Morgan's Proprietary Volatility Index

J.P.Morgan

## J.P. Morgan Strategic Volatility Index

### OVERVIEW

The J.P. Morgan Strategic Volatility Index (the "Index" or "Strategic Vol Index") provides long exposure to VIX futures at the 2-month point, and aims to offset and potentially profit from the "negative roll yield"<sup>1</sup> often associated with a long VIX futures position by activating a short position in VIX futures at the 1-month point during certain market conditions. The Index is rules-based, with daily levels published to Bloomberg under the ticker JPUSSTVL.

### Brief Background on Volatility Investing

- "Maintains long exposure to the 2-month point on the VIX futures curve" similar to exchange-traded VXX or VXZ.
- "An opportunistic short position at the 1-month point on the VIX futures curve," similar to XIV, "is activated during certain market scenarios."

Hypothetical historical performance comparison: Strategic Vol Index and S&P 500® Index - Sep 2006 to Dec 2012



Source: J.P. Morgan. As of 12/31/12. PAST PERFORMANCE AND BACK-TESTED PERFORMANCE ARE NOT INDICATIVE OF FUTURE RESULTS. The Strategic Vol Index was launched on 7/30/2010; therefore any data shown for that index prior to that date is back-tested. The information in this chart is provided solely for reference.

## JP Morgan's Strategic Volatility Index's Embedded Fee

$$Index(t) = Index(t - 1) \times (1 + Return(t))$$

$$GrossReturn(t) = LongReturn(t) - ShortPos(t - 1) \times ShortReturn(t)$$

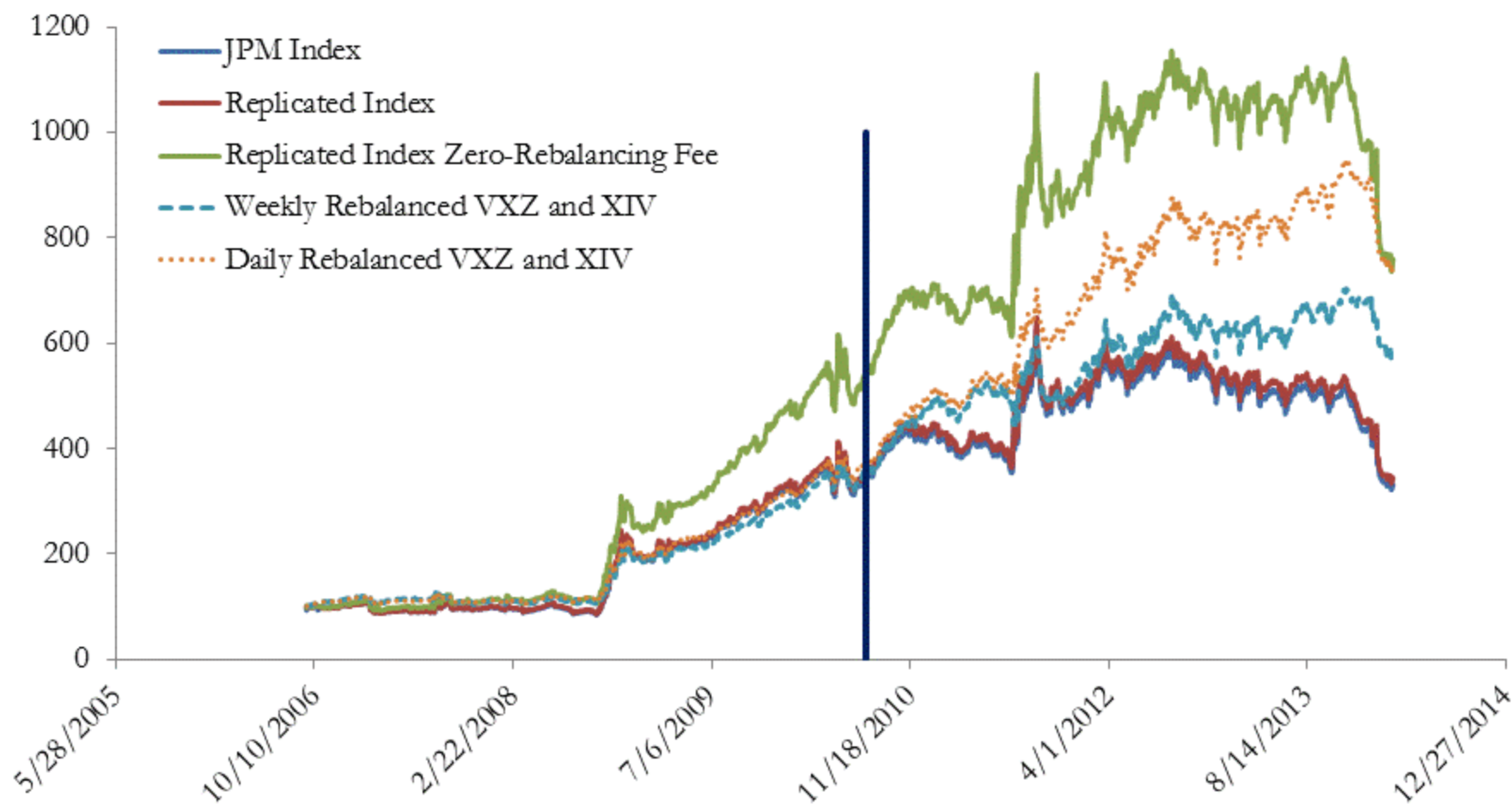
$$Return(t) = GrossReturn(t) - RebAdjAmount(t) - 0.75\% \Delta t$$

- Rebalancing adjustment amount:

“is intended to approximate the slippage costs...that would be experienced by a professional investor seeking to replicate the hypothetical portfolio contemplated by the Index at prices that approximate the official settlement prices...of the relevant VIX futures contracts.”

- Short return represents exposure very similar to XIV (short 1 month VIX futures), long return (long 2 month VIX futures) is similar to VXX (long 1 month VIX futures) or VXZ (long 4-7 month VIX futures).

## JP Morgan's Strategic Volatility Index Embeds Unnecessary 7-17% Annualized Fee



# JP Morgan Links Structured Product Payoffs to its Proprietary Volatility Index

**Pricing supplement no. 1688**

*To prospectus dated November 14, 2011,  
prospectus supplement dated November 14, 2011 and  
product supplement no. 16-II dated March 5, 2012*

**Registration Statement No. 333-177923**

**Dated August 27, 2013**

**Rule 424(b)(2)**

## JPMORGAN CHASE & CO.

**Structured  
Investments**

**\$8,865,000**

**Return Notes Linked to the J.P. Morgan Strategic Volatility Index due  
November 28, 2014**

### General

- The notes are designed for investors who seek exposure to the J.P. Morgan Strategic Volatility Index. Investors should be willing to forgo interest payments and, if, between the Inception Date and the relevant Valuation Date, the level of the Index (which reflects the deductions described below) decreases or, in the case of an early repurchase, does not increase sufficiently to offset the 0.50% Repurchase Fee, be willing to lose some or all of their principal. **Any payment on the notes is subject to the credit risk of JPMorgan Chase & Co.**

# JP Morgan Links Structured Product Payoffs to its Proprietary Volatility Index

**Pricing supplement no. 2413**

*To prospectus dated November 14, 2011,  
prospectus supplement dated November 14, 2011,  
product supplement no. 30-I dated March 5, 2012 and  
underlying supplement no. 20-I dated November 29, 2013*

**Registration Statement No. 333-177923**

**Dated April 25, 2014**

**Rule 424(b)(2)**

## JPMORGAN CHASE & Co.

**Structured  
Investments**

**\$737,000**

**Return Notes Linked to the J.P. Morgan Strategic Volatility Index due  
July 31, 2015**

### General

- The notes are designed for investors who seek exposure to the J.P. Morgan Strategic Volatility Index. Investors should be willing to forgo interest payments and, if, between the Inception Date and the relevant Valuation Date, the level of the Index (which reflects the deductions described below) decreases or, in the case of an early repurchase, does not increase sufficiently to offset the 0.50% Repurchase Fee, be willing to lose some or all of their principal. **Any payment on the notes is subject to the credit risk of JPMorgan Chase & Co.**



## Structured CDs Are Even Less Transparent

### JPMorganChase

JPMorgan Chase Bank, National Association

\$1,200,000

Upside Knock-Out Certificates of Deposit Linked to the S&P 500® Index due October 11, 2019

#### General

- Certificates of deposit (the “CDs”) issued by JPMorgan Chase Bank, National Association (“JPMorgan Chase Bank”) maturing October 11, 2019\*
- The CDs are designed for investors who seek exposure to the appreciation of the S&P 500® Index over the term of the CDs. Investors should be willing to forgo interest and dividend payments as well as (1) any appreciation of the S&P 500® Index of more than 70.00% above the Starting Index Level and (2) if a Knock Out Event has occurred, any appreciation of the S&P 500® Index of more than 9.70%, while seeking full repayment of principal at maturity.
- The CDs are insured only within the limits and to the extent described in this disclosure supplement and in the accompanying disclosure statement. See “Selected Risk Considerations — Limitations on FDIC Insurance” in this disclosure supplement. Any payment on the CDs in excess of FDIC insurance limits is subject to the credit risk of JPMorgan Chase Bank.
- Investing in the CDs is not equivalent to investing in a conventional certificate of deposit or directly in the S&P 500® Index or any of its components.
- Minimum denominations of \$10,000 (and then in additional increments of \$1,000)
- The CDs are expected to price on or about October 4, 2013 (the “Pricing Date”) and are expected to settle on or about October 11, 2013.

## Structured CDs Are Also Linked to Proprietary Indexes

### JPMorganChase

JPMorgan Chase Bank, National Association

\$2,475,000

Certificates of Deposit Linked to the JPMorgan ETF Efficiente 5 Index due December 31, 2020  
General

- Certificates of deposit (the "CDs") issued by JPMorgan Chase Bank, National Association ("JPMorgan Chase Bank") maturing December 31, 2020\*.
- The CDs are designed for investors who seek exposure to any appreciation of the JPMorgan ETF Efficiente 5 Index over the term of the CDs. Investors should be willing to forgo interest and dividend payments, while seeking full repayment of principal at maturity.
- The CDs are insured only within the limits and to the extent described in this disclosure supplement and in the accompanying disclosure statement. See "Selected Risk Considerations — Limitations on FDIC Insurance" in this disclosure supplement. Any payment on the CDs in excess of FDIC insurance limits is subject to the credit risk of JPMorgan Chase Bank.
- Investing in the CDs is not equivalent to investing in a conventional CD or directly in the JPMorgan ETF Efficiente 5 Index or any of its Basket Constituents.
- Minimum denominations of \$10,000 (and then in additional increments of \$1,000).
- The CDs priced on December 20, 2013 (the "Pricing Date") and are expected to settle on or about December 30, 2013.



## Direct Participation Programs

## An Overview of Direct Participation Programs

- Direct participation programs (DPPs) include.
  - non-traded REITs and BDCs
  - Oil & gas partnerships
  - Equipment leasing partnership
  - Managed Futures
- DPPs are poorly diversified investments saddled with high fees.
- The potential tax benefits of the DPPs are small and often less than the upfront fees charged by the DPPs.
- Traditional risk-return analysis exposes DPPs' economic disadvantages and the sponsors' conflicts of interest.
- No advisor or broker can recommend a DPP and meet their fiduciary duty.
- No brokerage firm can justify offering DPPs given an adequate reasonable basis suitability analysis.

## Non-Traded REITs

## An Overview of Non-Traded REITs

- A Real Estate Investment Trust (“REIT”) is a concentrated real estate-related investment that receives special tax treatment if it meets certain criteria.
  - REIT income is passed through to investors, so REITs do not pay income tax and investors’ distributions are taxed at ordinary income rates.
- Non-traded REITs can be registered with the SEC and thus sold to retail investors but are not listed on public exchanges like traded REITs.
- Because non-traded REITs are not listed on an exchange, investors
  - cannot reliably and independently judge the prices charged by sponsors,
  - cannot act to control and reduce the sponsor’s conflicts of interest, and
  - cannot easily sell their interests.
- Non-traded REITs are poor investments given less expensive, more diversified, more liquid REIT investments with the same exposure, such as listed REIT index funds.

## The 'Stable Investment' Myth

- Sponsors and advocates for non-traded investments often claim that because shares are not market traded, they have 'low volatility,' are 'stable investments,' or that management can 'focus on managing the portfolio.'
- The SEC's Division of Corporation Finance explicitly addressed this claim in its December 19, 2011 Disclosure Guidance:

“Some non-traded REITs have proposed sales material that cites their static offering price as evidence that there is no volatility in the value of the security. Unless the offering price is based on a valuation of the security, we object to these statements and instruct these registrants to remove statements in the sales material that suggest a static offering price indicates a stable investment.”<sup>1</sup>
- Despite this warning, similar claims are still being made by brokers and trade organizations.

<sup>1</sup>CF Disclosure Guidance: Topic No. 3 <http://www.sec.gov/divisions/corpfin/guidance/cfguidance-topic3.htm>

## Sponsors and Brokers Somewhat Constrained, the Industry Perpetuates the 'Stable Investment' Myth

Advocating Direct Investments  
Through Education



to sell their shares through Share Redemption Programs (typically capped at 5% of total shares outstanding per year). The illiquid nature of non-traded REIT shares does provide an intrinsic benefit, however, because it removes the volatility of a fluctuating stock price. That built in stability gives REIT managers the flexibility to focus primarily on acquiring assets and managing the portfolio. Investors are able to focus on long-term capital appreciation, rather than worry about the negative effects of a widespread sell-off triggered by uncontrollable market conditions. And, since non-traded REITs control the timing of a liquidity event, they can time the market to best suit their investors.



## DIRECT INVESTMENTS

### Asset Allocation

By expanding the number of asset classes you use, you can add depth to your portfolio.

Asset allocation is a strategy that involves selecting a mix of investments as you seek to achieve your financial objectives at a level of risk you can tolerate. Determining what percentage of your portfolio you allocate to each asset class, or investment category, can be one of the most important decisions you make with your investment adviser.

Some asset classes have the potential to increase the value of your portfolio, and others to provide regular income. Some categories, such as dividend-paying stocks, may do both. But no asset class produces strong returns all the time.

Asset allocation may work because each asset class tends to perform somewhat differently at any given time. For example, when stocks are providing a strong return, bond returns often slump. And when investors are buying bonds, stock prices tend to slide. Investing in both stocks and bonds over time can help you avoid the amount of loss you could suffer in a stock downturn if you owned only stocks, or in a bond downturn if you owned only bonds.

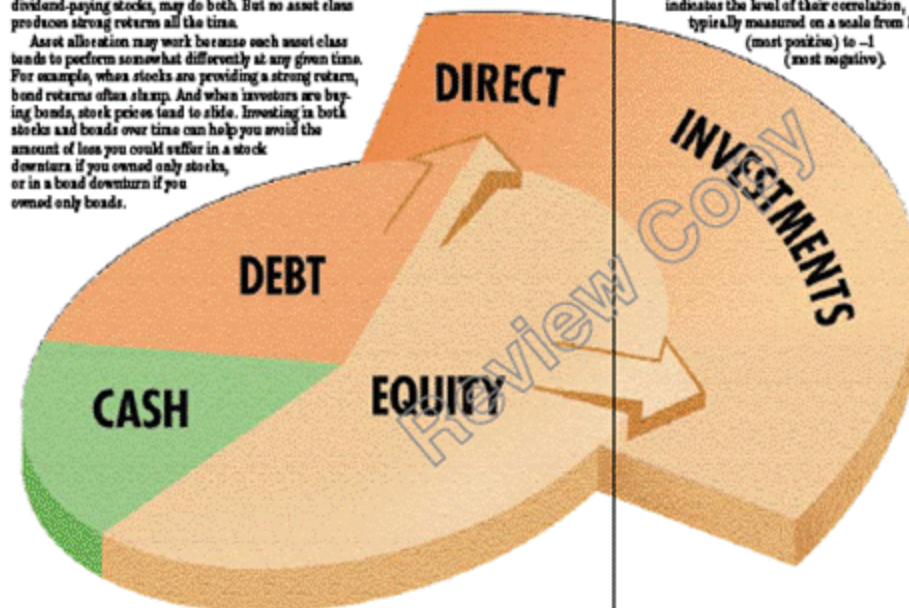
#### MODEL PORTFOLIOS

Most asset allocation models, or plans, tend to focus on securities—stocks and bonds, mutual funds and ETFs—plus cash equivalents that can be easily liquidated, such as CDs and US Treasury bills.

The basic approach is to assign a percentage of your total investable assets to two or more of these asset classes, or investment categories. There are some standard models—such as 60% stock, 30% bond, 10% cash—that some pension funds use to produce the returns they need to meet their obligations to

retired workers. Other models, which may emphasize other asset classes or include alternative investment categories such as futures or direct investments, are designed to help achieve certain goals or reflect different tolerances for risk.

Being invested in multiple asset classes means that the classes producing stronger returns at any given time can help balance the ones that are faltering. Adding alternative investments to your investment mix creates additional opportunities for achieving this balance.



## DIRECT INVESTMENTS

### JUST LIKE THE OTHERS—OR NOT?

The extent to which asset classes perform similarly to one another is called **correlation**. Positively correlated assets are affected in the same way by certain systematic risks and their returns tend to move in the same direction. Negatively correlated assets are affected differently by economic and political events and their returns tend to move in opposite directions. The extent to which assets perform similarly or differently indicates the level of their correlation, typically measured on a scale from 1 (most positive) to -1 (most negative).

Many alternative investments tend to have low to negative correlations to traditional asset classes, as their values don't tend to move in tandem with equity or bond markets. Though it may seem counterintuitive, adding higher-risk, negatively, and noncorrelated assets to your portfolio can reduce the overall volatility and risk within your portfolio and increase your potential return.

#### ALTERNATIVE DIVERSIFICATION

Tangible or hard assets, such as real estate, leased equipment, and energy resources, have received increasing attention over the past few years as tools in the diversification kit. That's because returns on hard assets tend to be non-correlated to the returns on publicly traded securities. What's more, there's enough variety within this class to create a combination of investments that may be negatively correlated as well.

#### APPROACHES TO ALLOCATION

Depending on your situation, you may want to take a more or less aggressive approach to allocation.

Aggressive investors are willing to accept more volatility in the short term, require less current income, and have a long-term time frame in which to achieve their goals. A sample aggressive allocation model might be 60% stocks, 30% bonds, 10% cash, and 10% direct investments.

Moderate investors aim to buffer volatility, need to balance short-term and long-term goals, and often have less than ten years until retirement. A sample moderate allocation model might be 55% stocks, 30% bonds, 10% cash, and 5% direct investments.

Conservative investors want income-producing investments and are concerned about the risks in seeking long-term growth. They may have major short-term financial responsibilities or have large amounts invested in their own businesses. A sample conservative allocation model might be 30% stocks, 50% bonds, 15% cash, and 5% direct investments.

#### MANAGING YOUR ALLOCATION

As the value of your investment portfolio increases or decreases, and as your financial goals and time frames change, you will probably want to modify your initial asset allocation. Your financial adviser may suggest you review and rebalance your portfolio once a year, or you may prefer to make a change when one traditional asset class is 15% more or less out of line with the allocation you've chosen.

The small percentage, 5% to 15%, that you allocate to alternative investments may remain the same, although the subtypes within this category may shift as your assets change.

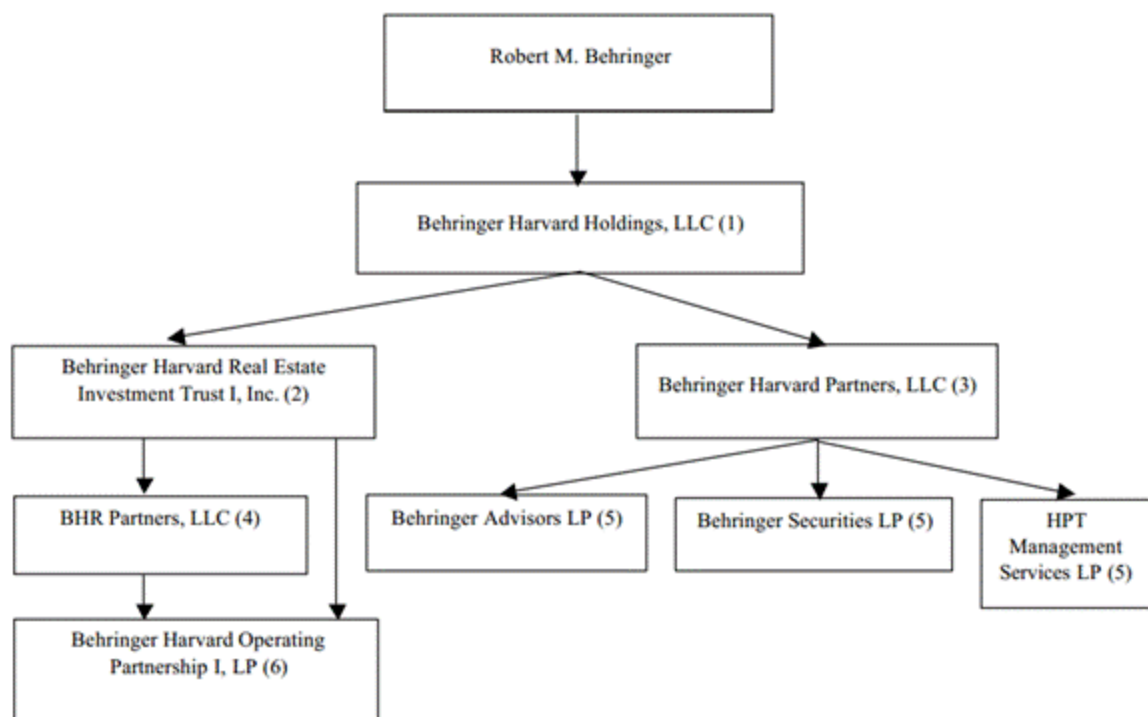
In addition, be change firms and other financial advisers regularly review and refine the allocation models they suggest to their clients to take current economic conditions into account.

# NO!!!!!!

- DPPs do not add to asset classes.
- DPPs repackage existing assets in illiquid wrappers.
- The illiquidity is necessary to hide impact of high costs, leaving investors with the risks of the underlying assets and the expected returns of money market funds or worse.



## Non-Traded Investors Pay High Fees to Network of Affiliates



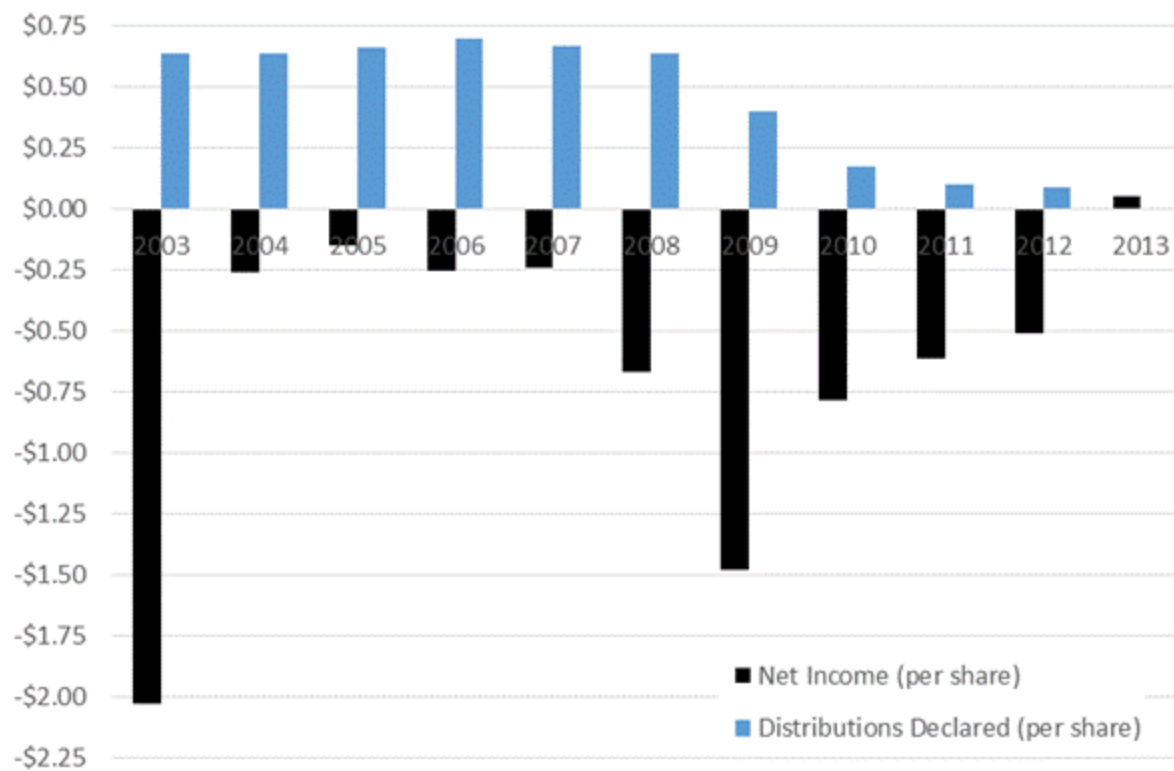
- Non-traded REITs use a network of affiliates in various advisory roles to collect fees. Behringer Harvard had numerous affiliated entities who received fees for services related to the REIT (Prospectus dated February 19, 2003).

## Non-Traded REIT Investors Pay High Fees to Network of Affiliates

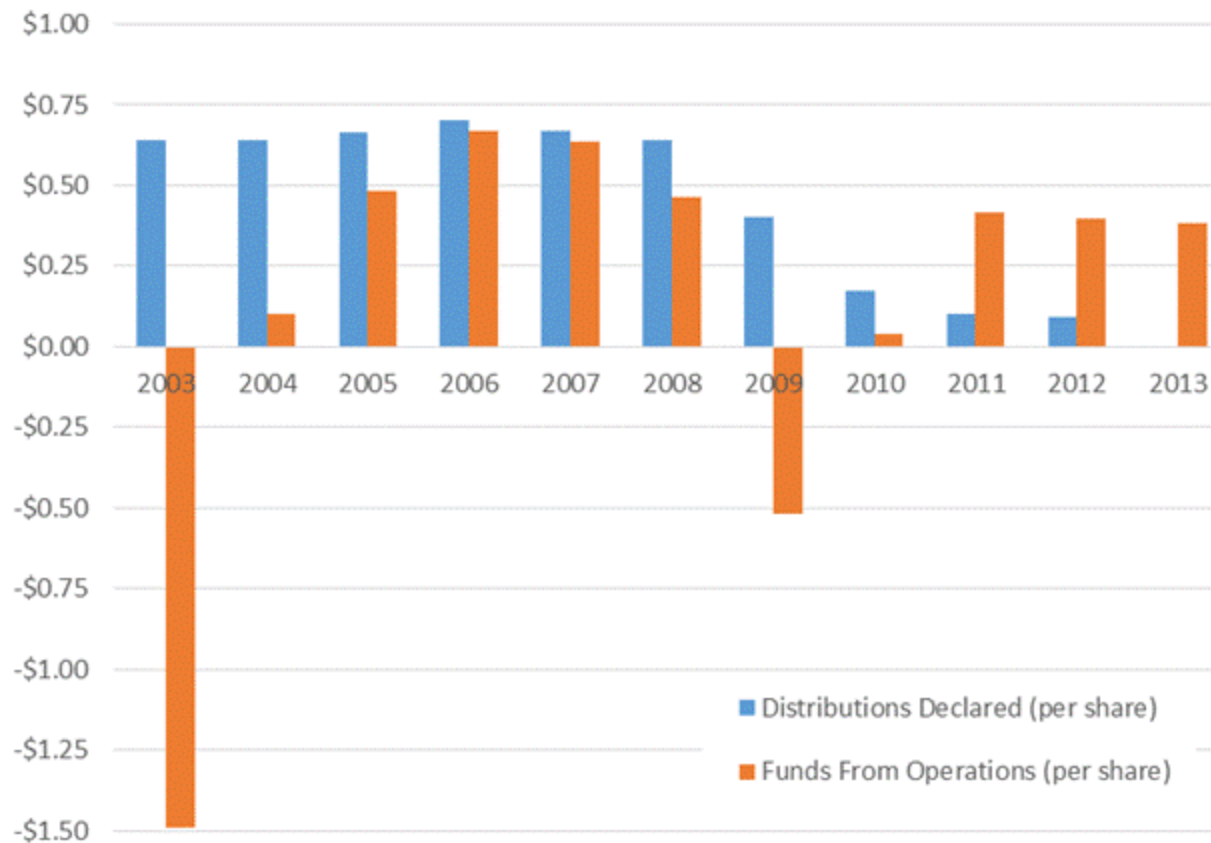
	<u>MINIMUM OFFERING</u>		<u>MAXIMUM OFFERING</u>	
	<u>Amount</u>	<u>Percent</u>	<u>Amount</u>	<u>Percent</u>
Gross offering proceeds.....	\$2,500,000	100.0%	\$880,000,000	100.0%
Less public offering expenses:				
Selling commissions and dealer manager fee (1) .....	237,500	9.5	82,400,000	9.4
Organization and offering expenses (2).....	<u>62,500</u>	<u>2.5</u>	<u>22,000,000</u>	<u>2.5</u>
Amount available for investment.....	2,200,000	88.0	775,600,000	88.1
Acquisition and development expenses:				
Acquisition and advisory fees (3).....	63,158	2.5	22,266,028	2.5
Acquisition expenses (3).....	10,526	0.4	3,711,005	0.4
Initial working capital reserve (4) .....	<u>21,053</u>	<u>0.8</u>	<u>7,422,009</u>	<u>0.8</u>
Amount estimated to be invested (5).....	<u>\$2,105,263</u>	<u>84.2%</u>	<u>\$742,200,958</u>	<u>84.3%</u>

- The high upfront fees and commissions on Behringer Harvard shares meant only 84.2% of investor proceeds would be used to fund real estate investments (Prospectus dated February 19, 2003).

## Typical of Non-traded REITS, REIT I Lost Money, Yet Made Large Steady Distributions



## Typical of Non-traded REITS, REIT 1's Distributions Routinely Exceed Funds from Operations

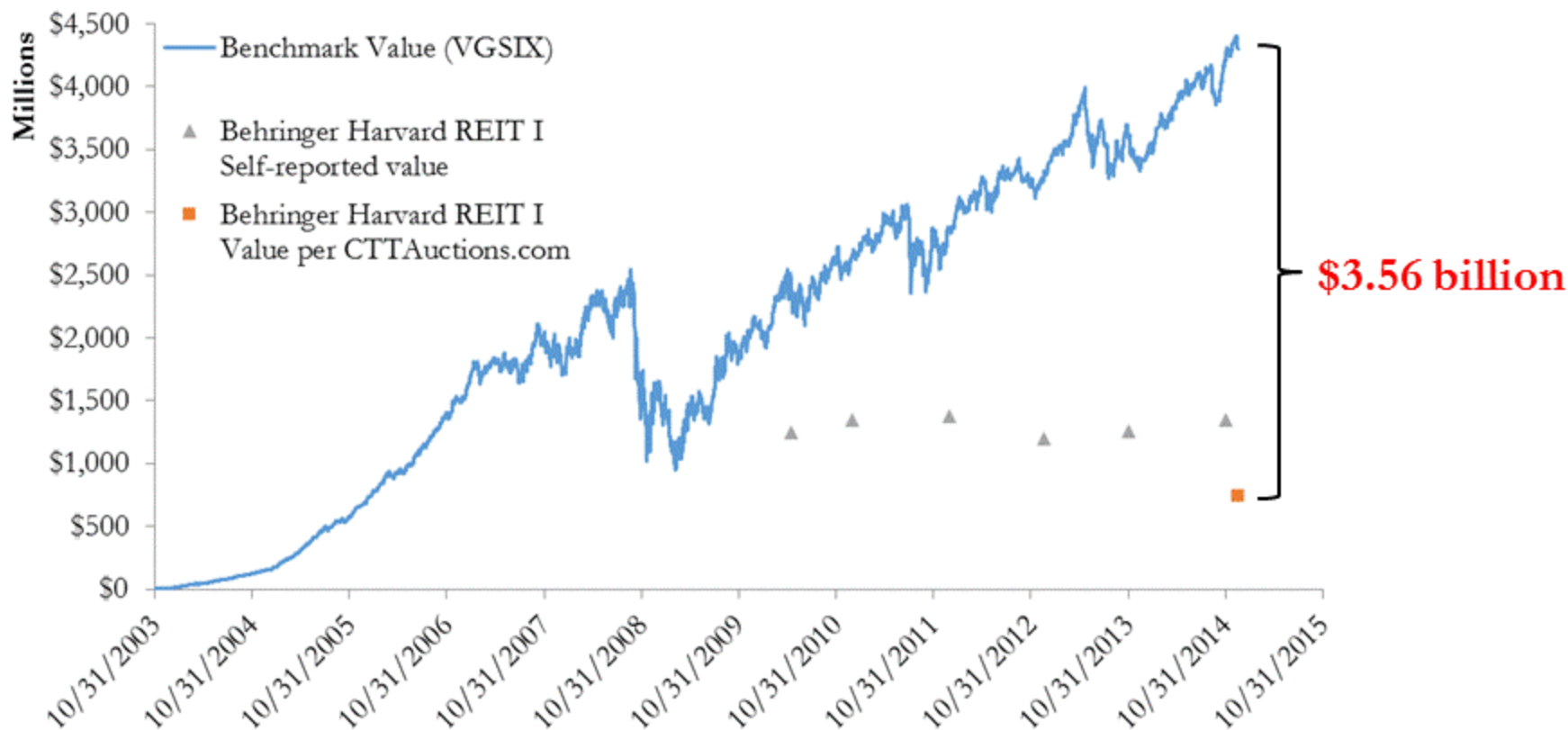


## Alternatives to Non-Traded REITs

- Real estate exposure can be obtained at lower cost through other investments, such as:
  - Real estate mutual funds
  - Real estate exchange-traded funds
  - Diversified positions in traded REITs, construction companies, mortgage companies, etc.
- The NAREIT index had 118 publicly-traded equity REITs on December 31, 2007.<sup>1</sup>
- The Vanguard REIT Index Fund (VGSIX) held 97 REIT stocks on January 31, 2008, and had been in existence since May 13, 1996.

1. <http://www.reit.com/sites/default/files/returns/FNUSIC2007.pdf>, accessed on October 31, 2014.

## Behringer Harvard REIT I's Wealth Destruction is Typical of Non-Traded REITs



Sources: Behringer Harvard REIT I 10-K, and 10-Q SEC filings, 2003-2014. Behringer Harvard REIT I's per share value on December 16, 2014 is the most recent auction price found at cttauctions.com.

## Non-Traded REIT Shares Are Highly Illiquid

- Non-traded REITs are illiquid investments. Investors wishing to sell their shares can typically do so through limited repurchase programs or through the secondary market.
- Behringer Harvard's share repurchase program was subject to important limitations. The funds used for redemption for any period may not exceed the amount of gross proceeds generated from the sale of shares through the REIT's dividend reinvestment program. In addition, redemptions were restricted to 5% of the weighted average shares outstanding over the prior year.<sup>1</sup>
- Behringer Harvard REIT I suspended its share redemption program on March 24, 2009.<sup>2</sup>
- Although Behringer Harvard REIT I currently reports a per-share value of \$4.48, CTTAuctions.com, Direct Investment Spectrum, and the OTC securities market all report per-share values at or below \$2.50.

1. 2010 Annual Report, Behringer Harvard REIT I.

2. 2009 Annual Report, Behringer Harvard REIT I.



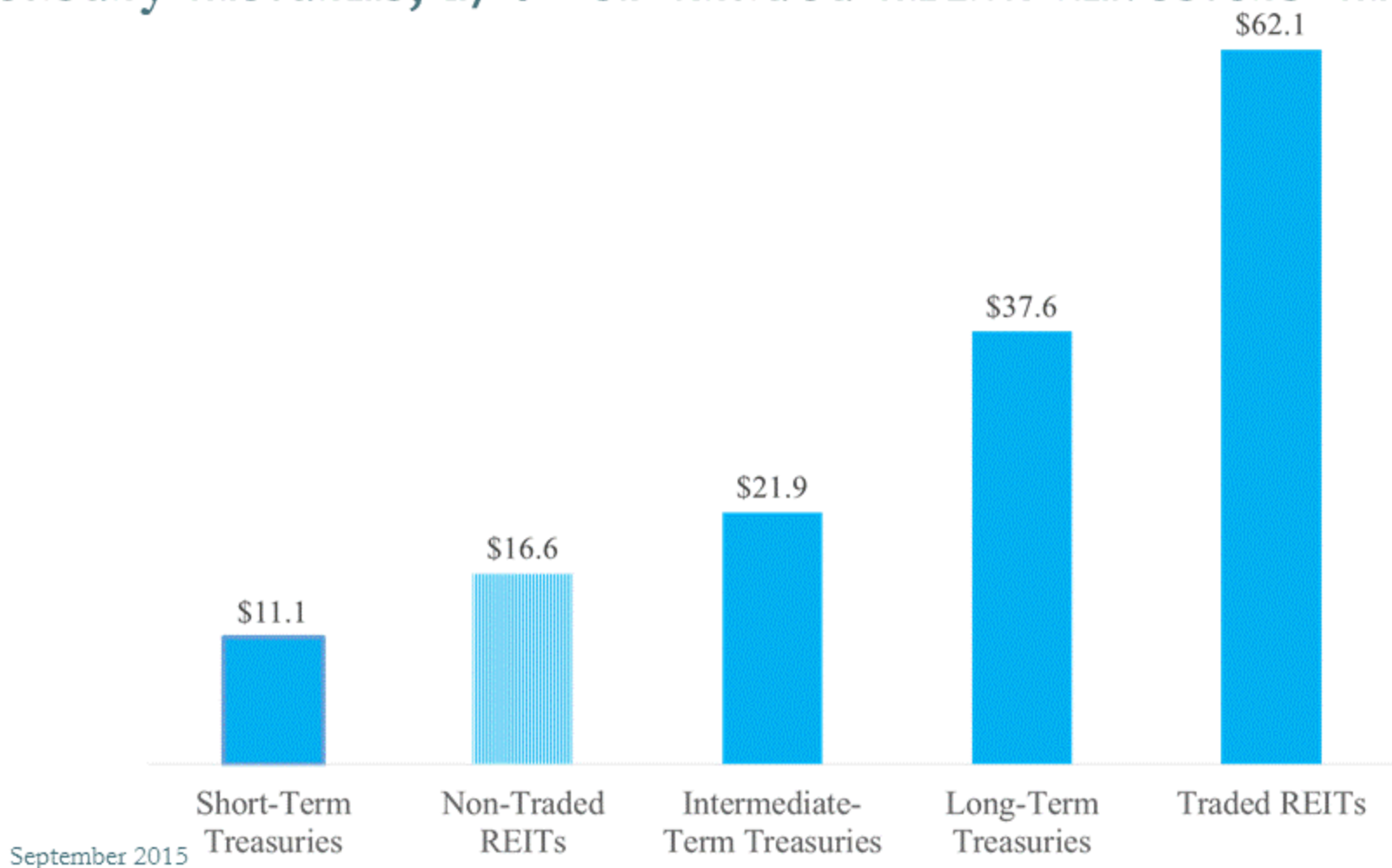
## Large-Scale Analysis of Non-Traded REIT Returns

- We conduct an exhaustive study on 89 registered non-traded REITs.
- Non-traded REIT investors suffered over \$44 billion of wealth shortfalls by not investing in publicly traded REITs instead.
  - We consider a low-cost, passive Index fund having returns that are net of fees and expenses as the benchmark in this comparison.
  - We likely under-state the true wealth losses due to illiquidity
- Non-traded REIT annual returns are approximately 4%, compared to 11.3% for publicly traded REITs.
- Non-traded REITs' riskiness stems from the nature of their assets, not whether or not the shares trade. In fact, that they do not trade makes them riskier than traded REITs.
- The large upfront fees that average 13.2% and range from 5% to 24.6% of the investment amounts account for approximately 58% of the wealth losses.
- The balance of the wealth losses are due to conflicts of interest.

## Non-Traded and Traded REIT Accumulated Wealth (in millions)

Event	Number	Non-Traded REITs	Traded REITs	Shortfall
<b>Liquidity Events</b>	<b>43</b>	\$55,217	\$79,736	<b>\$24,519</b>
Listing	20	\$24,999	\$40,768	\$15,769
Merger	23	\$30,218	\$38,969	\$8,751
<b>Updated NAV/Private/Bankrupt</b>	<b>46</b>	\$36,283	\$55,812	<b>\$19,529</b>
<b>Total</b>	<b>89</b>	\$91,500	\$135,548	<b>\$44,048</b>
<b>Cumulative value, re-invested to 6/30/2015 in short-term Treasury bonds</b>				<b>\$46,444</b>
<b>Cumulative value, re-invested to 6/30/2015 in traded REITs</b>				<b>\$53,908</b>

## Non-traded REIT Investors Have Earned Short-Term Treasury Returns, 1/4<sup>th</sup> of Traded REIT Investors' Returns



## 89+ Non-Traded REITs Internal Rate of Returns

Event	Number	Non-Traded REITs	Traded REITs	Difference
<b>Liquidity Events</b>	<b>43</b>	7.1%	11.1%	<b>3.9%</b>
Listing	20	3.0%	11.5%	8.4%
Merger	23	10.7%	10.8%	0.0%
<b>Updated NAV/Private/Bankrupt</b>	<b>46</b>	4.3%	11.7%	<b>7.3%</b>
<b>Average</b>		5.6%	11.4%	<b>5.7%</b>
<b>Aggregate Investment</b>	<b>89</b>	4.0%	11.3%	<b>7.3%</b>

## Effect of Upfront Fees

Event	Number	Upfront Fees	Future Value of Invested	Investor Shortfall
<b>Liquidity Events</b>	<b>43</b>	\$8,522	\$15,328	\$24,519
Listing	20	\$4,892	\$8,180	\$15,769
Merger	23	\$3,630	\$7,147	\$8,751
<b>Updated NAV/ Private/Bankrupt</b>	<b>46</b>	\$6,139	\$10,402	\$19,529
<b>Total</b>	<b>89</b>	<b>\$14,662</b>	<b>\$25,730</b>	<b>\$44,048</b>

## Analysis of Fees Paid to External, Affiliated Advisors and Managers

Expenses (percent of annual revenue)	Prior Year	Year of Exchange Listing	Subsequent Year	Pre- to Post-Listing Change	<i>t</i> -statistic
Property Operating Costs	23.8%	21.5%	21.9%	-2.0%	-1.04
Management Expenses Paid to Affiliates	4.2%	2.0%	0.9%	-3.3%	-2.14
General & Administrative Expenses	10.1%	13.8%	10.9%	0.8%	1.08
<b>Total Expenses</b>	<b>93.9%</b>	<b>84.4%</b>	<b>81.0%</b>	<b>-13.0%</b>	<b>-2.14</b>



# Equipment Leasing Direct Participation Programs

## **An Overview of Equipment Leasing Direct Participation Programs**

- Equipment leasing partnerships promote the tax benefits investors can achieve through depreciation deductions and interest payments on leverage.
  - Depreciation and interest deductions can only offset income from other passive investments.
  - The probable tax benefits do not justify the high upfront fees.
- Equipment leasing partnerships market a predictable income stream.
  - Distributions are largely a return of capital—not income.
  - The distributions are not supported by net income, and so cannot be sustained.
- Equipment leasing DPPs predictably suffer large losses because of poor credit controls and exorbitant ongoing fees paid to the sponsor.
- Equipment leasing DPPs are poor investments given less expensive, more diversified, more liquid investments with the same exposure, such as publicly traded equipment leasing companies.

## ICON Leasing Fund 12

- Upfront fees and reserves are 18.07% of invested capital.
- The Partnership is levered 2.5 to 1, so 60% of the final lease portfolio is debt financed.
- The General Partner receives up to 7% of gross rental revenue each year as a management fee, and is reimbursed for certain administrative expenses.
- The Manager is also entitled to receive 1% of the distributable cash prior to the targeted payout (i.e., return of capital plus 8% annual return) and 10% of such cash thereafter.
- Investors in ICON Funds 10, 11 and 12 can purchase interest of ICON Fund 12 for \$900 per share through Distribution Reinvestment Program (DRIP), which will dilute previous investors' interest.
- Managers have incentive to take on higher risk: the Manager will receive more asset acquisition fees if the Manager increases leverage.
- There is no secondary market for fund shares. Redemptions each year are limited to 2% of shares outstanding, and limit investors' returns to less than 4%.

## ICON 12 Collected High Fees for A Network of Affiliates

	Maximum Offering of <u>400,000 Shares</u>	Fees and Expenses As a Percentage of:	
		<u>Total Offering Proceeds</u>	<u>Assets</u>
Offering Proceeds — Assets	\$400,000,000	\$400,000,000	\$819,186,000
Expenses:			
Sales Commissions to Selling Dealers	(32,000,000)	8.00%	3.91%
Underwriting Fees to our Dealer Manager	(8,000,000)	2.00%	0.98%
O&O Expense Allowance to our Manager	(5,750,000)	1.44%	0.70%
Public Offering Expenses	(45,750,000)	11.44%	5.58%
Cash Reserve	(2,000,000)	0.50%	0.24%
Acquisition Fees to our Manager	(24,516,000)	6.13%	3.00%
Fees and Expenses	(\$72,266,000)	18.07%	8.82%

- The high upfront fees and commissions on ICON 12 shares meant only **82.93%** of investor proceeds would be used to invest in equipment leases. The Prospectus permits ICON to collect up to 25% on its fees and expenses depending upon the amount of debt used to acquire equipment. (Prospectus dated May 7, 2007).

## Alternatives to Equipment Leasing DPPs

- The steady, predictable income, promoted by Equipment Leasing DPPs can be obtained by investing in fixed-income corporate bonds.
  - Like equipment leasing partnerships, bonds have a target dissolution date.
  - Unlike equipment leasing partnerships, bonds return the face amount of the investment at maturity.
  - Bonds have much lower fees and more liquidity.
  - Bonds offer better diversification across industries and geographies as equipment leasing partnerships.
- The corporate penalties for defaulting on a bond are generally worse than the penalties for defaulting on a lease, protecting investors more in a down economy.
- If an investor wanted equity exposure to equipment leases, the investor could buy common stock in equipment leasing companies. There were 19 actively traded equipment leasing companies (SIC 7350, 7359) in June 2008.

## ICON Equipment Leasing Funds' Returns

December 31, 2013

	<u>Amount Invested per Unit</u>	<u>Total Distributions per Unit</u>	<u>Value per Unit</u>	<u>Year Offering Commenced</u>	<u>Year Dissolved</u>	<u>Out of Pocket Gain/Loss per Unit</u>
ICON Cash Flow Partners, Series A	\$1,000	\$1,238.74	\$0.00	1987	1999	\$238.74
ICON Cash Flow Partners, Series B	1,000	957.60	0.00	1989	2001	(42.40)
ICON Cash Flow Partners, Series C	1,000	968.45	0.00	1990	2001	(31.55)
ICON Cash Flow Partners, Series D	1,000	1,208.37	0.00	1991	2005	208.37
ICON Cash Flow Partners, Series E	1,000	1,048.92	0.00	1992	2006	48.92
ICON Cash Flow Partners, Six	1,000	957.31	0.00	1993	2006	(42.69)
ICON Income Fund Eight B	100	70.89	0.00	2000	N/A	(29.11)
ICON Income Fund Nine	1,000	763.98	0.00	2001	N/A	(236.02)
ICON Income Fund Ten	1,000	811.47	247.59	2003	N/A	59.06



# All ICON Equipment Leasing Funds Had Underperformed Equipment Leasing Companies as of December 31, 2013

	December 31, 2013	Out of Pocket Gain/Loss per Unit	Annualized Holding Period Return	<u>Annualized Return of Alternative Portfolios</u>		
				<u>Equipment Leasing Companies</u>	<u>S&amp;P 500</u>	<u>US Treasuries</u>
ICON Cash Flow Partners, Series A		\$238.74	1.80%	15.75%	18.97%	9.04%
ICON Cash Flow Partners, Series B		(42.40)	-0.36%	12.45%	12.73%	8.77%
ICON Cash Flow Partners, Series C		(31.55)	-0.29%	14.86%	14.32%	9.04%
ICON Cash Flow Partners, Series D		208.37	1.36%	12.35%	10.18%	8.21%
ICON Cash Flow Partners, Series E		48.92	0.34%	11.37%	10.76%	7.81%
ICON Cash Flow Partners, Six		(42.69)	-0.34%	8.85%	10.83%	7.15%
ICON Income Fund Eight B		(29.11)	-2.44%	7.42%	3.75%	6.92%
ICON Income Fund Nine		(236.02)	-2.14%	6.39%	5.62%	6.36%
ICON Income Fund Ten		59.06	0.56%	9.12%	8.26%	5.91%

The Equipment Leasing Companies Portfolio is a value-weighted portfolio of 40 publicly traded equipment leasing companies (SIC 7350, 7359).

# Oil and Gas

## Direct Participation Programs

## **An Overview of Oil and Gas Direct Participation Programs**

- Oil and gas DPPs promote the tax benefits investors can achieve through write-offs of intangible drilling costs and depletion deductions.
  - The write-off and the depletion deductions can only be applied to passive income if the investor is a limited partner.
- Some oil and gas DPPs are registered with the SEC, while others are not. None are listed on a public exchange.
  - Not being registered with the SEC reduces transparency and exacerbates the sponsor's conflicts of interests.
- There are many conflicts of interest.
  - The Managing Partner decides which leases it will contribute to the partnership, and how much capital it should be credited for each lease.
  - The Managing Partner is compensated mainly through large upfront fees, other fixed fees, and mark-ups on drilling costs, rather than profitable oil production.

## Atlas Resources Public #18

## Atlas Resources Public #18-2008 Program had High Upfront Fees

NATURE OF PAYMENT	200 UNITS SOLD	Percent of Investors' Capital Contribution	60,000 UNITS SOLD	Percent of Investors' Capital Contribution
<b>Capital Contributions</b>				
Investors capital contribution	\$2,000,000	100.00%	\$600,000,000	100.00%
Managing General Partner capital contribution	\$546,042	27.30%	\$143,389,586	23.90%
<b>Organizational and Offering Expenses</b>				
Dealer-manager fee, sale commissions and reimbursement for bona fide due diligence expenses	\$200,000	10.00%	\$60,000,000	10.00%
Organization costs*	\$100,000	5.00%	\$5,227,248	0.87%
<b>Amount Available for Investment</b>				
Intangible drilling costs	\$1,700,000	85.00%	\$510,000,000	85.00%
Equipment costs	\$517,981	25.90%	\$156,668,838	26.11%
Leases	\$28,061	1.40%	\$11,493,500	1.92%
<b>Total Partnership Capital</b>	<b>\$2,546,042</b>	<b>127.30%</b>	<b>\$743,389,586</b>	<b>123.90%</b>

\*If all of the units are sold the managing general partner's organization costs may be up to 5% of the investors' subscription proceeds (i.e., up to \$30 million).

Prospectus of Atlas Resources Public #18-2008 Program, October 27, 2008, pp. 35-37.

## The Sponsor Charged Large Operating Fees

### Partnership Management Business

...In addition to providing capital for our drilling activities, our investment partnerships are a source of fee-based revenues, which are not directly dependent on natural gas and oil prices. We receive an interest in the investment partnerships proportionate to the amount of capital and the value of the leasehold acreage that we contribute, which interest is typically 15% to 31% of the overall capitalization in a particular partnership. We also receive an additional interest in each partnership, typically 5% to 10%, for operating the wells and managing the general partner for which we do not make any additional capital contribution. This brings our total interest in the partnerships in a range from 20% to 41%.

~Atlas Resource Partners 10-K for 2011, p. 13



## The Sponsor Charged Large Operating Fees

### Business Strategy

*Expand our fee-based revenue through our sponsorship of investment partnerships. We generate substantial revenue and cash flow from fees paid by the investment partnerships to us for acting as the managing general partner. As we continue to sponsor investment partnerships, we expect that our fee revenues from our drilling and operating agreements with our investment partnerships will increase. We expect that the fee revenue we generate with respect to fees paid by the investment partnerships to us for partnership management will add stability to our revenue and cash flows. Furthermore, the carried interests and fees we earn reduce the net investment in our drilling program and therefore enhance our rates of return on investment.*

~Atlas Resource Partners 10-K for 2011, p. 9

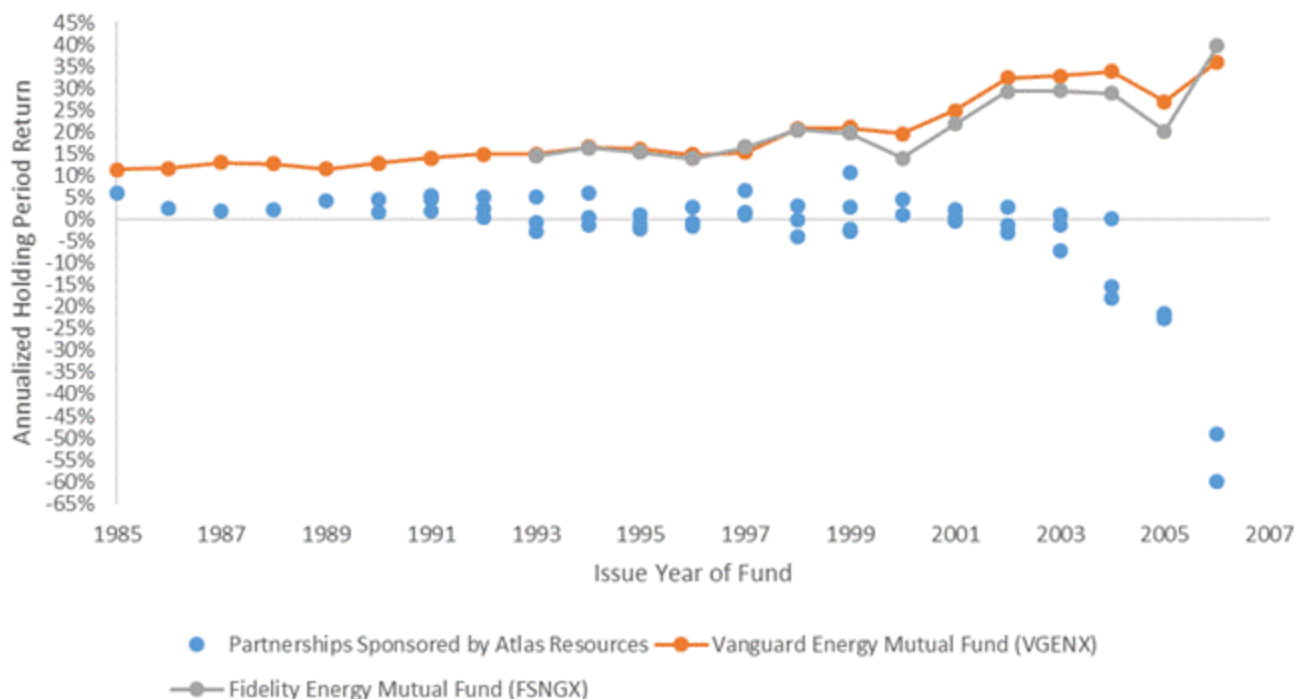
## The Sponsor Charged Large Operating Fees

As managing general partner of our investment partnerships, we receive the following fees:

- *Well construction and completion.* For each well that is drilled by an investment partnership, we receive a 15% to 18% mark-up on those costs incurred to drill and complete the well.
- *Administration and oversight.* For each well drilled by an investment partnership, we typically receive a fixed fee between \$15,000 and \$250,000, depending on the type of well drilled. Additionally, the partnership pays us a monthly per well administrative fee of \$75 for the life of the well. Because we coinvest in the partnerships, the net fee that we receive is reduced by our proportionate interest in the well.
- *Well services.* Each partnership pays us a monthly per well operating fee, currently \$100 to \$1,500 for the life of the well. Because we coinvest in the partnerships, the net fee that we receive is reduced by our proportionate interest in the well.
- *Gathering.* Each royalty owner, partnership and certain other working interest owners pay us a gathering fee, which generally ranges from \$0.35 per Mcf to the amount of the competitive gathering fee, currently defined as 13% of the gross sales price of the natural gas. ...

~Atlas Resource Partners 10-K for 2011, p. 14

## Atlas Oil and Gas DPPs Perform Worse than Liquid, Low-Cost Energy Mutual Funds



Holding period returns are calculated from the year the fund was issued through December 31, 2007.

## Atlas Oil and Gas DPPs Perform Worse than Liquid, Low-Cost Energy Mutual Funds

	<u>Fund IRR</u>	<u>VGENX IRR</u>	<u>Shortfall</u>		<u>Fund IRR</u>	<u>VGENX IRR</u>	<u>Shortfall</u>
				Atlas America Public #9	-0.31%	12.15%	12.46%
				Public #10	-1.06%	13.94%	15.01%
				#11-2002	-6.64%	15.46%	22.11%
Minimum	-47.25%	-1.27%	12.46%	#12-2003	-12.27%	15.25%	27.53%
Mean	-20.73%	9.24%	29.97%	#14-2004	-17.76%	11.77%	29.53%
Maximum	-0.31%	15.46%	60.45%	#15-2005 (A)	-17.63%	10.23%	27.87%
				#16-2005 (A)	-24.16%	7.72%	31.88%
				Atlas America Public #15-2006 (B)	-23.73%	6.00%	29.74%
				ATLAS AMERICA SERIES 25-2004 (A)	-3.76%	13.83%	17.59%
				ATLAS AMERICA SERIES 25-2004 (B)	-15.47%	12.46%	27.93%
				Atlas America Series 26-2005	-18.48%	8.09%	26.57%
				Atlas America Series 27-2006	-29.82%	5.58%	35.39%
				Atlas Resources Public #16-2007 (A)	-31.78%	2.69%	34.47%
				Atlas Resources Public #17-2007 (A)	-34.23%	-0.44%	33.79%
				Atlas Resources Public #17-2008 (B)	-40.52%	-1.27%	39.25%
				Atlas Resources Public #18-2008 (A)	-47.25%	13.20%	60.45%
				Atlas Resources Public #18-2009 (B)	-24.94%	11.82%	36.77%
				Atlas Resources Public #18-2009 (C)	-19.17%	7.73%	26.90%
				Atlas Resources Series 28-2010	-24.80%	9.42%	34.22%

IRRs are annualized daily IRRs through December 31, 2013. Summary statistics include all 19 public Atlas funds formed since 2000.

## Oil and Gas Interests are Extremely Speculative

- Oil and gas interests are often linked to the development of new wells, pipelines, production facilities, and other energy infrastructure projects.
- The projects often have no significant operating history.
- Some firms sponsor many programs, which may compete with one another or face other conflicts of interest.
- Often have upfront placement costs of approximately 10%, plus marketing and other costs of approximately 5%.
- Have no liquid market and often include significant limits on transferability.

## Alternatives to Oil and Gas Interests

- Exposure to the oil and gas industry can be obtained much cheaper through exchange-traded alternatives, many of which have been on the market for a decade or more.
  - Oil and gas exchange traded funds:
    - **VDE** – Vanguard Energy Index Fund (inception: September 2004, expense ratio: 0.14%)
    - **XLE** – Energy Select Sector SPDR (inception: December 1998, expense ratio: 0.18%)
  - Oil and gas mutual funds:
    - **VGEXX** – Vanguard Energy Fund (inception: May 1984, expense ratio: 0.31%)
    - **FSENX** – Fidelity Select Energy Portfolio (inception: July 1981, expense ratio: 0.81%)



## Non-Traded BDCs

## Non-traded BDCs are Inferior to Traded BDCs

- Non-traded BDCs have high upfront fees, similar to non-traded REITs.
- Non-traded BDCs often charge “2-and-20” management fees, which are common in hedge funds but not in retail products.
- There exist a variety of BDC mutual funds and exchange-traded funds that can be purchased or sold at low cost.
- Non-traded BDCs are constrained by the 40 Act from the rampant self-dealing which explains half the customer losses in the non-traded REIT space.

# Managed Futures Limited Partnerships

## Managed Futures Are Speculative Investments With High Fees

- Managed futures trade futures, forwards, and options contracts in commodities, currencies, and other products. Managed futures employ leverage which amplifies gains and losses.
- Managed futures partnerships pay annual base and incentive fees and brokerage fees as a percentage of net assets.
- Any trading profit or interest income realized by the Morgan Stanley Smith Barney Charter Campbell, LP was more than offset by the hefty fees\*:

	2003-2012
Interest Income	\$51,457,892
Trading Profit	\$99,304,388
Total Gain	\$150,762,280
Brokerage Fees	-\$114,191,320
Management Fees	-\$49,155,784
Incentive Fees	-\$4,898,610
Total Fees	-\$168,245,714
Investor Loss	-\$17,483,434

\* Results as reported in the annual SEC filings.

## Are Managed Futures Funds Being Churned?

- From 2003 to 2012, these registered managed futures partnerships, had gross returns of \$5.4 billion but net returns of only \$1.3 billion after \$4.1 billion in fees were deducted.
- Annualized gross returns were 10.0%, expenses 7.8%, net returns only 2.2%.
- The fees are mostly brokerage commissions paid to affiliates.

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2003-2012	
Total Trading Result	\$403	\$505	\$430	\$620	\$423	\$1,916	\$239	\$289	(\$46)	(\$56)	\$4,723	
Interest Income	\$21	\$41	\$106	\$235	\$219	\$65	\$4	\$5	\$2	\$2	\$700	
Gross Returns	\$424	\$547	\$536	\$854	\$642	\$1,981	\$244	\$294	(\$45)	(\$54)	\$5,422	10.0%
	8.4%	9.7%	8.4%	8.4%	7.9%	9.6%	6.7%	6.5%	6.4%	6.4%		
Fees	\$267	\$389	\$429	\$472	\$459	\$583	\$414	\$387	\$368	\$322	\$4,089	7.8%
Net Returns	\$157	\$158	\$107	\$383	\$183	\$1,399	(\$171)	(\$93)	(\$413)	(\$376)	\$1,334	2.2%
Net Assets	\$3,162	\$4,894	\$5,314	\$5,957	\$5,679	\$6,445	\$5,922	\$5,909	\$5,534	\$4,504		
											$\mu$	$\sigma$
Managed Futures Return	5.0%	3.9%	2.1%	6.8%	3.1%	23.1%	-2.8%	-1.6%	-7.2%	-7.5%	2.2%	8.7%
S&P 500 Stocks (SPY)	28.2%	10.7%	4.8%	15.8%	5.2%	-36.8%	26.3%	15.1%	1.9%	16.0%	7.0%	18.2%
Municipal Bonds (VWLTX)	5.3%	4.1%	3.1%	5.2%	2.6%	-4.8%	14.1%	1.2%	10.6%	8.1%	4.8%	5.2%
Total Bond Market (VBMFX)	4.1%	4.2%	2.5%	4.3%	6.9%	5.1%	5.9%	6.3%	7.6%	4.0%	5.1%	1.6%

See David Evans, "Fleeced by Fees" *Bloomberg Markets*, November 2013, p. 68.

## Managed Futures Are Illiquid

- Managed futures partnerships are non-traded and typically offer limited redemptions.
- The Morgan Stanley Smith Barney Charter Campbell had the following redemption limits:

<b>Time from Purchase</b>	<b>Redemption Limits and Charges</b>
1-6 months	No redemptions allowed
6-12 months	Redemption charge of 2% of net asset value of units redeemed
12-24 months	Redemption charge of 1% of net asset value of units redeemed



## Alternative Investments are Inappropriate for Retail Investors

- Alternative investments typically have high fees, often times in excess of 10% of gross offering proceeds.
- There exists no public market for shares, so no way to judge value.
- Alternative investments are illiquid investments, making it hard for investors to redeem shares.
- Sponsors of alternative investments often operate in connection with affiliated companies. The substantial conflicts of interests may lead to loss shareholder value.
- Due diligence is often incomplete and inappropriate.
- Investors can almost always achieve the same exposure through low cost mutual funds.