**MRA Desk Calendar**

**GIPT<GO>:** This function allows you to visualize the QR screen – see what's trading on the bid vs. ask in real time. Now, you can set the date end date and time in GIPT to customize the visible tick history amount (up to 5000 ticks are now available.)

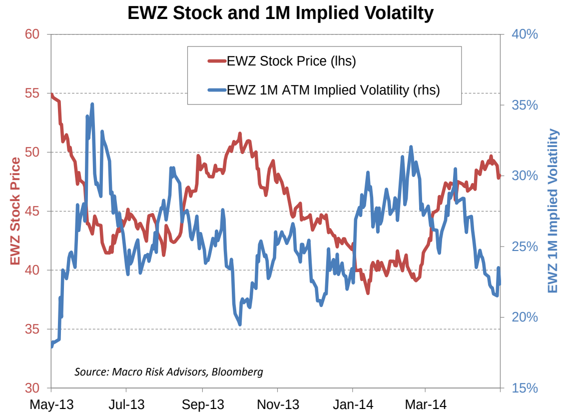
## In Today's Note:

1. MRA Risk Dashboard
2. Hedge Menu
3. Inexpensive Upside
4. Canada Subprime Update
5. Growth in Student Debt
6. Flows

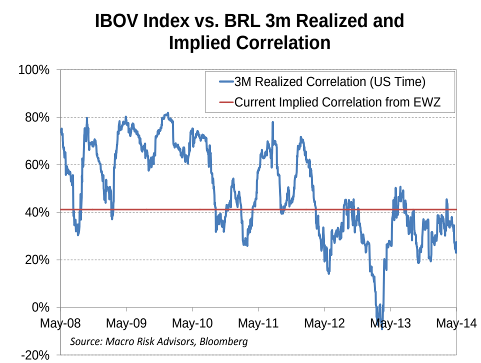
# 1. MRA Risk Dashboard (LINK)

**Brazil Primer and Trade Idea:** The strong rally in Brazilian equities from mid-March thru today has reflected two factors. One, the general EM rally, and two, incumbent President Dilma Rousseff's diminishing prospects for reelection. Rousseff's policy of commodity price controls in recent years has been especially damaging to Petrobras' long-term profitability outlook. Recent polls show her support has dropped into the high 30's. Petrobras, the largest company in Brazil with the largest weight in the index (combining both share classes), has rallied 40% since mid-March.

The first round of presidential elections will be held October 5th and a runoff, if necessary, on October 26th. There are reports past president Lula is actively supporting Rousseff ahead of the current poll, which due to his popularity may drive her numbers higher. In that case, expect a bit of weakness in Brazilian equities and in the real. Even if Rousseff wins reelection, however, she will likely have to compromise more with the right in her second term, which would be supportive of business conditions.

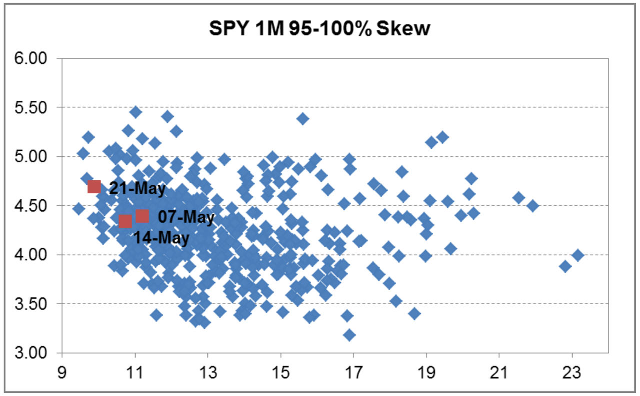



EWZ (iShares Brazil ETF) implied volatility has declined recently along with most other cross asset measures of risk, and we like owning EWZ June volatility ahead of the election polls and the upcoming June FOMC meeting. One thing to note about EWZ volatility, is that the EWZ ETF has explicit exposure to both Brazil equities and BRL currency. This makes EWZ volatility a bet on stock vol, FX vol, and the stock-FX correlation. In general, Brazilian stocks and the BRL are positively correlated, meaning that BRL has tended to strengthen relative to the USD as Brazlian stocks appreciate. This positive correlation provides additional volatility to holding EWZ compared to a local Brazilian holding IBOV (in local currency). Below we show the 3-month realized and implied correlation of IBOV and BRL, showing the decreasing correlation in the past few years. If there is another EM crisis where weaker EM stocks are compounded by weaker EM currencies (think capital flight), EWZ vol will outperform as the realized correlation increases.



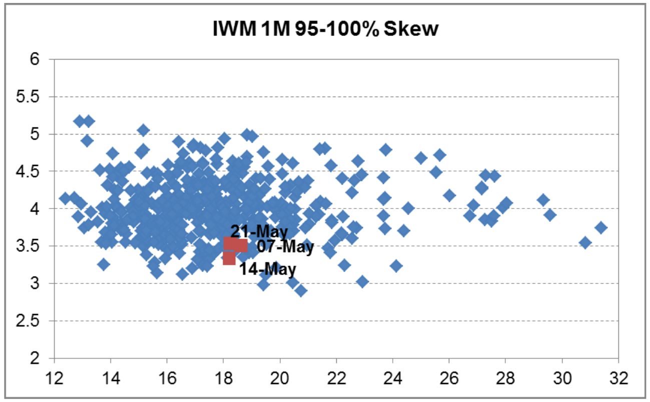
## 2. Hedge Menu

SPY 1-month at-the-money vol is near its lowest levels in 2 years (the VIX just printed its lowest expiry in over 5 years), while skew (as measured by the vol difference of the 95% and 100% strikes) is still relatively high on an absolute basis. Below is a scatter plot of SPY 1M 95/100 skew vs. 1M at-the-money vol, and a menu of 1-month SPY put spreads. **The Jun 185/180 put spread offers a >5x payout ratio should SPY pull back to 180.**




| SPY 6/21/14 Put Spreads (Ref: 189.13) | | | | | |
|---|---|---|---|---|---|
| Ratio | | | | Max | |
| 1 | -1 | bid | offer | Pay Ratio | Delta |
| 189.00 | 184.00 | 1.49 | 1.59 | 2.1 | -29% |
| 188.00 | 183.00 | 1.25 | 1.33 | 2.8 | -26% |
| 187.00 | 182.00 | 1.04 | 1.11 | 3.5 | -23% |
| 186.00 | 181.00 | 0.86 | 0.93 | 4.4 | -20% |
| 185.00 | 180.00 | 0.73 | 0.78 | 5.4 | -17% |
| 184.00 | 179.00 | 0.59 | 0.65 | 6.7 | -14% |
| 183.00 | 178.00 | 0.48 | 0.55 | 8.1 | -12% |
| 182.00 | 177.00 | 0.40 | 0.45 | 10.1 | -10% |
| 181.00 | 176.00 | 0.33 | 0.38 | 12.2 | -9% |
| 180.00 | 175.00 | 0.27 | 0.31 | 15.1 | -7% |
| 179.00 | 174.00 | 0.22 | 0.27 | 17.5 | -6% |
| 178.00 | 173.00 | 0.18 | 0.22 | 21.7 | -5% |

Meanwhile, IWM has been substantially outrealizing SPY to the downside. While the vol is higher, consider that IWM is down 8.5% from its all-time high in early March, while SPY is actually up 80bps over the same period. **The IWM Jun 108/104 put spread offers a 3x payout ratio should IWM fall an additional 5% to 104.**

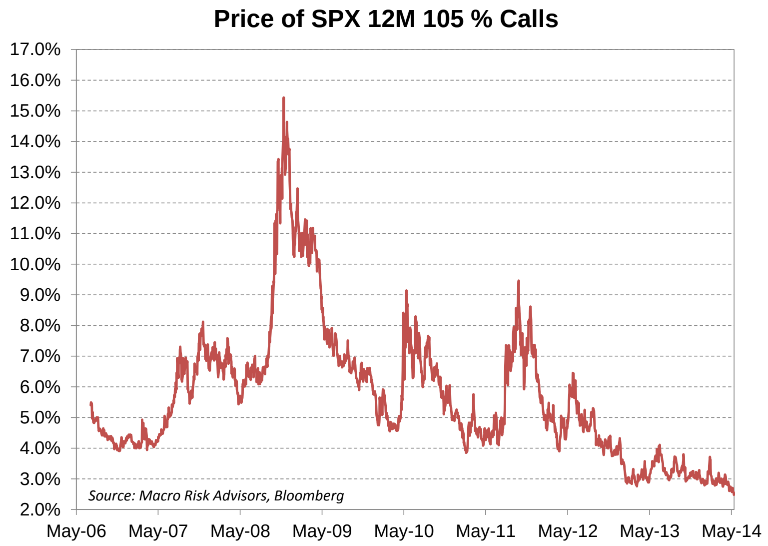



| IWM 6/21/14 Put Spreads (Ref: 109.62) | | | | | |
|---|---|---|---|---|---|
| Ratio | | | | Max | |
| 1 | -1 | bid | offer | Pay Ratio | Delta |
| 109.00 | 105.00 | 1.12 | 1.14 | 2.5 | -22% |
| 108.00 | 104.00 | 0.93 | 0.96 | 3.2 | -19% |
| 107.00 | 103.00 | 0.77 | 0.80 | 4.0 | -17% |
| 106.00 | 102.00 | 0.64 | 0.66 | 5.1 | -15% |
| 105.00 | 101.00 | 0.52 | 0.54 | 6.4 | -12% |
| 104.00 | 100.00 | 0.42 | 0.45 | 7.9 | -11% |
| 103.00 | 99.00 | 0.34 | 0.36 | 10.1 | -9% |
| 102.00 | 98.00 | 0.26 | 0.29 | 12.8 | -7% |
| 101.00 | 97.00 | 0.21 | 0.23 | 16.4 | -6% |
| 100.00 | 96.00 | 0.16 | 0.18 | 21.2 | -5% |

## 3. Inexpensive Upside

Here's the constant 12M 105% call price (which would be roughly the SPX Jun15 1975 calls that were 54.3 mid yesterday). We are at the lows since back in 2006-2007 when the 1Y rate was still above 5% and the implieds were nearly at the same levels.

For those investors looking to lighten up but still maintain some upside exposure, this looks pretty interesting… the combination of lower 1 year vol, still near zero rates and higher divs makes this cheaper than even 2006…




## 4. Canada Subprime Lenders and Mortgage Insurers Declare Victory

Some great quotes highlighted in this Bloomberg piece. As regulators attempt to mitigate risk posed to the taxpayer by the CMHC's mortgage insurance scheme (by eliminating coverage for second home purchases and for the self-employed), the private insurers are filling the void and predicting a windfall. The willingness to confound "hasn't corrected" with "won't correct" is pretty astounding, imo, and the inherent negative selection bias continues to go largely undiscussed.

*"It may be expensive but people seem to be able to afford what they are buying," Home Capital Chief Executive Gerald Soloway said in a May 15 telephone interview.*

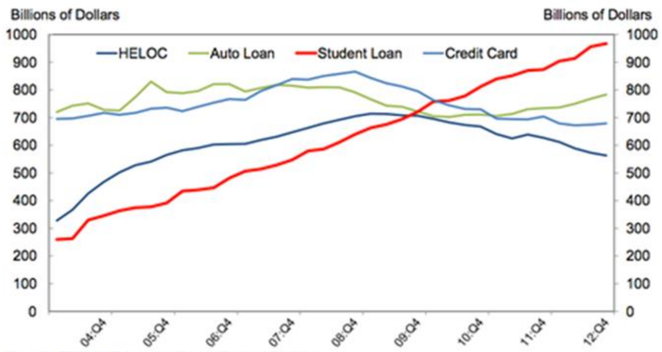
*"The experts that were saying Canada's housing market had to follow the U.S. were wrong, just plain wrong."*

*Genworth CEO Brian Hurley said by telephone May 16. "The soft landing we were looking for has materialized."*

## 5. Growth in Student Debt

Via VOX: "The Consumer Financial Protection Bureau, a federal agency, estimated in May that total student debt is nearly $1.2 trillion, and that federal student loans alone make up more than $1 trillion in outstanding debt. (Private loans make up the remaining $165 billion.)

But actual debt from paying for college is probably higher. Some students or parents use credit cards, loans from retirement plans, or home equity lines of credit to pay tuition, fees, and living expenses. Those financial products aren't included in the $1.2 trillion estimate."



Source: FRBNY Consumer Credit Panel / Equifax

## 6. Flows

**VIX Call Spread**
The VIX Sep 19/28 call spread traded 151,000x @ 85c, opening.

**IWM Put Spread**
20,000 IWM Jun 108/104 put spreads were bought to sell May 23rd 108 puts, paying 73c.

**ARCP Calls**
20,000 ARCP Jul 12.5 calls were bought to open for 55c, and 40,000 Jan '15 12.5 calls were bought to open for 69c. This is unusually large volume for the stock, which has a 20 day average options volume of 1,600.These are now the largest open interest positions in ARCP options, with 60K total of the Jan'15 12.5 calls and 20,000 of the Jul 12.5 calls open.

**BTU Roll**
25,000 BTU Jun 20 calls traded 10c, and 25,000 Sep 20 calls traded 66c. Open interest increased in both lines.

**CLF Puts**
25,000 CLF Aug 16 puts were bought to open for $1.72, selling to close 18,000 Jul 18 puts @ $2.60.

**Something to leave you with…we thought this New Yorker cartoon captures the broad spirit of the moment across markets as carry-trade mania steps into high gear:**

*"There are many questions, of course, that won't be answered till the autopsy."*

**MRA Desk Calendar**

**NI DRV<GO>:** News code for derivatives content. Get in front of it.

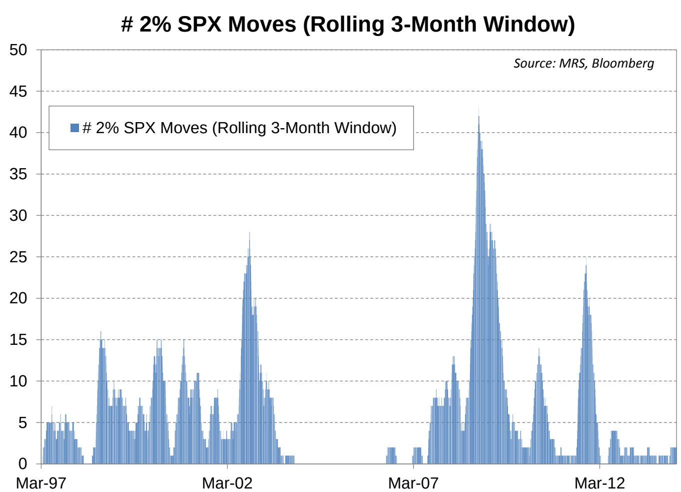
## In Today's Note:

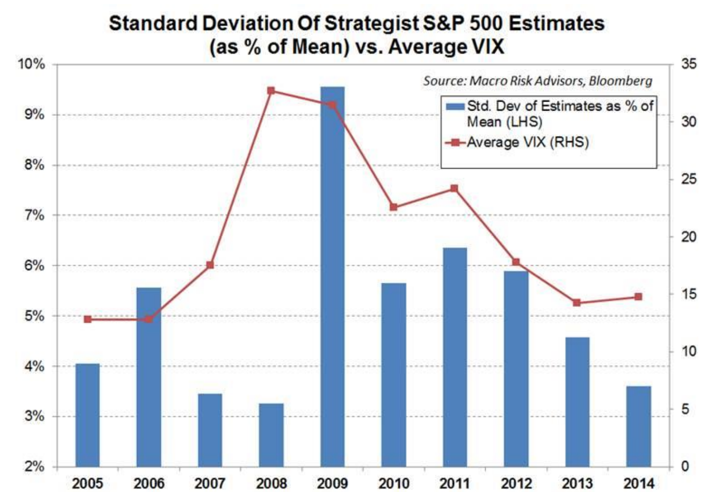
1. Thoughts Vol from Dean
2. Range Bound: SPX
3. Low Cost of Put Spread
4. The Over 50 Crowd
5. China Housing Update
6. WY Highlight
7. Flows

# 1. Thoughts on Vol from Dean

The vol crush is here. It discriminates not by asset class, geography, or maturity. No option premium has emerged unscathed through this most recent compression of risk spreads. What is happening here? We provide some thoughts on the underpinnings and the opportunities that emerge from today's environment of especially skinny option prices. Recall the chart from our most recent risk slide deck (LINK) that shows the number of 2% moves in SPX over 3 month periods. We can see that between 2003-2007 was an extremely quiet, "accident-free" period of time in which credit risk became substantially mispriced as investors had to compete in a new market regime.

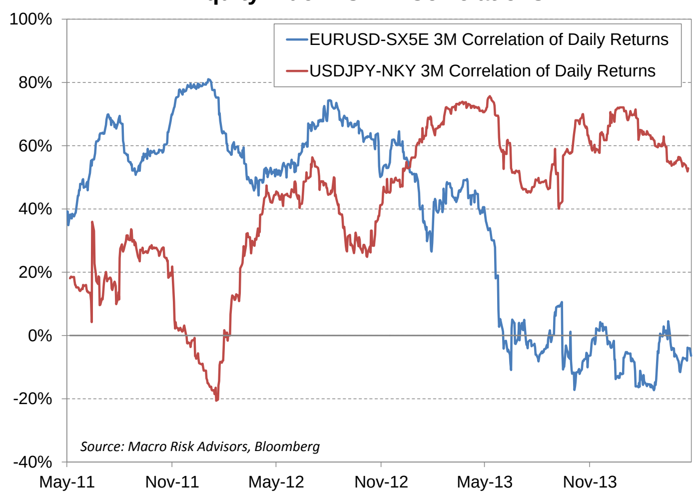
The first factor driving the VIX is the degree of uncertainty around the economy and what that implies for corporate profit variability. In the US, there is currently little dispersion among professional economists around the future path of US GDP. This "clarity" has historically been linked to lower levels of market volatility. Along these same lines, stock market earnings, while growing at a decelerating rate, have been highly consistent for many quarters now. The stability of EPS on the S&P 500 makes the equity market more like the bond market. Recall the chart from our Risk Slide deck (LINK) that illustrates the narrowing of estimates around year end SPX targets. The stability here creates confidence among market participants and it dampens vol in the process.



A second factor associated with changes in equity market volatility is tail risk. Here, fears of systemic uncertainty are a source of risk premium. These fears have also slowly been forced out of the market via the helping hand of the Fed and Draghi's "whatever it takes" language. We observe in the decline in tail risk by the decidedly more muted correlation between the Euro and the Eurostoxx index (see chart below). During the height of the sovereign crisis, recall the way in which sell-offs in the currency and equity market (especially financial stocks) coincided. More recently, this correlation has largely come undone as the Eurozone continues to attract capital. If Draghi's next round of monetary policy initiatives are forceful enough (we are not yet convinced on this front), one could envision a negative correlation between the currency and equities in Europe. Here, the ECB sees the "magic" of Abenomics and seeks to weaken the euro and spur a wealth inducing rally in risk assets in the process. We will see what ensues on this front.

**Equity Index vs. FX Correlations**




With this brief discussion of the factors – both economic and financial - pushing market volatility down, we believe that the most substantial driver of the recent sell off in option prices has been the losses incurred by those paying for options. We have discussed many times the feedback mechanism provided via daily p/l by options. Even at low premium levels, options are costing the buyers too much money to hold in a market so decidedly range bound across all asset classes. These losses, the performance drag they create, and the lack of feedback provided to hedgers is forcing the unwind of long convexity. The process is reflexive and it pushes option prices down further.

While we have seen these cycles before, there is a real disconnect between the risks in the market and the market price of risk. There is a further disconnect between the concerns articulated by investors and how they are positioned. Given this generally under-hedged stance and the loaded spring that is the VIX, we do not think it will take much for a pop in option prices.

## 2. Range Bound: SPX

Great Analysis from Prav on SPX performance following a range bound period: For the last 21 days, the S&P has been in a tight trading range between 1850 and 1900 (a ~+-1.25% wide range around 1880). I looked at the S&P going back to 1990 to find similarly rangebound periods (<1.25% to the upside or downside from the start of the period), looking at closes only (not intraday highs/lows). The longest period was 40 days, from Sep-Nov 1995. I have also included the % moves 5, 10, 20, and 30 days after exiting the range, measured in % move from the upper or lower bound.

Interestingly, almost all of these rangebound periods were in the pre-2008 era, mostly in 1993-1995 and 2006-2007. The VIX averaged 11-12 during these periods. Most of the time, the range was broken to the upside.

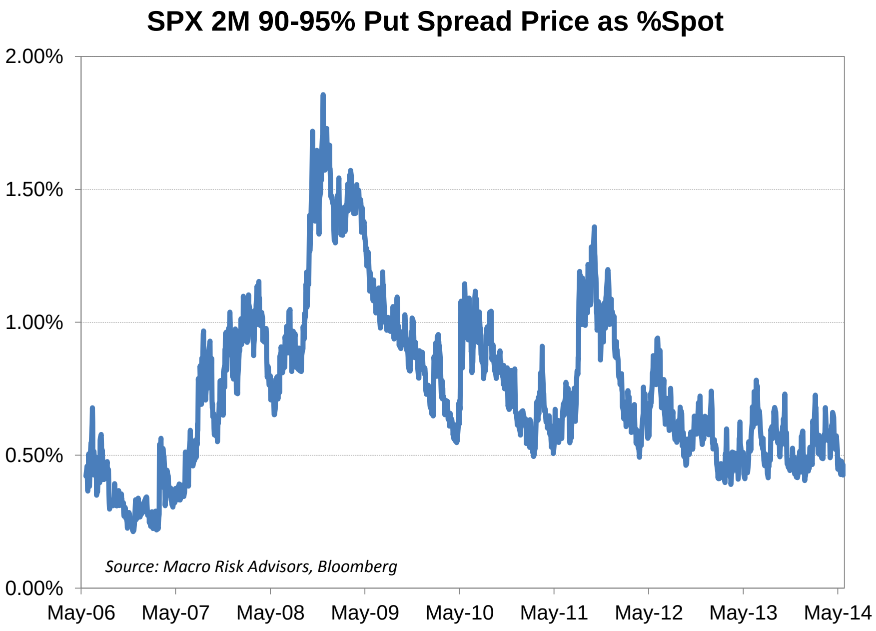
| | | | | | | | Exit to Upside | %Move from upper/lower bound after exit | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Start | End | Start Price | Lower Bound | Upper Bound | Range Exit | Length | or Downside | +5d | +10d | +20d | +30d |
| **4/22/2014** | **???** | **1879.55** | **1856.06** | **1903.04** | **1871.89** | **22+** | **???** | **???** | **???** | **???** | **???** |
| 9/14/1995 | 11/9/1995 | 583.61 | 576.31 | 590.91 | 591.71 | 40 | UPSIDE | 0.5% | 1.3% | 4.3% | 3.3% |
| 11/3/1993 | 12/28/1993 | 463.02 | 457.23 | 468.81 | 470.54 | 39 | UPSIDE | -0.7% | 1.4% | 0.7% | 0.6% |
| 6/24/1993 | 8/17/1993 | 446.62 | 441.04 | 452.20 | 452.38 | 38 | UPSIDE | 0.7% | 2.1% | 2.2% | 2.1% |
| 3/14/2006 | 5/8/2006 | 1297.48 | 1281.26 | 1313.70 | 1325.76 | 38 | UPSIDE | -1.7% | -3.6% | -3.7% | -5.6% |
| 11/10/1993 | 12/28/1993 | 463.72 | 457.92 | 469.52 | 470.54 | 34 | UPSIDE | -0.9% | 1.2% | 0.5% | 0.5% |
| 11/11/1993 | 12/28/1993 | 462.64 | 456.86 | 468.42 | 470.54 | 33 | UPSIDE | -0.6% | 1.5% | 0.8% | 0.7% |
| 3/21/2006 | 5/8/2006 | 1297.23 | 1281.01 | 1313.45 | 1325.76 | 33 | UPSIDE | -1.7% | -3.5% | -3.7% | -5.6% |
| 12/5/2006 | 1/25/2007 | 1414.76 | 1397.08 | 1432.44 | 1440.13 | 33 | UPSIDE | 0.4% | 1.2% | 1.7% | -2.1% |
| 7/2/1993 | 8/17/1993 | 445.84 | 440.27 | 451.41 | 452.38 | 32 | UPSIDE | 0.8% | 2.3% | 2.4% | 2.3% |
| 12/14/2006 | 2/2/2007 | 1425.49 | 1407.67 | 1443.31 | 1445.94 | 32 | UPSIDE | 0.3% | 0.9% | -3.9% | -3.9% |
| 11/15/1993 | 12/28/1993 | 463.75 | 457.95 | 469.55 | 470.54 | 31 | UPSIDE | -0.9% | 1.2% | 0.5% | 0.5% |
| 11/22/2005 | 1/9/2006 | 1261.23 | 1245.46 | 1277.00 | 1285.45 | 31 | UPSIDE | 0.8% | -1.0% | -0.9% | 0.5% |
| 12/15/2006 | 2/2/2007 | 1427.09 | 1409.25 | 1444.93 | 1445.94 | 31 | UPSIDE | 0.2% | 0.8% | -4.0% | -4.0% |
| 7/8/1993 | 8/19/1993 | 448.64 | 443.03 | 454.25 | 456.04 | 30 | UPSIDE | 1.3% | 2.0% | 1.6% | 1.3% |
| 11/17/1993 | 12/29/1993 | 464.81 | 459.00 | 470.62 | 470.94 | 30 | UPSIDE | -0.8% | 0.7% | 0.1% | 0.1% |
| 7/25/1995 | 9/6/1995 | 561.1 | 554.09 | 568.11 | 569.17 | 30 | UPSIDE | 1.5% | 2.8% | 2.5% | 3.3% |
| 12/18/2006 | 2/2/2007 | 1422.48 | 1404.70 | 1440.26 | 1445.94 | 30 | UPSIDE | 0.6% | 1.1% | -3.7% | -3.7% |
| 4/30/1992 | 6/11/1992 | 414.95 | 409.76 | 420.14 | 407.25 | 29 | DOWNSIDE | -1.8% | -1.4% | 0.1% | 0.3% |
| 7/9/1993 | 8/19/1993 | 448.13 | 442.53 | 453.73 | 456.04 | 29 | UPSIDE | 1.4% | 2.1% | 1.7% | 1.4% |
| 7/26/1995 | 9/6/1995 | 561.61 | 554.59 | 568.63 | 569.17 | 29 | UPSIDE | 1.4% | 2.7% | 2.4% | 3.2% |
| 12/19/2006 | 2/2/2007 | 1425.55 | 1407.73 | 1443.37 | 1445.94 | 29 | UPSIDE | 0.3% | 0.9% | -3.9% | -3.9% |
| 7/12/1993 | 8/19/1993 | 448.98 | 443.37 | 454.59 | 456.04 | 28 | UPSIDE | 1.2% | 1.9% | 1.5% | 1.2% |
| 9/7/1993 | 10/15/1993 | 458.52 | 452.79 | 464.25 | 466.83 | 28 | UPSIDE | 0.2% | 0.7% | -0.3% | -0.4% |
| 11/18/1993 | 12/28/1993 | 463.62 | 457.82 | 469.42 | 470.54 | 28 | UPSIDE | -0.8% | 1.2% | 0.5% | 0.5% |
| 9/19/1995 | 10/27/1995 | 584.2 | 576.90 | 591.50 | 576.72 | 28 | DOWNSIDE | 2.2% | 2.8% | 4.0% | 7.0% |
| 6/1/2005 | 7/12/2005 | 1202.27 | 1187.24 | 1217.30 | 1219.44 | 28 | UPSIDE | 0.3% | 1.0% | 0.5% | 0.4% |
| 12/20/2006 | 2/2/2007 | 1423.53 | 1405.74 | 1441.32 | 1445.94 | 28 | UPSIDE | 0.5% | 1.1% | -3.8% | -3.8% |
| 7/13/1993 | 8/19/1993 | 448.09 | 442.49 | 453.69 | 456.04 | 27 | UPSIDE | 1.4% | 2.1% | 1.7% | 1.4% |
| 9/8/1993 | 10/15/1993 | 456.65 | 450.94 | 462.36 | 466.83 | 27 | UPSIDE | 0.6% | 1.2% | 0.1% | 0.0% |
| 11/19/1993 | 12/28/1993 | 462.6 | 456.82 | 468.38 | 470.54 | 27 | UPSIDE | -0.6% | 1.5% | 0.8% | 0.7% |

Contact: 212-287-2640
Bloomberg: MRAD<GO>

## 3. Low Cost of Put Spread

Below is a look at the historical cost of a SPX 2m 95% less 90% of spot put spread as a percentage of spot. This equates to the SPY Jul 180/170 put spread which is .84 (ref 189.59).

Due to the low level of vol + high level of skew, this put spread basically at its cheapest cost in the last 7 years.




## 4. The Over 50 Crowd

Below is a look at the 26 SPX names where at the money implied volatility is trading above the 50th percentile the last 3 years. Interestingly, many are actually out realizing their implieds. That being said, for investors in the name looking for ways to take in some premium, might consider overwriting some of the top performers or selling puts in names looking to get long.

| Underlying | YTD Return | 3M 100% Implied Volatility Vol | 3m Realized Volatility | 3M 100% Implied Volatility PCTL |
|---|---|---|---|---|
| VRTX | -4% | 115.1 | 45.6 | 99.8 |
| ACT | 27% | 31.56 | 33.5 | 89.04 |
| RAI | 19% | 23.14 | 25.4 | 85.74 |
| LO | 19% | 30 | 38.7 | 78.9 |
| MYL | 9% | 34.31 | 31.9 | 74.77 |
| BCR | 10% | 20.87 | 18.4 | 73.58 |
| GAS | 15% | 24.66 | 15.1 | 73.05 |
| AGN | 48% | 25.72 | 40.6 | 72.52 |
| IRM | -1% | 37.97 | 25.5 | 69.43 |
| ISRG | -5% | 34.03 | 49.0 | 68.81 |
| NEE | 14% | 16.54 | 16.2 | 67.48 |
| AMAT | 14% | 28.85 | 29.8 | 66.87 |
| GME | -24% | 42.96 | 42.5 | 66.16 |
| K | 12% | 15.61 | 20.1 | 65.01 |
| TSS | -8% | 22.94 | 20.5 | 63.66 |
| PRGO | -11% | 27.88 | 31.5 | 59.75 |
| ADS | -7% | 24.9 | 32.1 | 59.54 |
| MRK | 14% | 18.14 | 21.0 | 57.95 |
| PFE | -1% | 18.53 | 20.5 | 57.87 |
| EXC | 27% | 18.34 | 19.9 | 56.15 |
| ALXN | 21% | 38.52 | 46.8 | 55.03 |
| DO | -6% | 25.76 | 31.5 | 54.5 |
| FE | -2% | 18.61 | 20.9 | 54.37 |
| TEG | 8% | 17.19 | 17.0 | 54.19 |
| YHOO | -14% | 34.65 | 36.5 | 53.24 |
| BMY | -8% | 20.06 | 27.7 | 52.58 |

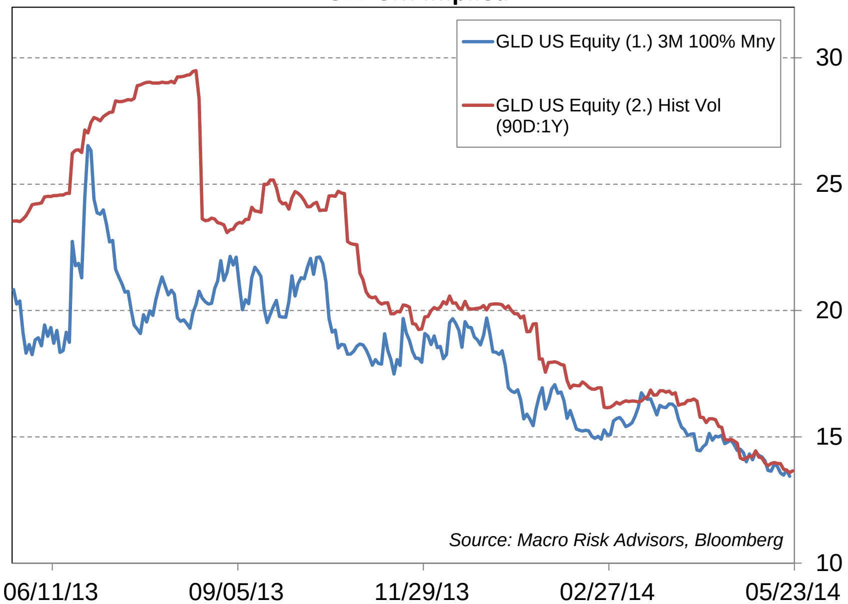
*Source: MRA, Bloomberg*

## 5. China Housing Update

**Beijing can avoid a housing-led crisis by allowing inflation to fix the problem** (Guggenheim's Scott Minerd). "A potential fix would be for Beijing to let inflation rise to 5-7 percent for three or four years and grow out of the problem. A Chinese slow-growth scenario where nominal GDP doubled over five years or so would eliminate the housing problem with little pain. Investors wondering if 5-7 percent inflation is acceptable should remember we have been there twice in the past decade and with China's housing market an important pillar of its economy, we may be headed there again."

GLD 3-month implied vol is low and cheap, plotting right on top of 90-day realized (chart below). For some short dated exposure, consider **GLD june 128 calls 60c ref 124.67**. These 24 delta calls cost 12.6 vol and capture the june FOMC meeting.

**GLD 3M Implied**




**Xinhua Insight: China's Housing Market not to Crash: History Revisited (LINK)**

This article from a local source offers a contrasting view on the downs we have seen in the China housing market. It highlights the differences between the housing bubbles and busts in the US, Japan, and Hong Kong, and explains why China's case is different.

## 6. WY Highlight

**From Salestrader Dave Kovtun**

WY (30.35) – Weyerhauser July 38 calls and puts were the #1 and #2 most heavily traded options in the country on Thursday, clocking in at a combined 360,000 contracts traded. These all traded vs stock, which also experienced an outsize volume day: 22mln shares, representing 5x ADV.

The conversion side of these trades (Long WY Stock + Short WY July 38 call + Long WY July 38 put) represents the arb community loading up on WY shares (hedged with options) that they'll look to tender into the WY/TPH split-off transaction at the end of June. As they see value in receiving the TPH shares from the split-off, they are willing to pay to do the conversion today and we saw fairly big swings in price yesterday. This premium to do the conversion traded as high as 0.40 early in the session and closed at 0.20.

For the reversal side of this trade (Short WY Stock + Long WY July 38 call + Short WY July 38 put), the arbs' willingness to pay to convert creates the opportunity to collect a "free" dividend. For those WY holders who don't want TPH exposure and have no intention of participating in the tender offer for TPH, it might make sense to do the reversal. In essence they could sell out their stock today, maintain their long exposure through the WY July 38 combo for ~2 months (moving back into the stock at expiration) and pick up this extra money.

## 7. Flows

**VIX Flows**

The Jul 20/25 call spread was sold to buy the Sep 20/25 call spread and sell the Jun 16 puts, collecting $2.20 on 15,000.

**SPX Call**

10,000 SPX Jun 1920 calls were bought for $8.70. Last month there was a seller of over 20,000 SPX Jun 1820/1920 strangles; a few days ago we saw 10,000 of the strangles being bought back. Thus this could be further closing of the upside leg.

**More ARCP Call Buying**

40,000 Jan '15 12.5 calls were bought to open for 75c. On May 21st, 20,000 Jul 12.5 calls were bought for 55c and 40,000 Jan '15 12.5 calls were bought for 69c. This takes the total open interest in the Jan '15 12.5 calls to 100,000.

**BWP Flows**

33,000 BWP Sep 17.5 calls were bought to open for $1.80, selling to close 33,000 BWP Sep 15 calls @ $3.30.
There was also a buyer of 12,000 Jun 15 puts for 10c.
The Sep 15 calls were originally bought to open on April 2nd for 90c.
We have seen heavy activity in BWP over the past few weeks; on May 6th there was a buyer of 123,000 Jan '15 17.5 calls for $1.35. Those calls were $2.25 mid as of yesterday's close. In our May 7th note, we highlighted BWP as a stock that has seen call open interest increase dramatically over the past few months along with the stock price.