

**From:** Paul Barrett <[REDACTED]>  
**To:** Jeffrey Epstein <jeevacation@gmail.com>  
**CC:** Richard Kahn <[REDACTED]>  
**Subject:** Tax trade - small cap outperforms large cap into year end  
**Date:** Tue, 19 Sep 2017 23:12:23 +0000

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Jeffrey

We did 10mm notional (spent 1.55%) on a Dec'17 Russell 2000 outperformance vs SPX option. If tax talk heats up I expect small cap catches a bid like it did back in November where it outperformed large cap by 10pct.

Paul Barrett  
[REDACTED]

Begin forwarded message:

**From:** "Ens, Amanda" <[REDACTED]>  
**To:** "Paul Barrett" <[REDACTED]>, "Richard Kahn" <[REDACTED]>  
**Cc:** "Rothberg, Justin D" <[REDACTED]>, "Tome, Christine C" <[REDACTED]>  
**Subject:** RE: \*\*Paul, trade for you - buy cheap RTY/SPX outperformance\*\*

Thank you for the trade. Official confirm will follow.  
Southern Trust Company paid \$155,000 premium on \$10mm notional as discussed.

Initial SPX Level (SPX0)

2,506.650

Initial RTY Level (RTY0)

1,440.404

Thanks,  
Amanda

Amanda Ens  
Director  
Bank of America Merrill Lynch  
Merrill Lynch, Pierce, Fenner & Smith Incorporated  
One Bryant Park, 5th Floor, New York, NY 10036  
Phone: 212.449.7781 Mobile: [REDACTED]  
[REDACTED]

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From: Paul Barrett [mailto: [REDACTED]]  
Sent: Tuesday, September 19, 2017 10:09 AM  
To: 'Richard Kahn' < [REDACTED] >  
Cc: Ens, Amanda < [REDACTED] >  
Subject: FW: \*\*Paul, trade for you - buy cheap RTY/SPX outperformance\*\*

Rich

I would like to do \$10MM notional on this trade. Spending around \$155,000 in premium.

Amanda is around.

Thanks

Paul Barrett  
Alpha Group Capital LLC  
142 W 57th Street, 11th Floor, New York, NY 10019  
646-876-5277 (o) [REDACTED] (c) [REDACTED]  
[REDACTED] <mailto: [REDACTED]>

[cid:image018.jpg@01D3316E.7E92A660]

From: Ens, Amanda [mailto: [REDACTED]]  
Sent: Tuesday, September 19, 2017 9:33 AM  
To: Paul Barrett < [REDACTED] <mailto: [REDACTED]>>  
Cc: Rothberg, Justin D < [REDACTED] <mailto: [REDACTED]>>  
Subject: \*\*Paul, trade for you - buy cheap RTY/SPX outperformance\*\*

Paul,

Given potential upcoming tax reform, and how little is currently priced into the vol market for Small Cap vol, we like positioning for outperformance in Russell 2000 vs SPX. cap index.

Buy the Dec-17 ATM outperformance call on RTY (Russell 2000) over SPX indicatively for ~1.5%.  
Ø Losses are limited to the (low) upfront premium paid.  
Ø RTY 3M atm implied vol has fallen back to near 2008-present lows and the spread to SPX 3M implied vol has retraced to pre-election levels sub-4%  
Ø RTY 3M realized vol is even more striking, having fallen to near 20yr lows  
Ø Correlation between RTY and the SPX has rebounded sharply to ~0.86. Implied correlation is similarly elevated at ~0.88 (bid) for the Dec-17 expiry so you are selling high correl

Russell 2000 realized vol has fallen to near 20-year lows. With SPX realized vol also extremely depressed though, the RTY-SPX 3M realized vol remains reasonably healthy vs. history at 3.5%

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The Tax Story: As Washington now focuses on tax reform, question over likelihood, timing, and magnitude remain. Price action from US small cap equities is clear: small cap performance, relative valuation vs. large caps, and positioning all suggest that expectations for tax reform getting done are running low.

Let's Take a Closer look at Russell:

Ø Performance: US small caps dramatically outperformed large caps (Chart 7) after the US election on hopes of fiscal stimulus, corporate tax cuts, and de-regulation. However, with 2017 marked more by policy paralysis than success. Small caps gave back post-election outperformance, recently began to outpace large caps again (Chart)

Ø Valuations The forward P/E premium of small caps over large caps has gone from 10% at the start of the year to zero today, not far from 14yr lows (Chart)

Ø Positioning: Asset manager positioning via Russell 2000 futures (Chart) has now reversed most of the net long built up following the US election. US small cap funds also experienced consistent outflows through the summer that only recently started to turn (e.g., \$1.2bn inflows last week) on tax reform optimism.

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[cid:image014.png@01D3312A.3935C910]

Further Context:

\* Small caps outperformed large caps by 3% over the past month (not solely due to tax reform hopes) and by over 10% following the US election.

\* Conditioning the payout on the S&P 500 trading above 95% of current spot at expiry reduces the upfront cost to ~1.25% while still allowing for modest weakness in US equities over the coming months. The entry point for such outperformance options benefits from today's historically low small cap vol and the typically high correlation between small caps and large caps:

Link here: [https://rsch.baml.com/r?](https://rsch.baml.com/r?q=A6y4zv6AKYNV8e5NSgZtAw&e=justin.d.rothberg%40baml.com&h=K!MDhQ)

[q=A6y4zv6AKYNV8e5NSgZtAw&e=justin.d.rothberg%40baml.com&h=K!MDhQ](https://rsch.baml.com/r?q=A6y4zv6AKYNV8e5NSgZtAw&e=justin.d.rothberg%40baml.com&h=K!MDhQ)

Please let us know if you would like to discuss further. Thanks!

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Highlights from this week's Global Equity Volatility Insights

[cid:0740201410170225273858] Click for full report<<http://rsch.baml.com/r?q=KsKoZxxhH7uyJ2-UsJuw&e=michael.youngworth%40baml.com&h=AolwBg>>

US: Don't expect tax reform but at-risk if it occurs? Small vs. large cap outperformance

· As Washington finally focuses on tax reform, much remains unknown about its exact likelihood, timing, and magnitude

· The message from US small cap equities, however, is clear: performance, relative valuation vs. large caps, and positioning all suggest that expectations for tax reform getting done are running low [Charts 1, 2, 3]

· Near-term risks to small caps thus appear skewed to the upside if tax reform optimism builds

· As an upside hedge, we like Dec-17 ATM outperformance calls on Russell 2000 (RTY) over S&P 500 (SPX) for 1.5% indicatively (or 1.25% if conditioned on SPX>95% at expiry)

· The entry point benefits from historically low small cap vol plus RTY/SPX correlation near 0.9 [Charts 4, 5] and looks attractive relative to the 10% outperformance of RTY over SPX after the US election [Chart 1]

· Importantly, losses are limited to the upfront premium, as absent a positive tax reform catalyst, small may continue to lag large due to its weaker underlying fundamentals<<http://research1.ml.com/C?q=M3ivlao5hYddxQUoW3x1LQ>>

Small caps have given back most of their post-election outperformance vs. large

Small caps no longer command a (forward P/E) premium to large caps

Asset managers have also been shedding their small cap exposure in 2017

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Source: BofA Merrill Lynch Global Research. Daily data from 7-Nov-16 through 18-Sep-17.

Source: BofA Merrill Lynch US Equity & Quant Strategy, Russell Investment Group, I/B/E/S, Compustat. Monthly data shown from Aug-03 through Aug-17.

Source: BofA Merrill Lynch Global Research. Weekly data from 1-Jan-13 through 12-Sep-17. Futures positioning data accounts for last quarter's transition from ICE to the CME platform.

Russell 2000 implied volatility has fallen back to near 2008-present lows

Small caps and large caps de-coupled violently after the US election, but their correlation has since rebounded sharply

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Source: BofA Merrill Lynch Global Research. Daily data from 2-Jan-08 through 15-Sep-17.

Source: BofA Merrill Lynch Global Research. Daily data from 17-Sep-12 through 18-Sep-17.

Week in Review: The S&P closed above 2,500 for the first time on Friday, a new milestone

\* Outstanding vega of both levered and inverse VIX ETPs has climbed to a staggering \$375mn vega, an all-time high as well. While this is a historically large amount of vega to trade, we reiterate our view<<http://research1.ml.com/C?q=i9tY3lA81l17P!WlFcWvbQ>> that a short cover in the VIX space is unlikely to trigger an outsized move in equities [Chart 1, 2]

\* Call skew in the energy sector has rarely been flatter and allows investors to cheaply position for further upside and/or replace long positions [Chart 3]

\* With treasuries vol rarely trading cheaper, it is attractive to buy downside protection on TLT against the risk of the FOMC meeting being perceived by markets as hawkish, or an increased likelihood of a tax reform ultimately getting done [Chart 4]

Positioning in levered long VIX ETPs has climbed to its highest level since July 2016 (\$150mn vega, up 50% MTD). At the same time, the shorts have added to their record-high exposure from Aug

Gross vega outstanding in levered and inverse VIX ETPs has reached \$375mn vega, an all-time high. The rebalance flow has been in the -15%/+12% range of the VIX futures volume this year

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[cid:image011.jpg@01D330BF.B0109580]

Source: BofA Merrill Lynch Global Research. Data from 09-Aug-14 to 15-Sep-17.

Source: BofA Merrill Lynch Global Research. Data from 09-Aug-13 to 15-Sep-17.

In the post-GFC world, XLE 50d/35d call spreads have only been cheaper by a mere 5bps during the 2014 summer lull

Treasuries vol has rarely traded cheaper, making it attractive to buy downside protection against the risk of the FOMC meeting being perceived by markets as hawkish, or an increased likelihood of a tax reform ultimately getting done

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Source: BofA Merrill Lynch Global Research. Daily data from 18-Jun-08 to 15-Sep-17

Source: BofA Merrill Lynch Global Research. Daily data from 18-Sep-07 to 18-Sep-17.

Europe: GBP has dampened FTSE 1M vol by >3pts; trade ESTX50 v FTSE outperformance

Disentangling the currency impact on FTSE 100 volatility

- \* After last week's hawkish turn by the BoE resulted in Sterling strength, heightened fx vol and UKX underperformance, equity-fx links were once again in sharp focus
- \* Methodology to isolate the impact of FX (in particular GBPEUR given Chart 1) on UKX returns:
  - \* Create a daily history of UKX sector weights (mapped using pan European STOXX600 sector indices).
  - \* Calculate 5-day 'adjusted' returns (a proxy for currency 'unaffected' returns) as the weighted average of European ex-UK (EMU) sector price performance
  - \* Use this stream of 'adjusted' returns, arguably a cleaner expression of UKX returns (without the FX-impact), to assess the impact of currency on UKX returns and vol
- \* Our analysis finds what is missed by simply looking at UKX-GBP correlation (Chart 2 vs. Chart 3)
- \* Sterling dampened UKX 1M realised vols by 3pts on average over the last 3yrs: Considering a linear model of UKX returns expressed in terms of adjusted equity returns and the FX impact (Charts 4 to 6)

With the Euro area accounting for the majority of bilateral trade flow with the UK, BIS's trade-weighted Sterling has 4x the weight in EUR (60%) vs USD (15%)

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Source: BofA Merrill Lynch Global Research, BIS. Effective exchange weights based on 2011-13 trade.

Both FTSE 100 & Sterling fell following the UK's 'Brexit' vote (+ve FTSE 100-Sterling correl). However, this paints an inaccurate picture as the FTSE 100 fall was dampened by a Sterling tailwind.

'Adjusted' returns (proxy for FX-unaffected FTSE returns) have tended to be positive when GBP has strengthened and vice versa

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Source: BofA Merrill Lynch Global Research. Date: 15-Sep-14 to 15-Sep-17

Source: BofA Merrill Lynch Global Research. Date: 15-Sep-14 to 15-Sep-17

The difference between FTSE returns & adjusted equity returns is negatively related to moves in GBPEUR

Sterling tailwinds have dampened FTSE 100 vol spikes. For instance, while FTSE 1M realised vol was <30% following the Brexit vote, we estimate that without the FX-impact it would have been >40%.

The dampening effect of Sterling on FTSE 1M realized volatility has been >3 vol pts on average, since 2015. However, recent observations suggest a relatively lower dampening effect.

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Source: BofA Merrill Lynch Global Research. Date: 15-Sep-14 to 15-Sep-17

Source: BofA Merrill Lynch Global Research. Date: 2-Jan-15 to 15-Sep-17

Source: BofA Merrill Lynch Global Research. Date: 2-Jan-15 to 15-Sep-17

Trade: SX5E / FTSE Mar-18 102% outperformance call contingent on UKX up at expiry for 1% indicatively

- SX5E vs UKX relative performance has been strongly positively correlated with GBPEUR (Chart 1) while European equity vol is near 9y+ lows vs EURGBP vol (Chart 2)
- It is therefore reasonable for investors to consider positioning for potential further sterling strength <<http://rsch.baml.com/r?q=TqtXIK2RO-A!Sa!VI7AIAw&e=michael.youngworth%40baml.com&h=RcrVwg>> via SX5E / UKX outperformance calls rather than richer vanilla FX options
- A SX5E / UKX 6M ATM outperformance trade would have been ~1.6x more frequently profitable than a EURGBP 6M ATM put (sized for equal upfront premium), at current relative pricing
- Prefer ESTX50 / FTSE Mar-18 OTM outperformance calls contingent on FTSE higher as opposed to unconditional ATM outperformance in order to
  1. Cheapen the entry point of the trade (approx. 75% cheapening vs. the unconditional ATM variation) and
  2. Add a long Eurozone equity tilt given our equity strategists' bullish view <<http://rsch.baml.com/r?q=TqtXIK2RO-A!Sa!VI7AIAw&e=michael.youngworth%40baml.com&h=RcrVwg>>

A 6m ESTX50 vs FTSE ATM outperf. trade would have been profitable approx. 1.6x more frequently than a long EURGBP 6M ATM put (sized for equal upfront premium), at current relative pricing

European equity vol is near 9y+ lows vs EURGBP vol. This suggests that positioning for potential further GBP strength via equity options may be more efficient than relatively richer FX options

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Source: BofA Merrill Lynch Global Research. Date: 15-Sep-14 to 15-Sep-17

Source: BofA Merrill Lynch Global Research. Date: 1-Jan-08 to 15-Sep-17

Asia: Bullish EM Asia: Long HSCEI/KOSPI2/TWSE vs. short AS51/NIFTY call spreads

- Our BofAML strategists believe the current EM rally that began in Jan-16 is similar to the previous six that have come before it since 1976
- Using history as a guide, EM equities may double in the next 2 years until either we hit a recession or valuations become exhausted at 3x PB (vs. 1.4x PB now)
- We like using options to gain long EM exposure with limited downside given that these markets have outperformed YTD and they face continued geopolitical risks
- Buy HSCEI, KOSPI2, TWSE Jun-18 105%-120% call spreads funded by selling ASX200 (DM) and NIFTY (high valuation, weak earnings) 105%-120% call spreads for 0 upfront cost

Indicative pricing (As of 18-Sep-2017)

Buy 1/3 HSCEI Jun-18 105%-120% call spread:	3.25% (iv: 20.2/19.8, delta:25)
Buy 1/3 KOSPI2 Jun-18 105%-120% call spread:	2.10% (iv: 13.4/13.0, delta:29)
Buy 1/3 TWSE Jun-18 105%-120% call spread:	1.67% (iv: 12.3/11.9, delta:25)
Sell 1/2 NIFTY Jun-18 105%-120% call spread:	3.15% (iv: 11.7/11.5, delta:39)
Sell 1/2 ASX200 Jun-18 105%-120% call spread:	1.53% (iv: 11.2/9.7, delta:27)
Net:	0.00%

<http://rsch.baml.com/r?q=YUUKFQvLTOIqbXsXgZe6IQ&e=william.w.chan%40baml.com&h=YYHVpA>

BofAML Asia strategists' country selection

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Source: BofA Merrill Lynch Global Research

The cost of the HSCEI/KOSPI2/TWSE vs. NIFTY/AS51 call spread structure has been relatively stable; the key to the trade is the outperformance on the upside

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Source: BofA Merrill Lynch Global Research. Data as of 2-Jun-08 to 15-Sep-17

The structure displayed in the chart is strike off forward with a fixed maturity

Historical payoffs of buying HSCEI/KOSPI2/TWSE vs. selling NIFTY/AS51 9-month 105%-120% call spreads underperformed from 2012-2014, mostly driven by the NIFTY outperformance

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Source: BofA Merrill Lynch Global Research

India is richly valued compared to its peers and we see a potential for China/Korea/Taiwan to outperform going forward

[Title: ca0c3b706dc14f33b7816e07e7cdd4a1.emz]

Source: BofA Merrill Lynch Global Research, MSCI, IBES estimates

US Equity Derivatives Research | BofA Merrill Lynch | Merrill Lynch, Pierce, Fenner & Smith Incorporated | +1 646-855-5480 | +1 646-855-5478 | +1 646-855-1247 | +1 646-855-2631 |

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