[**Retail Demand Means More Structured ETFs, Flex Options And Payment-For-Order-Flow – Cboe RMC - Commentary - EQDerivatives**]

October 25, 2022
By Elinor Comlay

Larry Tabb, head of market structure research at Bloomberg Intelligence, Wes Mathews, head of product development and distribution at Milliman Financial Risk Management and Matt Kaufman, chief marketing officer at Innovator Capital Management, discussed the democratization of derivatives and what the rising tide of retail investors means for the options market.

Key Takeaways

- Retail trading flow in equities had been stuck around 10-12% of the overall market until October 2019 when commissions went to zero and then retail trading further increased during the pandemic. “These guys have become a real active force in the market that is somewhat unpredictable,” Tabb said.
- Tabb believes that retail investors are getting a good deal from payment-for-order flow, which makes sense because their orders are small and do not move markets, he said. The problem for regulators around the world is that payment-for-order flow looks bad and they have committed to address it. The timing on regulatory changes is uncertain and regulators in different countries are taking different approaches, however.
- Payment-for-order flow data shows that two-thirds of the volume is in options, Tabb said.
- Kaufman said Innovator Capital Management uses flex options to wrap traditional retail structured products into an exchange-traded fund wrapper. The company coined the name “defined outcome ETF” and the products took off with retail advisors and their customers.
- The ETF format for retail investors has a lot of benefits, Kaufman said, noting that it is transparent and efficient and can be resold. These are advantages when compared to annuity products in the insurance space, he said.
- Innovator now has about USD9.5 billion in assets in these flex-option-based ETFs, Kaufman said.
- Mathews said that the kinds of structured products on offer for retail investors is changing quickly. In the last year and a half there has been a proliferation of option-based ETFs, he said.
- Asset growth is still playing catch up, Mathews said, but retail investors are clearly becoming more comfortable with option-based strategies inside a wrapped product.
- Most of the wrapped-for-retail strategies so far are buffered products, or feature floors or caps. “I expect this will expand dramatically into potentially more esoteric strategies,” Mathews said.
- Flex options availability is increasing, Mathews said and this is helping Milliman in its work helping insurers hedge their structured product offering. Mathews added that he sees potential for flex options to help market makers with the custom index products that a lot of insurers issue. “It’s an interesting idea and concept that a lot of firms are looking into,” he said.

[Are Days Numbered For The Dispersion Strategy? – Cboe RMC - Commentary - EQDerivatives]

October 25, 2022
By Elinor Comlay

Stephen Crewe, portfolio manager at Fulcrum Asset Management, Mikhail Krayzler, lead portfolio manager and a director at Allianz Global Investors, and Pav Sethi, founder and chief investment officer at Gladius Capital Management, came together for a panel discussion on the outlook for dispersion.

Key Takeaways

- Dispersion has been a game of two halves this year, Crewe said. While the strategy started the year off well, more recently the bigger swings in particular in the U.S. stock market have seen more stocks moving together more often, which is a tough environment for dispersion. Crewe said he has started to move his dispersion book to Europe. "I think that's where the opportunity is going forward," he said.

- Sethi said that he has seen dispersion being sold to the institutional community as a convex strategy. Krayzler said that it depends on how the strategy is implemented. It's important to be clear about what view the investor wants to put on through dispersion, he said.

- Crewe noted that there are many details to be taken into account when trading dispersion. Fulcrum implements dispersion through capped vol swaps and sometimes there is asymmetry in the trade that has more to do with the way the optionality in the caps plays out than the dynamics of single stock vol versus the index, he said.

- Krayzler said he likes short volatility strategies in the current environment, but he noted that it is important to implement the trade in a way that protects against tail risk. Crewe said he sells weekly options, delta hedged, but he is aware a lot of people are selling dailies. He said this might look like a retail strategy but it can be a way to keep costs down and also premiums increase as maturities decrease.

- Sethi and Crewe disagreed about whether there are more institutional flows moving into dispersion this year. Crewe said he has heard a lot of talk but not seen the flows, while Sethi said he has seen increased flows from U.S. investors. The panelists agreed they are not too worried about the trade becoming crowded, because there are so many different ways it is being implemented. Crewe said there would be more pressure on capacity in the strategy if everyone were implementing dispersion the same way.

- The U.K. LDI crisis highlighted how there is a high degree of illiquidity on allocator balance sheets, Sethi said.

- The panelists discussed the commoditization of strategies such as dispersion and how there is fee compression for these strategies because of competition from banks' index-based products. Krayzler said he thinks it is up to active managers to show allocators how their strategies are different.

- Sethi said he is concerned by the alpha degradation in the space. He said the environment reminds him of 2005-2006, when there were a lot of tourists in the dispersion space in the form of mutual funds and insurance companies. “That’s where I get a little bit more concerned about the viability of dispersion, particularly in a market that’s been taking a lot of AUM,” he said.

- Crewe said he could see an environment where autocallables become less popular and that will have an effect on the single-stock options market.

[Manufacturing Convexity For Multi-Asset Portfolios - Cboe RMC - Commentary - EQDerivatives]

October 24, 2022
By Elinor Comlay

Peter van Dooijeweert, head of solutions, Man Investments, discussed how combining systematic strategies with volatility can improve portfolio performance.

Key Takeaways

- Van Dooijeweert said that some of Man’s customers have been pushing for more defensive positioning from its systematic strategies, looking to combine some of the advantages of long volatility with quantitative strategies.
- Man looked at trying to create convexity through trend, without the cost of an option position. The difficulty is that while trend strategies can be built to simulate straddle positions, when the market has a sharp reversal, the trend strategy can miss out and be slow to readjust.
- One of the major criticisms of trend in the past has been that it only makes money in a bond bull market – but this year’s experience might help investors get over this idea, van Dooijeweert said.
- Different styles of trend-following will look different. Fast trend will look more like an options strategy, while slow trend will look more like a beta strategy, he said.
- Quality is also widely considered to be a defensive strategy, but van Dooijeweert noted that banks and asset managers all have different ways of building quality as a factor. While some people view it as a first responder, because it’s long quality stocks and short nonperforming stocks, van Dooijeweert said he views it as negative beta with positive return.
- Another approach is to use risk-based tactical asset allocation, that uses a measure of volatility to determine whether to increase or decrease risk exposure, van Dooijeweert said. This can improve Sharpe ratio and also protect portfolios from sharp reversals. But vol scaling hasn’t worked historically for bonds, he said.
- Van Dooijeweert said Man has tried vol-scaling with other strategies, such as a momentum overlay and a cross-asset correlation model across a multi-asset portfolio. This can be tweaked to provide convexity and be sensitive to volatility, he said.
- One of the benefits of vol scaling is that it can tell investors when to take more risk. This is missing from trend strategies, van Dooijeweert said. But taking more risk through vol-scaling can help subsidize the strategy and it can give investors more upside.

[A Framework For Assessing Volatility And Liquidity – Cboe RMC - Commentary - EQDerivatives]

October 21, 2022
By Elinor Comlay

Khoa Le and Edward Tom, portfolio managers at Ellington Management Group, presented their approach to a framework for liquidity.

Key Takeaways

- Looking at the Cboe Volatility Index performance before COVID and after COVID shows a change in its behavior, Tom said. Pre-COVID, it had a much higher reaction to the move in the equity index.
- Ellington wanted to investigate whether there have been changes in the market microstructure that have essentially muted the effect of volatility.
- The pair found that liquidity has gotten worse over time. “There is liquidity out there. But is there liquidity at the right price for what you want to do?” Le said.
- The pair said that anecdotally observers understand that illiquidity is getting worse, but now it’s to the point that each market event makes investors noticeably more skittish. “The market’s really not there for you just like it was in the past,” Le said.
- Ellington specializes in mortgages and so the firm is particularly aware of how interest rate volatility has increased this past year. But while rates volatility has gone up, it has not translated into greater liquidity. “That, for us is sort of evidence that in the hunt for liquidity, you have to look for the right asset for it,” Le said.
- Looking for the right convex payout in an event is a challenge. “This is something that, for us, it’s a big intellectual challenge,” Le said**.**
- Ellington has to try to find a way to hedge its quantitative equity portfolio, while also managing the tail risks for its credit and mortgage products as well as in the rates space.
- The firm does this by looking at how a range of asset classes effect equity volatility. The pair showed a video graphic of a changing bubble chart over time, depicting different-sized circles that represent the demand for protection on any day for different asset classes.
- A member of the audience said that they believe some assets acquire psychological floors or barriers at certain levels, such as the VIX at 20. Ellington’s Le said that the data seems to support this, that after a shock, liquidity seems to get worse and it almost always translates to a higher fixed floor.
- Another audience member said that this year, equities have been the anomaly, and other asset classes’ behavior has been correlated. Le said that is a good point, but equity is also “like the big gorilla in the asset classes of the world” and it is always what people think of first when there is an event. “So the fact it was the outlier relative to other assets was also interesting,” Le said. He speculated that it could be a microstructure issue, as other speakers had discussed earlier. It could also be that mortgages moved and that compounded the volatility of FX credit and rates, but it didn’t happen in equities because people needed to get stopped out there, he said. He suggested that a factor in liquidity is whether there are people willing to step in when things get crazy and there

are other assets where no one can step in. He said he believes volatility will spread into equities, but it might take a secondary catalyst. He said that transmission of risk across assets has been tough but in equity markets, the transmission of risk has been very easy and very smooth. There hasn't been contagion yet, he said, adding that asset price destruction and volatility will continue to impact asset owners and deleveraging has to happen at some point. "We do expect that to happen and that is something that every asset manager should be prepared for. Because just because it hasn't happened yet does not mean it will not happen in the future. It could take some time."

Tackling Illiquidity With Trading Strategies – Cboe RMC - Commentary - EQDerivatives

October 24, 2022
By Elinor Comlay

Megan Morgan, manager at Belvedere Trading, led panelists Jerry Haworth, chief investment officer at 36 South, and Braden Janowski, chief investment officer at Pearl River Capital, in a discussion about liquidity and current market conditions.

Key Takeaways

- Janowski said that at Pearl River Capital he thinks of liquidity as capacity and, as a statistical arbitrageur, his view of good liquidity is a market with depth and trades evenly spread through the day, not one dominated by chunky block trades. This doesn't exist in reality, but he sees the U.S. and Japanese equity markets as being pretty liquid, while there are a lot of constraints in Asia and Europe, he said.

- "I think we are, if not in the middle of, we're at the beginning of probably the biggest liquidity crisis I've ever seen," Haworth said. In his view, requiring margin and collateralizing for over-the-counter options after 2008 shifted the systemic risk of the banks. "I'm arguing that we are now seeing a collateral crisis that is not directly observable…but I think it is showing up in currencies and predominantly U.S. dollar strength," he said. The LDI crisis in the U.K. is a preview to forthcoming attractions, Haworth said, noting that, by some estimates, there is one quadrillion in notional derivatives exposure around the world and 80% of this is interest rate derivatives.

- Haworth said that being long options, he loves illiquidity. "I would say if you're worried about liquidity, get long volatility," he said, adding that currency volatility is still not at its five-year mean.

- Janowski said he is not so pessimistic and he believes markets can innovate their way out of problems.

- Haworth said he believes it's entirely possible that the next liquidity crisis could overwhelm the foreign exchange reserves of non-U.S. countries and create an enormous currency crisis. He said he recommends getting anti-fragile to illiquidity. He noted that many institutional investors are moving to more illiquid investments such as private equity and he thinks they will wish they had more defense against illiquidity.

- Janowski agreed, noting that the venture capital bubble does not seem to have much respect for illiquidity. "The lack of value of liquidity in this [frothy market] makes the [dot com bubble] look like nothing," he said.

- Being long U.S. dollar is a good proxy to hold for a lot of potential crises, Haworth said, adding that it carries well.
- Haworth said education efforts are fundamental to liquidity. Illiquidity will never go away, he said, it waxes and wanes.
- Janowski said that anything that discourages big, chunky trades would be good for liquidity.
- Both panelists were optimistic that shifting to a blockchain could help exchanges reduce friction and costs and thereby improve liquidity.
- Morgan noted that there are market structure and other issues at play in Europe that explain why the options market is not so liquid there, for instance, there are no companies such as Tesla or Amazon with a deeply liquid single-stock options market. She said she thinks Cboe's Europe exchange is a step in the right direction. She added that she believes the lack of floor trading in Europe is a hurdle for liquidity.
- Janowski said that in terms of market microstructure, he would like to see evolution toward a single central limit order book – or as close to one single book as possible — where people are incentivized to post and it's cheap to trade.

Digitization, Innovation And More – Cboe RMC - Commentary - EQDerivatives

October 21, 2022
By Elinor Comlay

Rob Hocking, global head of product innovation, Cboe Global Markets discussed the exchange's new product plans as well as capital efficiency work and steps toward digitalization.

Key Takeaways

- Cboe is looking to launch products that help market participants protect or grow their capital, Hocking said. He asked for feedback and ideas on the exchange's products.
- One of the big drivers for the launch of Cboe Labs is for the exchange to be more of a face for product innovation and in particular, delivering new tradable products that market participants can use to be more successful.
- Cboe now has daily option expiries for every day of the month, feeding demand for short-dated instruments. "Should we introduce intraday options and move the curve up even further?" Hocking asked, adding that he would like to hear from options users.
- He added that dispersion has also been a big topic and the exchange would like feedback on its new Cboe S&P 500 Dispersion Index.
- Cboe is also working on protected options. The idea is to use an XPS option to overwrite SPY stock and get market offset treatment. "That's something that can be very valuable if you're working with a smaller account size, having that benefit and knowing that obviously [with] cash-settled options, there's a benefit to overwriting them versus a physically delivered American style SPY option. We think that could deliver a lot of value in the market," he said.

- The exchange is also working on risk-based haircut treatment for iBoxx futures. “We still see this as a very active and growing market,” Hocking said. Cboe is currently working on delivering a risk-based haircut treatment for its iBoxx futures against the underpinning ETFs, HYG and LQD. “We think being able to free up capital specifically for the market making community will only return even better liquidity for all of you to trade,” he said.

- Hocking said he is also excited for customer portfolio margining. With this initiative, Cboe is working on effectively trying to include a future into a securities account for the purposes of customer portfolio marketing. “So think VIX futures in your securities account so that you can get offset with SPX positions, which we think will obviously free up capital for many in the market, and hopefully get redeployed in the form of liquidity and just more activity in the products,” he said.

- Cboe is also currently exploring digitalization, he said. “We think there’s many aspects that limit participation and we see digital ledger technologies being a next generation of where we’re headed and we are actively exploring ways to take real world assets and, in a way, digitalize that,” he said.

Trading Short-Dated Gap Risk – Cboe RMC - Commentary - EQDerivatives

October 24, 2022
By Elinor Comlay

Mark Richardson, portfolio manager at Janus Henderson Asset Management, discussed modeling one-day risk on the Standard & Poor’s 500 at Cboe RMC in Iceland.

Key Takeaways

- Gap risk trades exist because banks, particularly large U.S. banks, tend to have very short-dated gap exposure due to a combination of regulatory pressures and hedging requirements tied to their quantitative investment strategies businesses and there is a perpetual bid for short-dated protection from these banks.

- Recently, the supply of gap protection has also changed, Richardson said. Prior to COVID-19, Richardson noted there were a few significant players in North America that were active in capped-uncapped variance, but they were taken out of during the March 2020 stock-market selloff after realizing substantial losses. This appears to have led to a significant drop in supply relative to pre-2020 levels.

- One of the key instruments that banks use to offload their gap risk are term strips of forward-starting puts or put-spreads (terms strips of forward-starting options are also sometimes referred to as cliquets). These products knock-out in the event of a sufficiently large downside event.

- To assess the risk/reward trade-off with respect to selling gap risk, it’s necessary to develop an understanding of the dynamics of one-day returns. “The key modelling challenge is to come up with a good way to model one-day risk, which is generally a hard thing to do,” Richardson said. The key is to capture the empirical reality that returns are power-law distributed in extremis. Richardson suggested the use of a Student-t distribution as a simple way to capture such properties in computable parametric form, but also mentioned ongoing research work to harness the more general power of the class of so-called *stable distributions*, which have similar asymptotic power-law properties to the Student-t but with additional capabilities of being able to capture properties such as distributional asymmetry.

- Richardson said the key idea is to use a power-law form such as the Student-t distribution in order to impute the "implied tail slope" priced by the banks in their gap-risk products. If this shows a difference relative to what empirical studies suggest the true tail slope parameter is likely to be, then that suggests there might be an opportunity to step in and offer that protection, Richardson said.

- Richardson suggests implementing the trade as part of a relative-value construction in which the income from the sale of the short-dated gap risk is used to fund, or partially fund, the purchase of longer-dated options further out the curve as part of a long convexity program. Crucially, the sizing of each leg can be set such that the trade is set up to be "shock-neutral" to a reasonable degree of confidence, while leaving the long-vol leg still able to accrue significant gamma profits in the event of a return of a 2008 or 2020-like scenario.

Reading The Skew Tea Leaves To Assess Investor Positioning – Cboe RMC - Commentary - EQDerivatives

October 21, 2022
By Elinor Comlay

Manjeet Mudan, partner and portfolio manager at Carmika Partners, discussed how skew can indicate investor positioning in the Standard & Poor's 500 volatility market and what this might mean for relative-value volatility strategies.

Key Takeaways

- Carmika Partners was founded in 2015 and its flagship strategy is called the Alpha Hedge strategy, which is an absolute return strategy trading relative value volatility on the Standard & Poor's 500.

- There are many factors that affect skew, including trading flows. The largest flows tend to be from natural hedgers, who are buyers of put options, but against that there are premium-selling strategies. "By and large, the vast amount of flows are insensitive to volatility and so that's what really creates the opportunities when different flows dominate at different times in the margins, the volatility surface moves around," Mudan said.

- There are different ways to calculate skew as well as the Cboe SKEW Index, which attempts to derive skew from options prices in a similar way to the VIX with implied variance, Mudan said.

- Looking at the Cboe SKEW Index, it's clear that before 2008, the index was below its average, while since 2008 it has trended higher. Mudan said this is partly because the regulatory environment changed, requiring banks and insurers to become more risk averse, but also because there was a 10-year bull market.

- Looking at skew in the last few years – and Mudan said it doesn't matter which measure is used – it's possible to see there has been a fundamental shift in the behavior of volatility. As asset holders became more and more invested in the equity market, they were buying more and more downside protection, pushing skew higher. Then, during COVID-19, a lot of premium-harvesting strategies disappeared and there wasn't the same supply of vol coming to market after that, which also caused the skew to go up, Mudan said. In 2022 this has played out so that when the market sells off, skew has been crushed. “As the market sells off, these holders of puts come into the market and they’re supplying a lot of volatility to the market in the selloff,” he said. At the same time, there was supply of volatility from autocallables and other structured products.

- “Skew has crashed…We’ve gone from all-time highs into all-times lows in a matter of a few months in the S&P,” said Mudan.

- This year, because implied volatility has been going down even during market selloffs, some put holders have likely lost money if they were holding the put as a hedge on the volatility basis. Even holding a put naked it might have underperformed expectations, Mudan said.

- “This volatility crush on the downside and the skew coming in are two major reasons why long volatility strategies have…underperformed expectations significantly this year,” he said.

- Mudan said that many of the traditional correlations and relationships between typical relative-value trades have broken down, and this has hurt relative-value volatility trading strategies. Carmika’s returns have been helped by taking a discretionary, rather than systematic, approach to relative value vol trading, he said.

Hedging And Investing In The Face Of Inflation And Volatility - Cboe RMC - Commentary - EQDerivatives

October 21, 2022
By Elinor Comlay

Joe Cavatoni, regional chief executive for the USA at the World Gold Council and president, WGC USA Asset Management Company, Jerry Lee, deputy chief risk officer at 400 Capital Management and Amy Wu Silverman, managing director at Royal Bank of Canada, joined moderator Nishank Modi, senior director for Cboe Labs at Cboe Global Markets, in a discussion of portfolio management strategies in the current market environment.

Key Takeaways

- Cavatoni said that he had been talking to investors about how gold could play a role as a diversifier in an inflationary environment since 2018-19. Then during COVID-19 everything was amplified and there were record-setting flows into exchange-traded funds. But this year, as the pandemic recedes, there has been more tactical behavior and gold hasn’t performed that well in isolation relative to other real assets. “It’s still doing what it says it does, but it’s doing it in a world where there’s a lot of headwinds,” he said.

- Wu said that Bitcoin had been posited as an inflation hedge, but that has not been borne out. She added that some cryptocurrency experts she had recently spoken with said they expect that over the next three to five years, the markets would normalize from an extrinsic correlation environment to one where there’s more “proper” correlation, meaning hopefully crypto would return to an inverse correlation with stocks.

- Wu said that one of the most interesting things she learned from talking to the crypto experts was their proposal to regulators about collateral. She said that essentially, they’re trying to change market structure and that putting everything uncollateralized on a blockchain could force a fundamental shift in correlation.

- Wu said her clients are looking for cheap tail hedges and she suggests proxies in other asset classes as well as changing the tenor to play events around earnings, for example.
- Lee said that with stocks and bonds selling off together, he is having to get more creative about hedging his firm’s mortgage book.
- The retail meme-stock fun is over, Wu said, adding that while at the peak of the pandemic her team screened 1500 to 2000 stocks and monitored 100 names closely, now they are only watching a handful for meme-stock-like behavior. She said that she does believe that retail investors’ familiarity with options is here to stay and while we’re not in the regime for frenzied retail activity now, it could come back.
- Cavatoni said he and his colleagues are exploring how gold could move into the digital space. At a later point in the panel, he said this is partly because as baby boomers age, gold proponents are realizing that their asset looks “pretty boring” to younger generations.
- Cavatoni said he is also talking to institutional investors about how to diversify their bond holdings, as well as what to do when they start to see the rates and inflation environment settle.
- Lee said his firm expects U.S. housing prices to come down 3-7% in the next 12 months and while this should help inflation, he does not expect the Federal Reserve to slow its planned rate hikes.
- Wu said she thinks it is interesting that everyone has a homebase in terms of what derivatives area they are comfortable with and this means that sometimes people don’t look much beyond the asset class or type of instrument they are most familiar with when they are looking for a hedge.

Cboe, S&P Team Up For Dispersion Index – Cboe RMC - Commentary - EQDerivatives

October 21, 2022
By Elinor Comlay

Tim Edwards, managing director, S&P Dow Jones Indices and John Hiatt, vice president, Cboe Global Markets, discussed how the two companies came together to design a tradeable dispersion index.

Key Takeaways

- The Cboe S&P 500 Dispersion Index is designed to represent the implied dispersion of Standard & Poor’s 500 constitutents over a one-month horizon, similar to the way that the Cboe Volatility Index represents the impliedvolatility of the S&P 500, based on the prices of single stock and index options. The exchange is planning to develop a futures product on the index, subject to finalization of the methodology and regulatory review.
- “I think the reason I started looking at it was because in the index business, we’re very interested in the relative performance of indices versus stock, because dispersion gives you the opportunity set for active stock selection,” Edwards said.

- Edwards said that selecting the single stocks for the index was complex, they had to take into account the volume and liquidity of single stocks but also understand that investors wouldn't want to miss events around stocks such as Gamestop, for instance.
- Comparing the implied dispersion index to the Standard & Poor's 500, Edwards showed that dispersion increases regularly around earnings season. "Dispersion is a really clear way to trade earnings volatility," he said.
- It was also interesting to compare dispersion to implied volatility around the 2016 election, Edwards said, noting that there had been some expectation that if President Trump were to win, there would be a pickup in volatility and this showed in implied volatility. Then, shortly after the results of the election, implied volatility went down while dispersion climbed, because it became clear his election would be a dispersion story.
- It is also interesting to look at February 2018 in the context of the dispersion index. At this time, there was so much pressure on the VIX index itself that it actually sent the dispersion index to zero, Edwards said. He noted that other speakers at the conference had discussed how difficult dispersion can be to trade. "The opportunity to bring the community together around a single tradable contract gets back to the absolute roots of what exchanges and index providers can do, which is agree on universal ways for us to come together and transact in a clean and transparent way," he said.
- Edwards and Hiatt said they would like to request feedback. "We know that building a successful derivatives contract is not easy," Hiatt said. "The best chance we have is to get [as much] input as possible on what will make this work for you."