MyStratWeekly

Market views and strategy

Ostrum
ASSET MANAGEMENT

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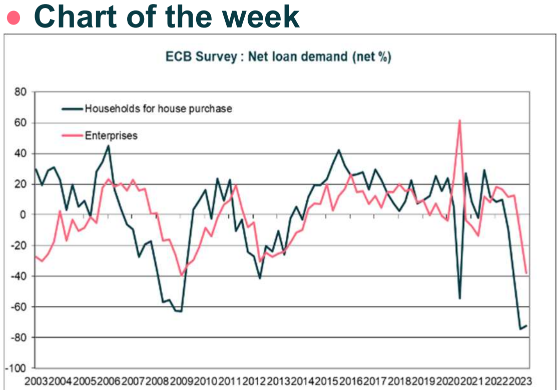
Topic of the week: Forget YOLO, it is YOL0DTE* (You Only Live 0 Day To Expiry).

- **0DTE options make up 40% of US equity option trading volumes;**
- **Retail speculation is driving the market;**
- **High trading volumes raise concerns about financial stability and intraday risk monitoring;**
- **Volmageddon in 2018had led to large losses on structured volatility products, but 0DTE long/short positioning appears more balanced;**
- **0DTE allows for event risk hedging;**
- **The CBOE just launched a 1-day VIX as standard VIX fails to respond to banking turmoil in March.**

Market review: Divergence between the Fed and the ECB

- **The Fed signals a pause, the ECB: further rate hikes;**
- **Resurgence of fears over US regional banks;**
- **Significant steepening of yield curves via the short end;**
- **Decline in equity markets and increase in volatility.**

Chart of the week



Sources : Datastream, Ostrum AM

The ECB's survey of commercial banks revealed a further sharp tightening of credit conditions for companies and households in the 1st quarter. For companies, it is the strongest since 2011, during the sovereign debt crisis. Banks also reported a sharp decline in demand for loans from enterprises, the steepest since the 2008 financial crisis, as well as from households for house purchase (near all-time lows). In both cases, this is mainly the result of the sharp rise in interest rates following the strong monetary tightening carried out by the ECB.

Figure of the week

500

Source : Ostrum AM

The Fed has raised rates by 500 bps since March 2022, which represents an average increase of 35 bps per month. This is the fastest and strongest monetary tightening since 1980-1981.

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Topic of the week

Forget YOLO, it is YOL0DTE*

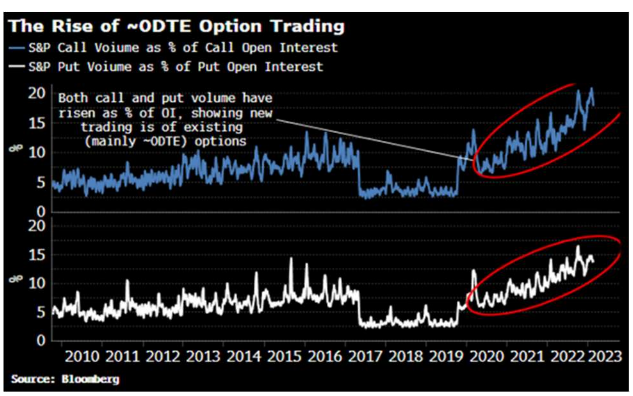
*You Only Live 0 Day To Expiry

Over the past two years, 0DTE option trading has taken US equity markets by storm accounting for as much as 40% of option volumes. Casino-like bets on daily variations of stocks, ETFs and equity indices represent a form of hidden leverage that requires scrutiny from market authorities and regulators. This has to raise concerns about financial stability.

Get rich or die trying, an American roulette story

Remember 'Volmageddon'?

Volatility events in financial markets can be painful. In February 2018, the Volmageddon crisis resulted in large losses on structured products betting on a decline in equity volatility. The short volatility theme was one of the most crowded trades in financial markets. A change in sentiment led to a modest pickup in volatility which forced widespread unwinding of positions. The turnaround caused a cascade of short covering flows and a sharp spike in VIX. In essence, this was a classic example of a consensus trade being caught wrong-footed. But the financial outcome was significant with losses totaling nearly $1 trillion on exchange-traded structured volatility products.



But there is a new game in town. Trading in option with zero days to expiration (0DTE) now regularly accounts for more than 40% of option volumes. Growth in this corner of the equity option market is very significant, with over 1.2 million S&P 500 Index contracts trading each day last month. Open interest doubled from last year and tripled since 2021.

Activity in 0DTE increases (relative to other expiries) as investors and traders focus on specific market-moving events including the FOMC meetings, the monthly release of the US CPI and the non-farm payroll report.

Margin calls, hidden leverage and the race against time to expiry

The very short expiry raises specific issues pertaining to financial stability. It is unclear how end-investor leverage is being monitored on an intraday basis and whether users of 0DTE options exceed their risk limits. Margin and risk requirements are possibly very difficult to track for most investors in these products.

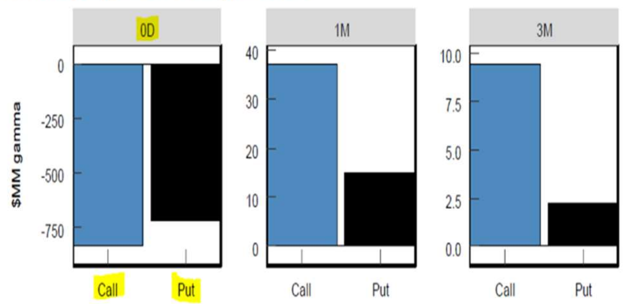
In times of financial stress, margin calls take center stage. Liquidity must be shored up to cover losses on bad bets. The risks in 0DTE lies primarily with margin calls because brokers may not be able to adequately monitor their clients' margin accounts on a timely (hence, intraday) basis. Some investors may only report their risk exposure on an end-of-day basis. Trading in and out of options intraday may serve to take on significantly more leverage and get around daily risk requirements. The very nature of the 0DTE products also make them extremely sensitive to macroeconomic data surprises and ensuing equity market swings.

Furthermore, it may be fair to say that intraday risks have a greater chance of being miscalculated than that on longer investment horizons. Market regulators should not be complacent about the risk that (hedge) funds could adopt aggressive strategies that amplify counterparty risk. The fallout from excessive fund leverage would spread to broker-dealers and so on. The Archegos event is a prime example of what could happen in this market. Margin requirements should arguably be set higher for short-dated options to account for the risks of overshooting of daily investor risk limits.

Assessing the risk of crowed trades

According to Bloomberg data, about two-thirds of S&P 500 0DTE trading are in out-of-the-money contracts this year. Puts (55%) are slightly more popular than calls (45%). Balanced volumes of puts and calls reduce the risk of an over-crowded one-sided bet. In a rising stock market environment, the slight majority of put options can be associated with hedging of institutional portfolios. Furthermore, the CBOE estimates that most trades are multi-leg strategies – call spreads, put spreads and so on – and the bulk of options traded are close to 100% moneyness. That said, what is true of index options may not apply to 0DTE written on single stocks which are the playing field of the retail investor community.

Figure 5: Average daily gamma order flow – change from 2021 to 2022



Source: J.P. Morgan

VIX - Implied US Equity Volatility

Source: Bloomberg, Ostrum AM

That said, the gamma exposure of market makers is now significantly larger in short expiries than in standard 1-month of 3-month expiries. On JP Morgan data (see chart above), the negative gamma on calls and puts with 0-day to expiry averages close to 750 mn $. That is 20 times their exposure on 1-month calls (in absolute terms, since on longer expiries market-makers are long gamma).

The risk that a rapid build-up of concentrated strategies on out-of-the-money strikes for instance still exists. Market makers' hedging capabilities must be adequate for index option trading as it is hard to move large liquid equity indices. However, the hunt for shorts on small-cap stocks (including GME, AMC…) in the first quarter of 2021 could be repeated in single-name 0DTE markets. That said, the bid-ask spreads on single-name options can be as large as 12%. The firms specializing in the retail option market enjoy very comfortable margins on aggregated retail orders, which more than compensates for the hedging risk stemming from market incompleteness or the lack of liquidity.

VIX eclipsed by 0DTE?

Many commentators took comfort from the subpar reaction in the VIX (*the* reference measure of expected swings in the S&P 500 on a roughly 1-month horizon) as markets were experiencing banking turmoil with two institutions failing last month. The once-reliable fear gauge is being superseded by short-dated volatility measures as traders pile up 0DTE exposure. VIX may no longer capture short-term swings in sentiment accurately.

As a large share of trading moved to the near-term expiries recently, the CBOE decided to develop a one-day version of its VIX volatility benchmark which started trading on Monday April 24th. This will shed light on the richness/cheapness of the short end of the equity volatility market. It will be interesting to see if increased transparency about 0DTE pricing reduces demand for such products. For the time being, the surprise is that the 1-day VIX appears to have traded lower than the standard VIX most of the time. There is also a 9-day VIX.

Institution investors' hedging

The development of the 0DTE market has the potential to impact the relative cost of hedging equity exposure at different investment horizons. When nearest-term equity volatility is in high demand, the volatility term structure should be downward sloping. Institutional investors could then benefit from this situation by implementing cheap long volatility (hedging) strategies, banking on a volatility roll-up effect. The effect of interest rates is ambiguous on equity hedging as many investors may choose to hold cash to limit equity exposure.

The 0DTE allows for one-off hedging of market-moving events at minimal costs (or maximum delta per $ premium). Hence, the opportunistic use of 0DTE options makes sense for institutional investors but is no substitute for regular tail-risk hedging at long horizons.

Conclusion

The sharp rise of the 0DTE option market in the past two years is a remarkable development. 0DTE now account for 40% of all equity option volumes. Day traders have made 0DTE option markets their playground, but institutions trade significant amounts of nearest-expiry options. Their use raises concerns about intraday risk monitoring and the provision of margin calls. Activity in 0DTE has risen so much that the CBOE have started reporting a 1-day VIX as the standard VIX proved less responsive to recent banking turmoil.

Axel Botte

Market review

Divergence between the Fed and the ECB

Sharp steepening of yield curves and decline in equity markets in a context of heightened fears over US regional banks and divergent messages from the Fed and the ECB.

After the surprise rate hike by the Bank of Australia (+25 basis points), the Fed and the ECB raised their key rates by 25 bp as expected, but gave completely different outlooks for monetary policy developments. The Fed removed from its statement the sentence on the need to continue rate hikes in order to fight against excessive inflation. This leaves the door open for a pause from the June meeting and a status quo thereafter. However, it does not rule out having to raise them if necessary depending on the data. If there is a rate movement, it will therefore be upwards. It is therefore a "hawkish" pause signaled by the Fed and rightly so since the labor market proved more resilient than expected in April: 253,000 job creations, against 185,000 expected by the consensus, an unemployment rate down to 3.4% and wages rose more than expected: 0.5% after 0.3% in March.

The ECB, for its part, insisted that if it slowed the pace of its rate hikes, to 25bp in May, this did not constitute a pause and that it should continue to raise them in order to bring them back to a sufficiently restrictive level. The latest survey conducted by the ECB among commercial banks was the key element to explain the rise of 25 bps and not 50 bps. Credit conditions have tightened significantly for households and businesses, and banks have reported a sharp drop in demand for loans, mainly linked to higher interest rates.

Monetary policy therefore has a significant impact on credit conditions but not really on the real economy, as evidenced by the latest S&P survey of business leaders. It signals an acceleration in activity compared to the first quarter (composite PMI index of 54.1 in April against an average of 52 in Q1) linked to the services sector. On the other hand, activity contracted further in the manufacturing sector in line with the 10.7% drop in orders to German industry in March.

Inflation in the euro zone also came out at 7% in April (after 6.9% in March) and underlying inflation remained very high (5.6% against 5.7% in March). The ECB statement indicates that the risks on inflation remain significantly on the upside, with recent wage negotiations arguing for higher wage growth. In order to make its monetary policy more restrictive, the ECB has also announced that it intends to stop reinvesting maturities under the APP as of July 1. The size of this portfolio will therefore shrink by an average of 25 billion euros per month in the second half of the year, compared to an average of 15 billion per month, between March and June, under the effect of partial reinvestments.

Despite central bank rate hikes and fairly hawkish rhetoric, short rates, reflecting monetary policy expectations, fell sharply over the week. The German 2-year rate lost 11 bp, to end the week at 2.56%, and the US 2-year rate fell 9 bp, to end at 3.91%. This resulted from heightened concerns about US regional banks after the announcement of the closure of First Republic Bank and the acquisition of its assets by JP Morgan. This 4th bankruptcy generated a movement of contagion to the other regional banks. California-based bank PacWest was the hardest hit, signaling that it is looking for potential investors for a possible sale. This generated fears of a bigger-than-expected tightening of credit conditions and an increased risk of a recession that would force the Fed to cut rates quickly.

Given the much smaller movement on long rates (-2 bp on the German 10-year and +1 bp on the US 10-year), the 2-10-year slopes steepened significantly over the week (+9 bp and + 11 bp respectively). The release of the much better-than-expected US jobs report reduced the likelihood of a quick Fed rate cut and generated pressure on rates at the end of the week.

In the Euro area, the announcement of the cessation of reinvestments of maturities within the framework of the APP led to a widening of Italian and Spanish spreads (+4 bp over the week), while the French spread did not really react to the downgrading of the sovereign debt rating by Fitch (from AA to AA-).

Equity markets were again in turmoil following concerns about US regional banks, before recovering on Friday and limiting their decline. The S&P index lost 0.8% over the week, the Eurostoxx 50: 0.4% and the CAC 40: 0.8%. This was accompanied by a rise in implied volatility, with the VIX index hitting the 20 level on Thursday before falling back somewhat on Friday.

The turmoil on the financial markets generated a sharp rise in the price of gold, which approached its all-time high on Thursday, crossing the level of $2,050 an ounce. The price of raw materials, and in particular oil, fell sharply over the week due to the increased risk of recession in the United States before the employment report. Brent crude closed the week at $75.3 a barrel.

Aline Goupil-Raguénès

Main market indicators

G4 Government Bonds	06-May-23	1wk (bp)	1m (bp)	2022 (bp)
EUR Bunds 2y	2.57%	-12	+5	-19
EUR Bunds 10y	2.29%	-2	+11	-28
EUR Bunds 2s10s	-28.4bp	+10	+6	-8
USD Treasuries 2y	3.91%	-9	+13	-51
USD Treasuries 10y	3.44%	+2	+13	-44
USD Treasuries 2s10s	-48.1bp	+11	+0	+8
GBP Gilt 10y	3.78%	+6	+35	+11
JPY JGB 10y	0.42%	+3	-13	-10
€ Sovereign Spreads (10y)	**06-May-23**	**1wk (bp)**	**1m (bp)**	**2022 (bp)**
France	58.59bp	+1	+1	+4
Italy	189.91bp	+4	+4	-23
Spain	108.23bp	+4	+4	0
Inflation Break-evens (10y)	**06-May-23**	**1wk (bp)**	**1m (bp)**	**2022 (bp)**
EUR 10y Inflation Swap	2.38%	-9	-5	-17
USD 10y Inflation Swap	2.51%	+3	+2	-2
GBP 10y Inflation Swap	3.69%	-6	-16	-22
EUR Credit Indices	**06-May-23**	**1wk (bp)**	**1m (bp)**	**2022 (bp)**
EUR Corporate Credit OAS	168bp	+6	-1	+1
EUR Agencies OAS	81bp	+1	+5	+2
EUR Securitized - Covered OAS	91bp	+0	+2	+7
EUR Pan-European High Yield OAS	510bp	+6	-7	-2
EUR/USD CDS Indices 5y	**06-May-23**	**1wk (bp)**	**1m (bp)**	**2022 (bp)**
iTraxx IG	87bp	+4	-1	-3
iTraxx Crossover	454bp	+16	-9	-20
CDX IG	81bp	+6	+2	-1
CDX High Yield	493bp	+30	+4	+9
Emerging Markets	**06-May-23**	**1wk (bp)**	**1m (bp)**	**2022 (bp)**
JPM EMBI Global Div. Spread	489bp	+6	-3	+36
Currencies	**06-May-23**	**1wk (%)**	**1m (%)**	**2022 (%)**
EUR/USD	$1.102	0.000	1.055	2.9
GBP/USD	$1.264	0.549	1.396	4.6
USD/JPY	JPY 135	1.113	-2.582	-2.7
Commodity Futures	**06-May-23**	**-1wk ($)**	**-1m ($)**	**2022 (%)**
Crude Brent	$75.3	-$5.0	-$9.3	-10.57
Gold	$2 016.8	$26.8	-$3.9	10.57
Equity Market Indices	**06-May-23**	**-1wk (%)**	**-1m (%)**	**2022 (%)**
S&P 500	4 136	-0.80	0.76	7.7
EuroStoxx 50	4 340	-0.43	0.72	14.4
CAC 40	7 433	-0.68	1.48	14.8
Nikkei 225	29 158	1.88	3.44	11.7
Shanghai Composite	3 335	2.13	0.21	7.9
VIX - Implied Volatility Index	17.19	8.94	-6.58	-20.7
				Source: Bloomberg, Ostrum AM

Additional notes

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