



## Welcome to our November 2023 Recap:

We are pleased to welcome you to our November 2023 month-end report.

Neither war nor higher rates can suppress the US equity markets. Indexes soared and vol swooned. If you were Rip Van Winkle and had just woken up, you might be forgiven for assuming World Peace was breaking out, prosperity and certainty overflowing from all corners. Alas, this is not so. The overburdened US consumer has accumulated more debt. The US public debt continues to balloon. Last year's fears of stock outs in crude distillates and refined gasoline have faded completely this year. Some sort of optimism greets the end of this year. There was drama with OpenAI. The skeptic in us wonders if the whole 'ripped from a comic book' script isn't some clever marketing ploy. The other story du jour is the continued importance of 0DTE options. Almost every illness in the indexes is laid at the feet of the 0DTE. America is a land of addictions, the 0DTE addiction is plumbing new highs, or was it lows? Who knows?!

The US Treasury market seems to have backed off a little. The US dollar has gotten weaker. Perhaps this indicates a more accomodating monetary and interest rate policy ahead of us. The weakening dollar seems to be the prime suspect in the cushioning of oil's fall. There was unusual interest in gold this month.

Ag prices were a mixed bag. Heading into the winter season, vol was mixed, but a bit more volatile than usual (pardon the pun). The massive storms in Russia and the Black Sea region disrupted both oil and grain transit. Perhaps that helped the rally in grain, but it does not look like it was a huge effect.

The Forex market was all one way this month. Whether Crypto or legacy, the dollar fell. Crypto was the big winner, with Ethereum on top. Of the legacy currencies. Both cryptos were up in the 3-5% range. BTC and Mexican peso vol was offered, everything else exhibited a strong bid. A growing degree of put skew (put vol higher than call vol) was shown by the front month Yen skew. This might be related to the supposed effects of the carry trade. A great deal of call skew was observed in the GBP.

### Foreign Exchange ATM

[Bitcoin Detail](#)

[Ethereum Detail](#)

[Yen Detail](#)

[Pound Detail](#)

The interest rate picture is still very much a focus. There is a slight respite this month as

futures all rallied. The move was definitely duration based. The Ultrabond futures rose the most, almost 10%. Vol was up on the short end of the curve, but aggressively sold in the 30Year and Ultrabond.

Interest Rates ATM

30 Year Detail

Ultrabond Detail

Index magic presented itself this month with a flourish. The major indexes moved up between 7.5% (SP500) and about 9% (Russell). The VIX tumbled nearly 4 points, which matched the move in SP500 ATM vol. The only interesting bit in the vol picture is the fact that though Russell vol was down, it was not close to NQ or SP's vol decline. The Russell skew moved just a little. It looks like the curve was mostly frozen.

EquityIndex ATM

SP500 Detail

Russell Detail

VIX Detail

As mentioned above, gold rallied this month, but silver was in the lead. Silver's price rallied by 12.6%. Rising prices also extended to copper. We suspect that the move in the metals (especially gold and copper), coupled with the move in rates, is suggestive of easier credit/interest policies in the future-fueling growth and inflation. Time will tell, but this might be the first stealth recession (and recovery). As one might expect, vol was offered in the rallying metals.

Metals ATM

Copper Detail

Silver Detail

The proteins (feeder cattle, live cattle and lean hogs) continued the slide from the prior month. In our previous month's missive we alluded to fears that a reduction in protein demand was the result of inflationary pressures further down the chain or weak general economic conditions. This would be a contradictory signal from the one being broadcast by the financial markets. Some news from Brazil and US acreage surveys seem to be leading to a general bid in Soybean and Soy Oil. Meal was offered, and only Bean vol was bid. Grain was also strong. This was probably related to the storms in the Black Sea basin storms as well as the newly published acreage surveys.

Ags ATM

Feeder Cattle Detail

Soybean Detail

Lean Hog Detail

Ags Details

Energy has experienced a Kafkaesque metamorphosis from a mighty lion to a meek mouse, scurrying around in the shadows of the OPEC+ meetings. Excluding a few small blips, it has been this way all year. We typically think of a growing world economy as consuming more hydrocarbons for energy and chemical production. The US exports a lot of oil (displacing Saudi and Russian cuts), so one conclusion might be that, though world

demand is robust, supply exceeds it. Perhaps this is why there is no panic over the potential for a war in the Persian Gulf. The biggest loser this month was Natural Gas in all of its variations. Winter seems to have come in like a lamb in the US. Oil, whether Brent or WTI, was down by similar amounts. The other remarkable aspect of the current situation is the anemic vol response. The call wing on the WTI Crude contract seems to have been pushed down-perhaps pessimism and congestion is here to stay. The other potentially concerning aspect of the energy complex is the seeming drought in liquidity. The ULSD/Heating Oil and RBOB option market seems to be trading on appointment only. It isn't uncommon to see only a handful of options change hands on any given day. This is a stark contrast with the situation last year when there was real worry about stockouts in US markets.

[Energy ATM](#)

[US Natty Gas Detail](#)

[WTI Crude Detail](#)

[Details Energy](#)

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## **At The Money Roundup of Products**

## Energy

exch/prod	desc	futures chng [%]	vol chng [%]
NYMEX/BZO	Brent Crude Oil Margin	-3.770 [-4.5%]	-0.016 [-4.5%]
NYMEX/BE	Brent Euro Style	-3.190 [-3.8%]	+0.007 [+1.9%]
NYMEX/CVR	Chicago Ethanol(platts) Average Price	-0.075 [-4.0%]	-0.075 [-28.3%]
NYMEX/LO	Crude Oil	-4.480 [-5.6%]	-0.005 [-1.5%]
NYMEX/LN	European Natural Gas	-0.692 [-19.8%]	+0.034 [+5.7%]
NYMEX/E7	Henry Hub Financial Last Day	-0.692 [-19.8%]	+0.034 [+5.6%]
NYMEX/ON	Natural Gas	-0.692 [-19.8%]	+0.033 [+5.4%]
NYMEX/OH	NY Harbor ULSD	-0.207 [-7.0%]	-0.005 [-1.3%]
NYMEX/OB	RBOB	-0.010 [-0.4%]	-0.018 [-4.5%]



## InterestRates

exch/prod	desc	futures chng [%]	vol chng [%]
CBT/26	2 YR US Treasury Note	+0.824 [+0.8%]	+0.002 [+8.5%]
CBT/25	5 YR US Treasury Note	+1.898 [+1.8%]	+0.004 [+8.4%]
CBT/21	10 YR US Treasury Note	+2.938 [+2.7%]	+0.003 [+3.5%]
CBT/17	30 YR US Treasury Bond	+6.000 [+5.4%]	-0.027 [-16.8%]
CBT/UBE	Long Term US Treasury Bond	+9.594 [+8.5%]	-0.037 [-18.6%]
CME/S0	One-year Mid-curve Three-month SOFR	+0.300 [+0.3%]	+0.001 [+5.2%]
CME/SR3	Three-month SOFR	+0.043 [+0.0%]	-0.002 [-58.0%]
CME/S3	Three-year Mid-curve Three-month SOFR	+0.470 [+0.5%]	-0.001 [-5.0%]
CME/S2	Two-year Mid-curve Three-month SOFR	+0.430 [+0.4%]	-0.000 [-2.6%]

Ags

exch/prod	desc	futures chng [%]	vol chng [%]
CME/DK	Class IV Milk	-1.510 [-7.3%]	+0.011 [+10.6%]
CBT/C	Corn	+0.077 [+1.6%]	-0.011 [-6.2%]
CME/62	Feeder Cattle	-18.625 [-7.8%]	+0.072 [+72.4%]
CBT/KW	KC HRW Wheat	+0.030 [+0.5%]	-0.008 [-2.8%]
CME/LN	Lean Hog	-1.375 [-2.0%]	-0.081 [-35.6%]
CME/48	Live Cattle	-11.800 [-6.4%]	+0.052 [+46.6%]
CME/NF	Nonfat Dry Milk	-0.500 [-0.4%]	-0.015 [-18.9%]
CBT/O	Oats	-0.095 [-2.5%]	-0.022 [-5.3%]
ENXT_COM/OCO	Rapeseed	+20.750 [+4.8%]	+0.004 [+2.1%]
CBT/14	Rough Rice	+1.350 [+8.4%]	+0.025 [+18.4%]
CBT/S	Soybean	+0.277 [+2.1%]	+0.017 [+11.9%]
CBT/06	Soybean Meal	-6.400 [-1.5%]	-0.005 [-2.1%]
CBT/07	Soybean Oil	+2.360 [+4.7%]	-0.018 [-5.9%]
CBT/W	Wheat	+0.363 [+6.5%]	-0.016 [-5.4%]

## Metals

exch/prod	desc	futures chng [%]	vol chng [%]
COMEX/HX	Copper	+0.201 [+5.5%]	-0.034 [-19.6%]
COMEX/OG	Gold	+69.700 [+3.5%]	-0.010 [-7.7%]
NYMEX/PAO	Palladium	-93.800 [-8.4%]	+0.041 [+12.3%]
NYMEX/PO	Platinum	+5.500 [+0.6%]	+0.006 [+2.8%]
COMEX/SO	Silver	+2.870 [+12.6%]	-0.009 [-3.6%]

## Forex

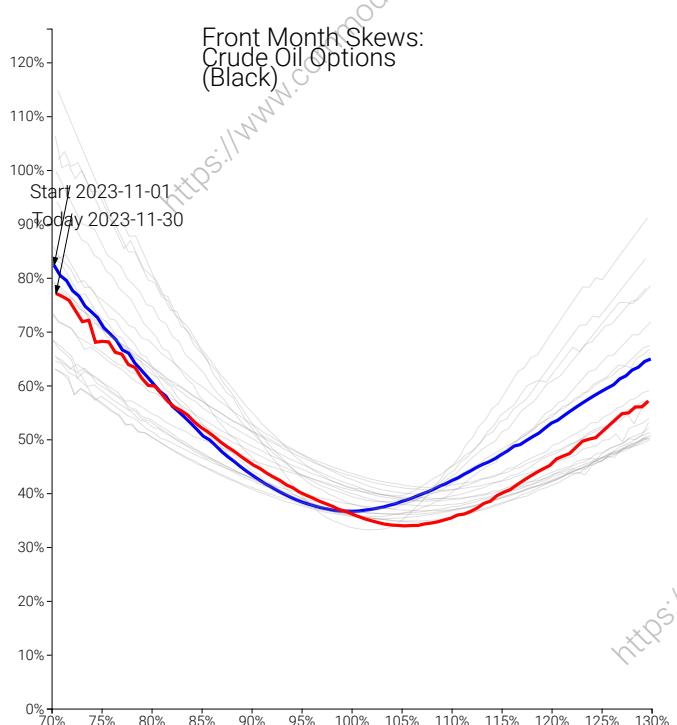
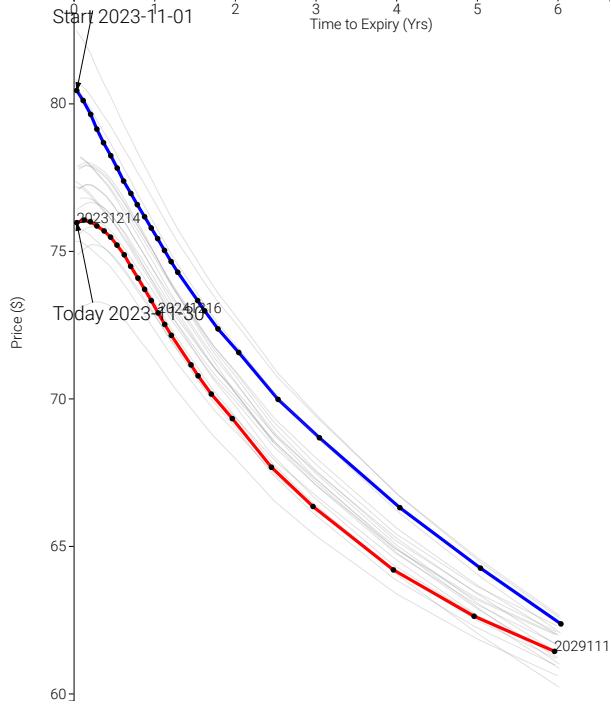
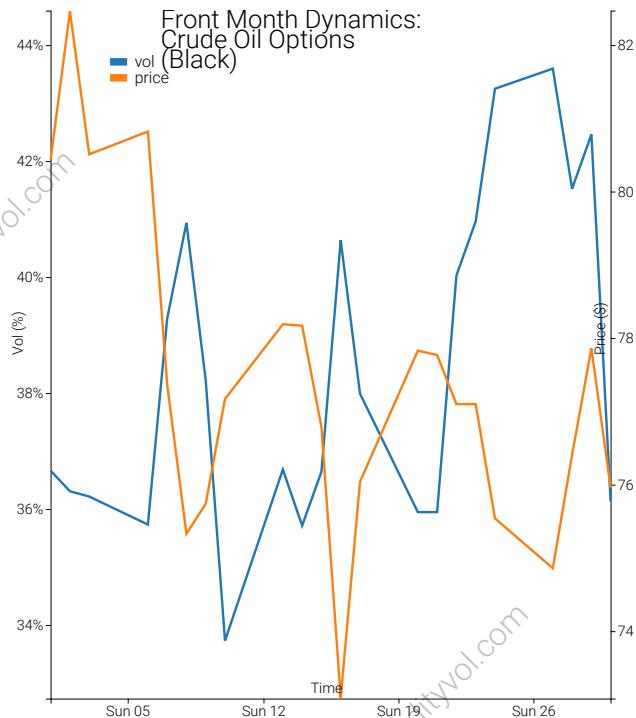
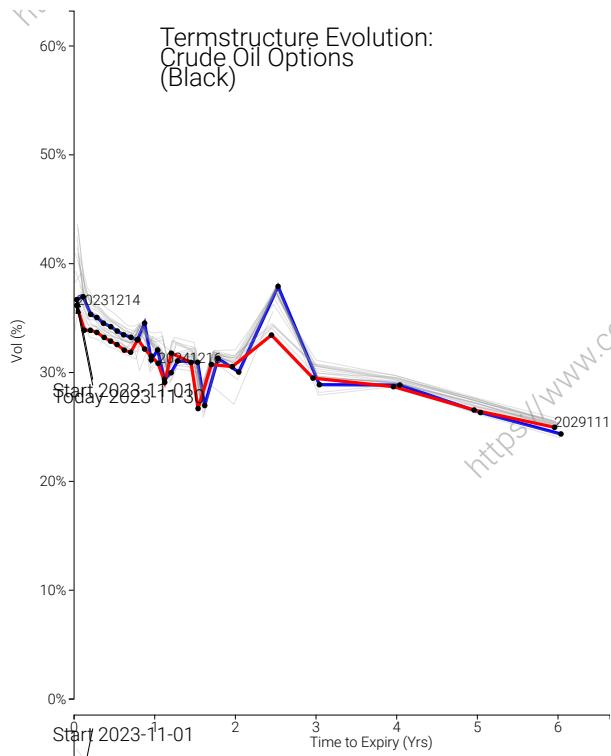
exch/prod	desc	futures chng [%]	vol chng [%]
CME/ADU	AUDUSD 2pmfix	+0.022 [+3.5%]	+0.011 [+11.6%]
CME/BTC	Bitcoin	+3225.000 [+9.2%]	-0.045 [-9.4%]
CME/CAU	CADUSD 2pmfix	+0.016 [+2.3%]	+0.008 [+13.8%]
CME/CHU	CHFUSD 2pmfix	+0.039 [+3.5%]	+0.007 [+11.1%]
CME/ETH	Ethereum	+210.500 [+11.3%]	+0.018 [+4.2%]
CME/EUU	EURUSD 2pmfix	+0.033 [+3.2%]	+0.006 [+8.4%]
CME/GBU	GBPUSD 2pmfix	+0.049 [+4.1%]	+0.006 [+8.6%]
CME/JPU	JPYUSD 2pmfix	+0.000 [+1.4%]	+0.014 [+16.6%]
CME/MP	Mexican Peso	+0.002 [+3.2%]	-0.003 [-2.3%]
CME/NE	New Zealand	+0.032 [+5.5%]	+0.008 [+7.4%]

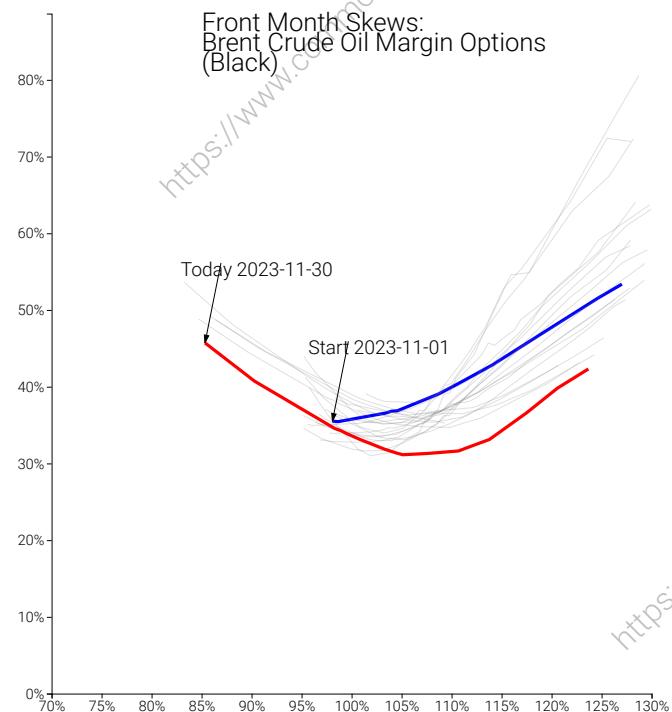
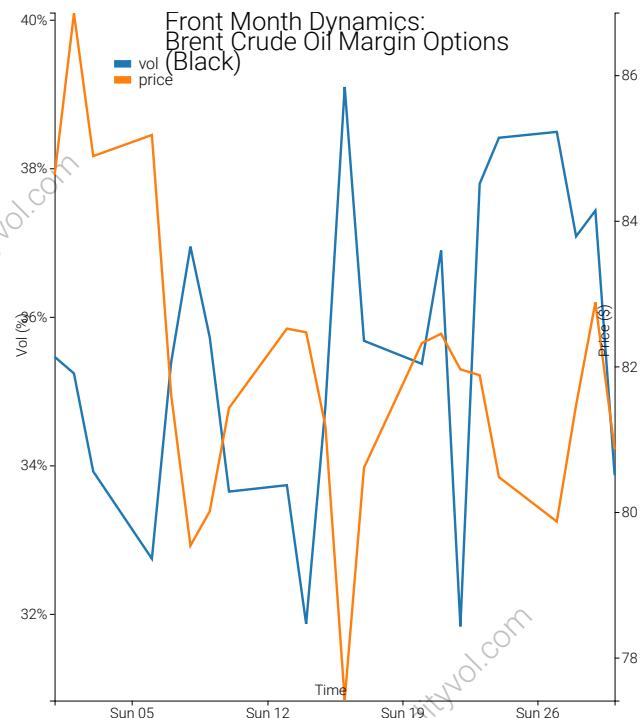
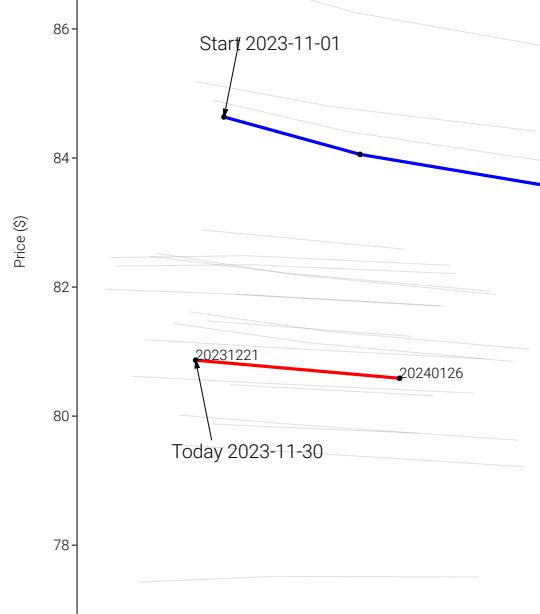
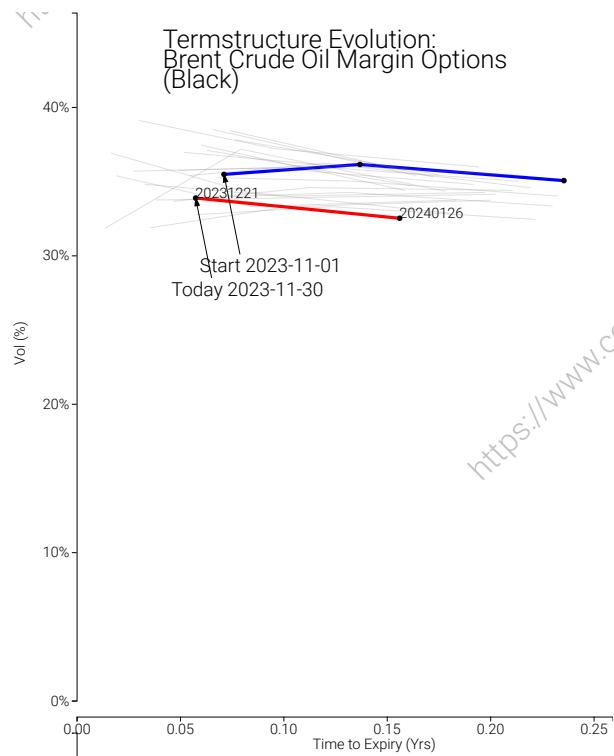
## EquityIndex

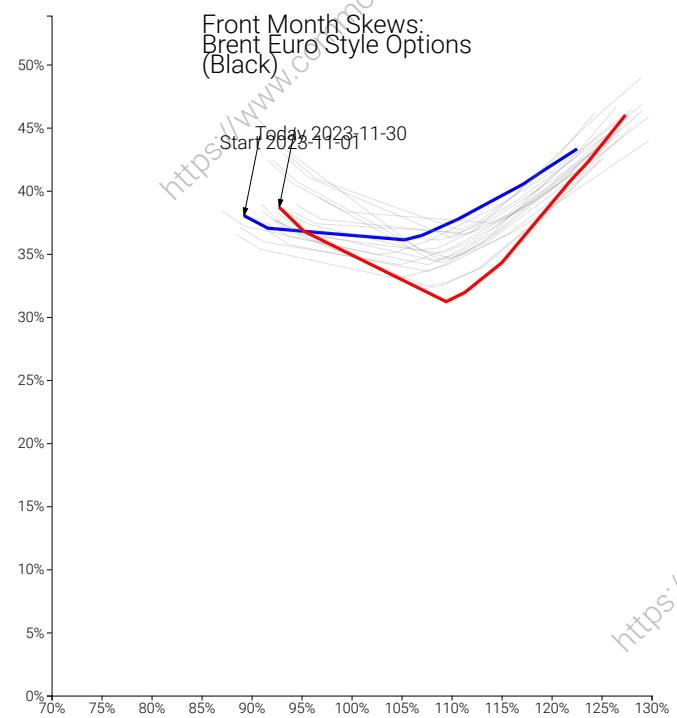
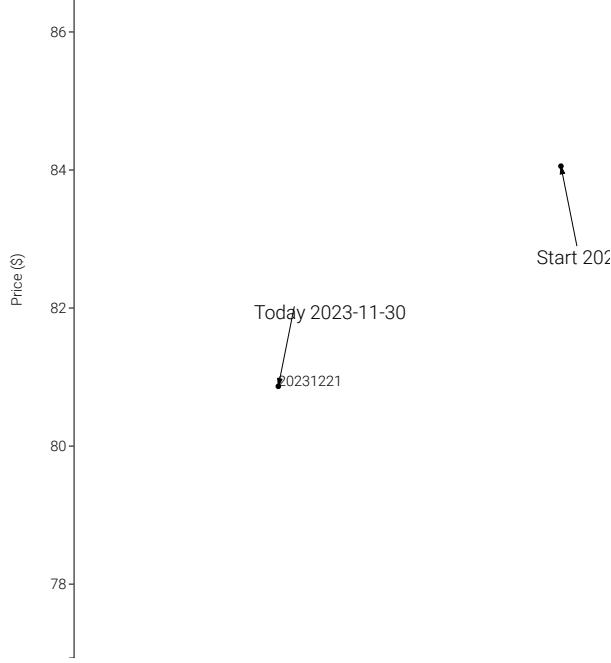
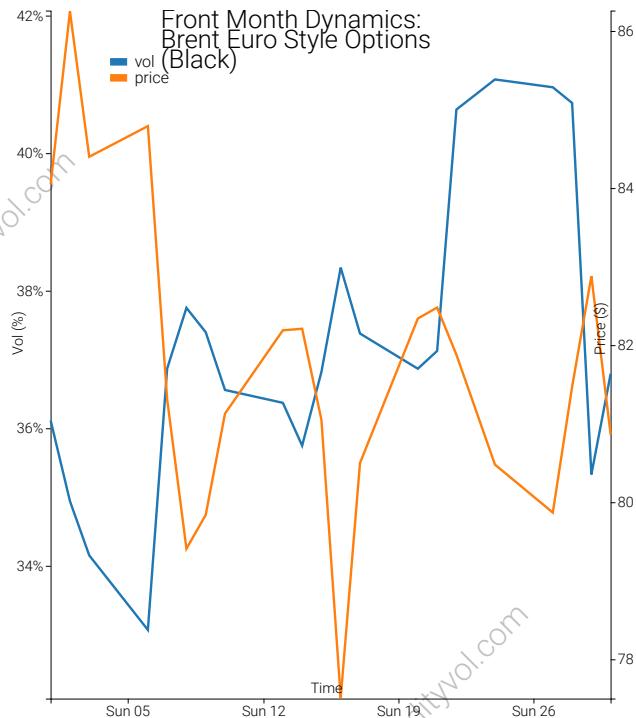
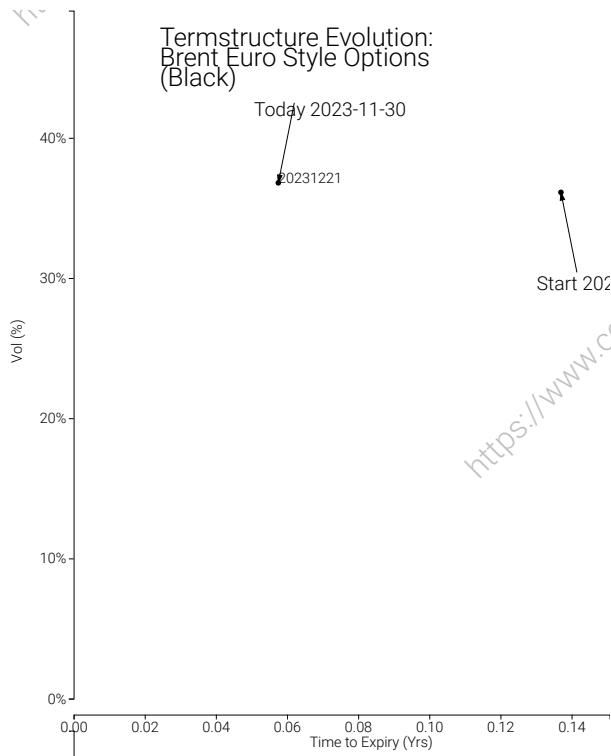
exch/prod	desc	futures chng [%]	vol chng [%]
CBT/YM	E-Mini Dow	+2659.000 [+8.0%]	-0.031 [-23.3%]
CME/NQ	E-Mini Nasdaq	+1241.000 [+8.4%]	-0.045 [-22.9%]
CME/RTO	E-Mini Russell 2000	+135.800 [+8.1%]	-0.003 [-1.7%]
CME/RTM	E-Mini Russell EOM	+154.700 [+9.2%]	-0.016 [-8.1%]
CME/ES	E-Mini S&P 500	+320.750 [+7.5%]	-0.039 [-25.9%]
CBOE/VIX	VIX Volatility Index	-3.950 [-23.4%]	-0.105 [-13.7%]

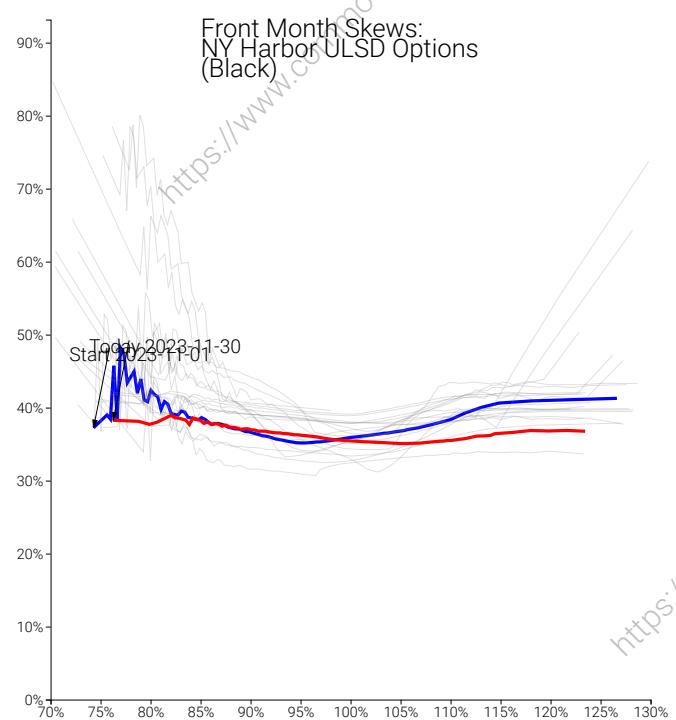
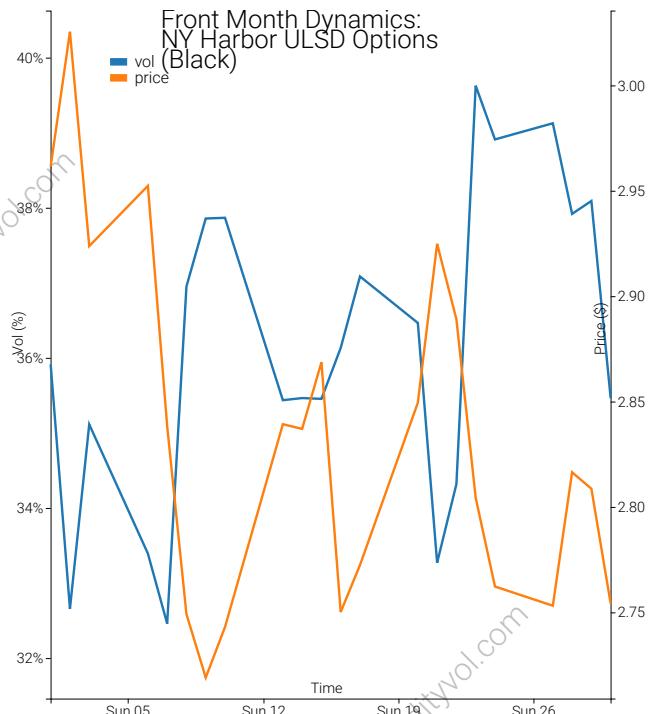
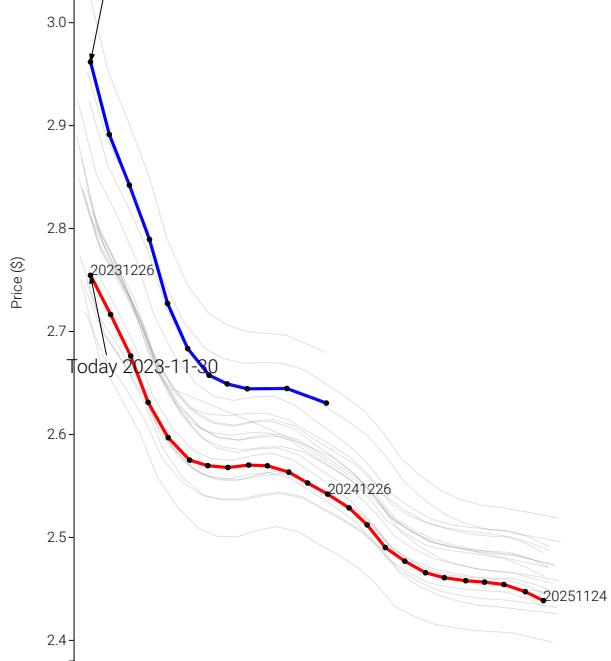
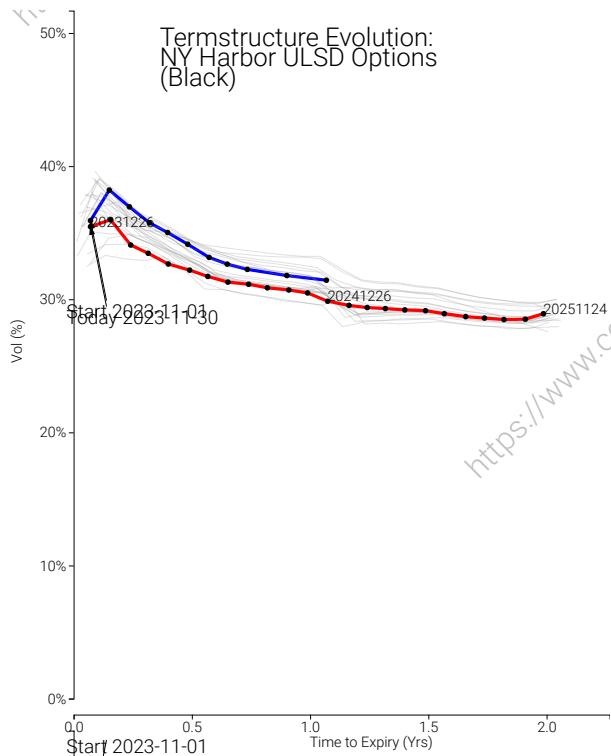
## **Skews, Termstructures and more**

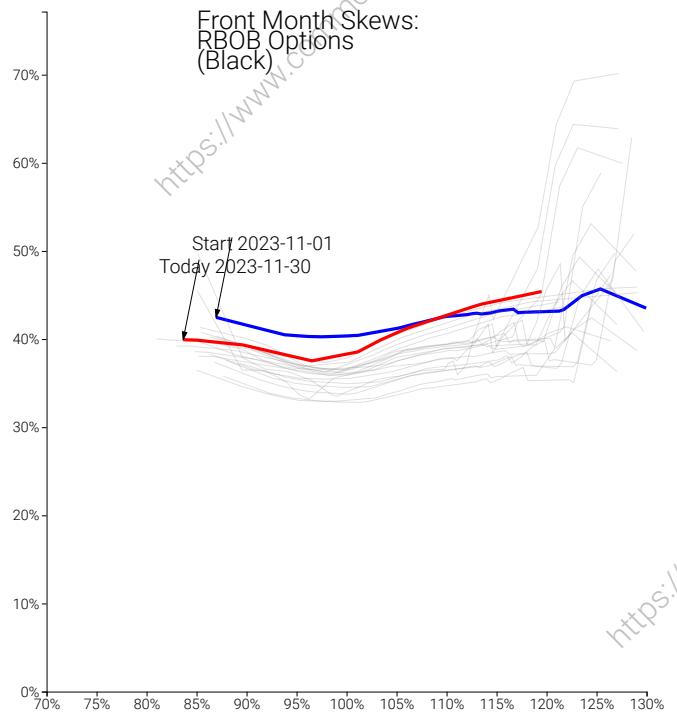
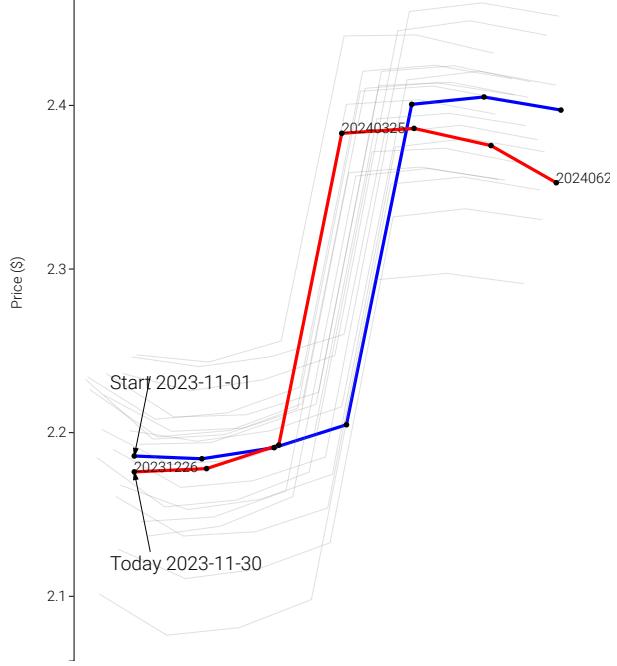
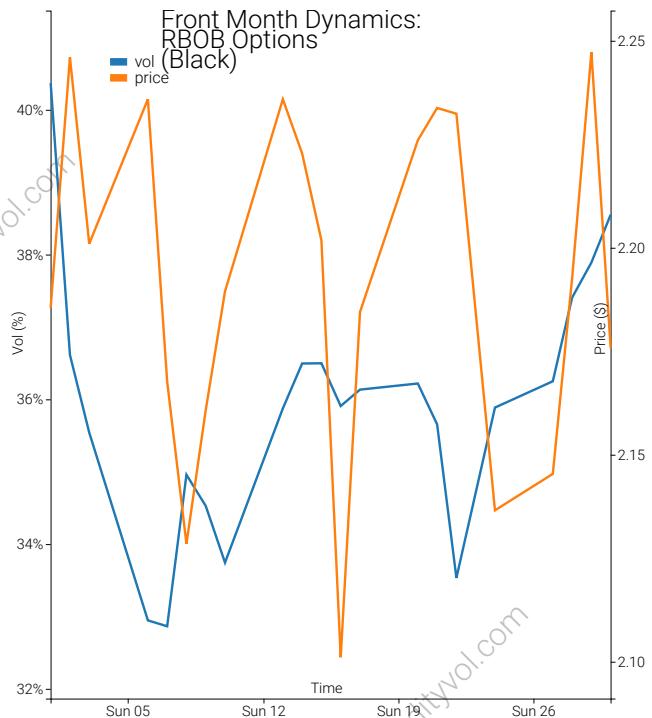
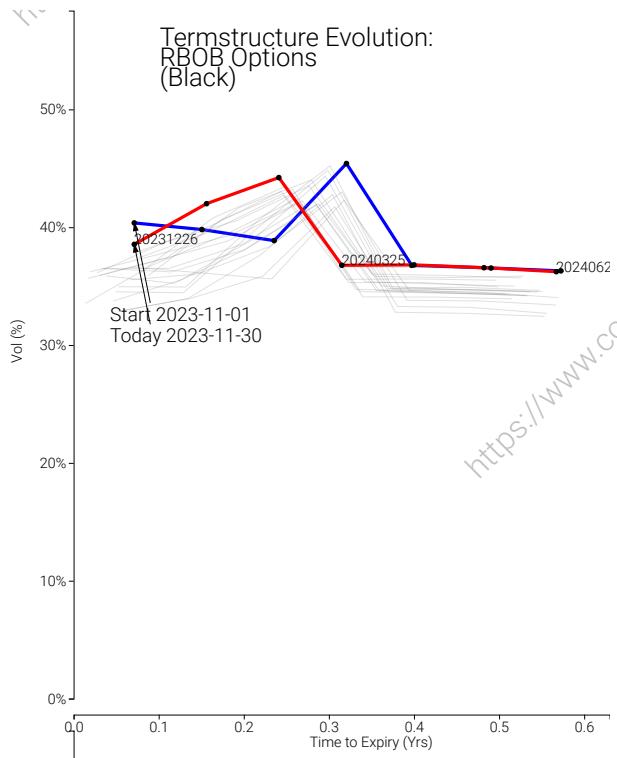
## **Energy: Crude and Derivatives**

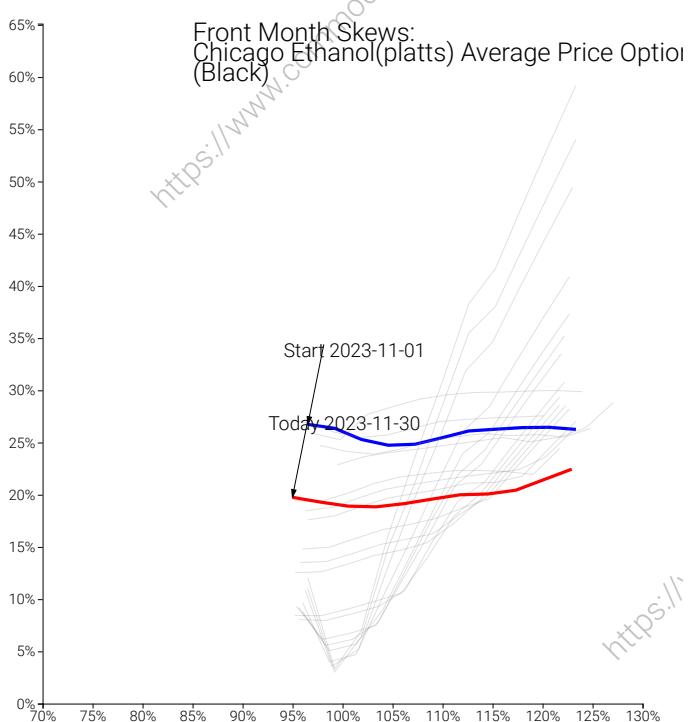
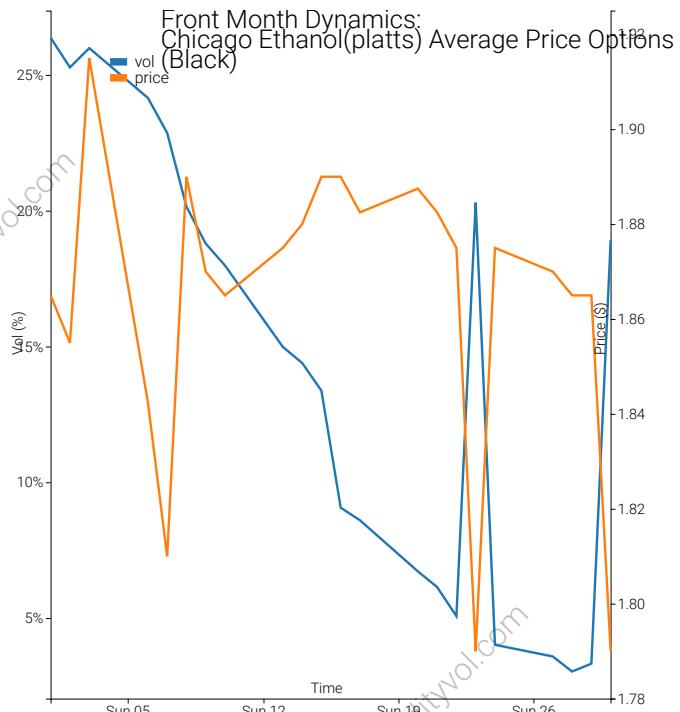
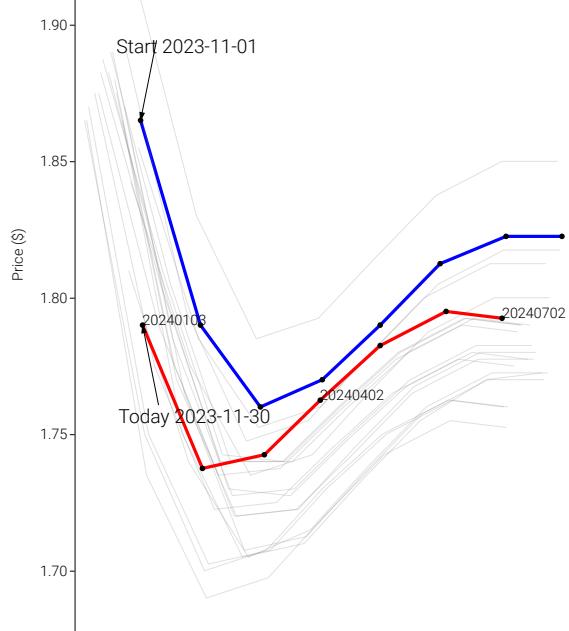
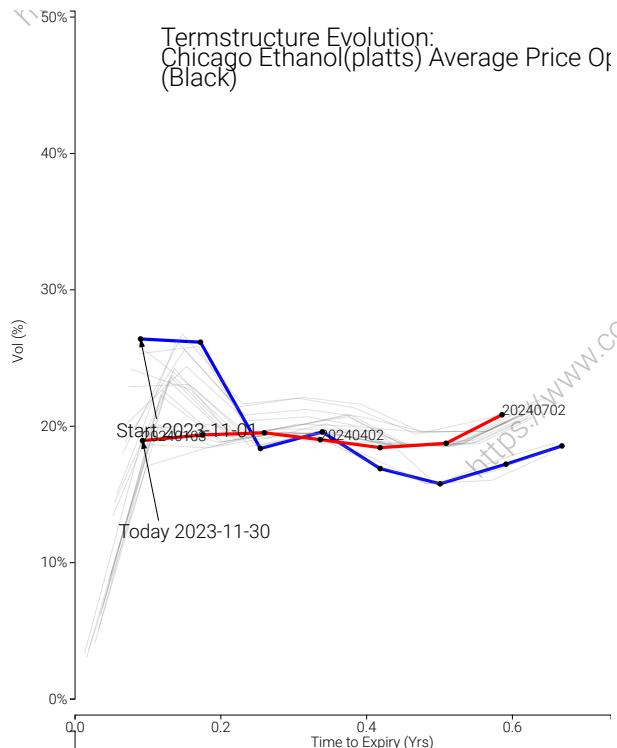




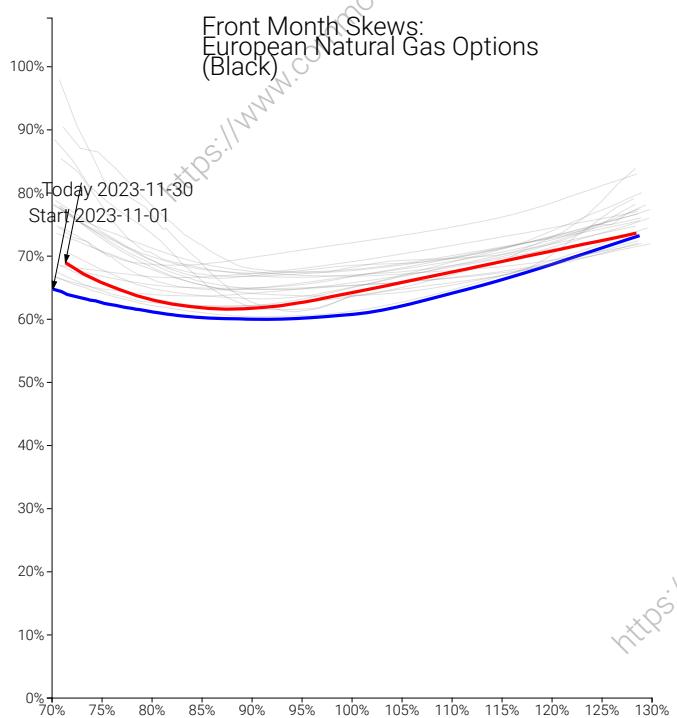
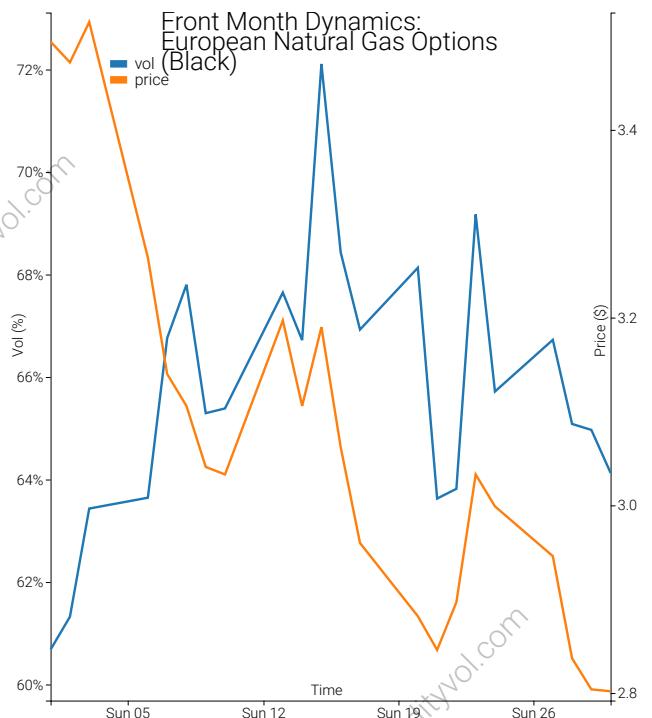
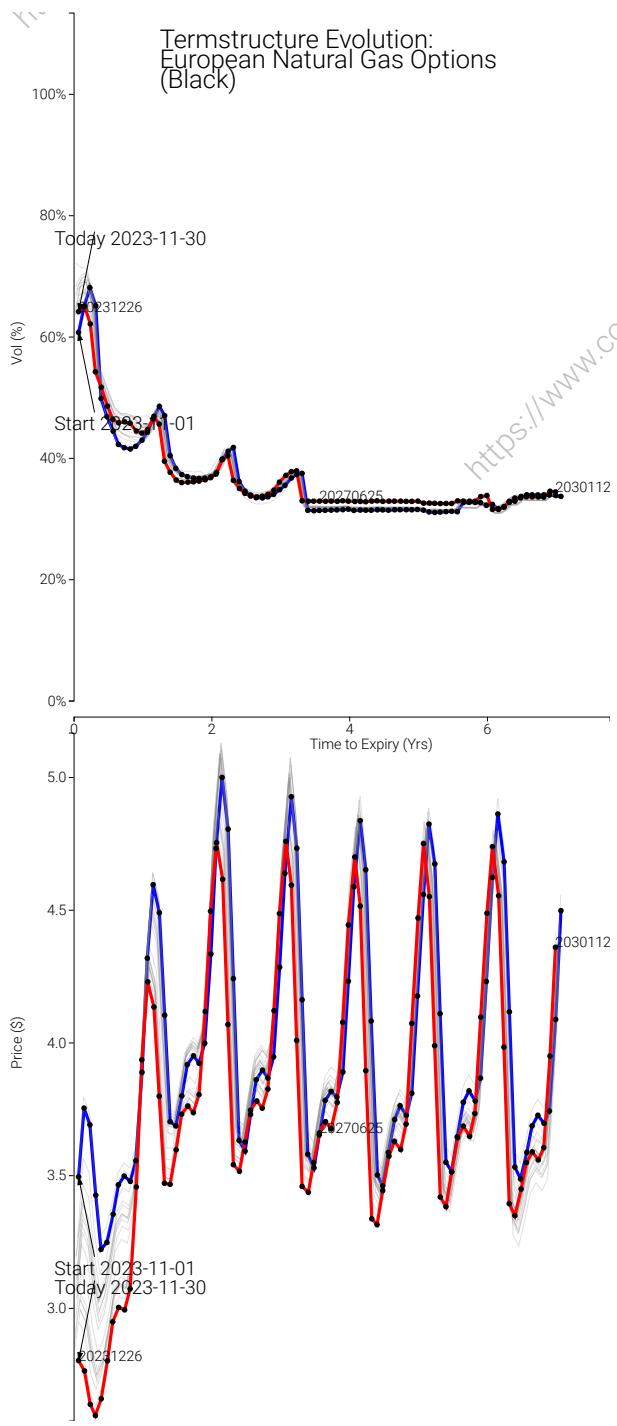


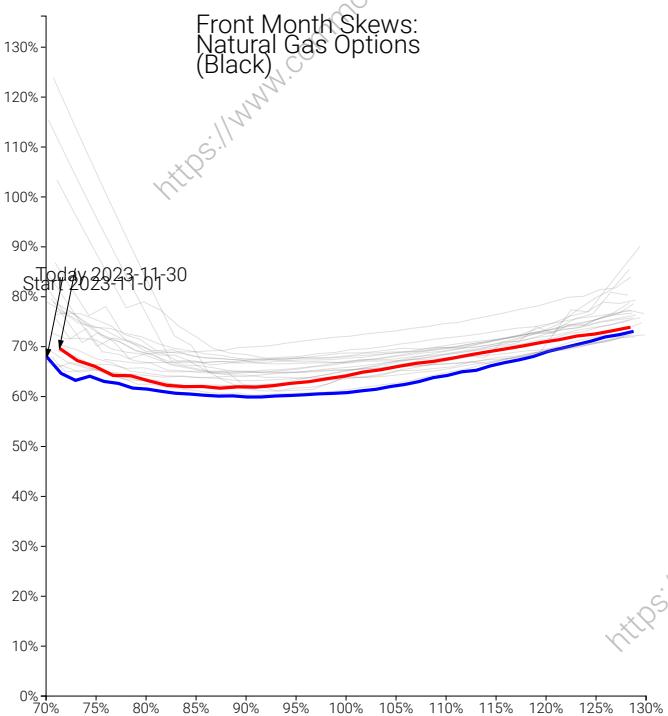
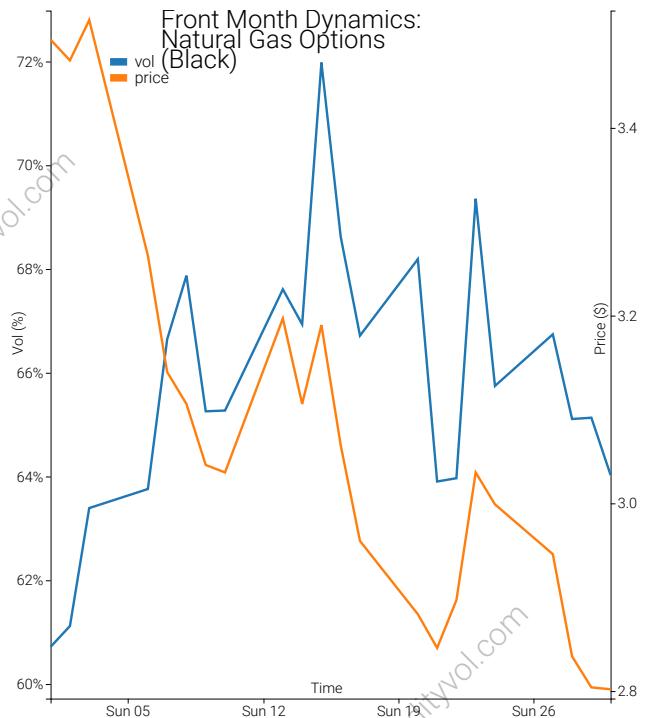
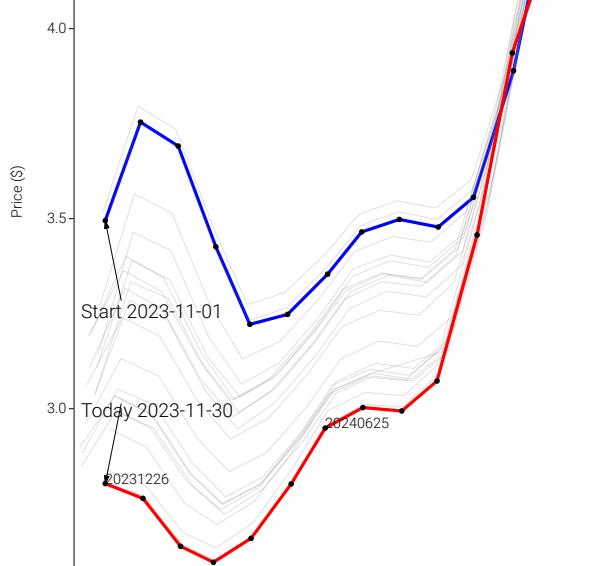
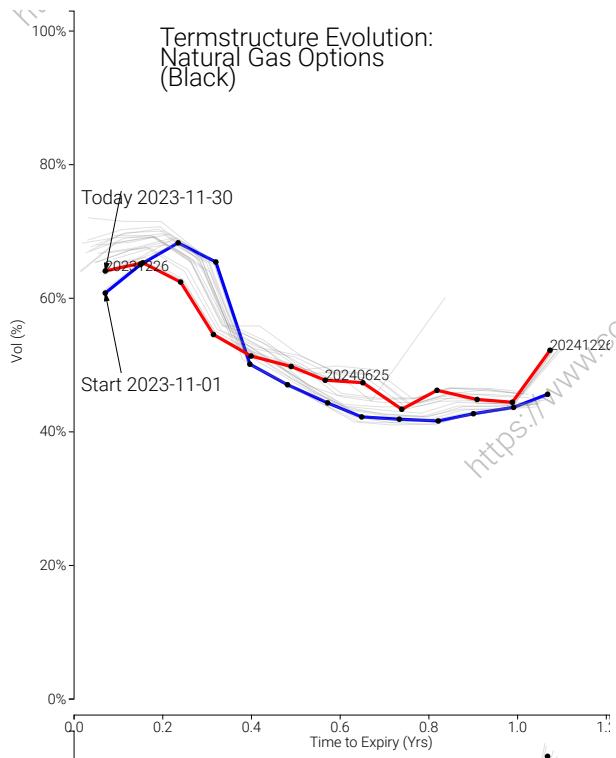


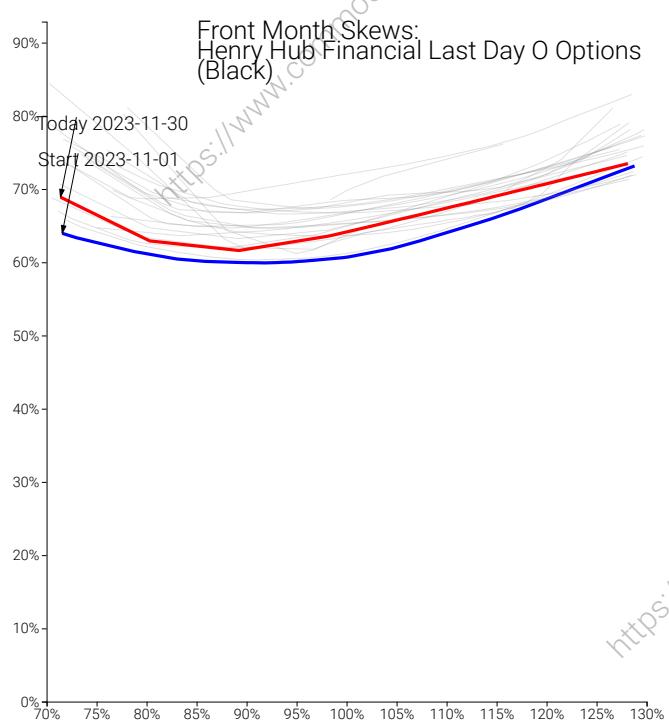
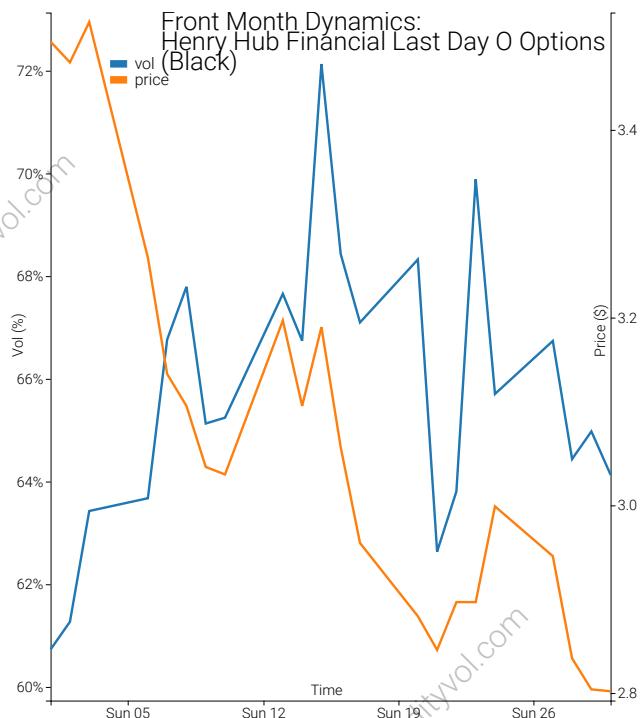
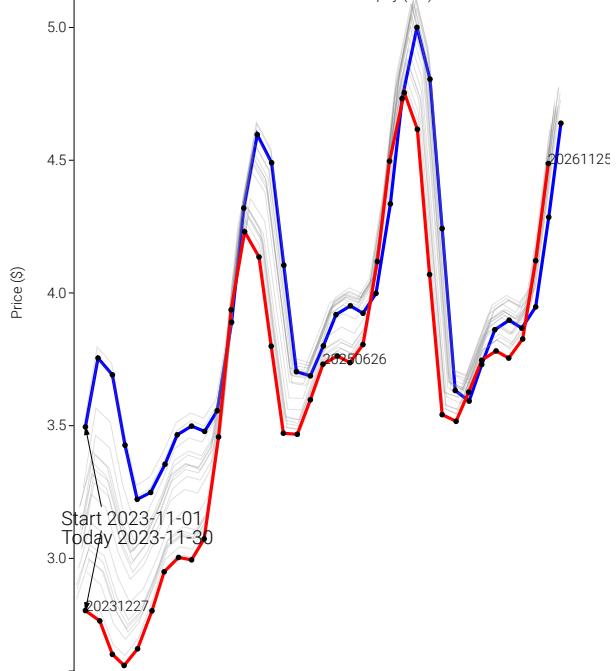
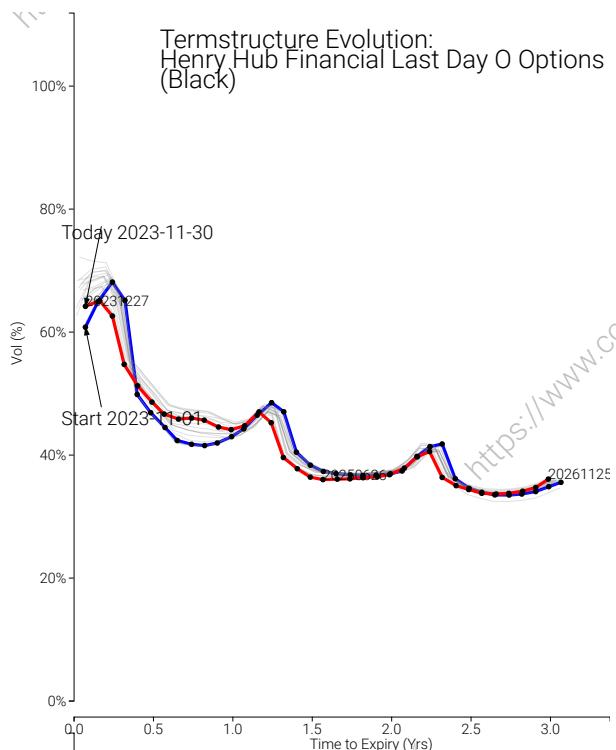




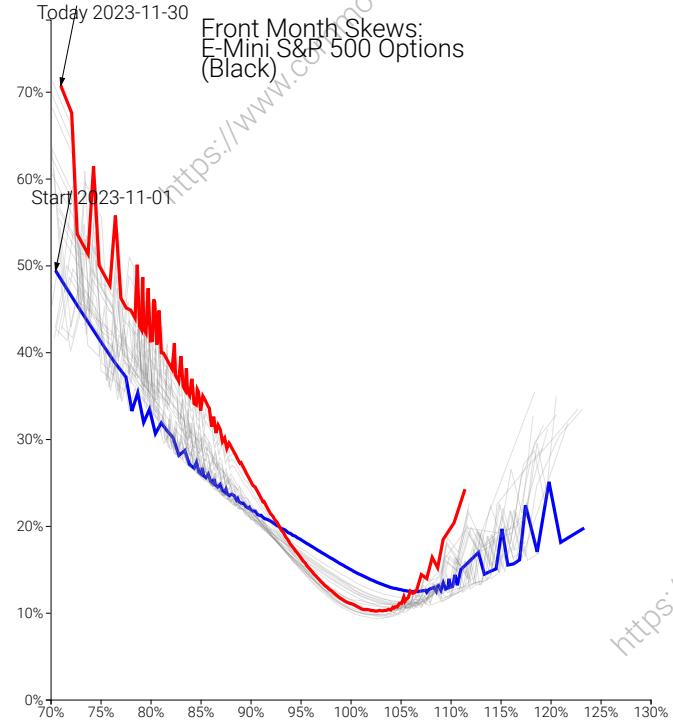
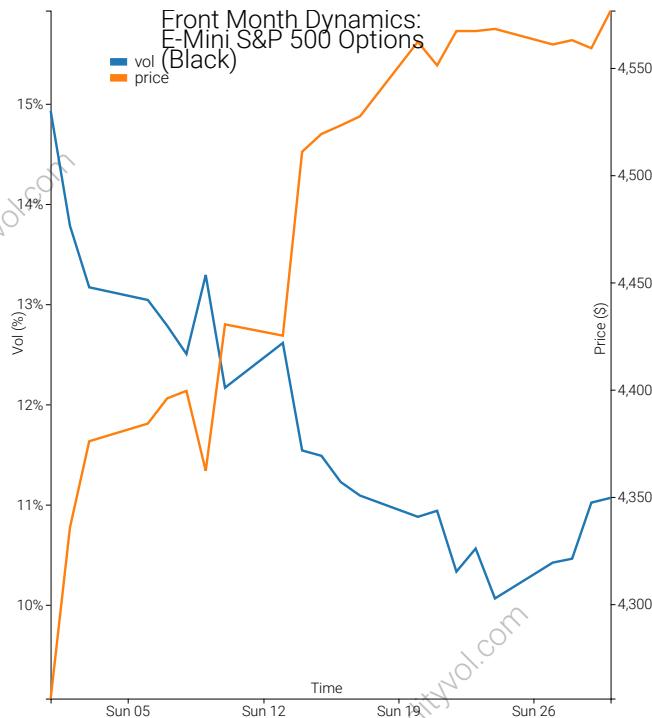
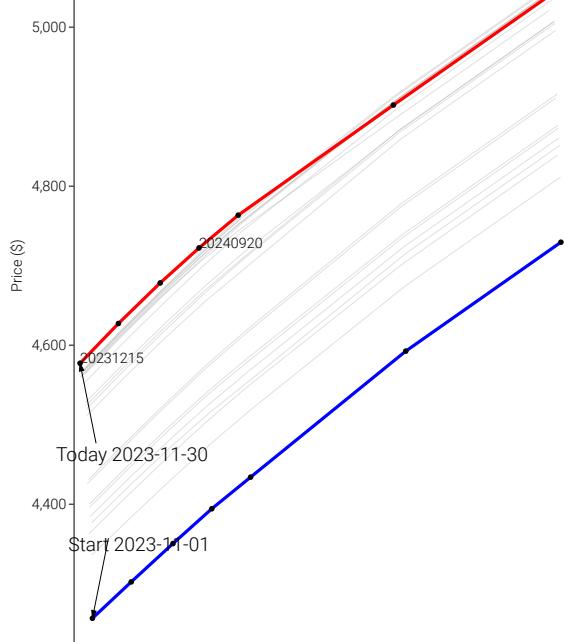
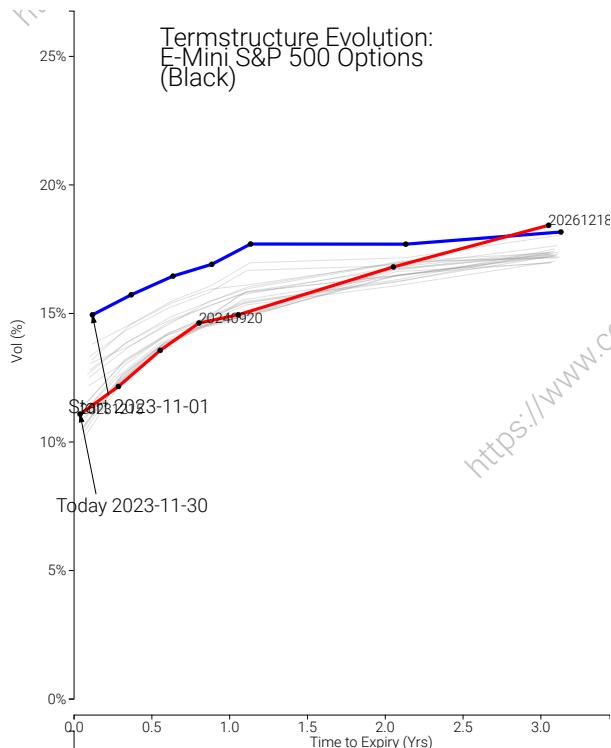
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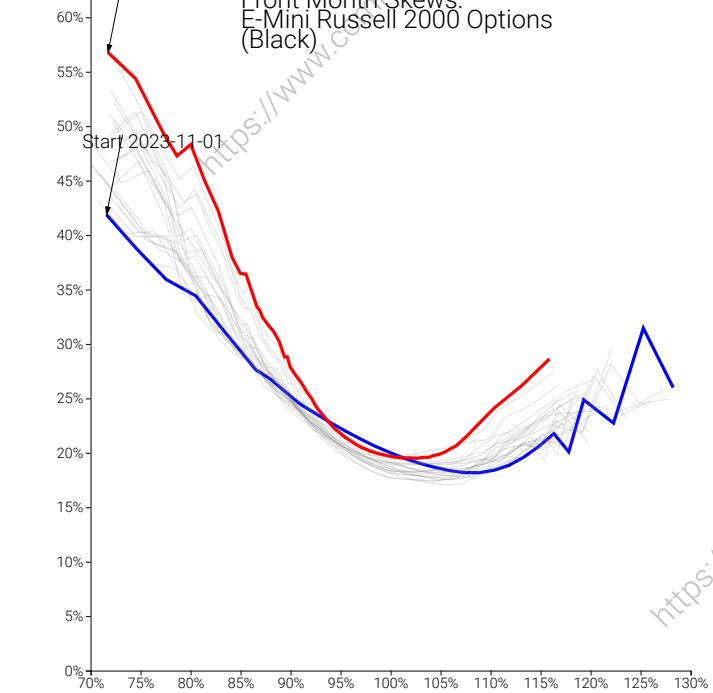
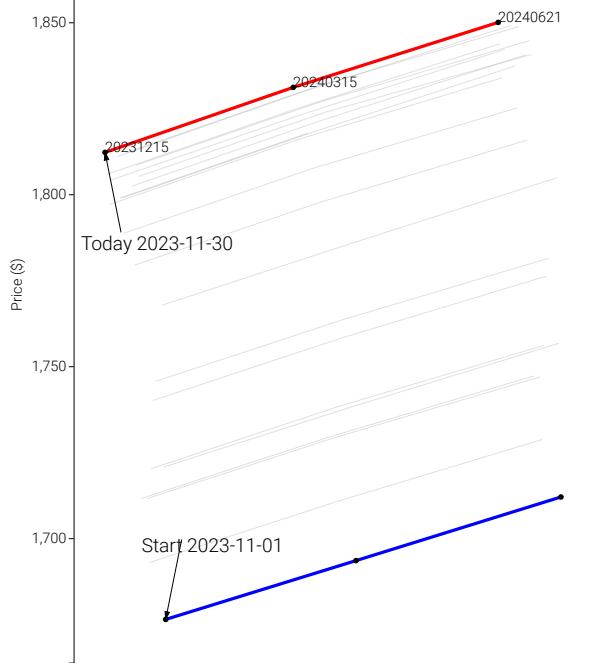
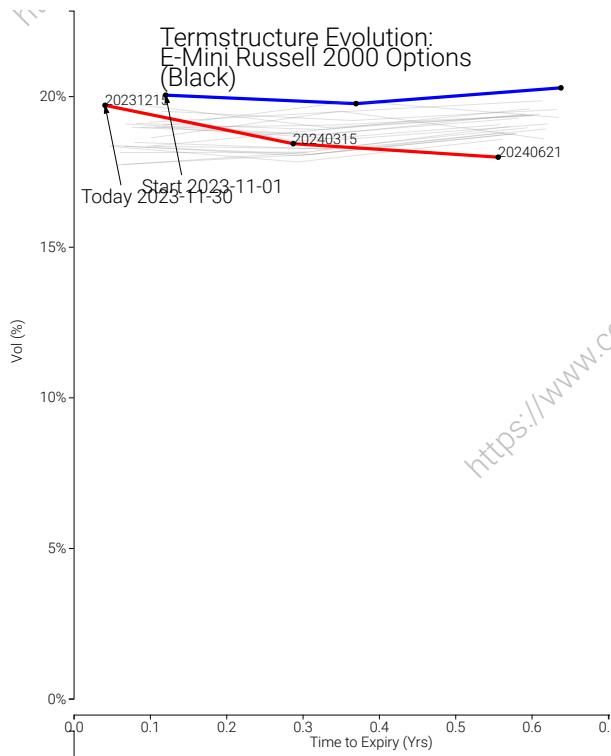


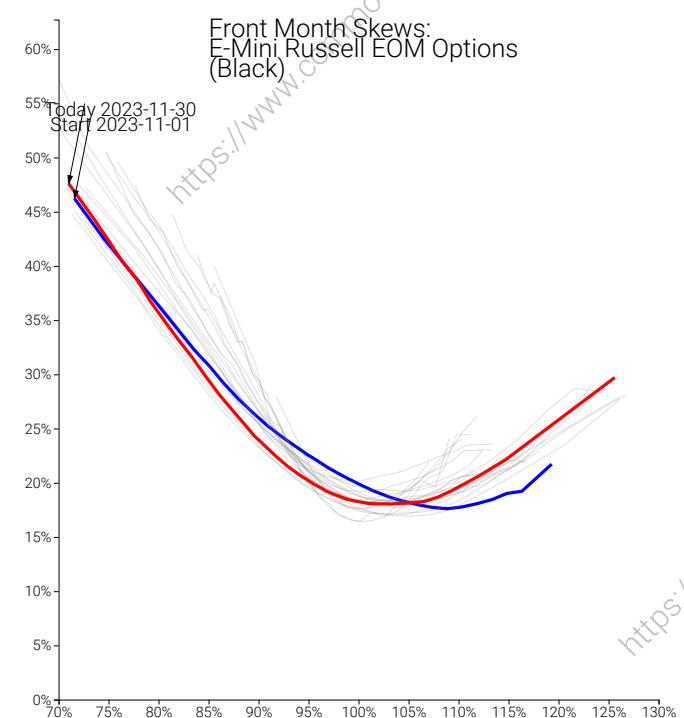
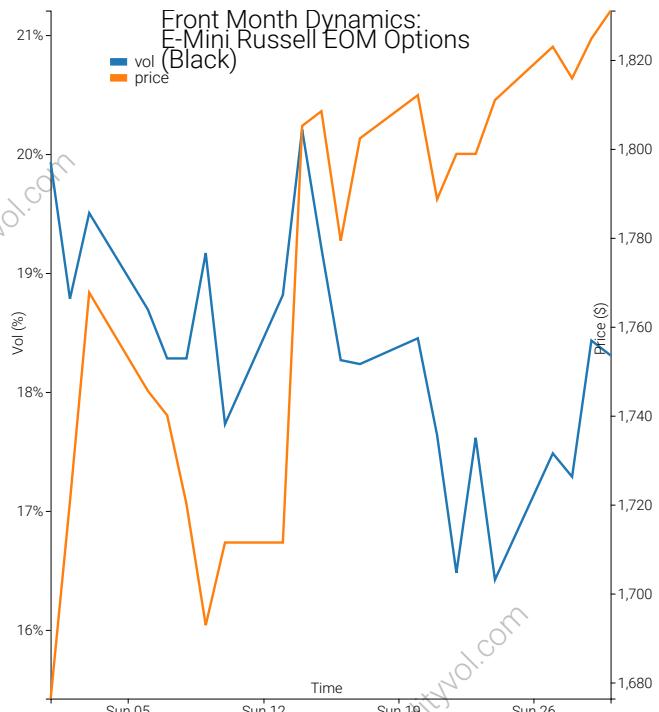
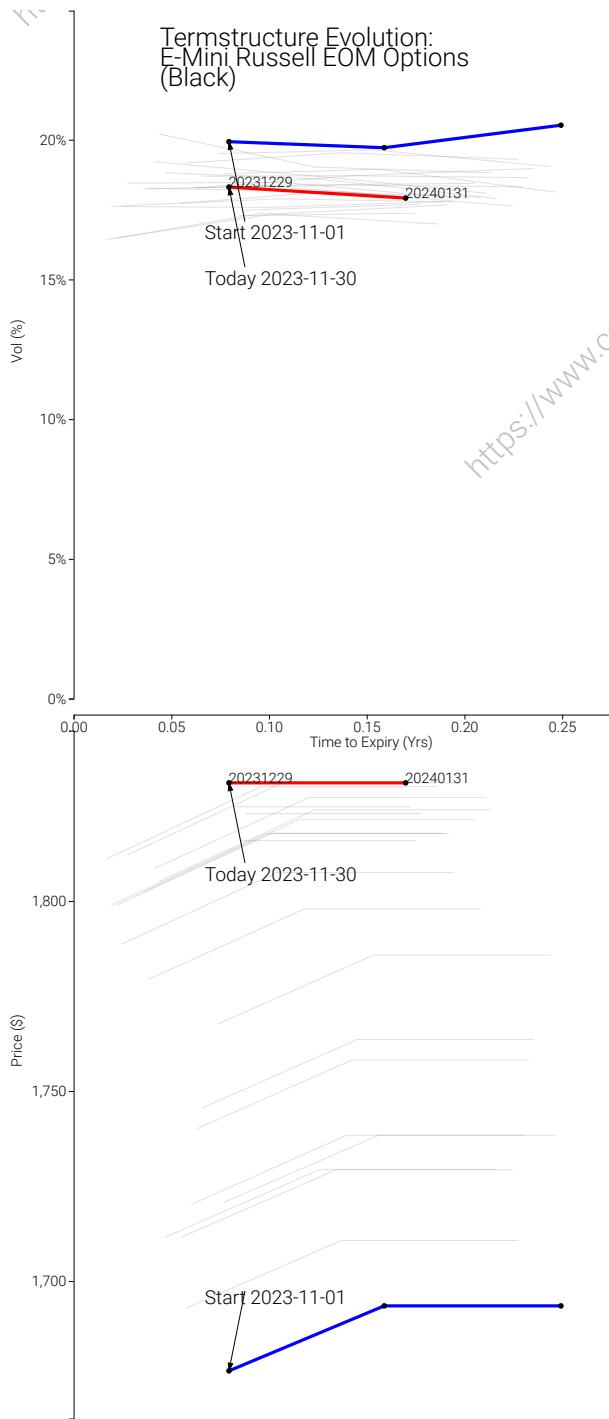


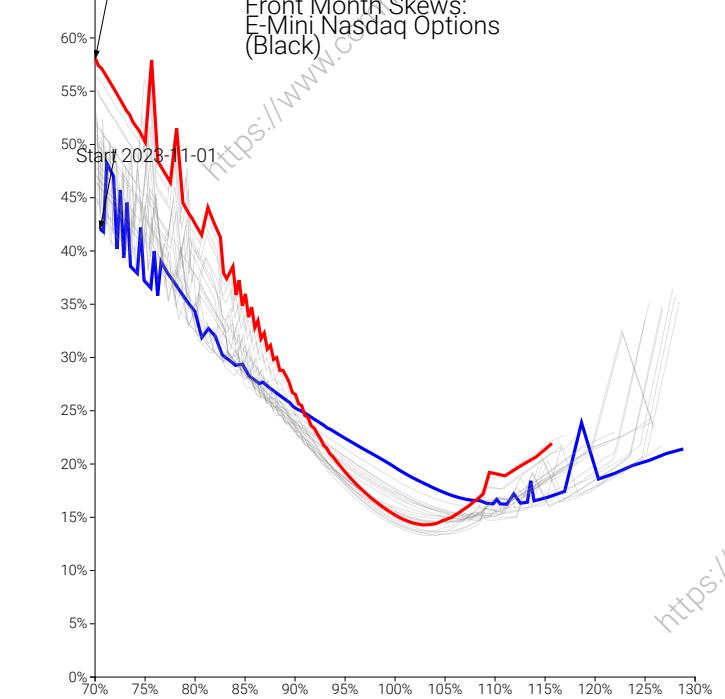
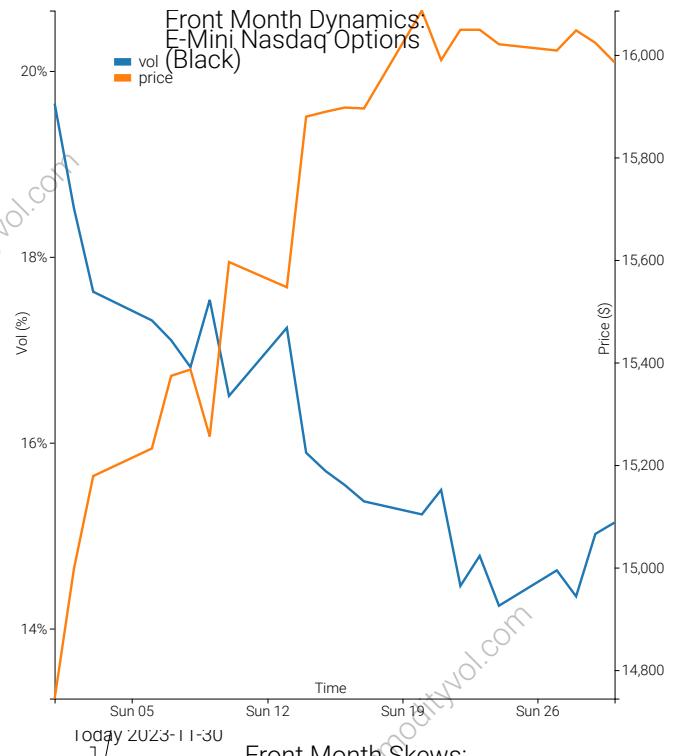
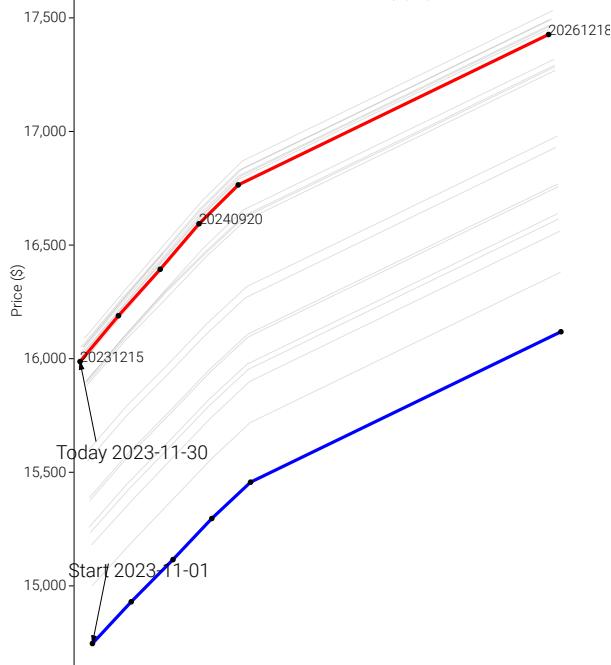
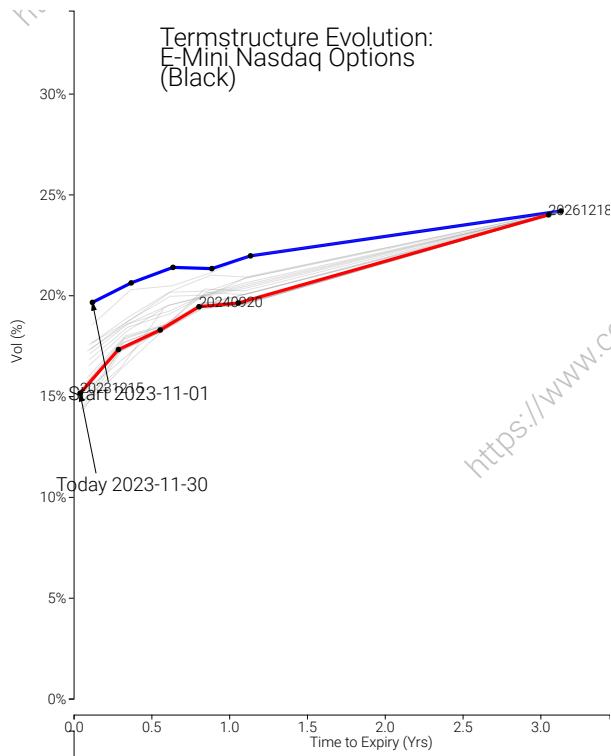


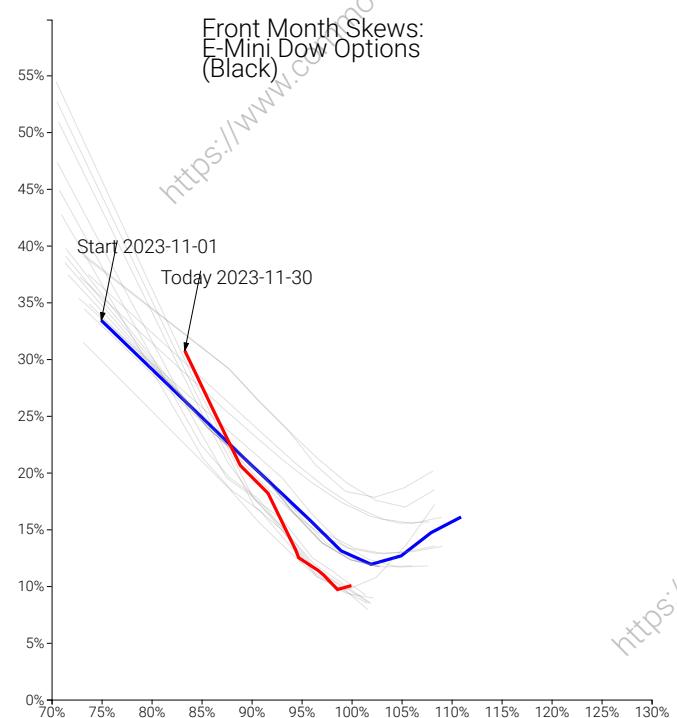
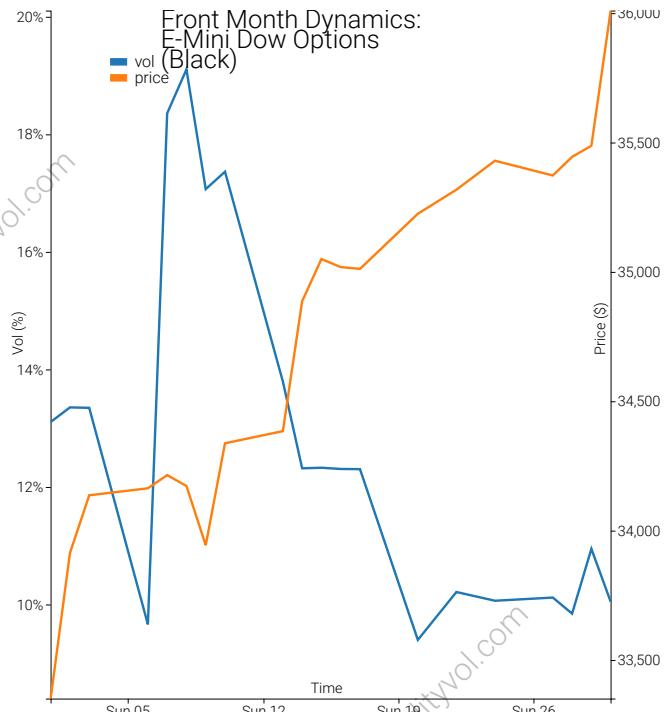
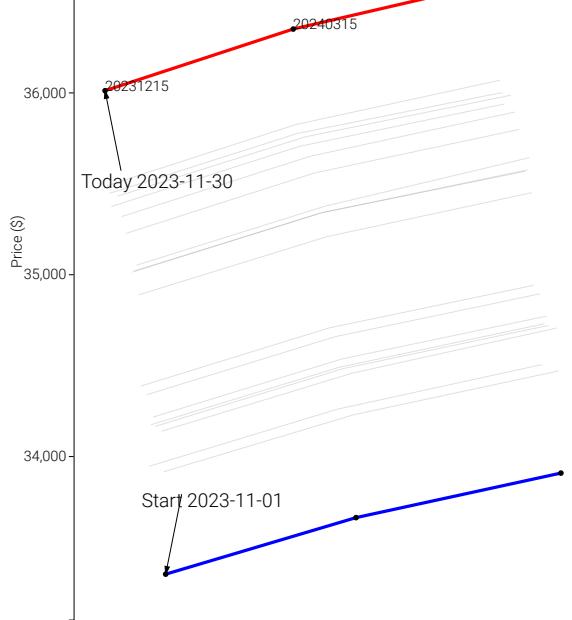
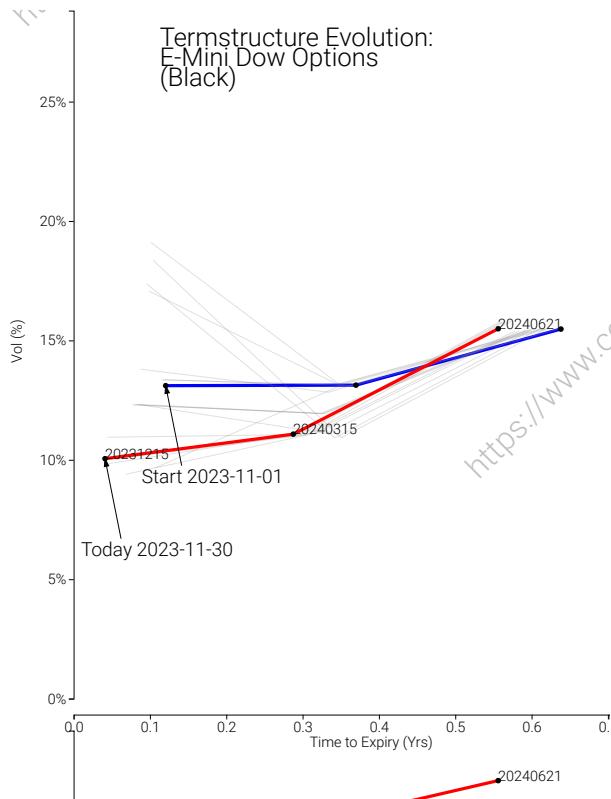
**EquityIndex**

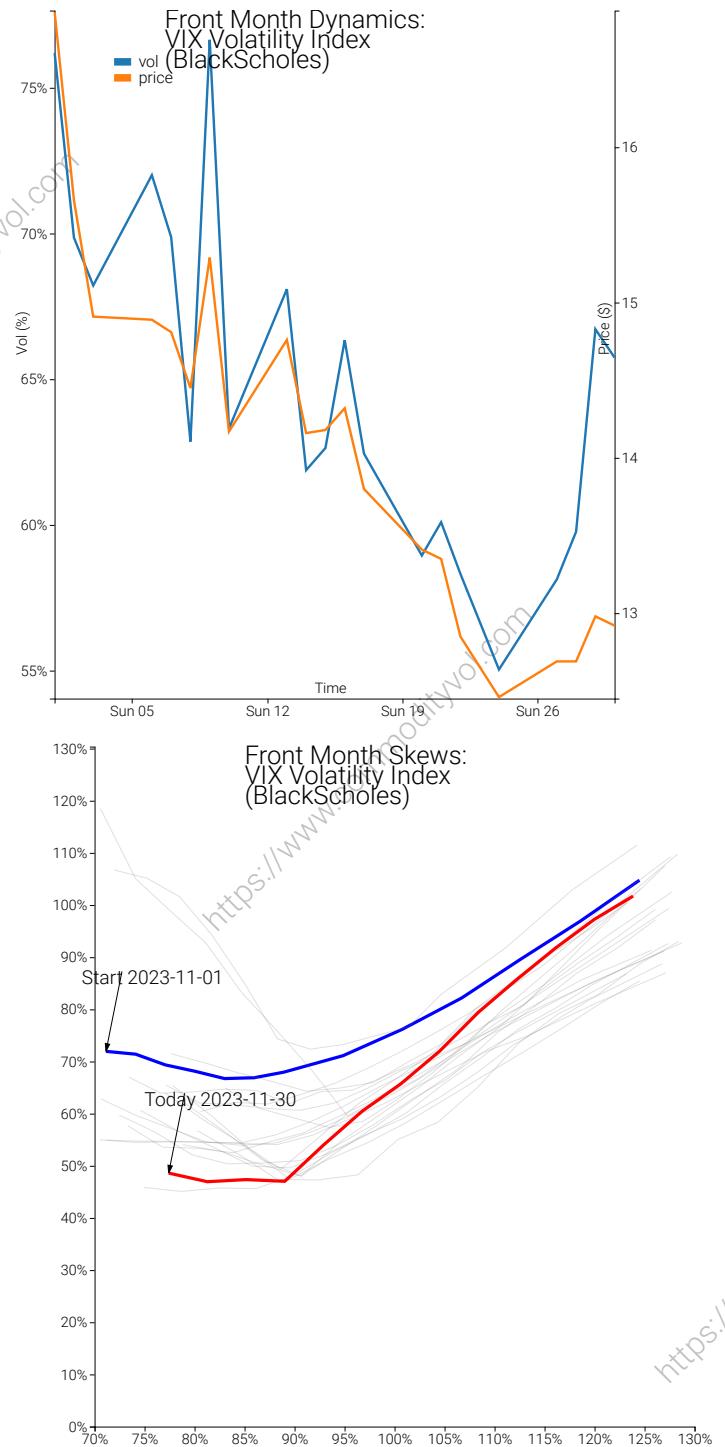
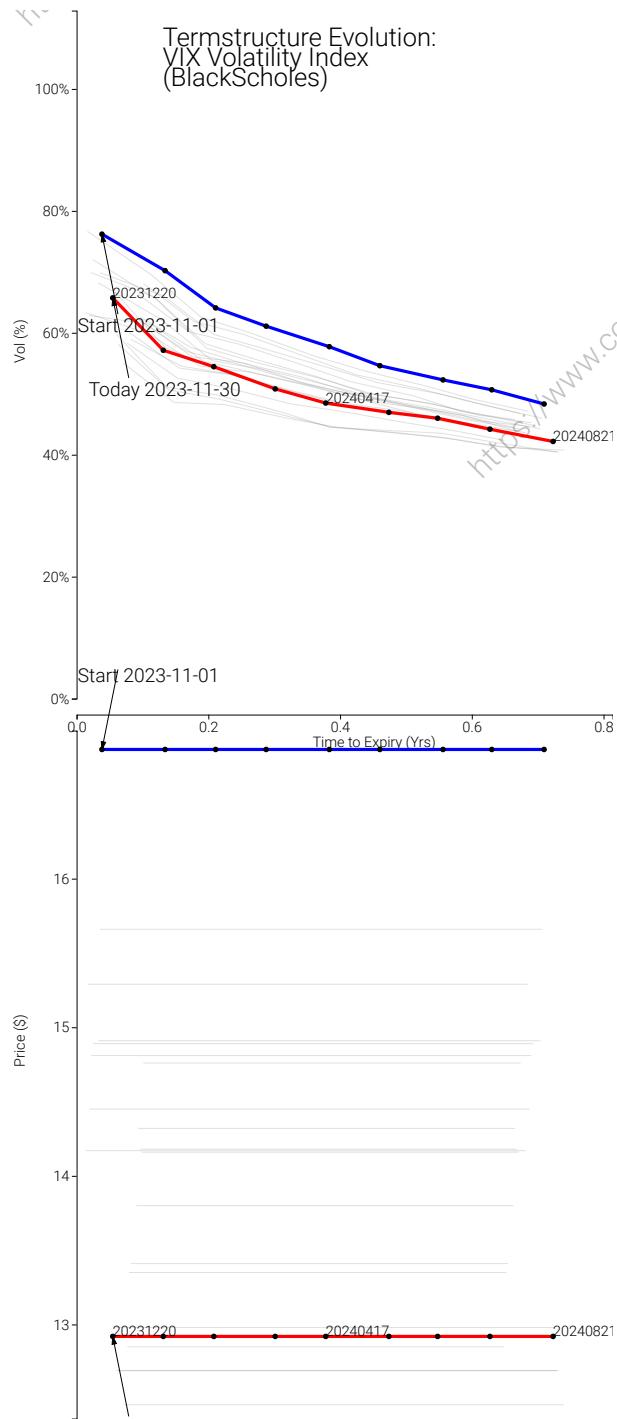




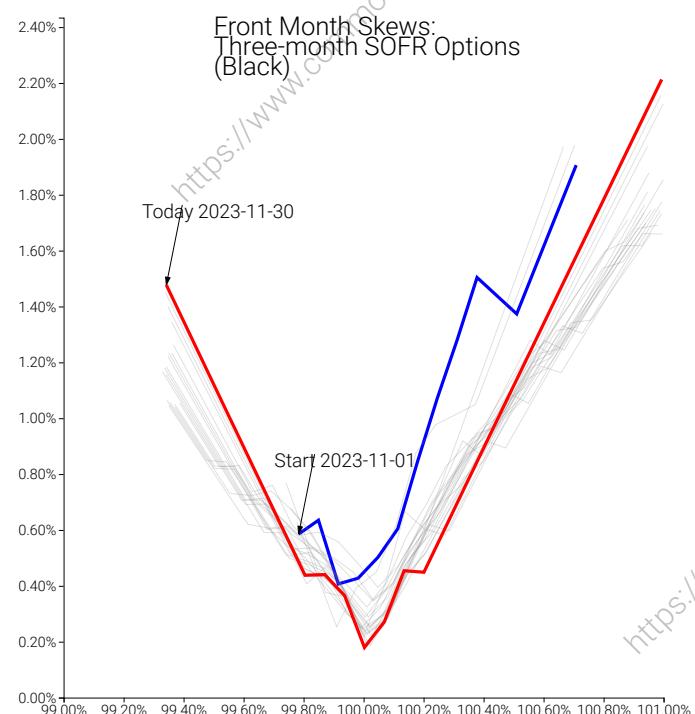
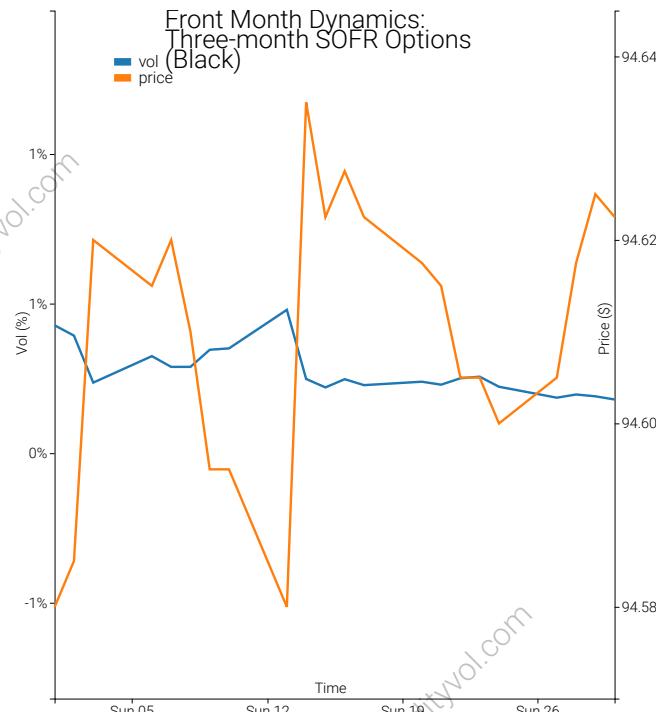
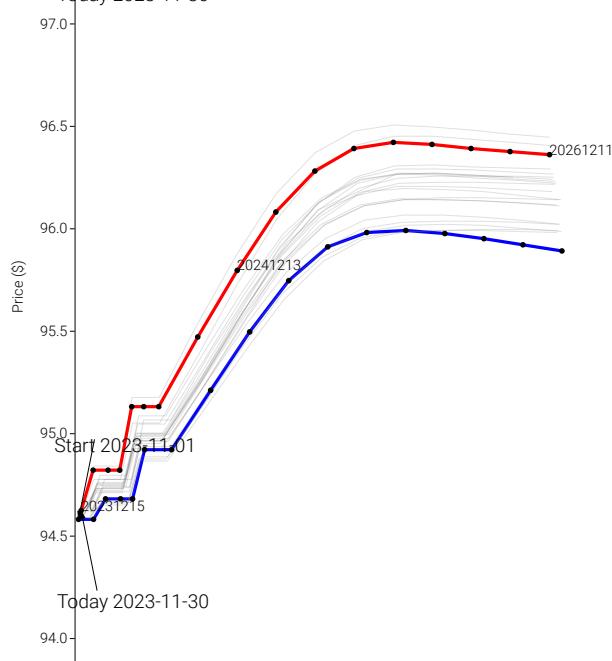
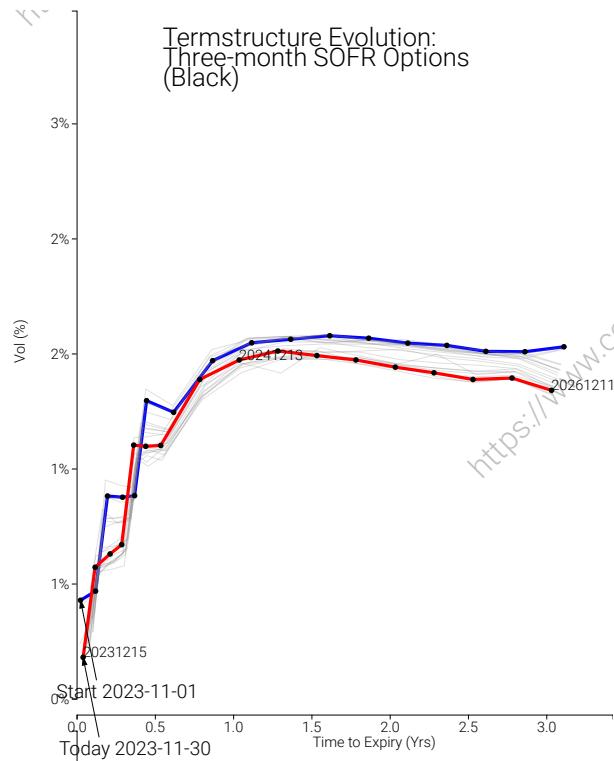


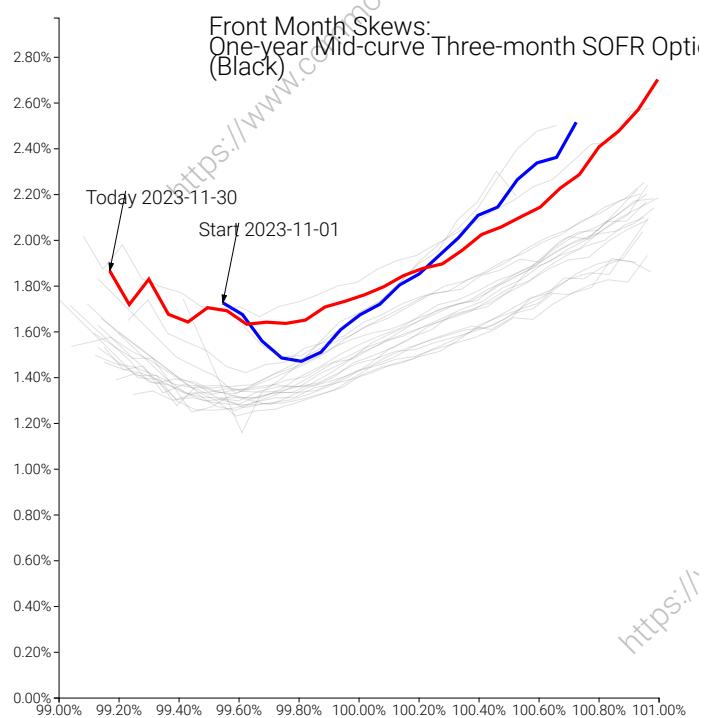
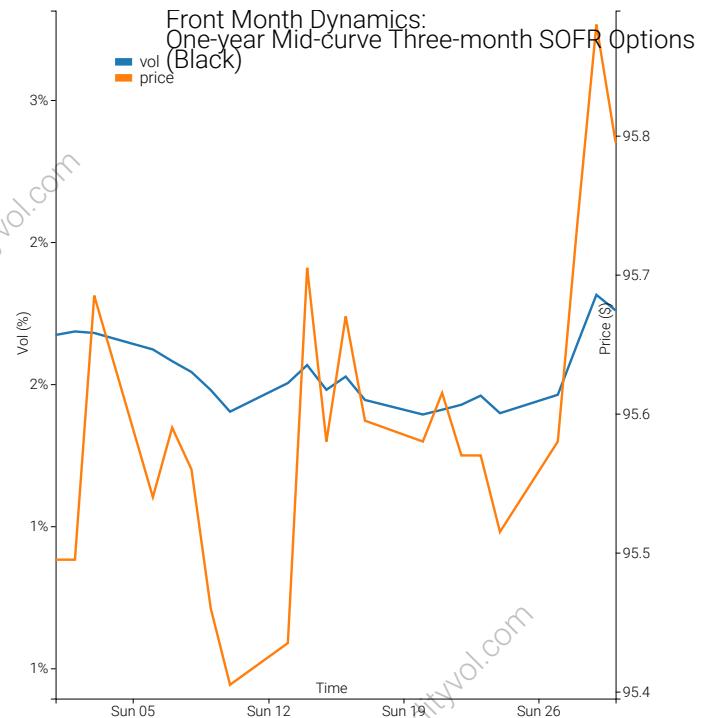
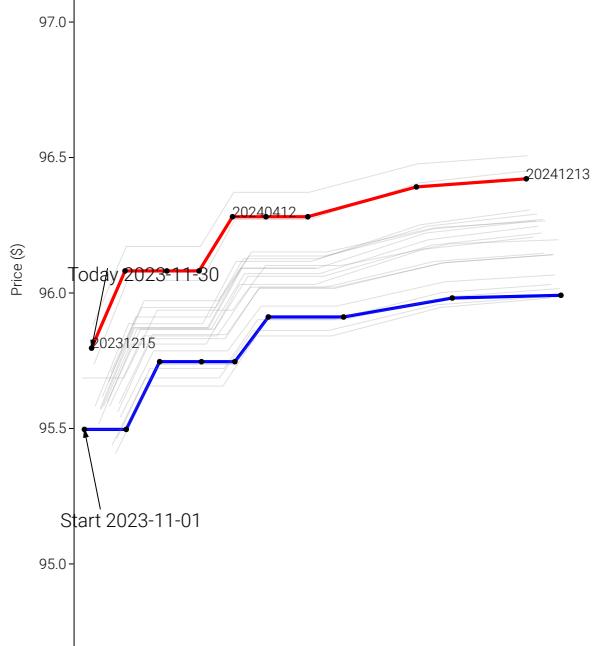
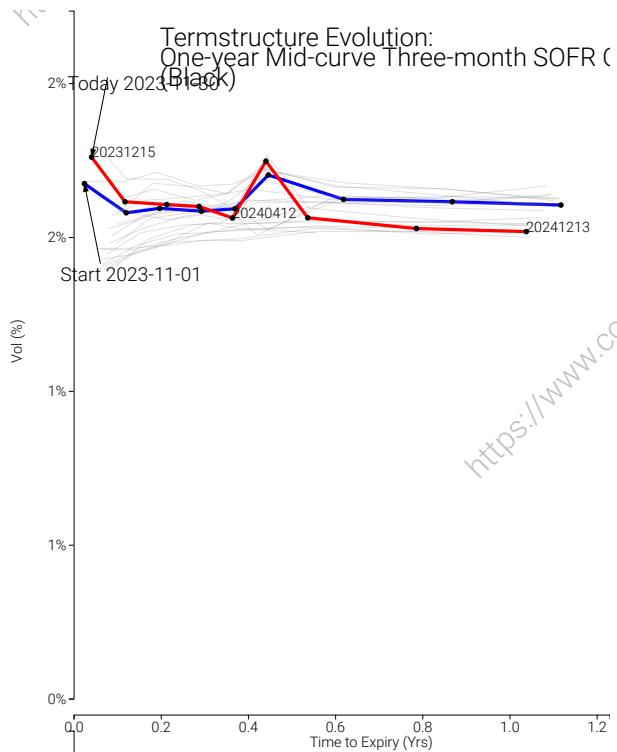


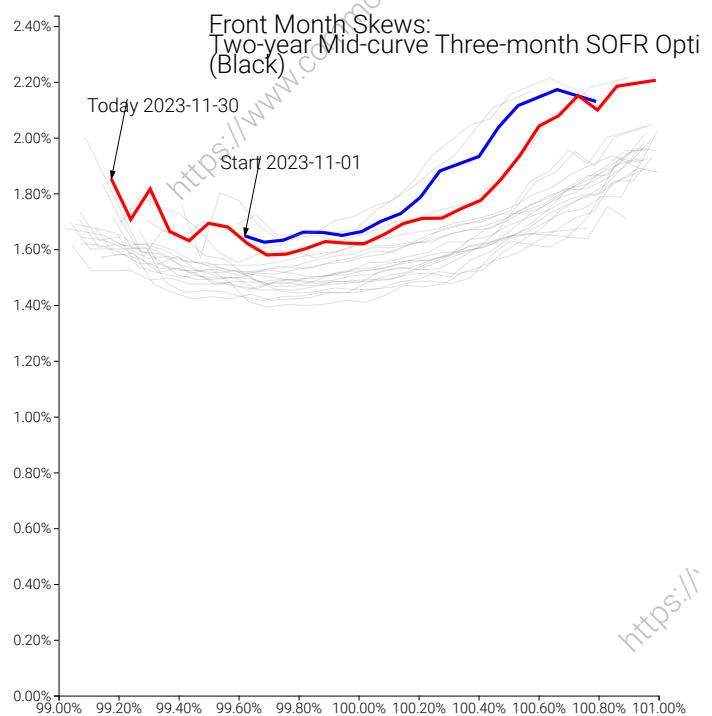
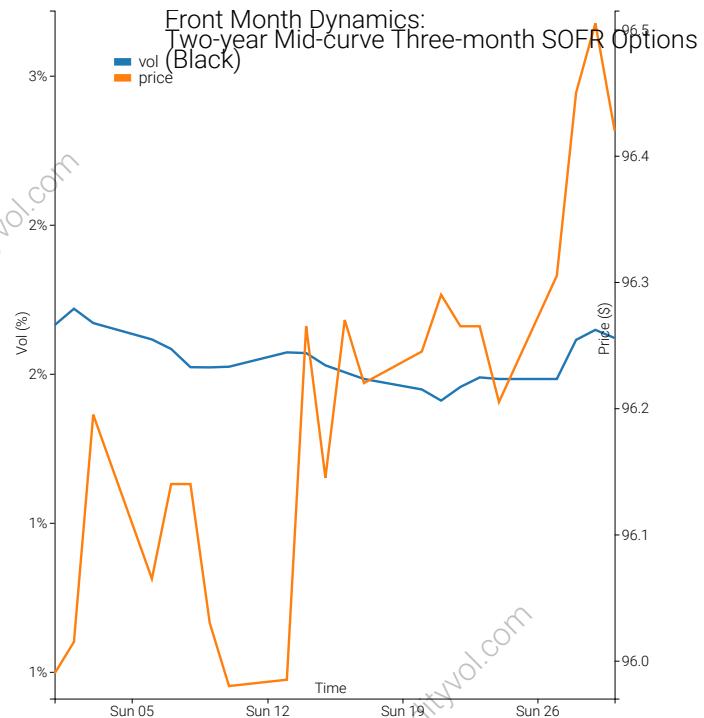
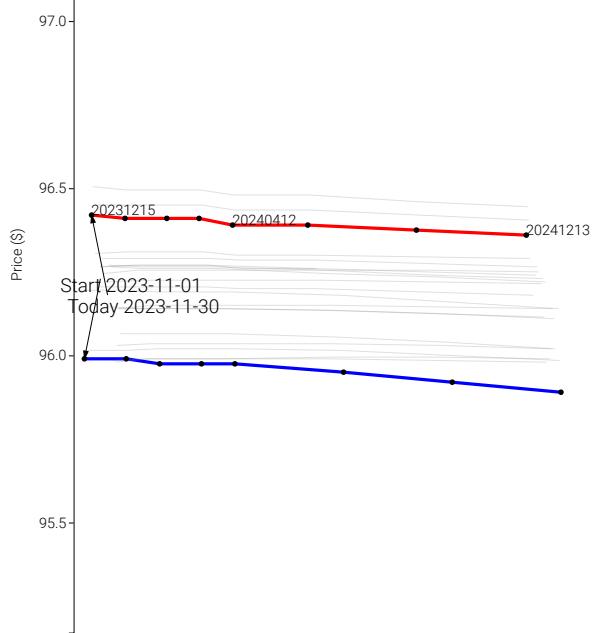
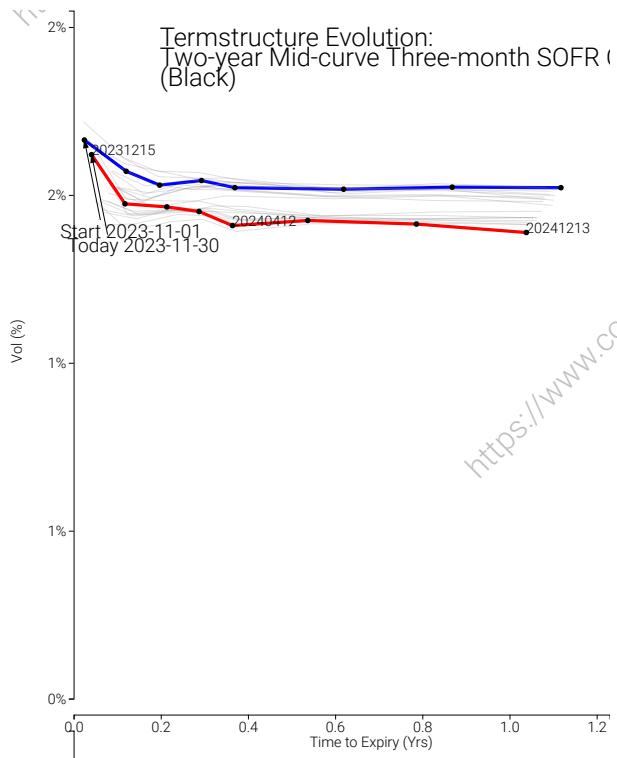


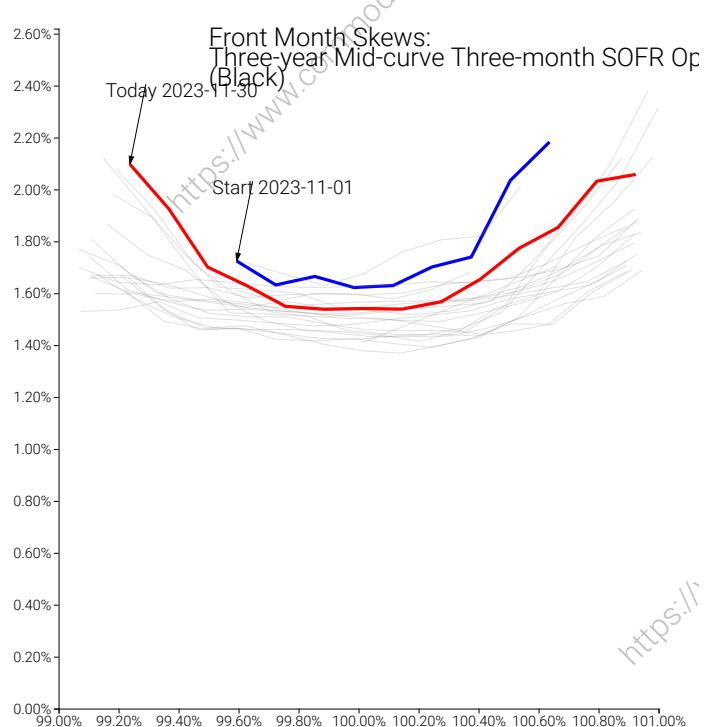
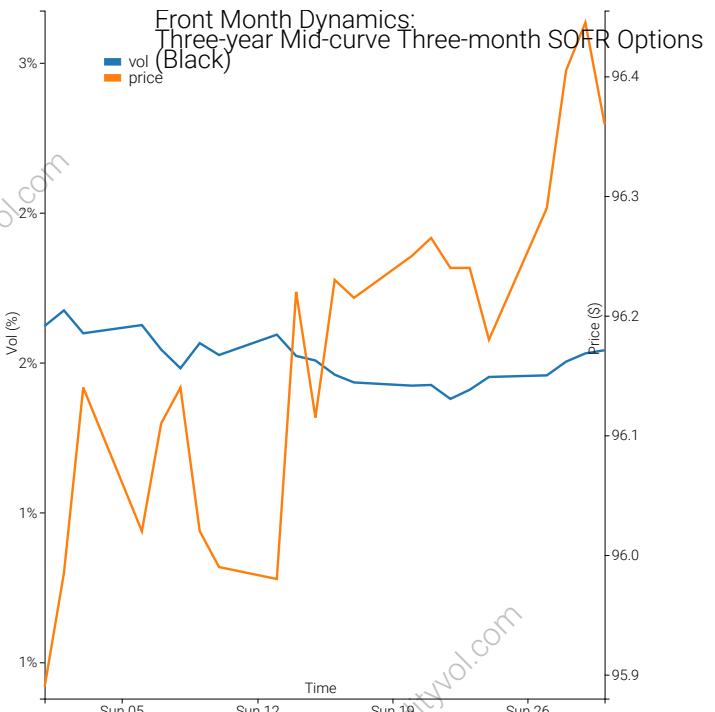
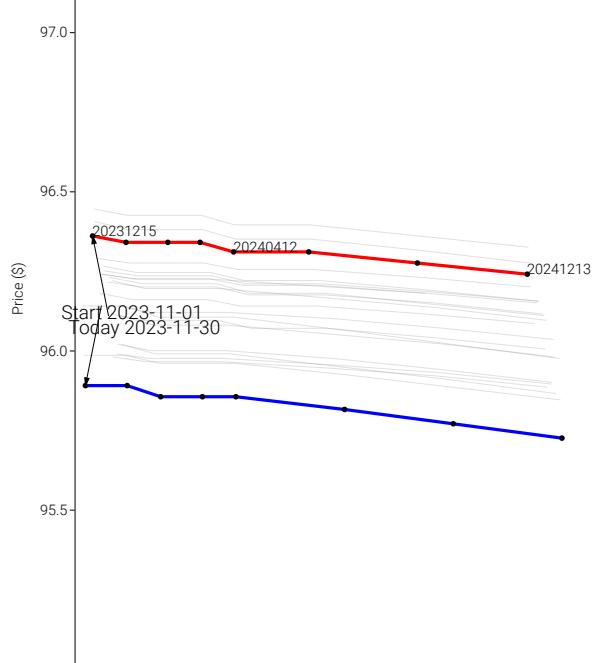
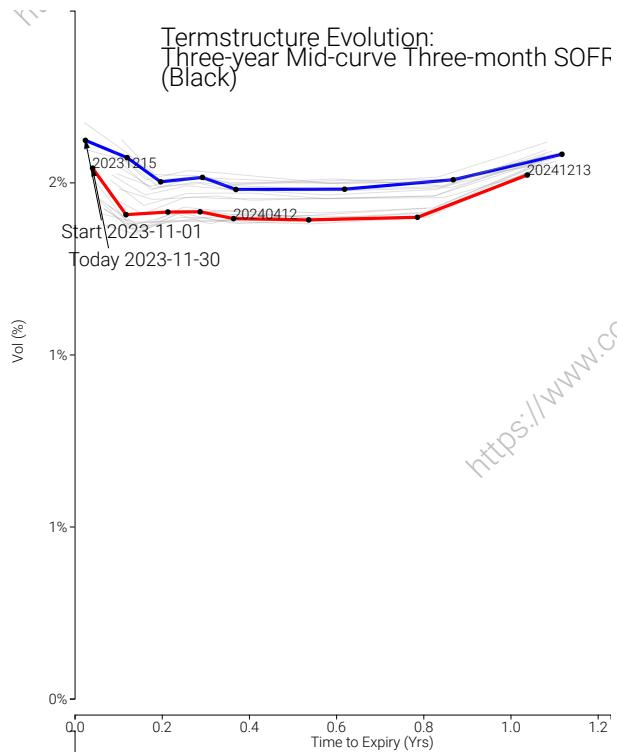


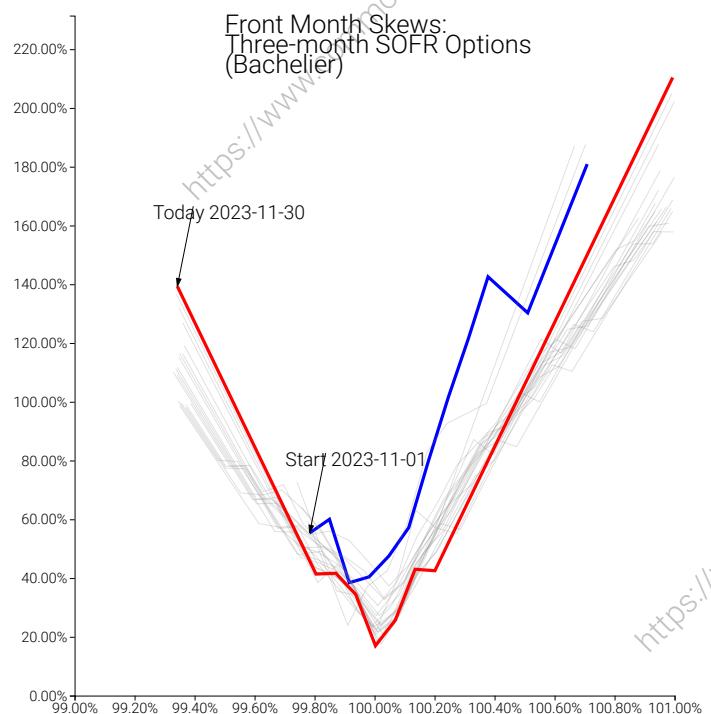
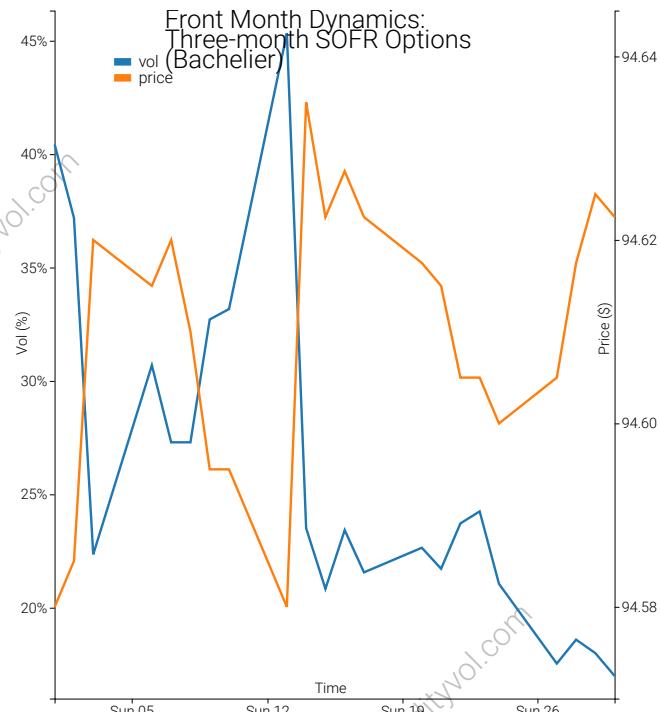
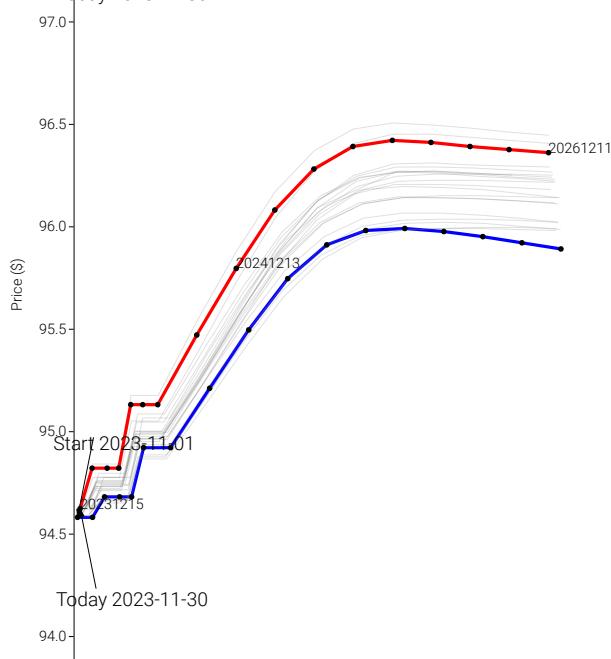
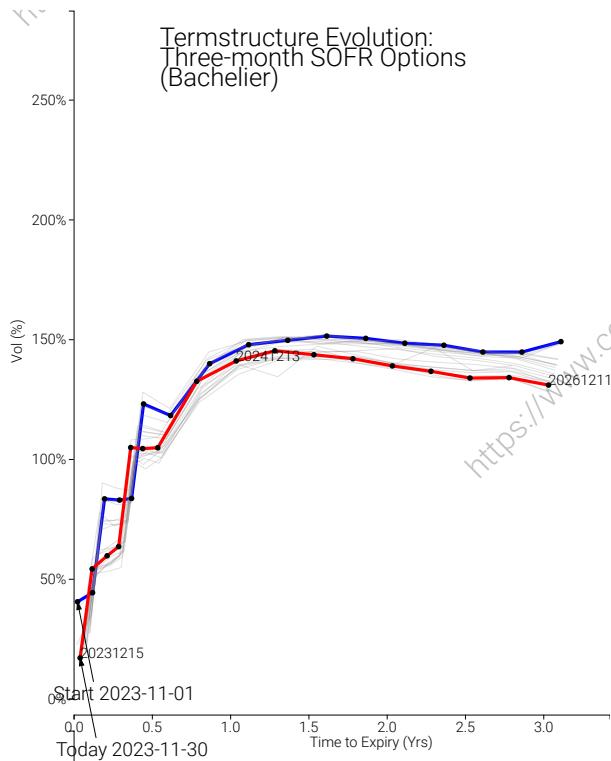
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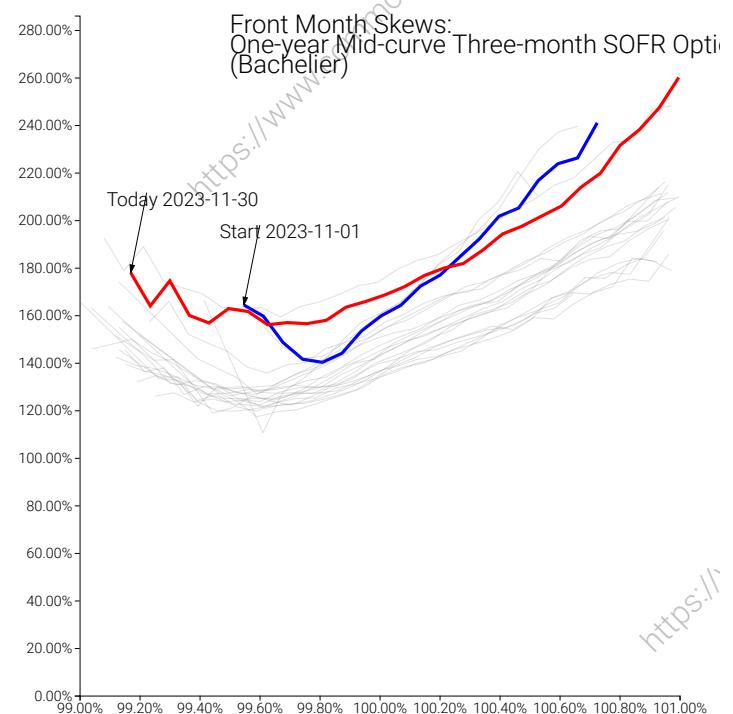
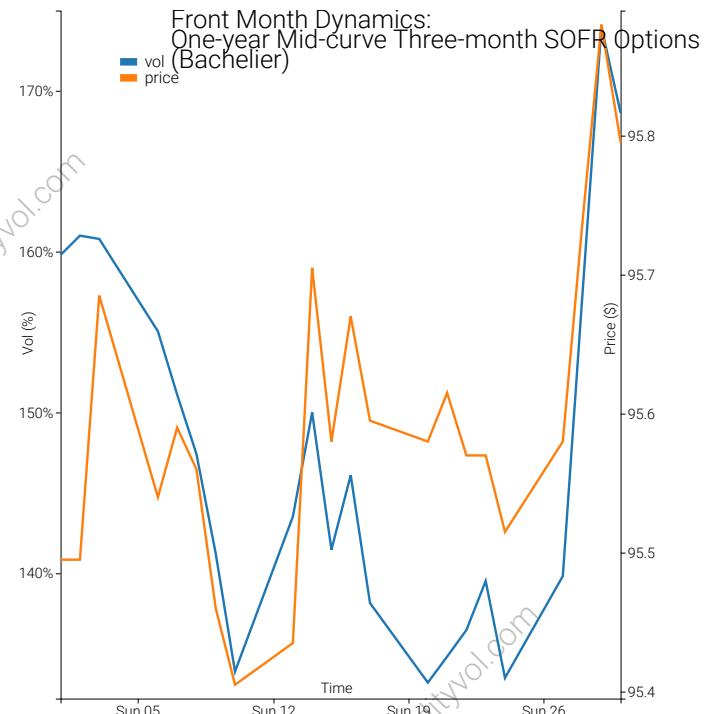
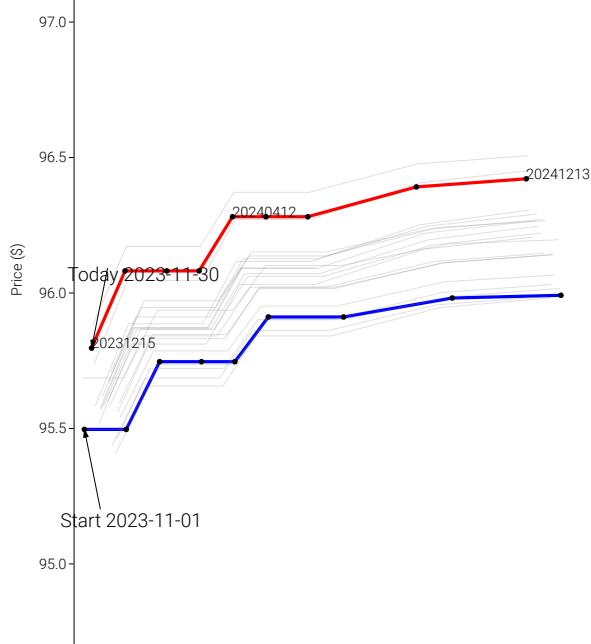
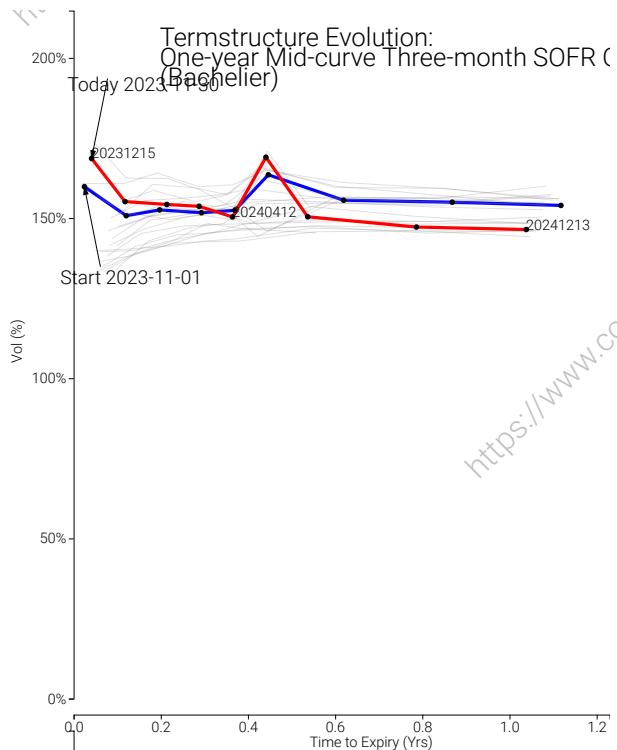


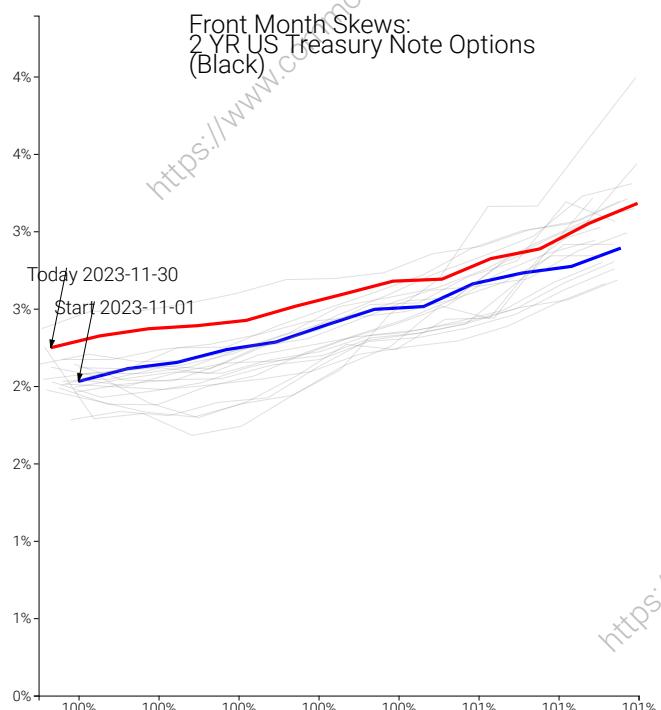
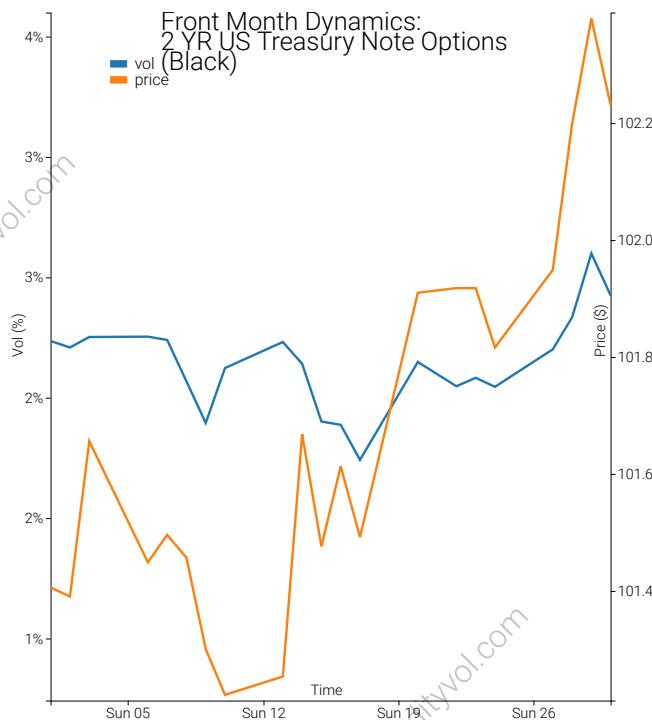
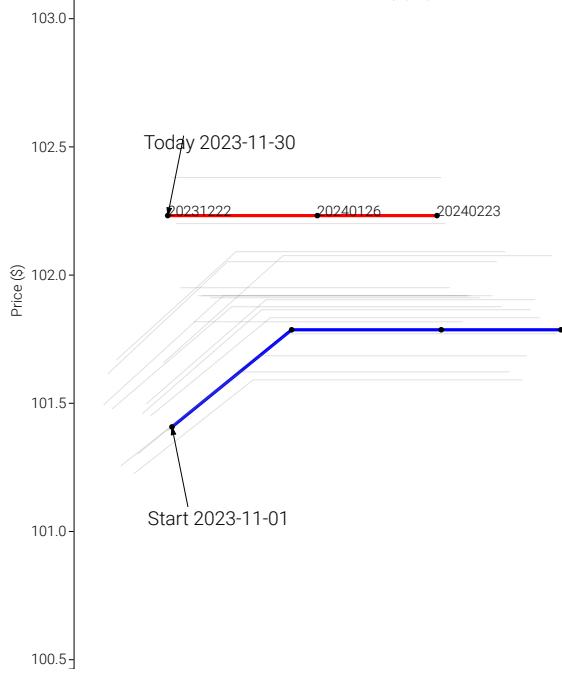
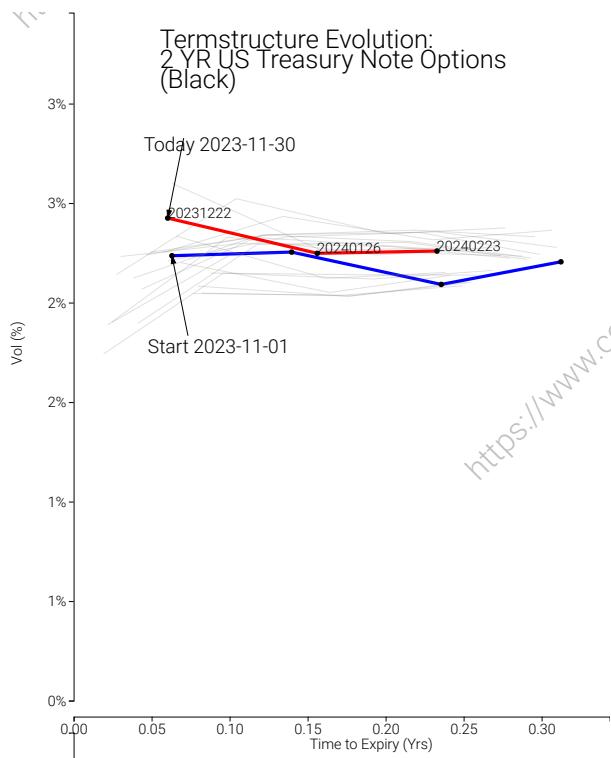


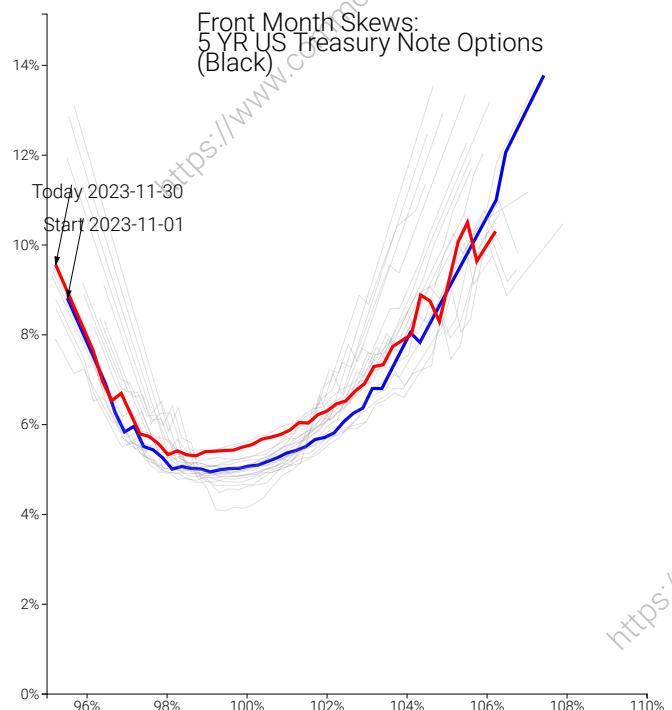
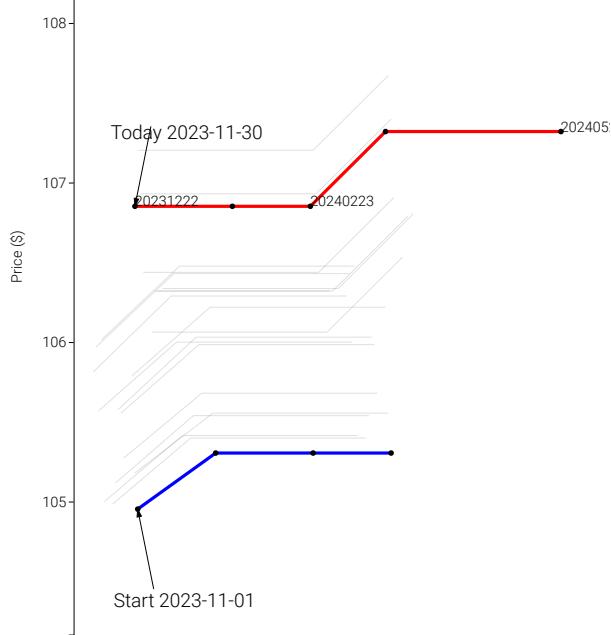
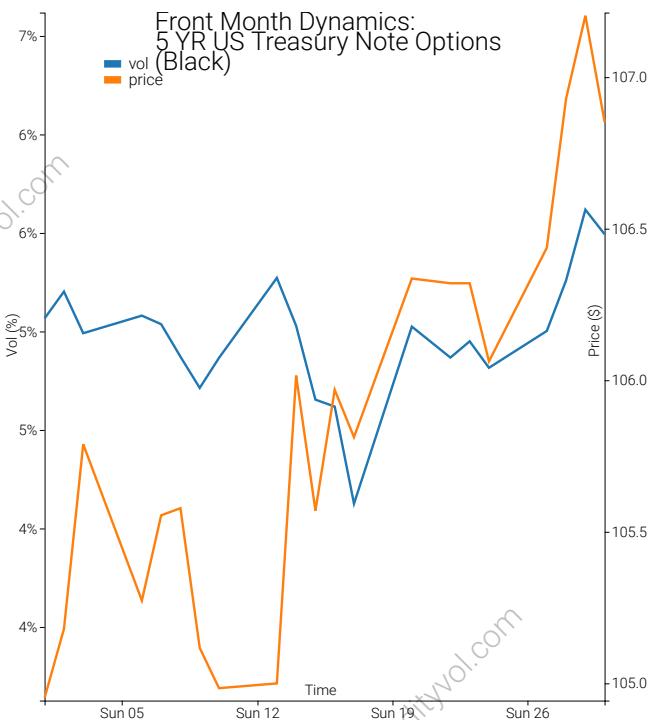
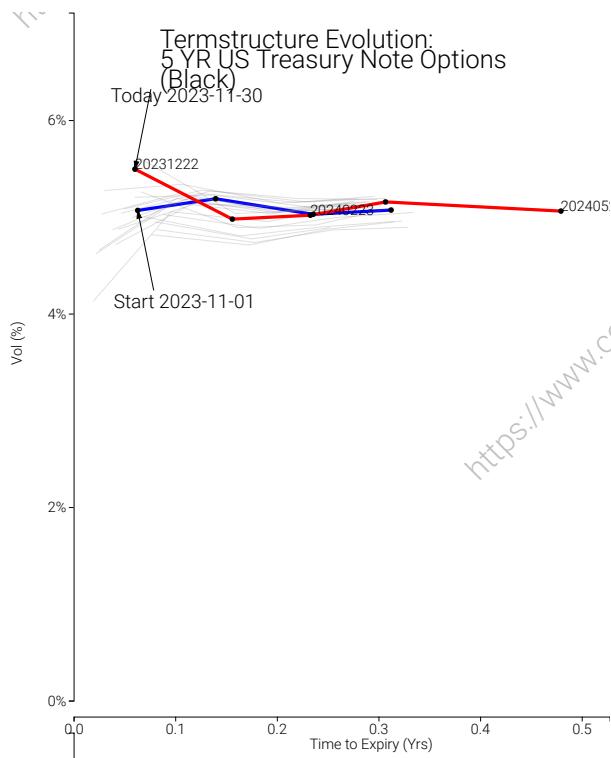


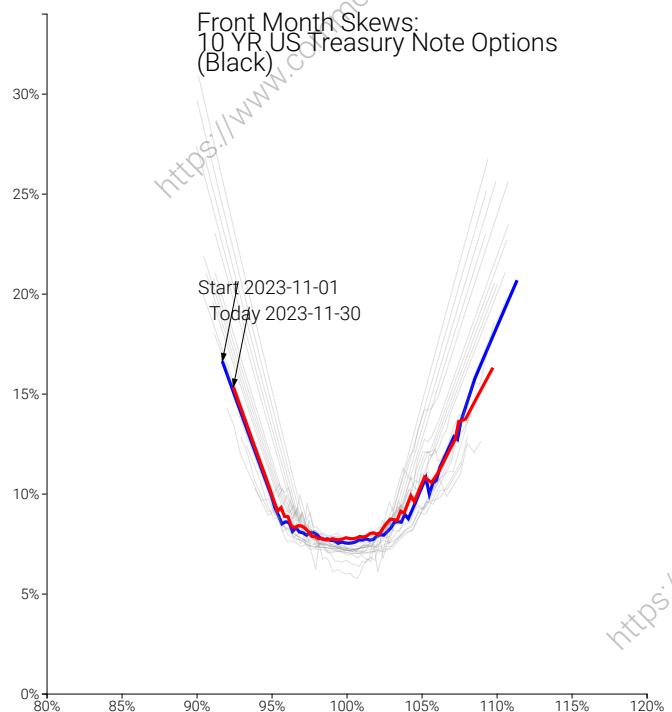
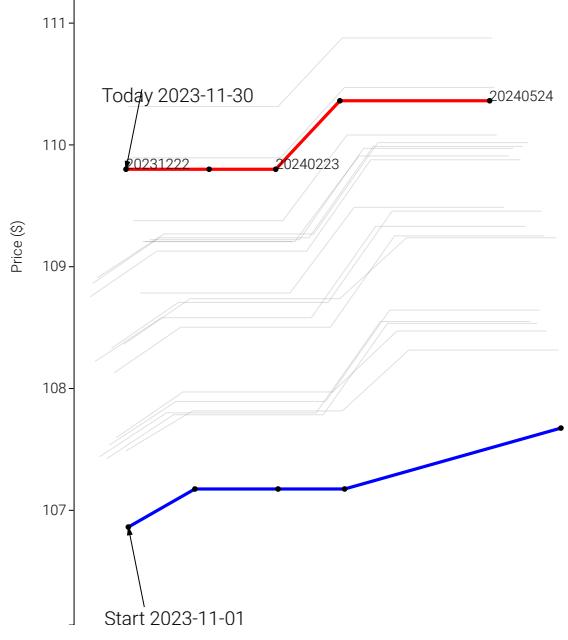
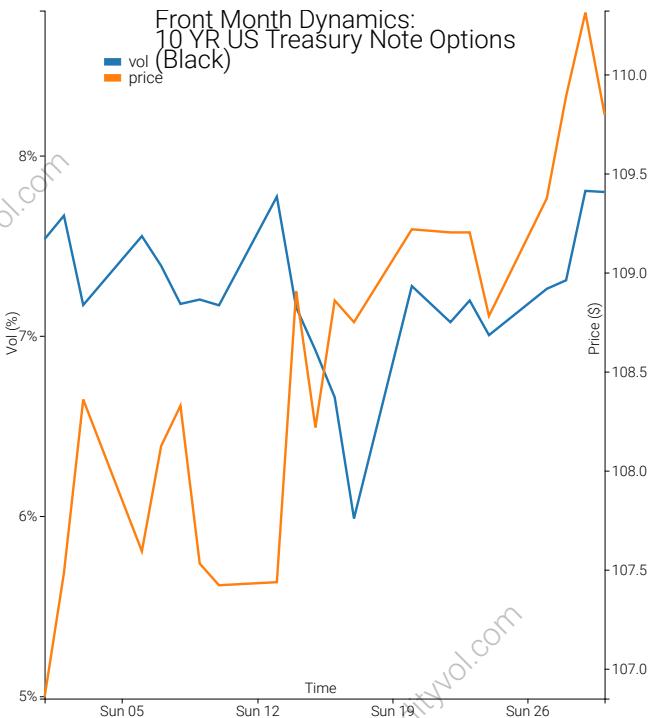
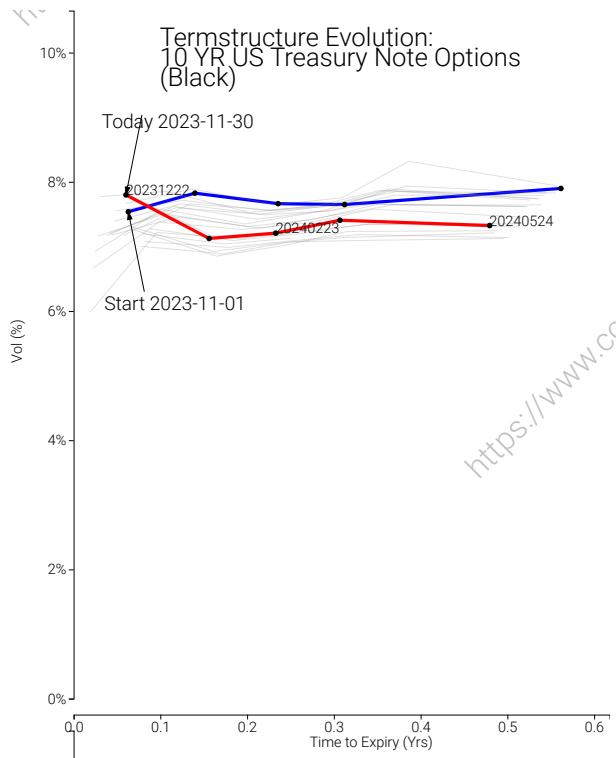


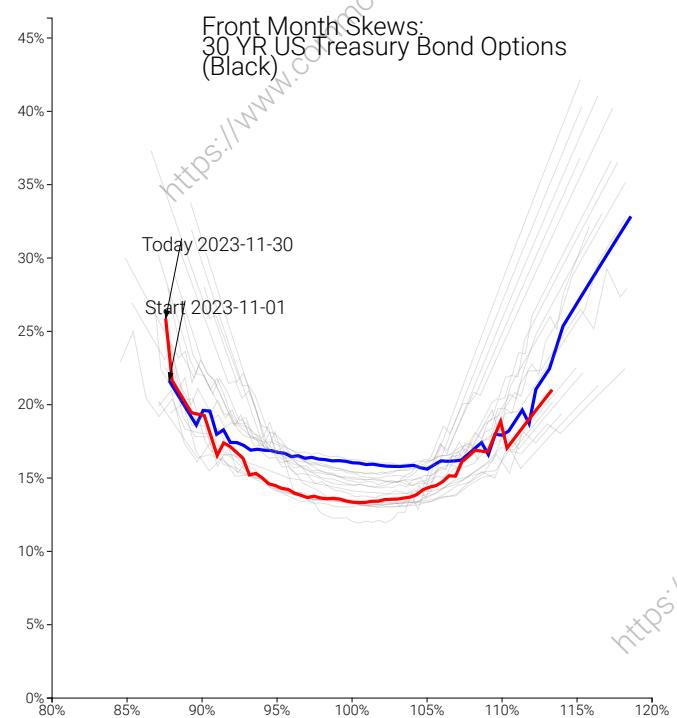
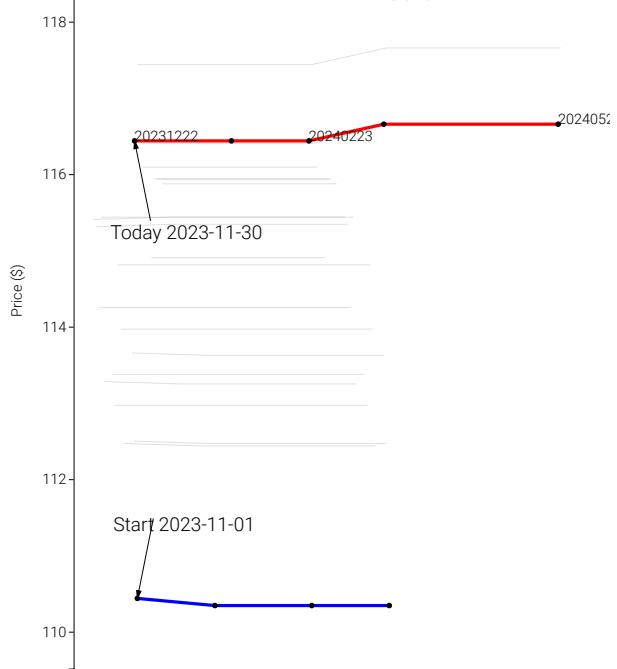
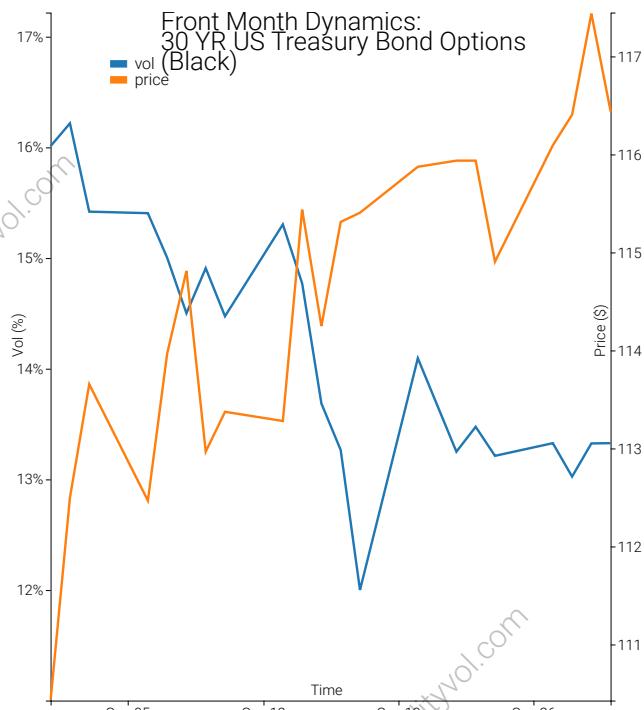
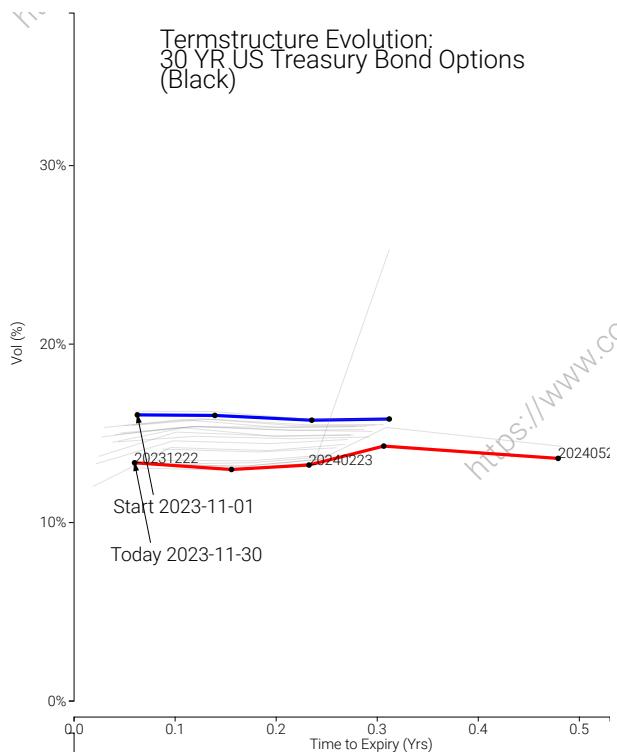


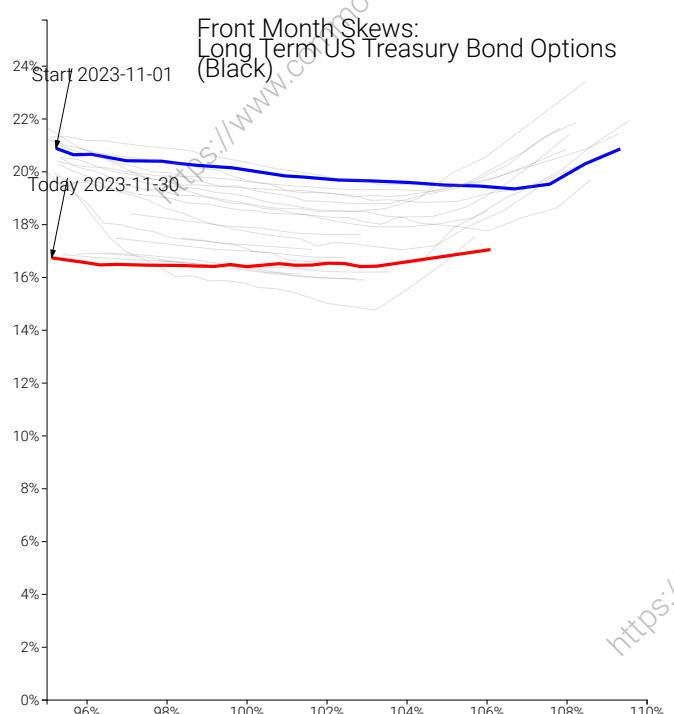
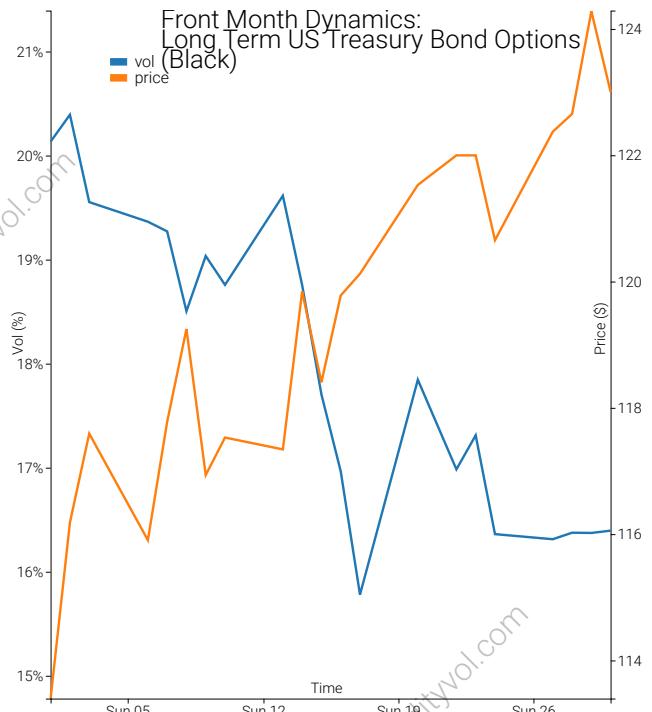
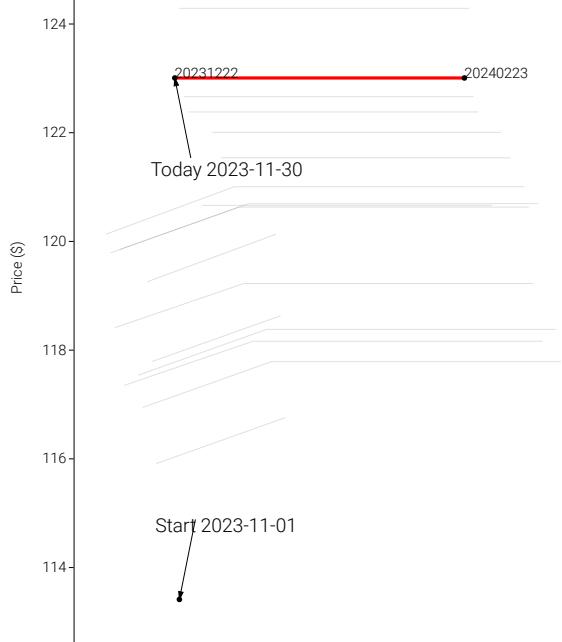
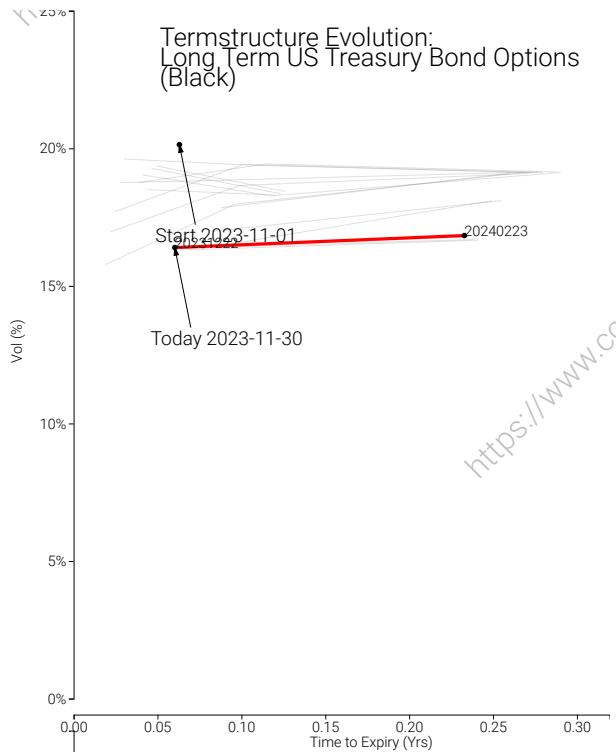




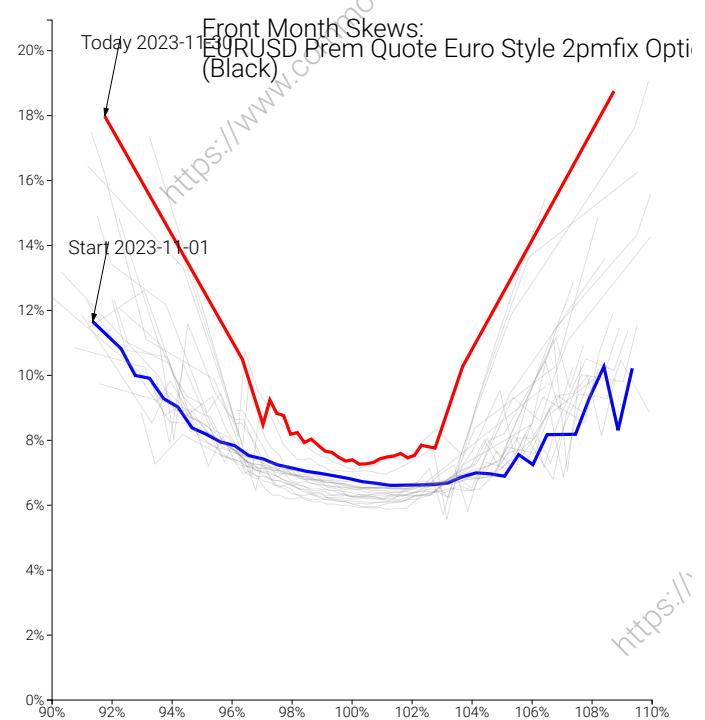
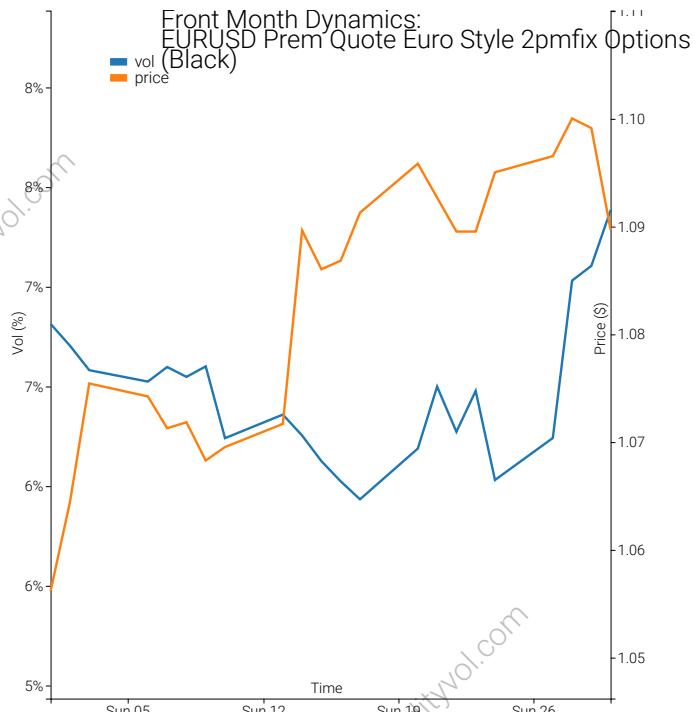
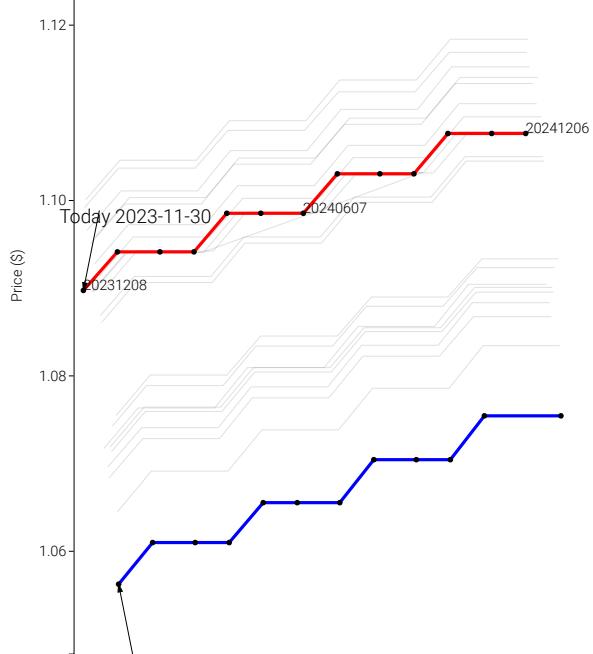
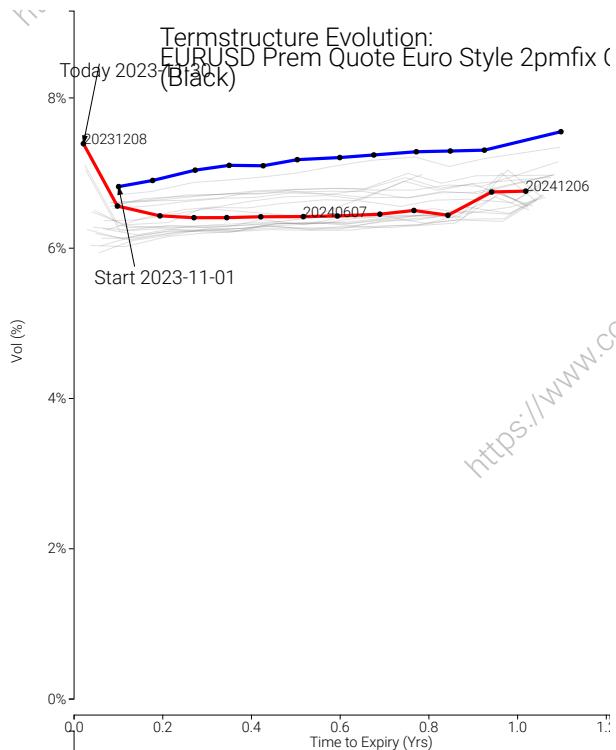


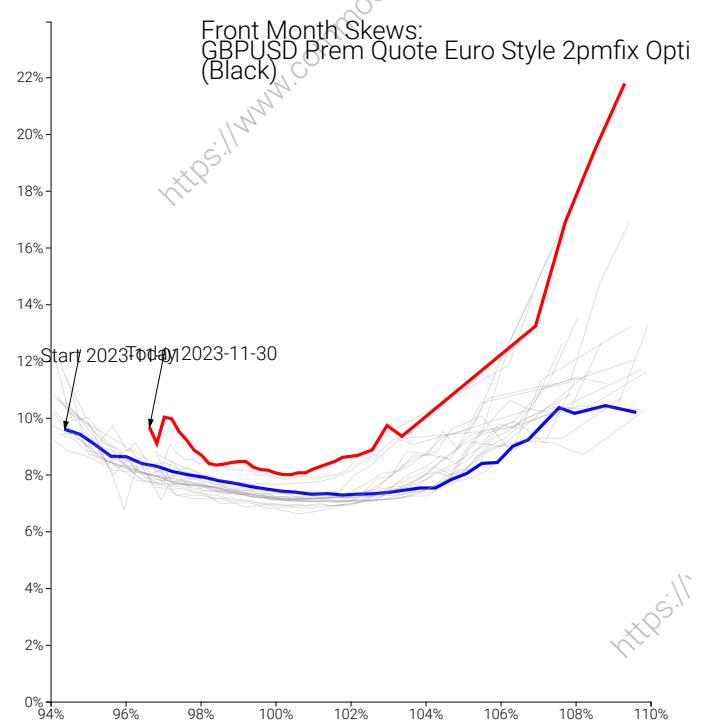
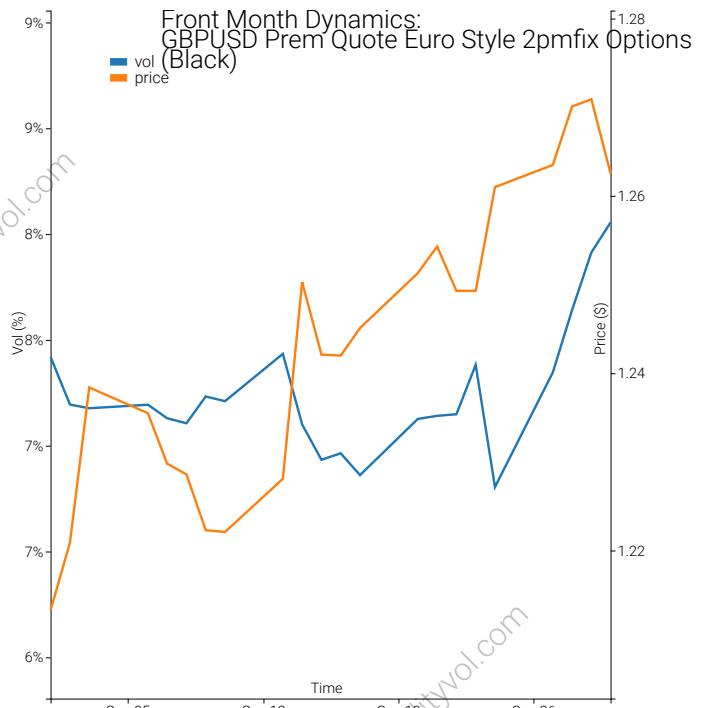
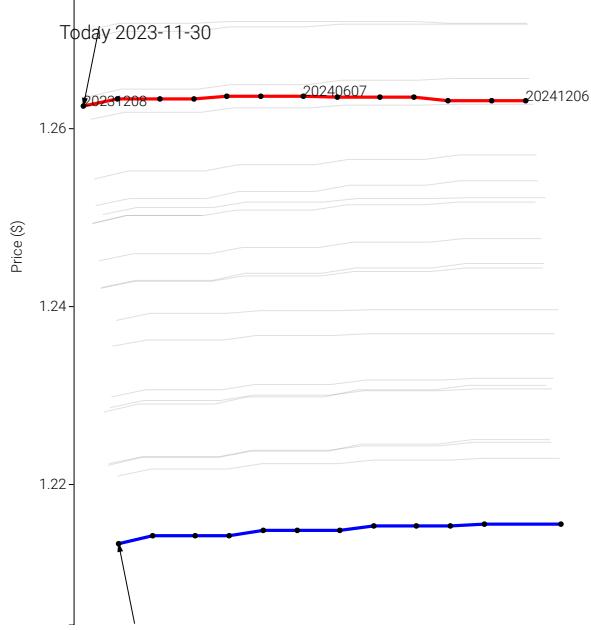
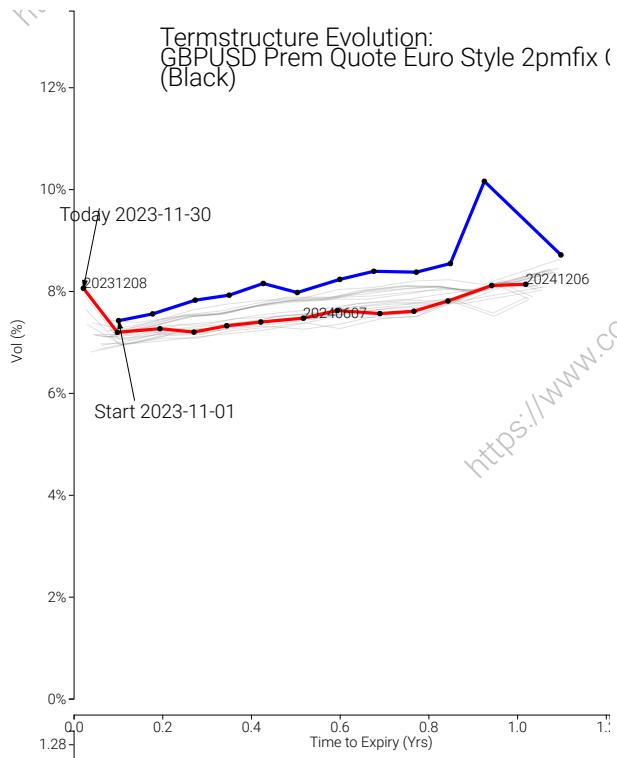


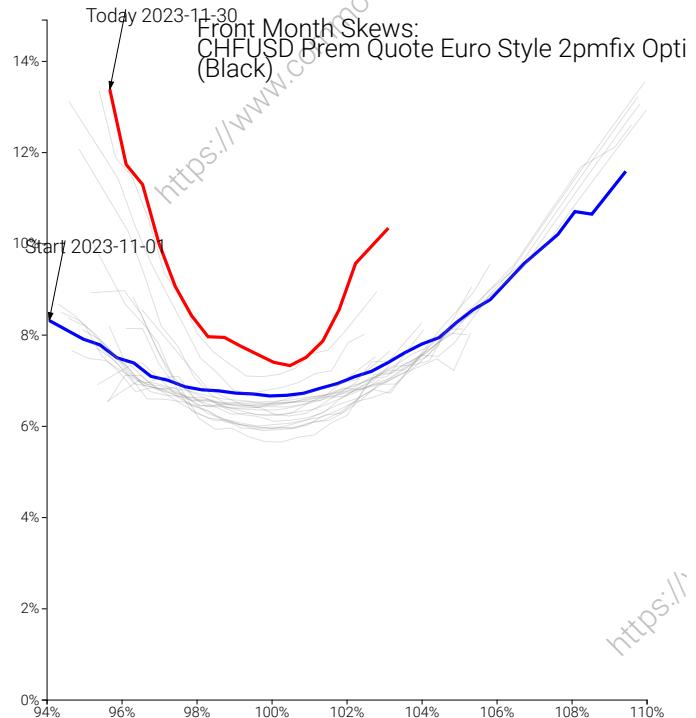
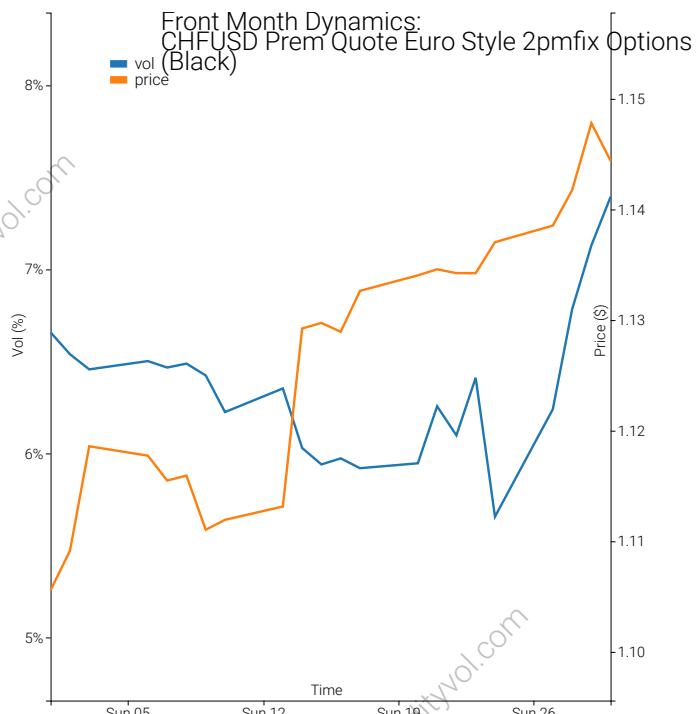
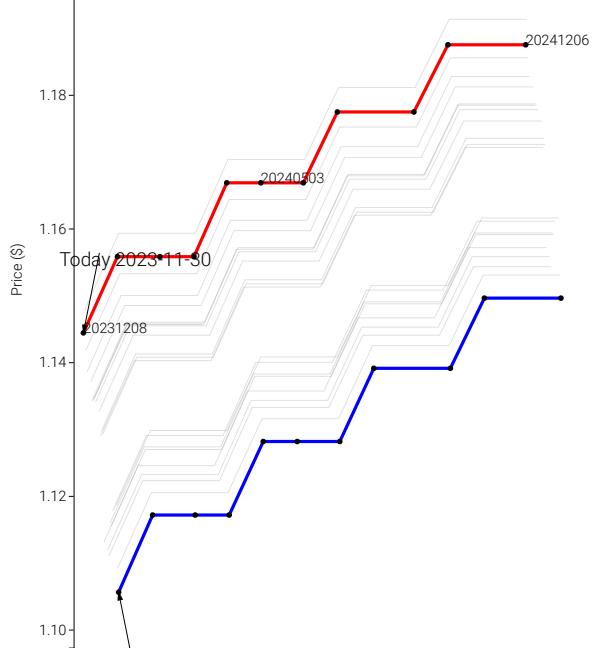
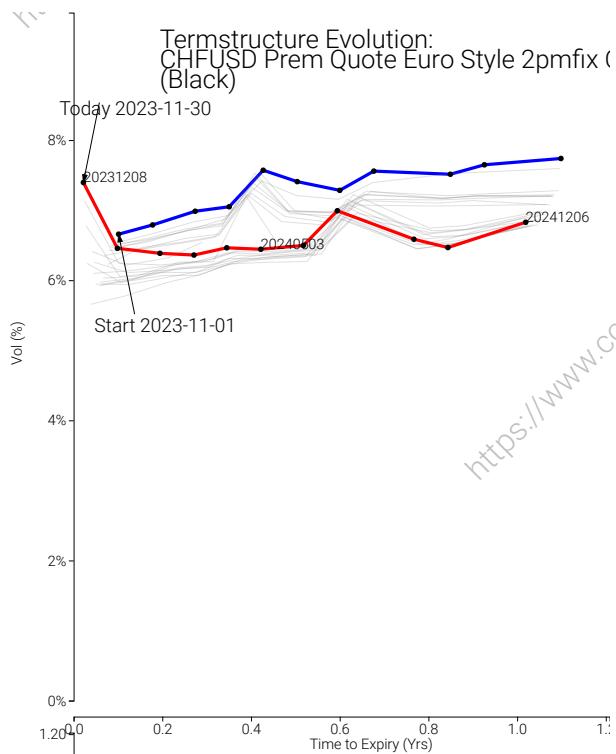


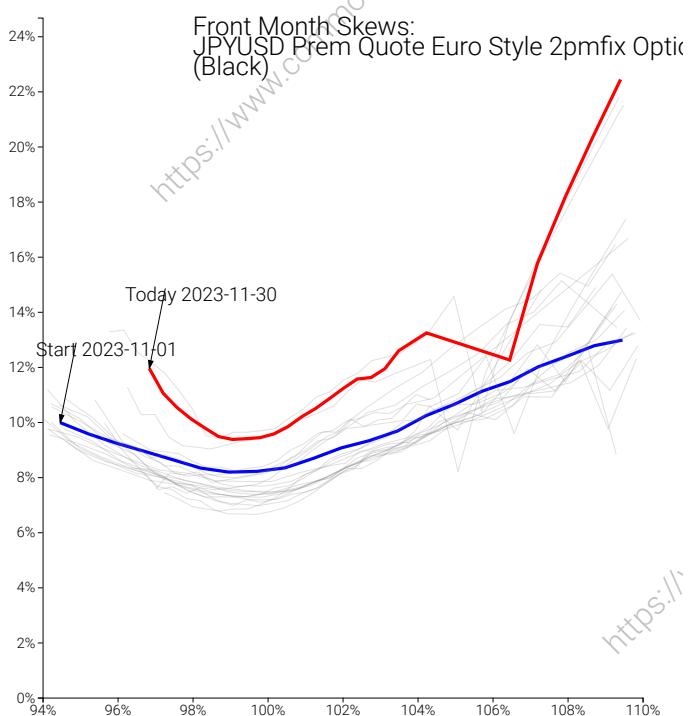
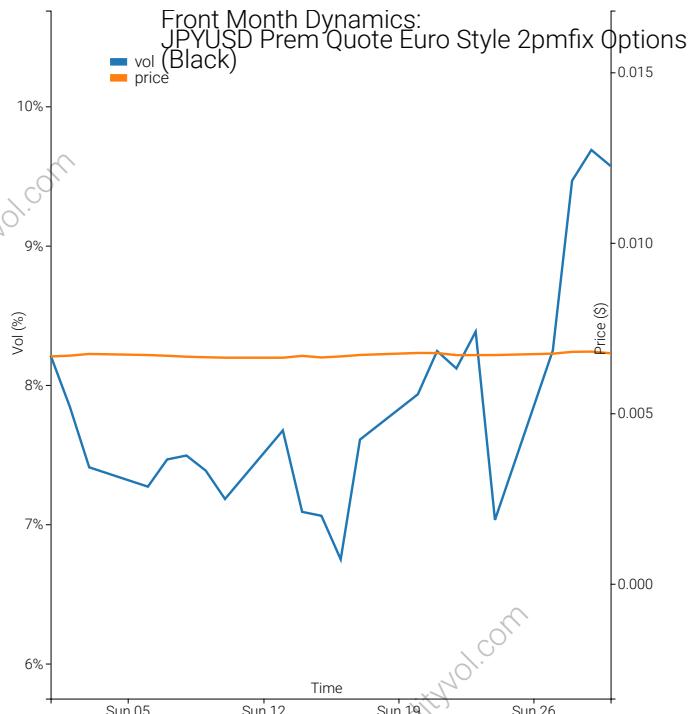
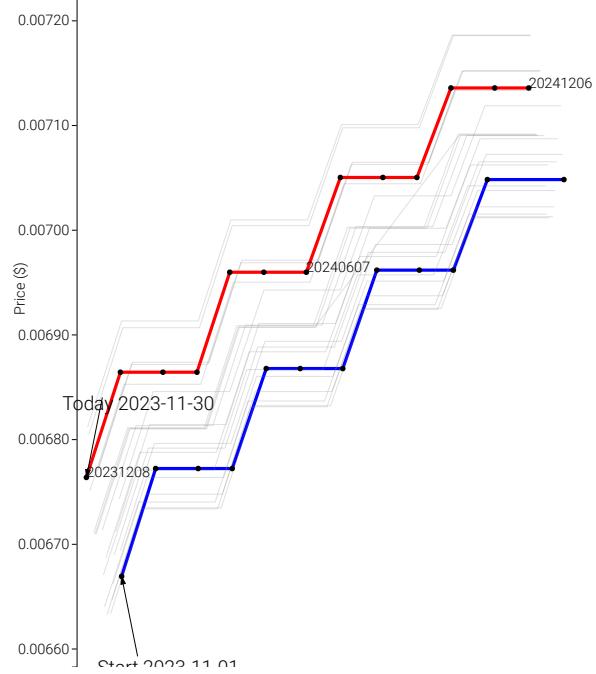
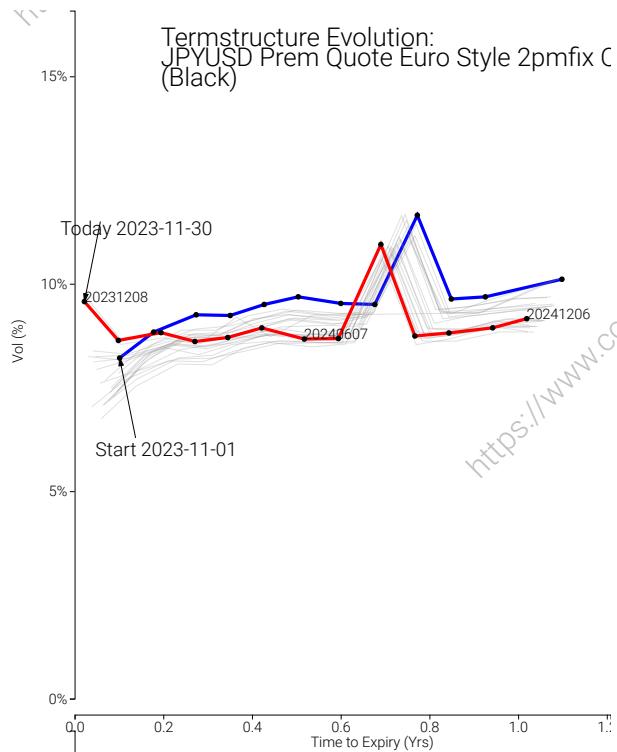


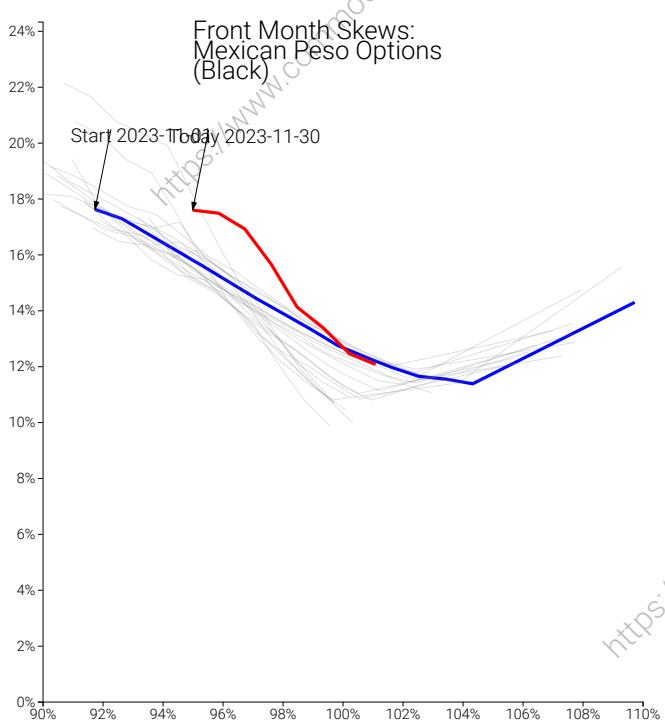
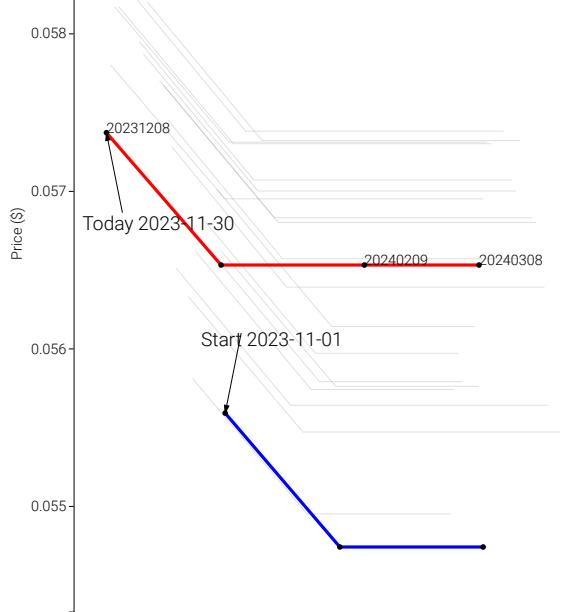
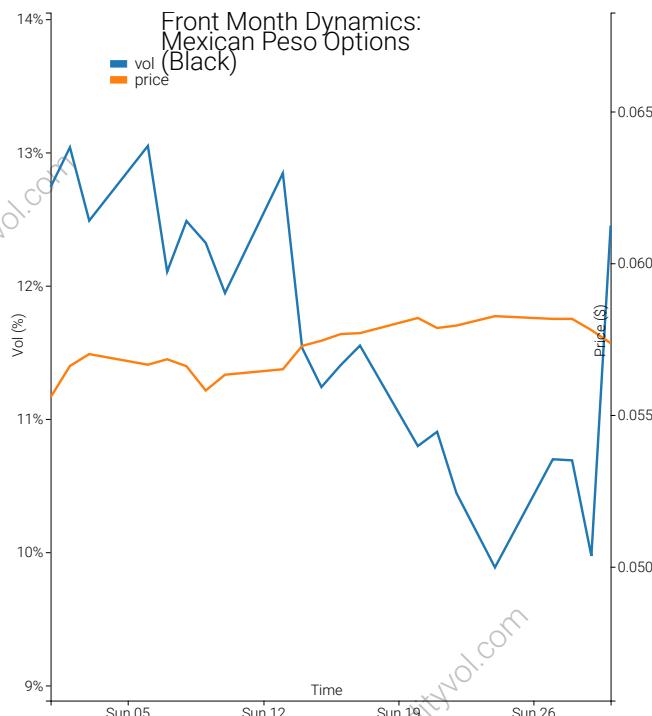
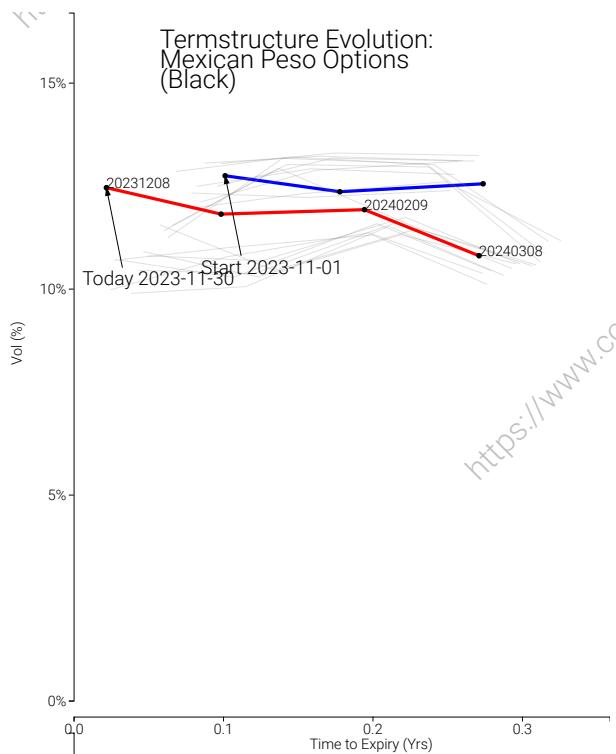
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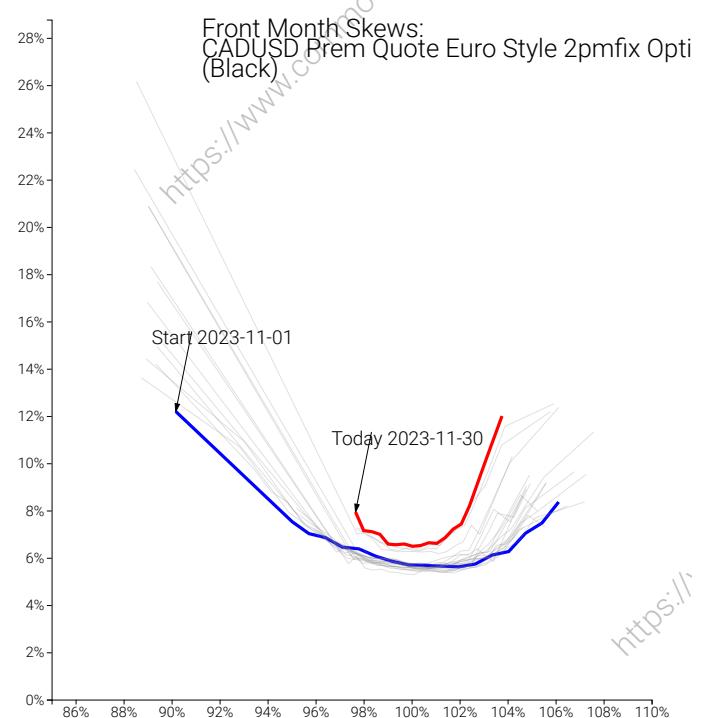
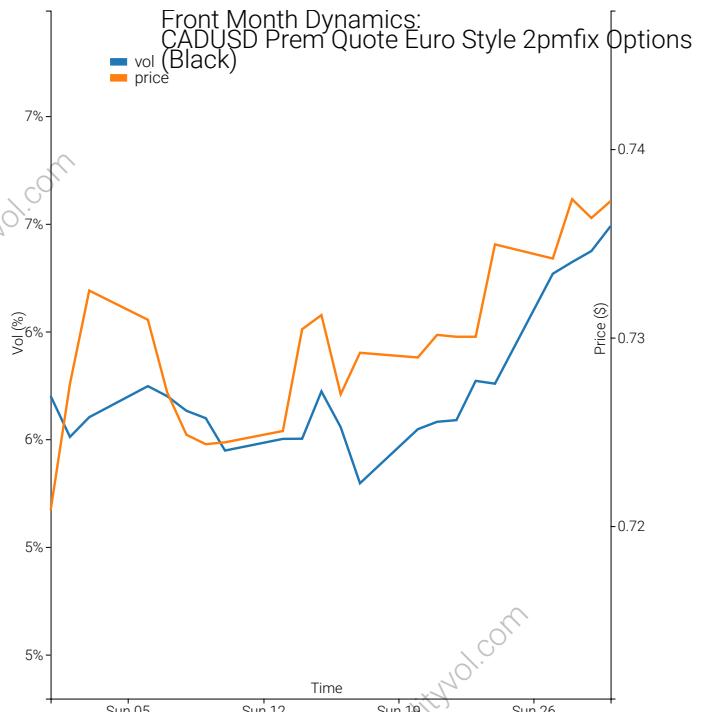
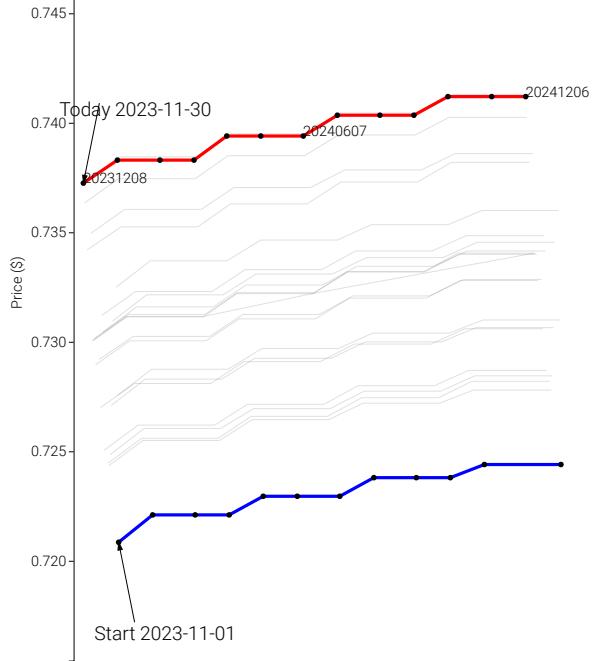
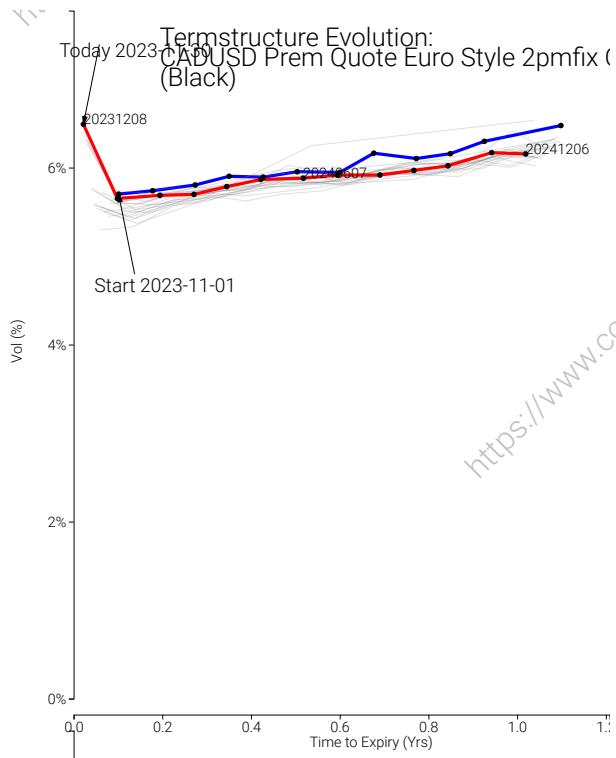


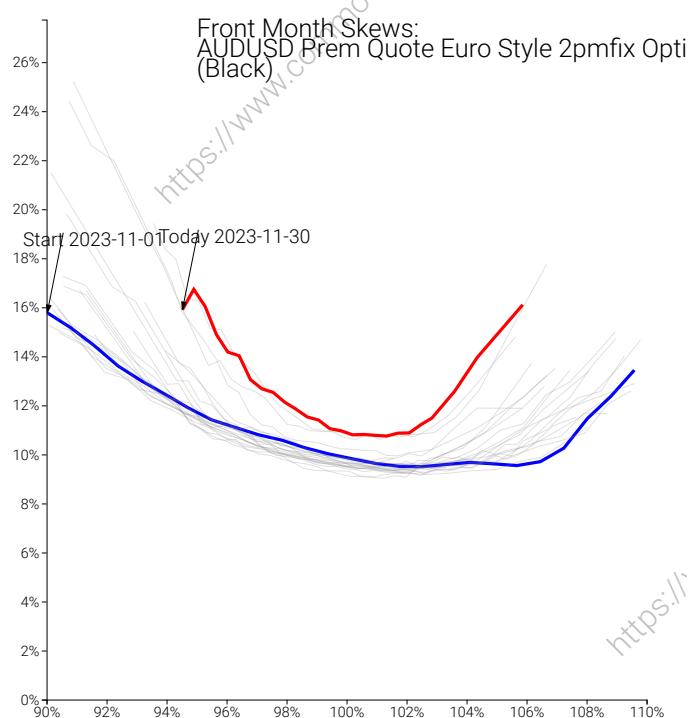
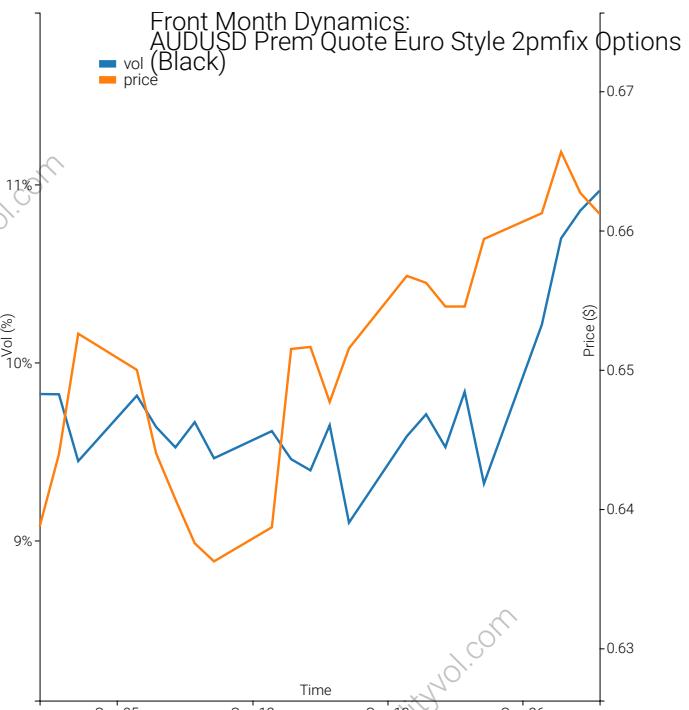
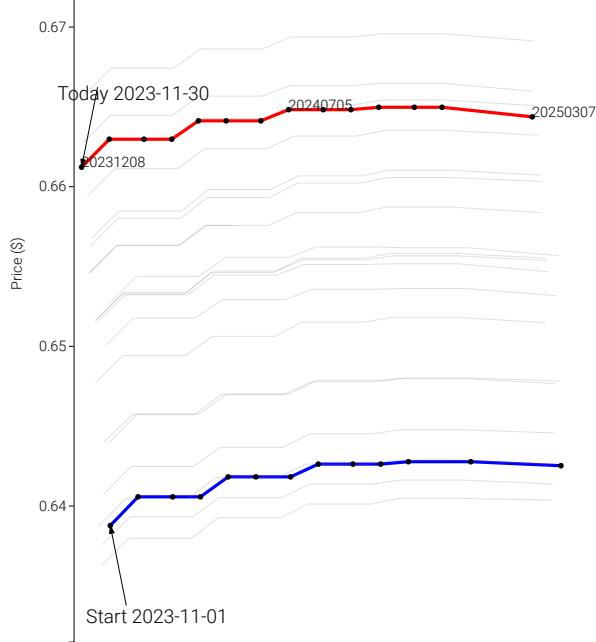
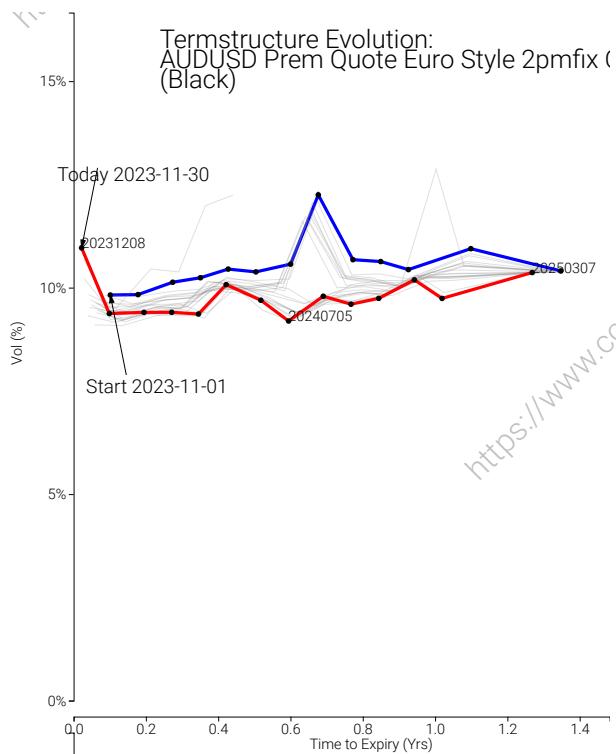


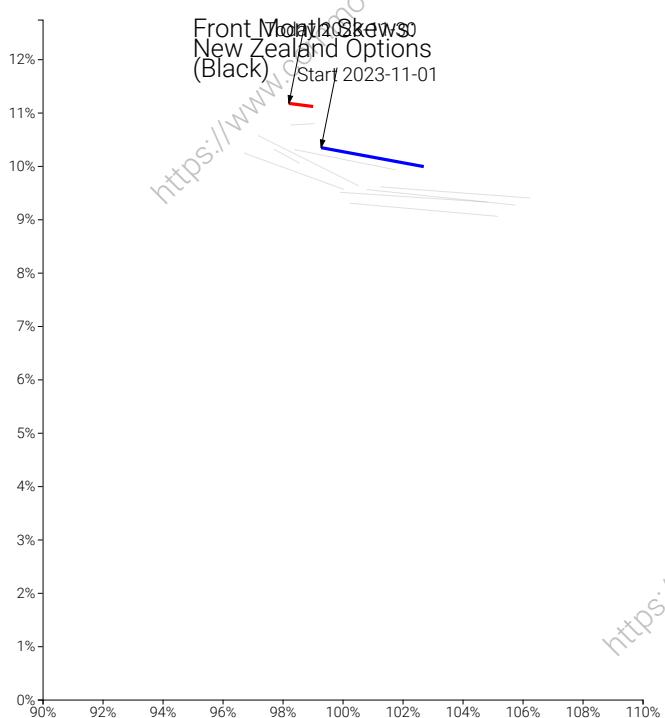
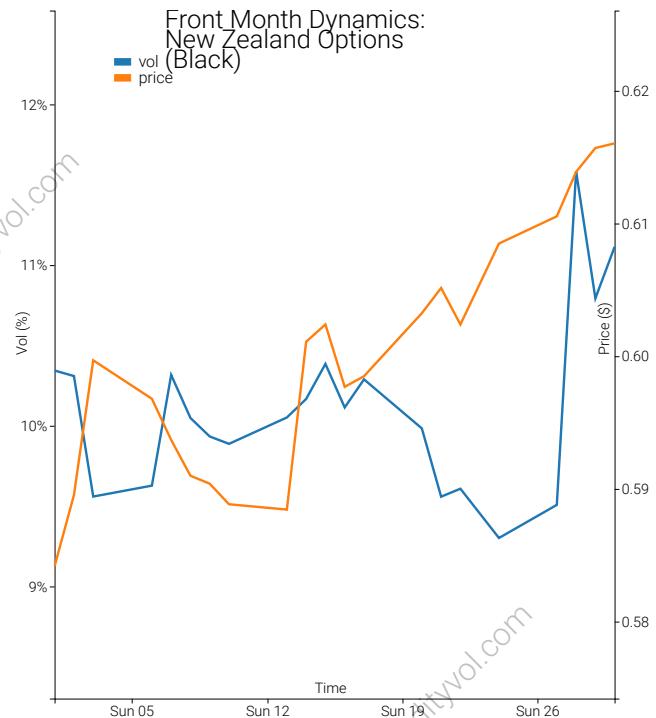
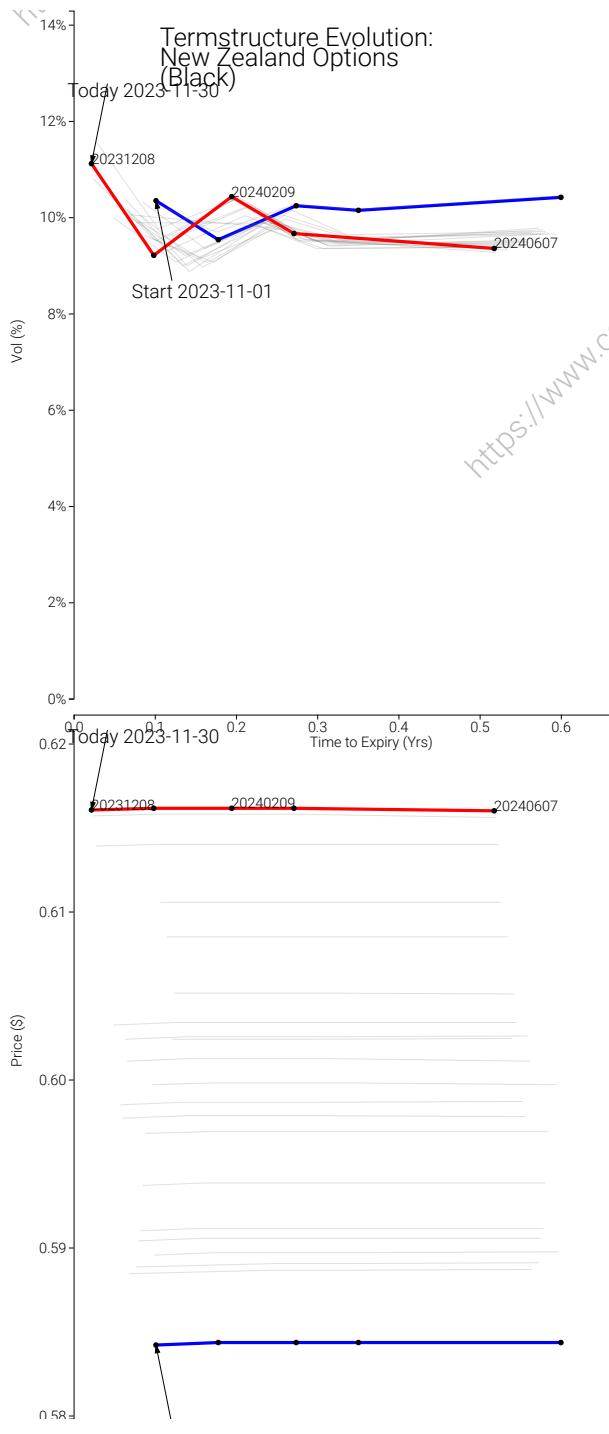


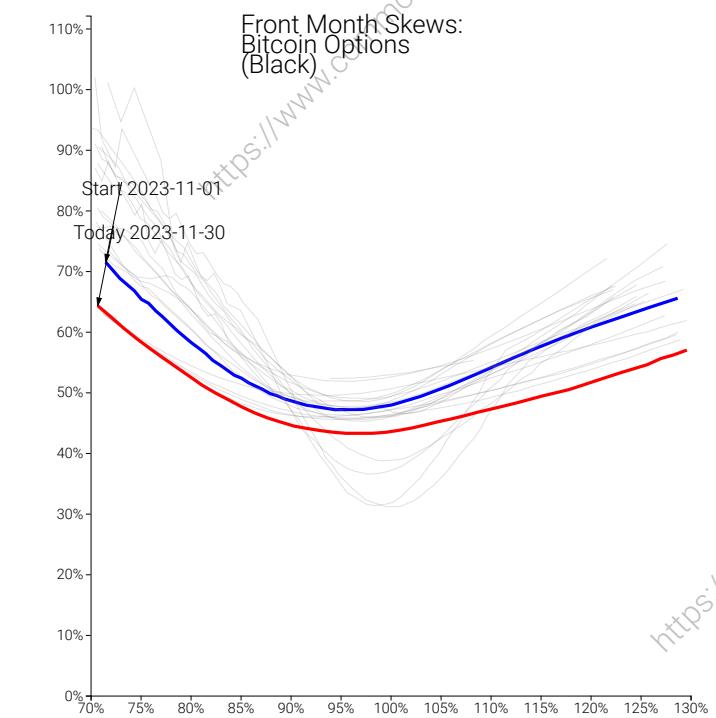
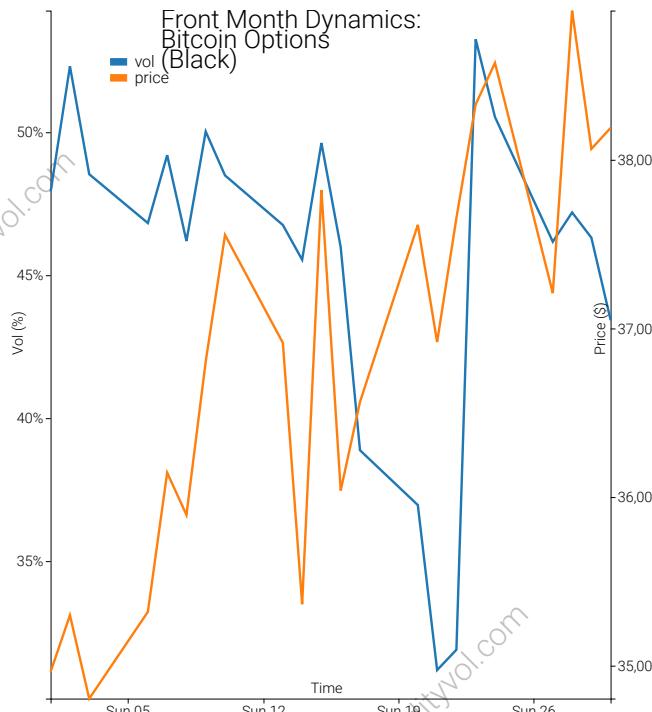
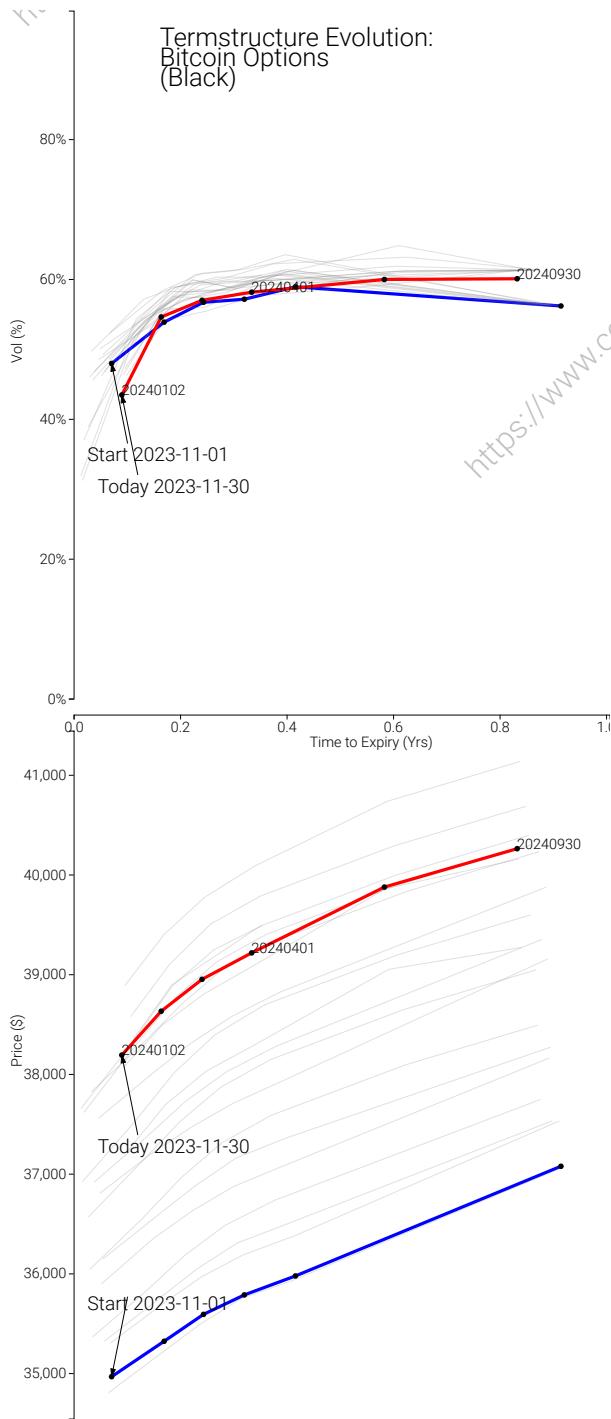


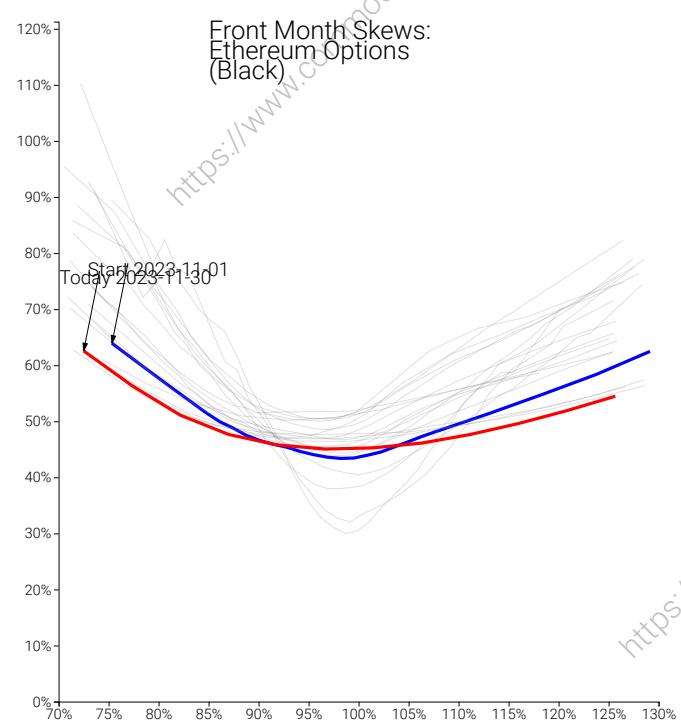
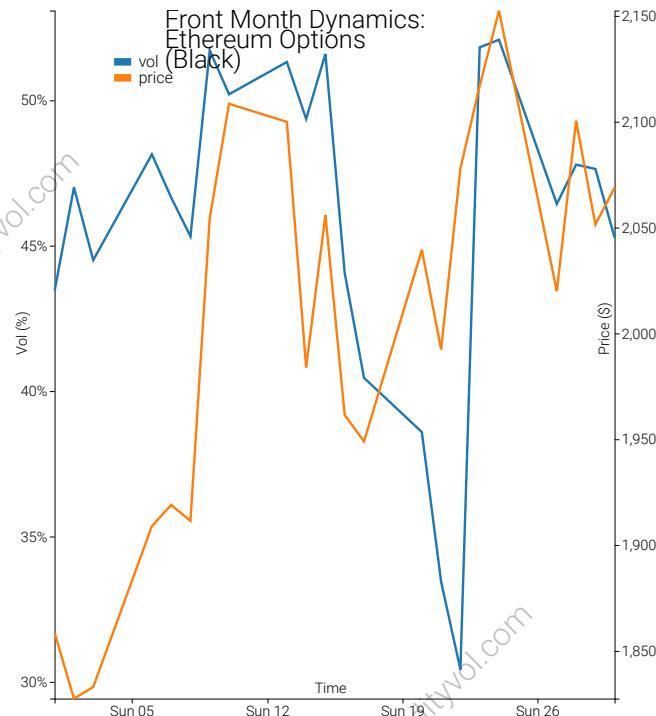
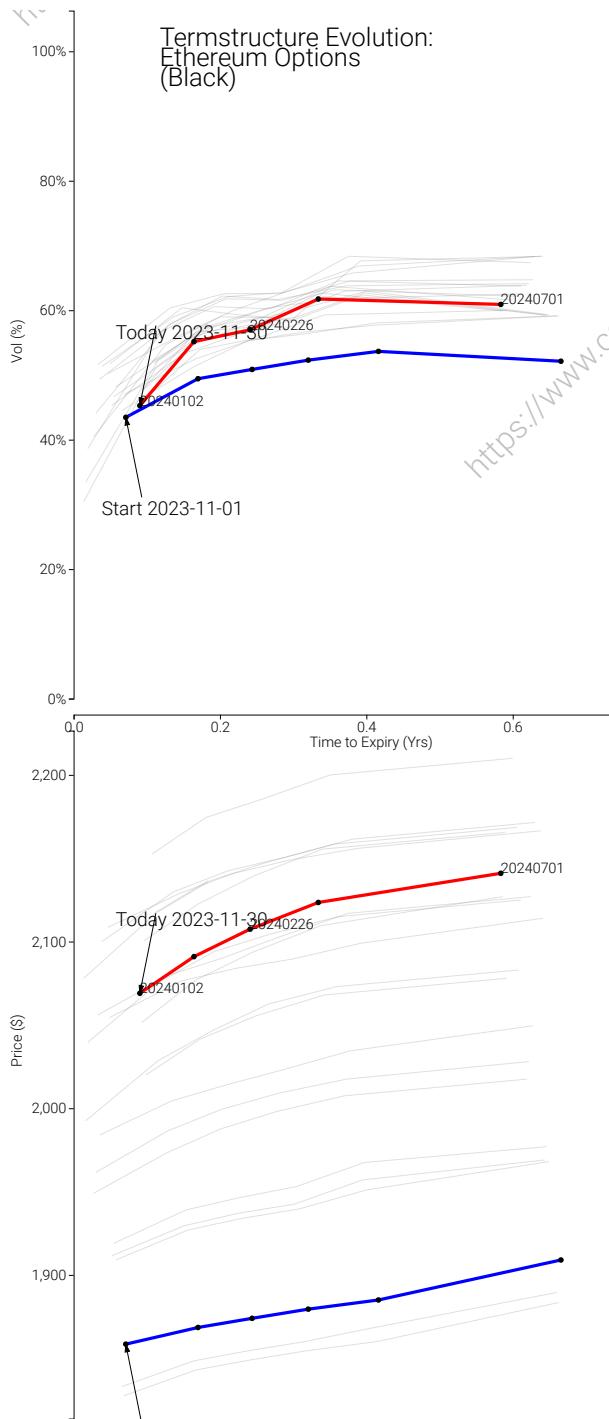




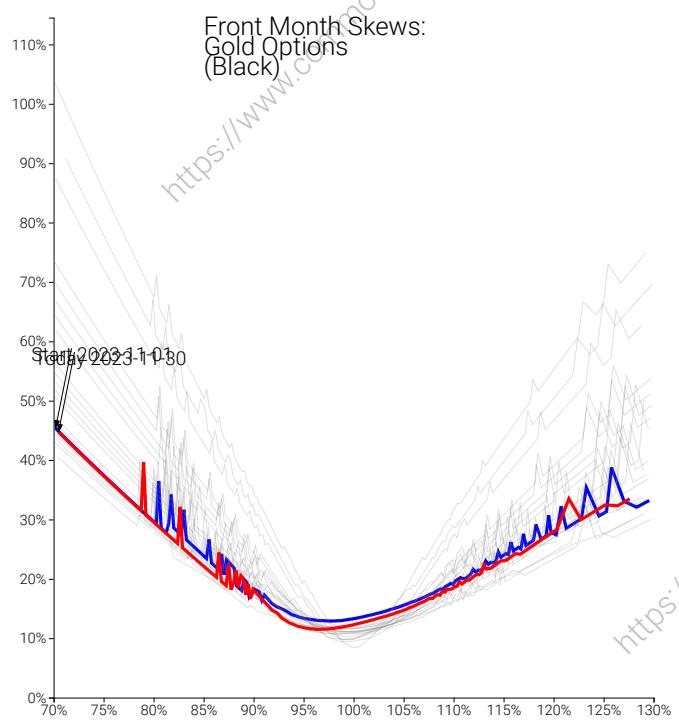
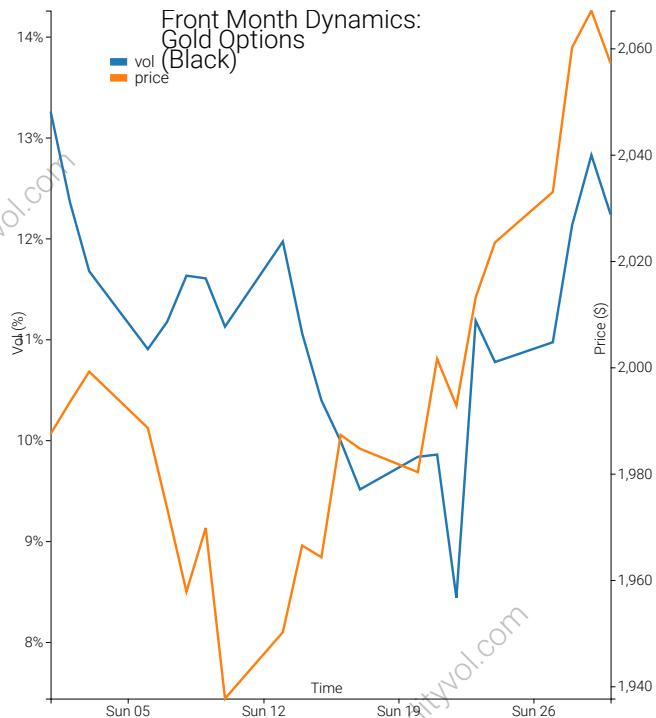
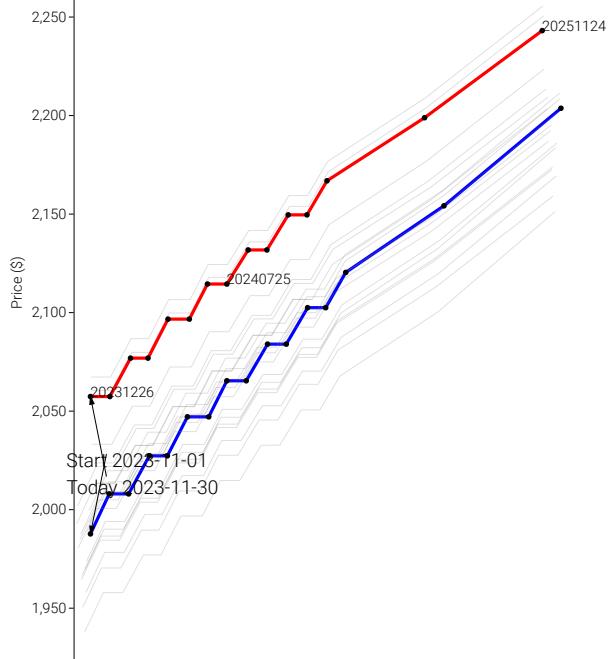
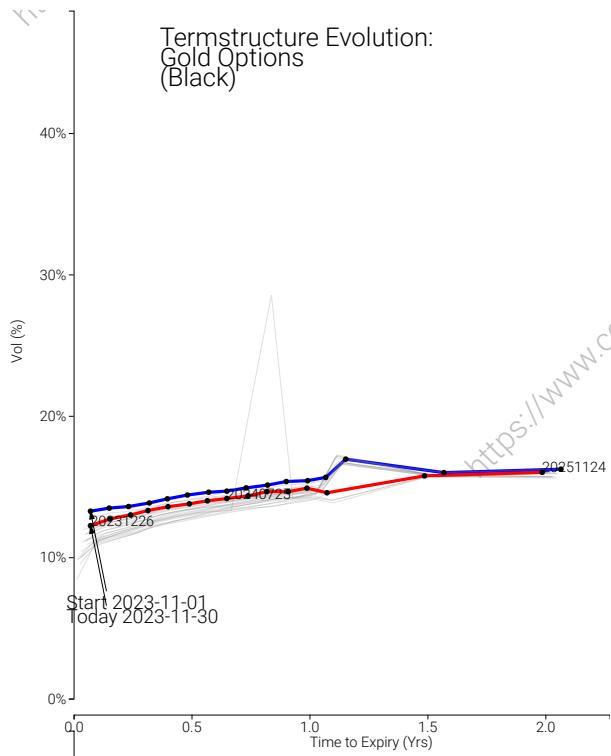


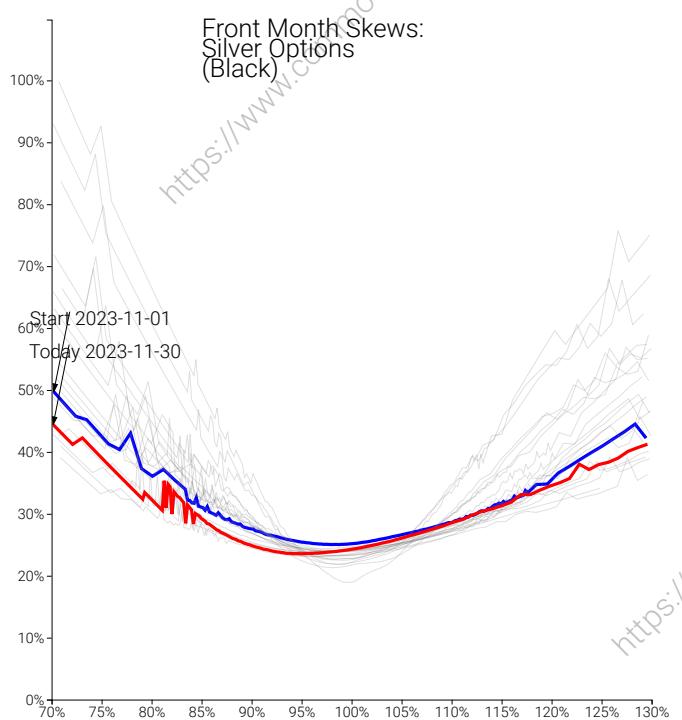
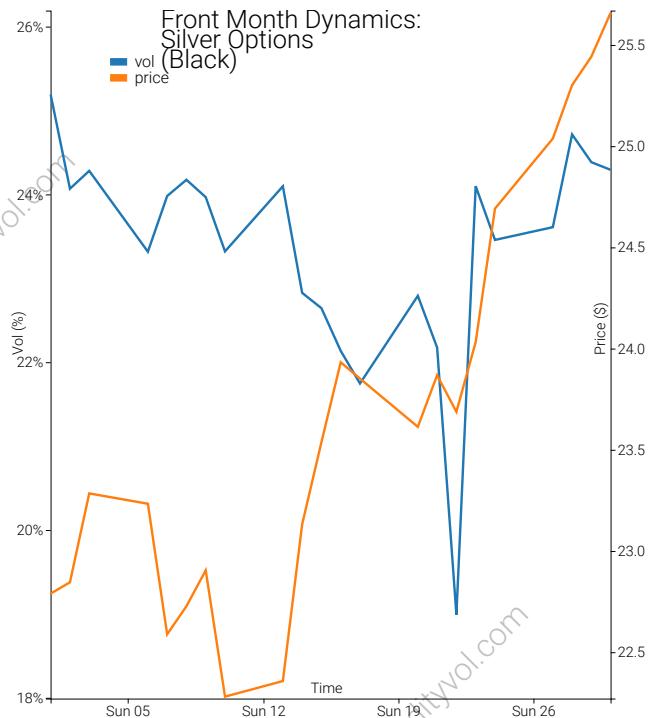
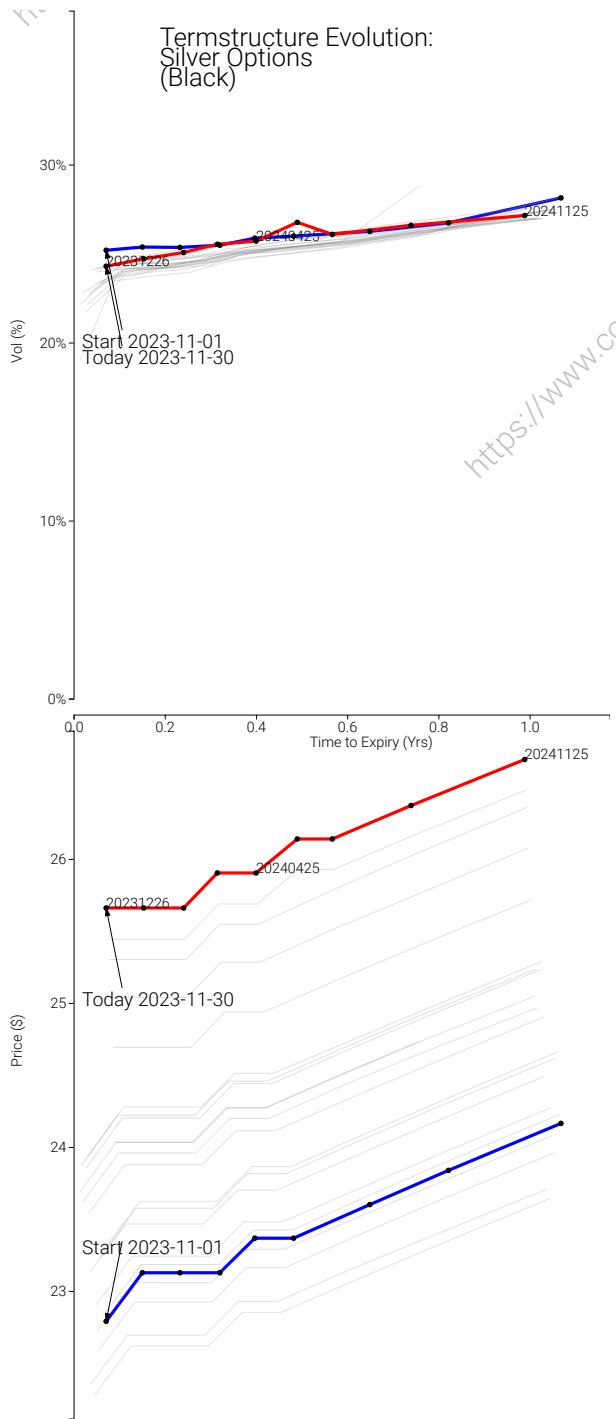


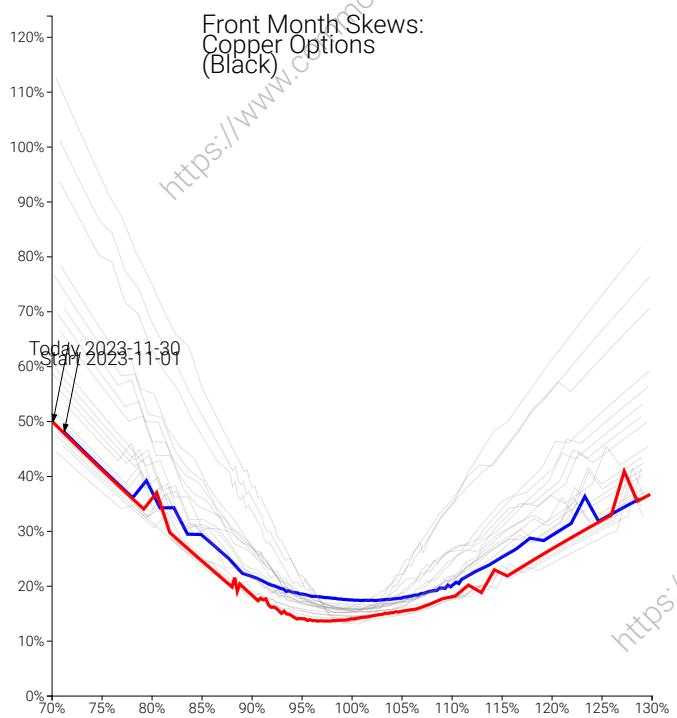
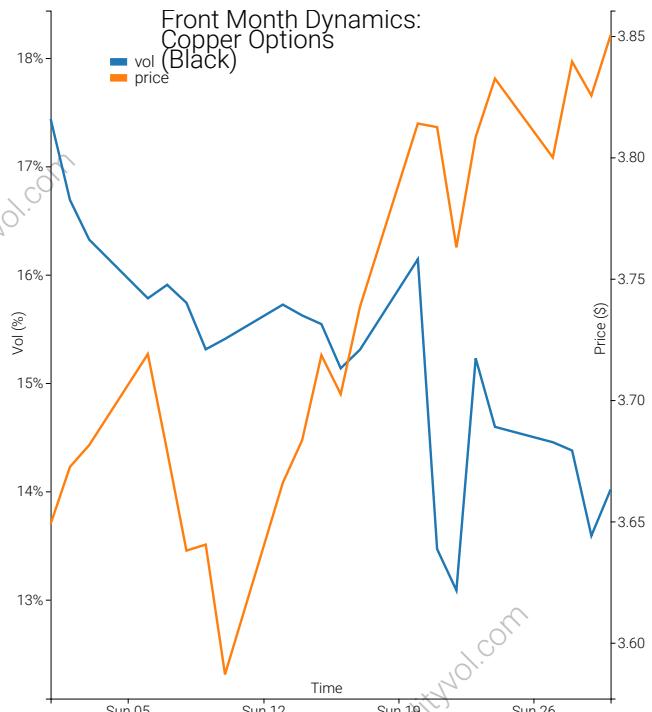
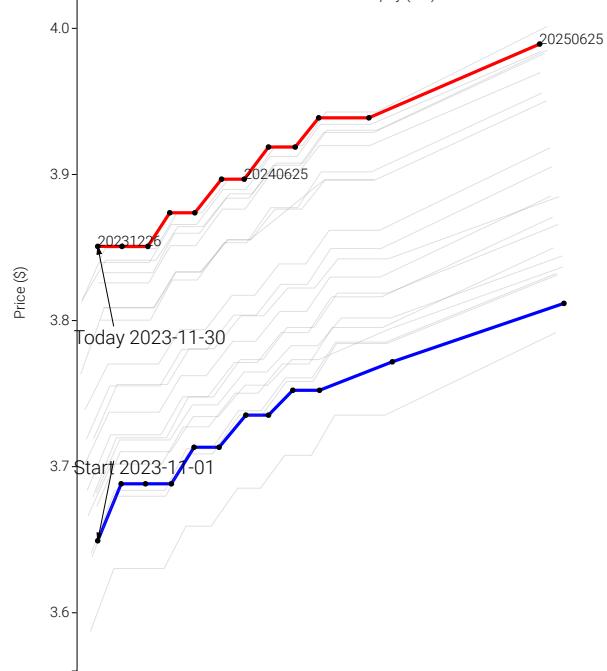
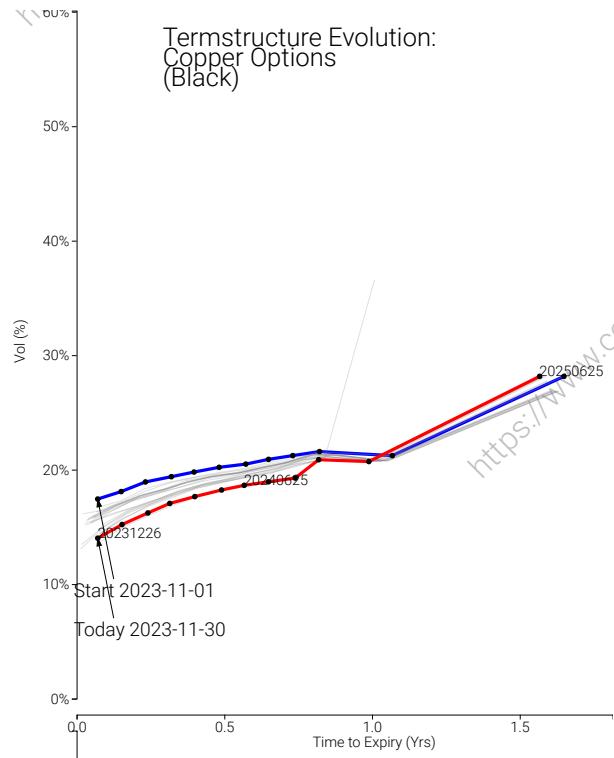


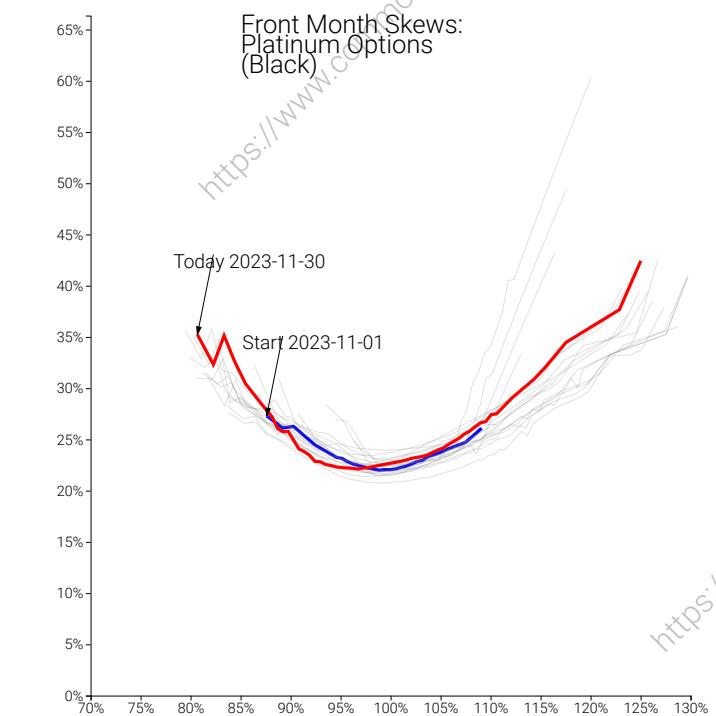
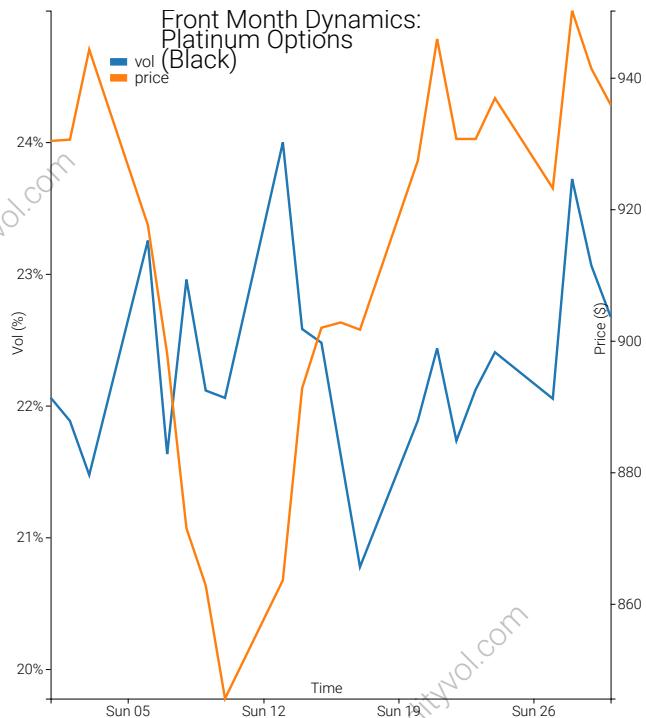
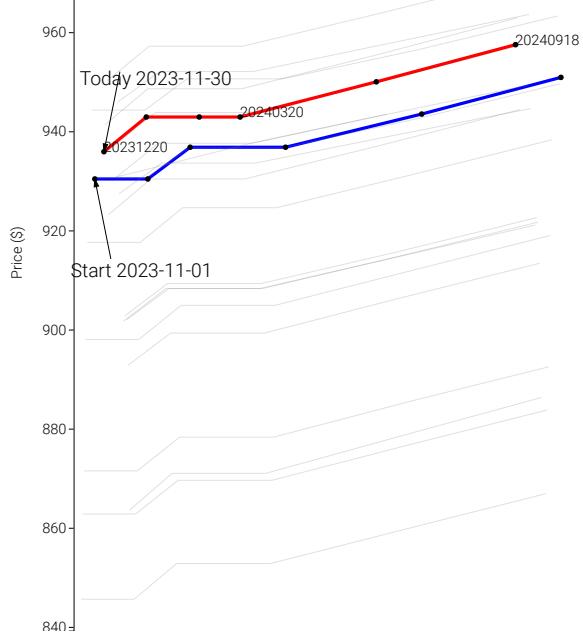
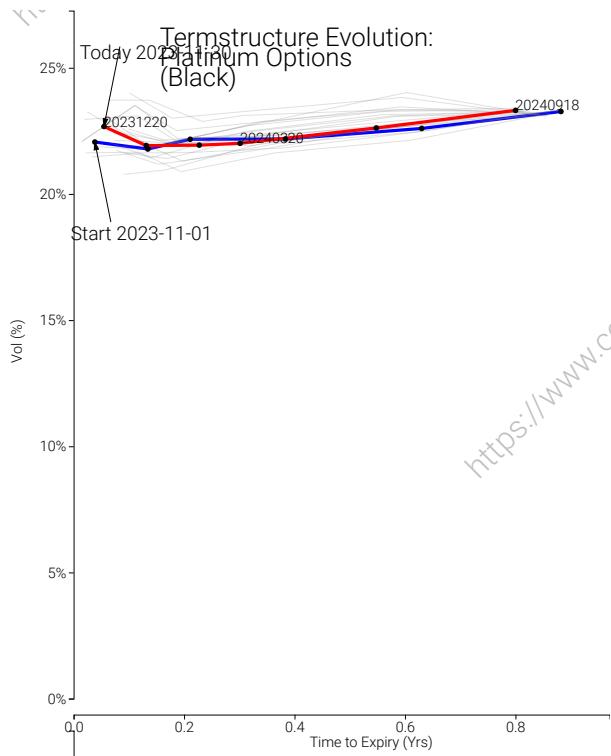


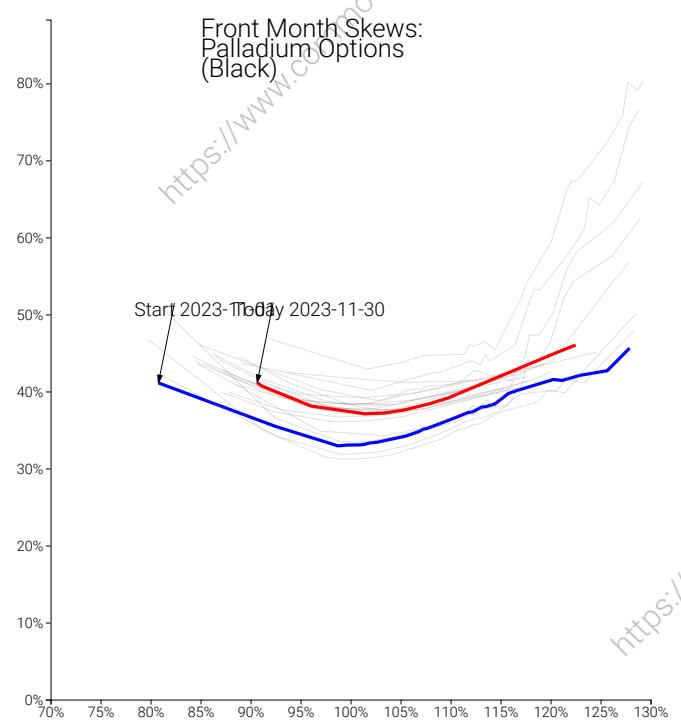
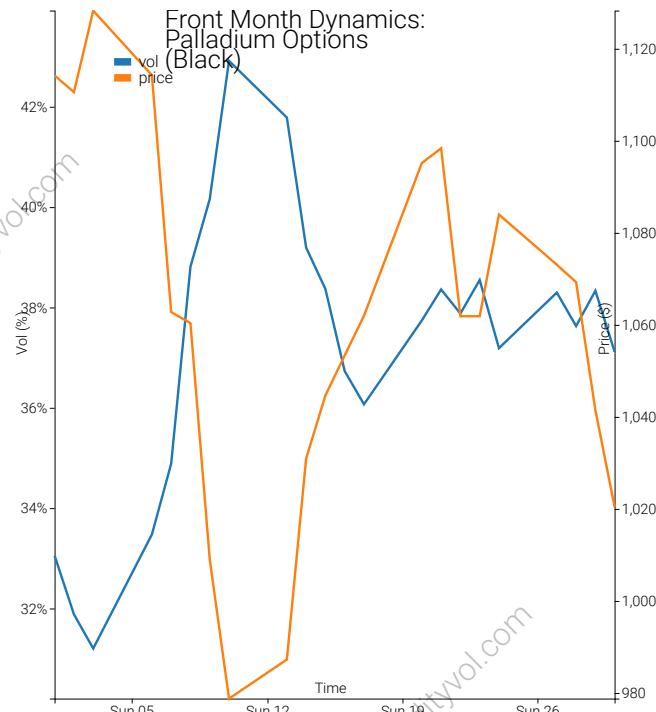
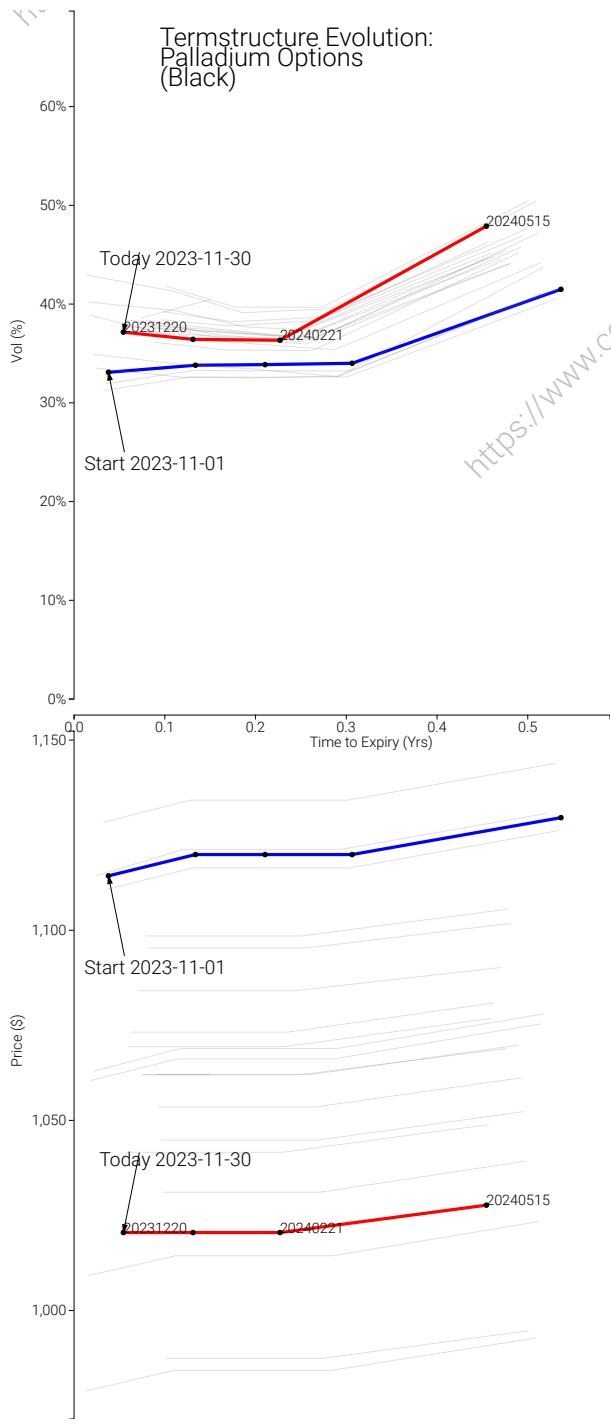
## **Metals**



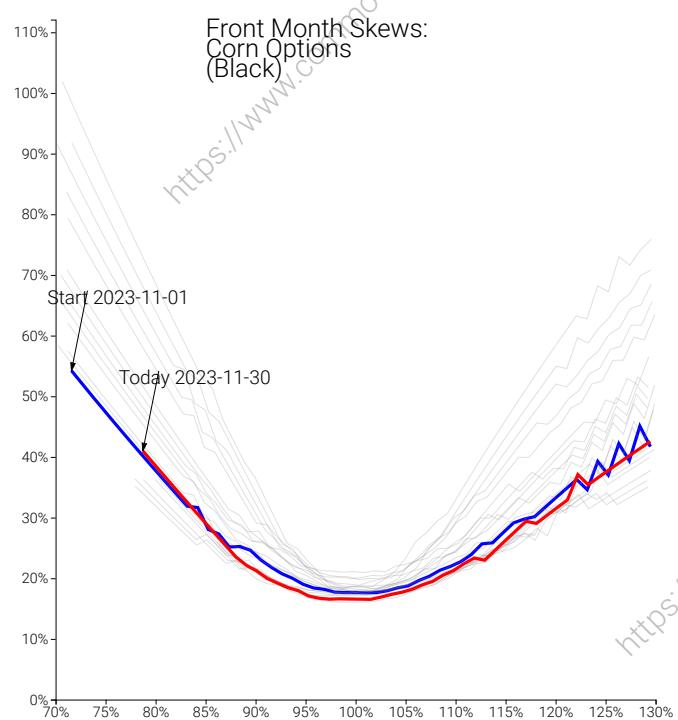
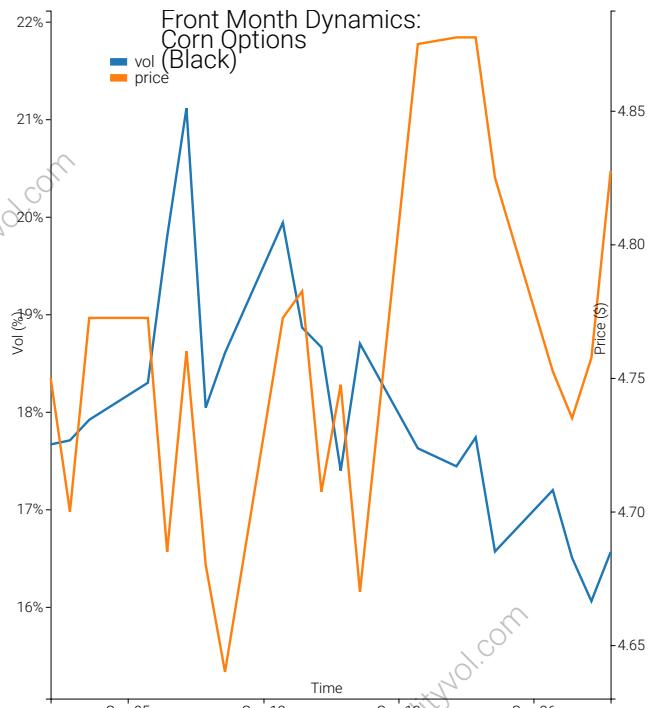
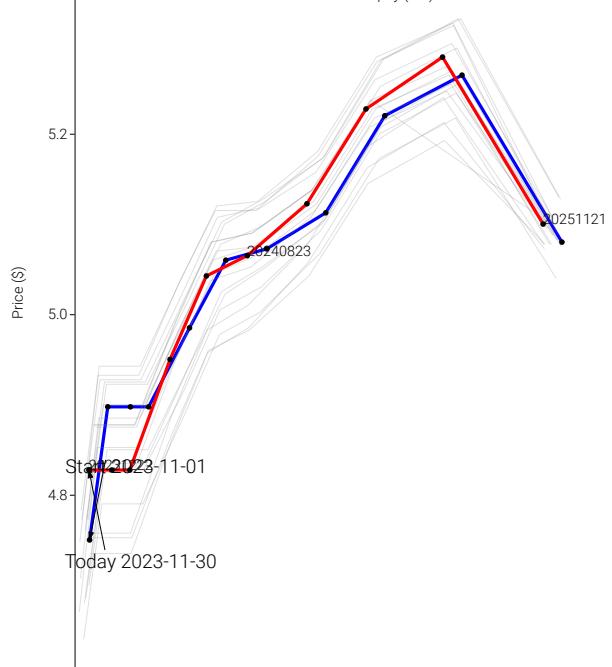
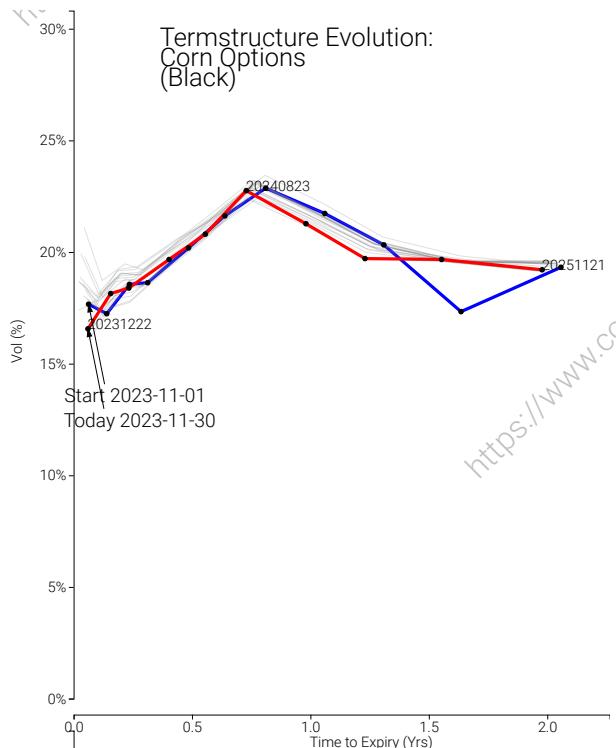


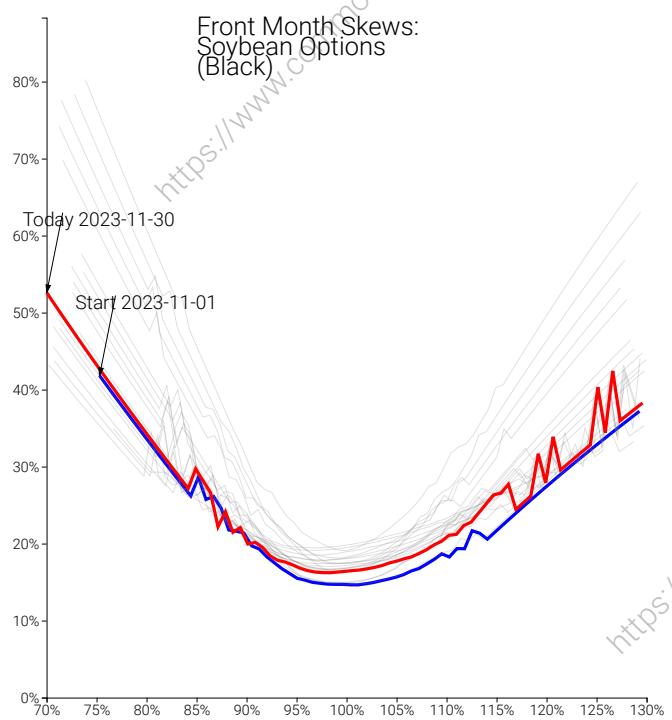
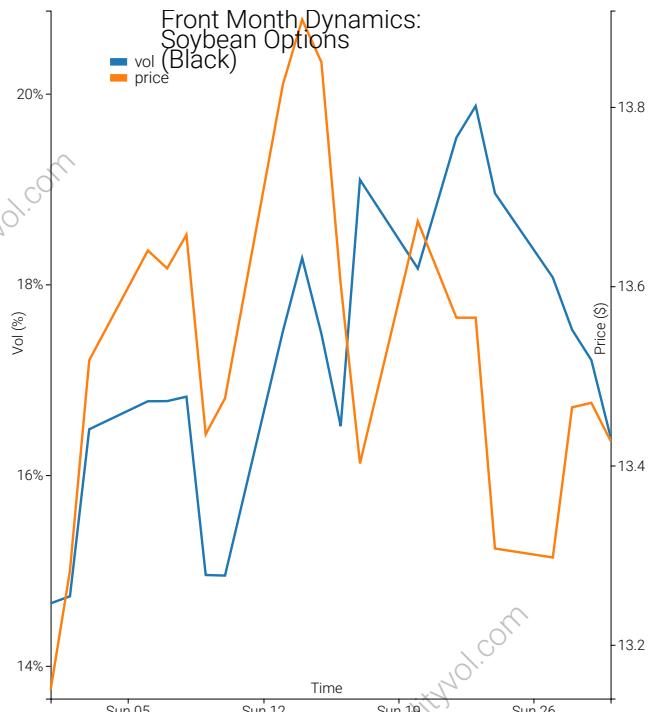
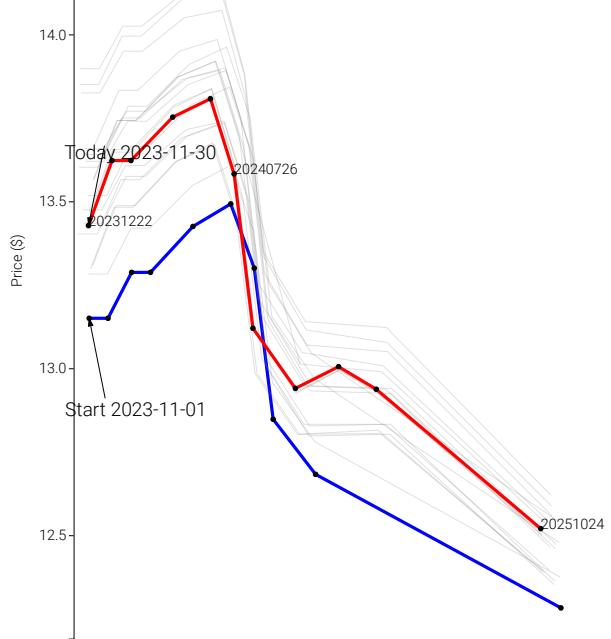
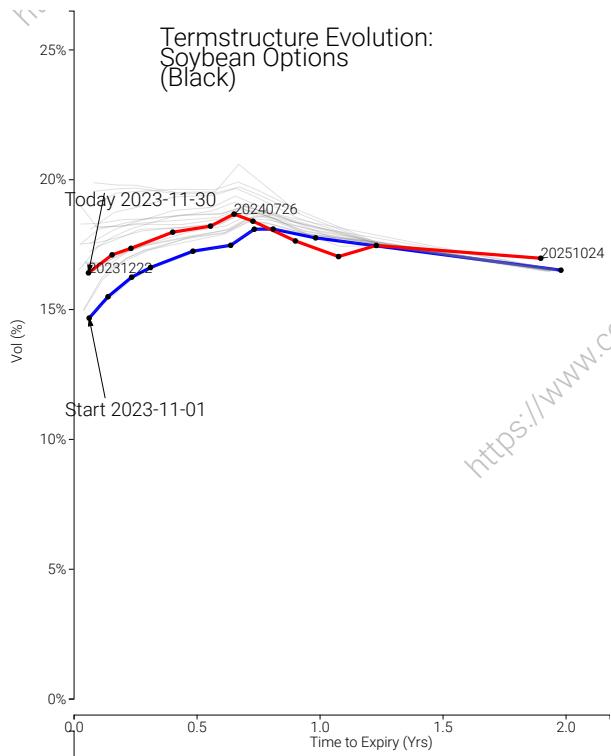


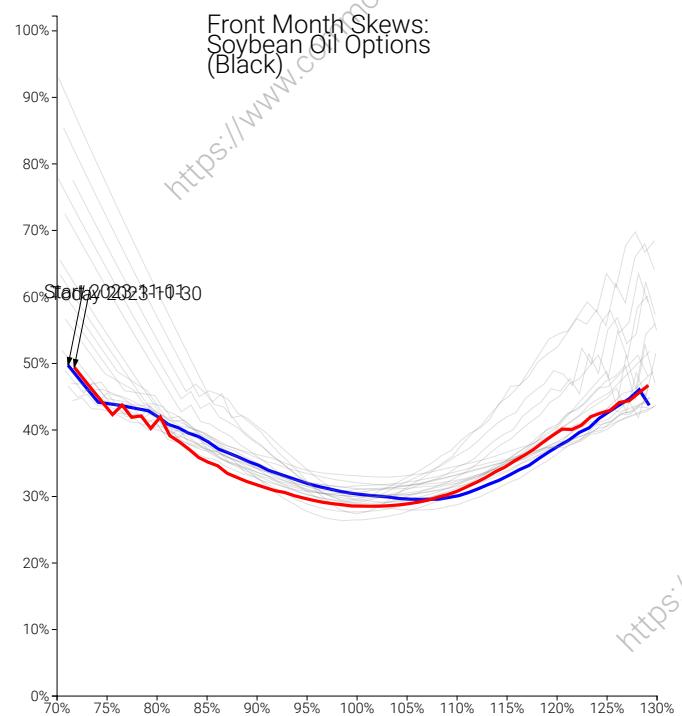
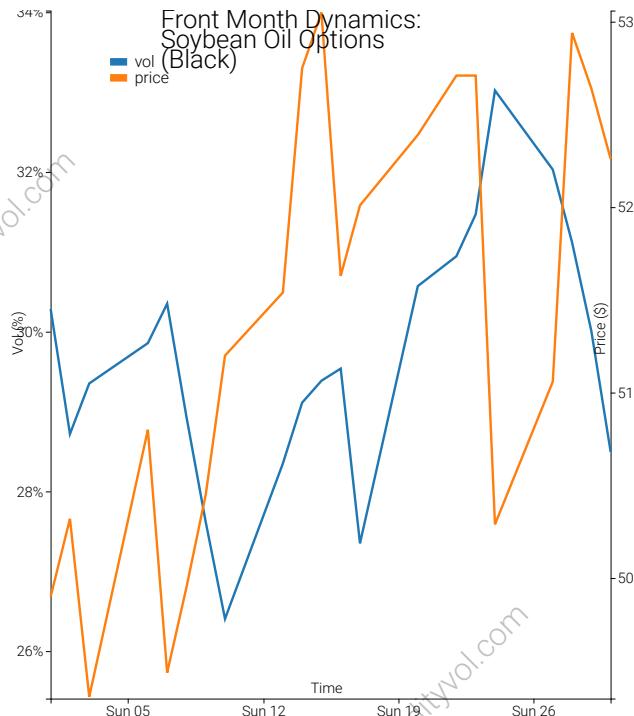
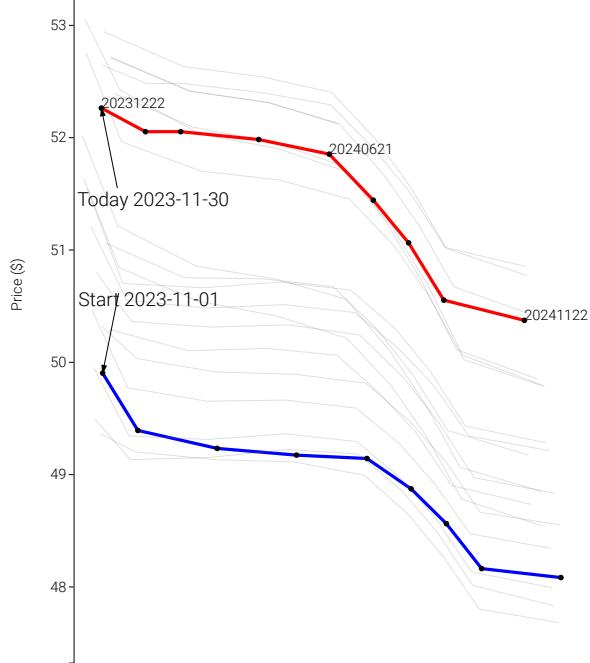
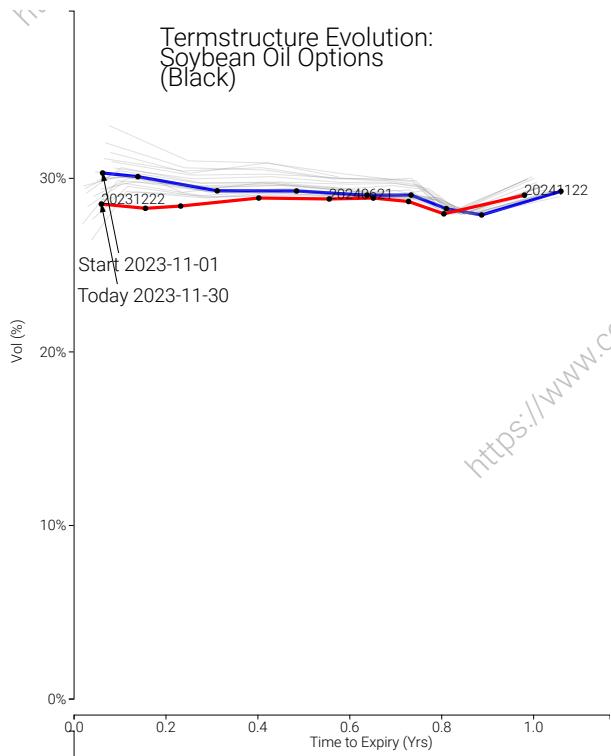


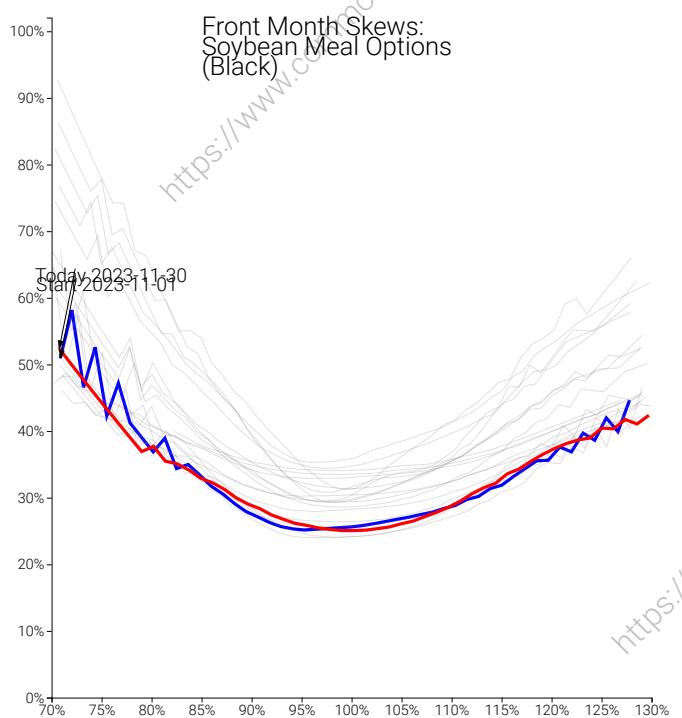
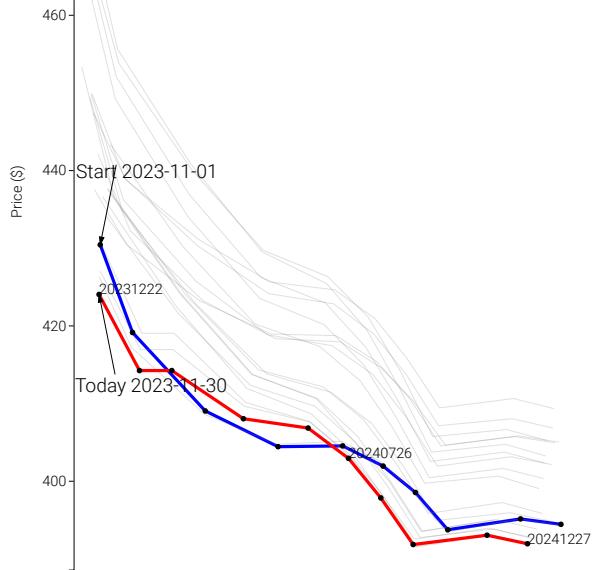
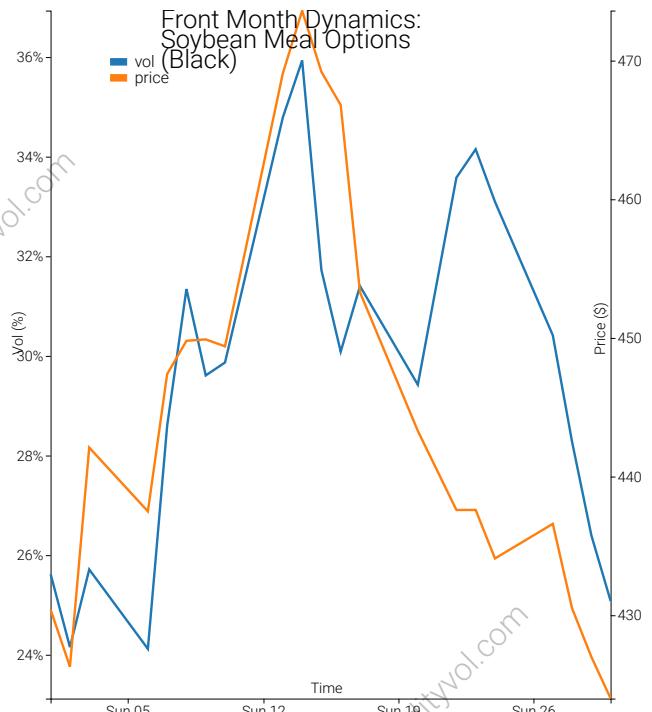
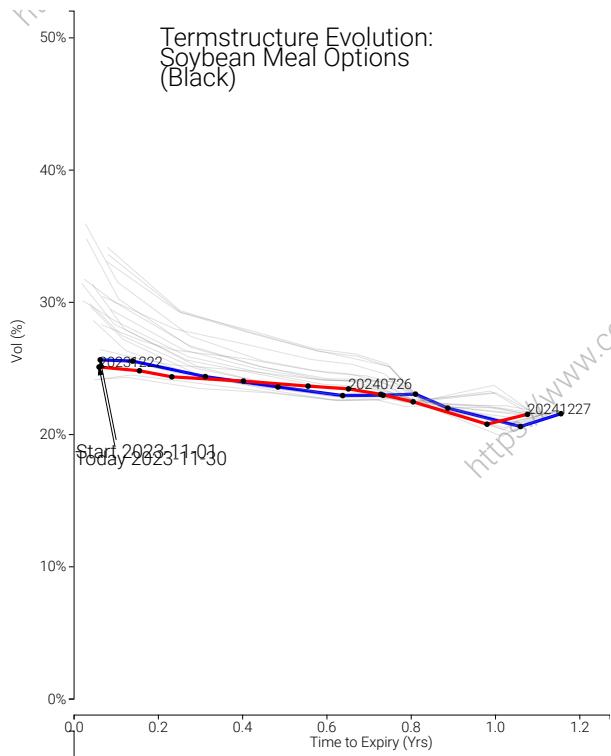


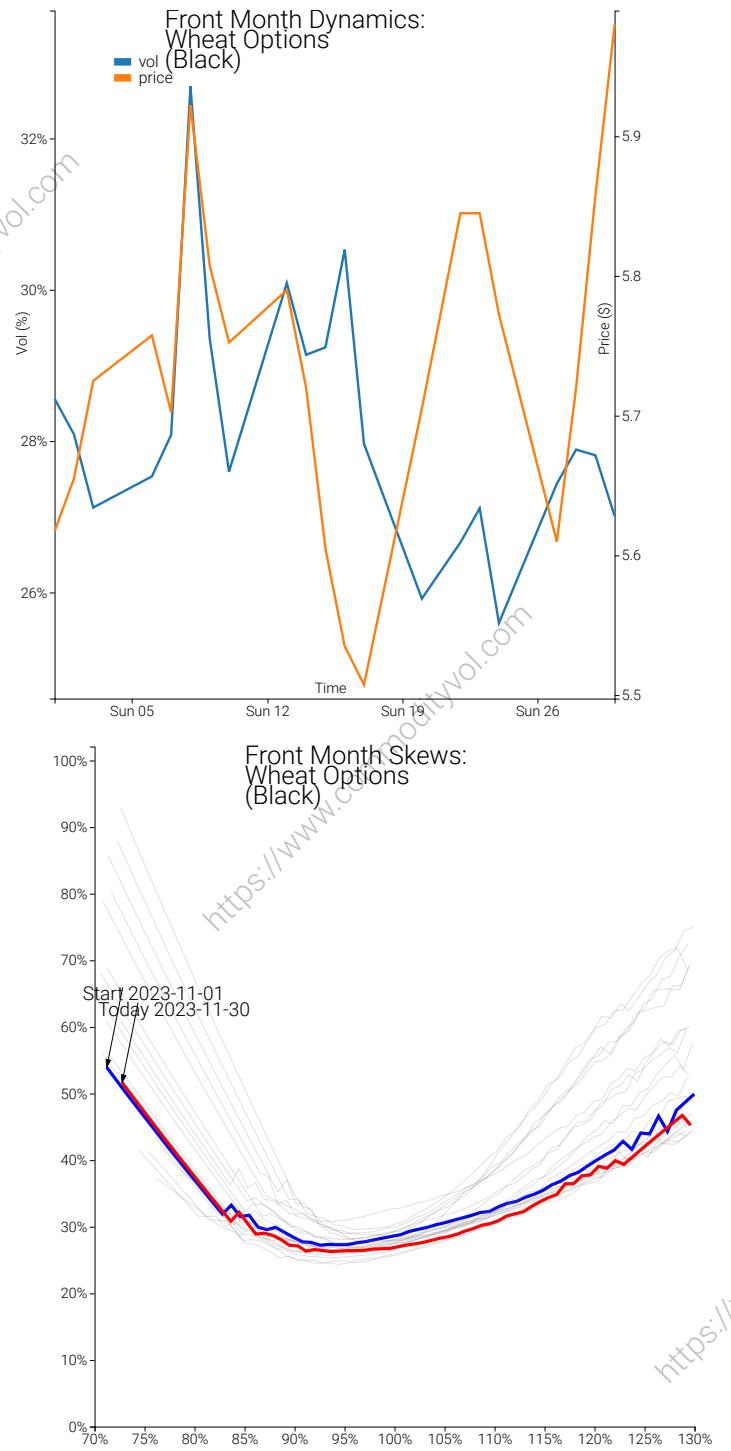
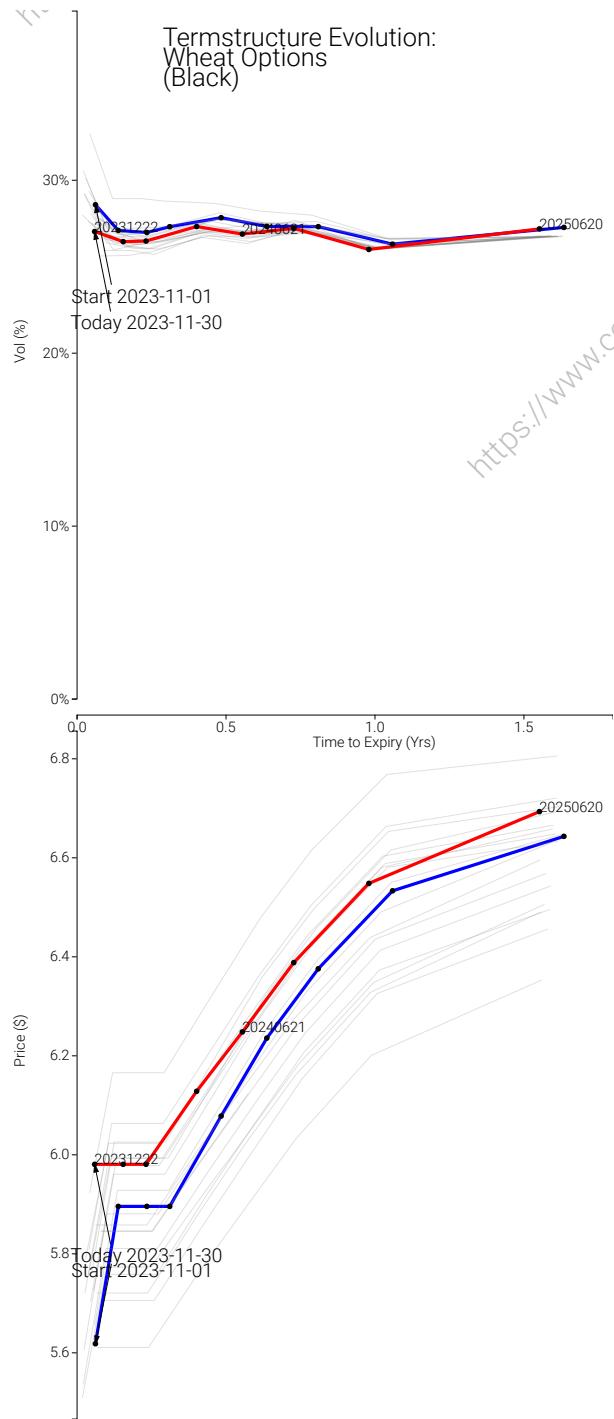
**Ags: Grains, Oilseeds, and so forth**

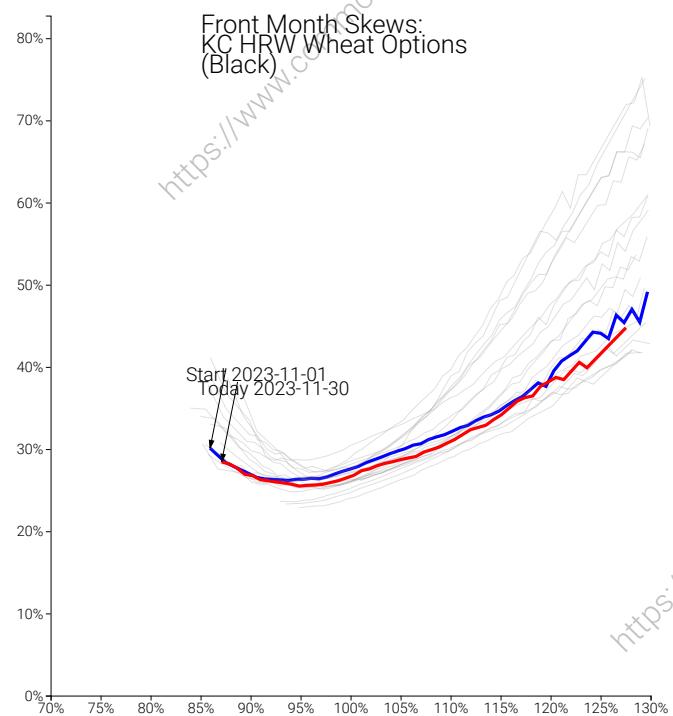
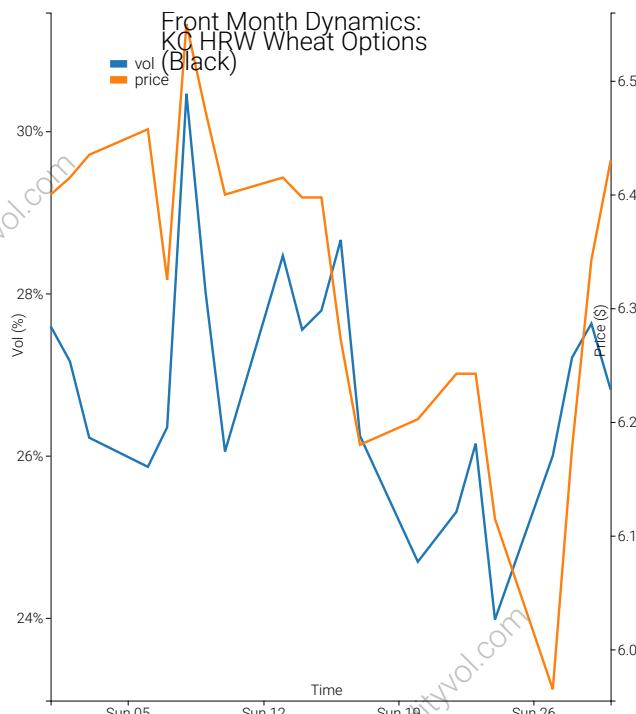
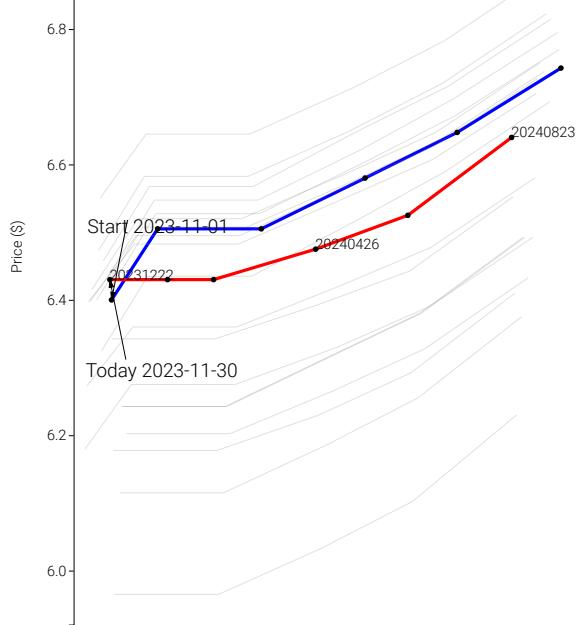
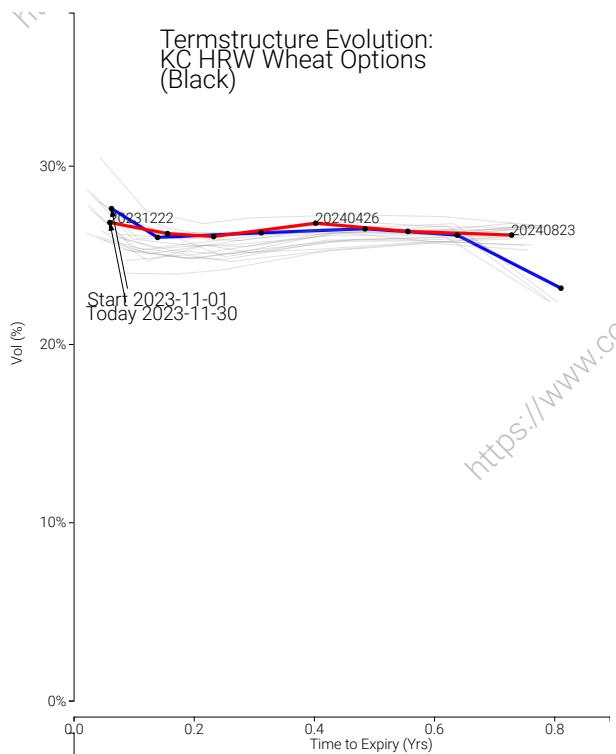


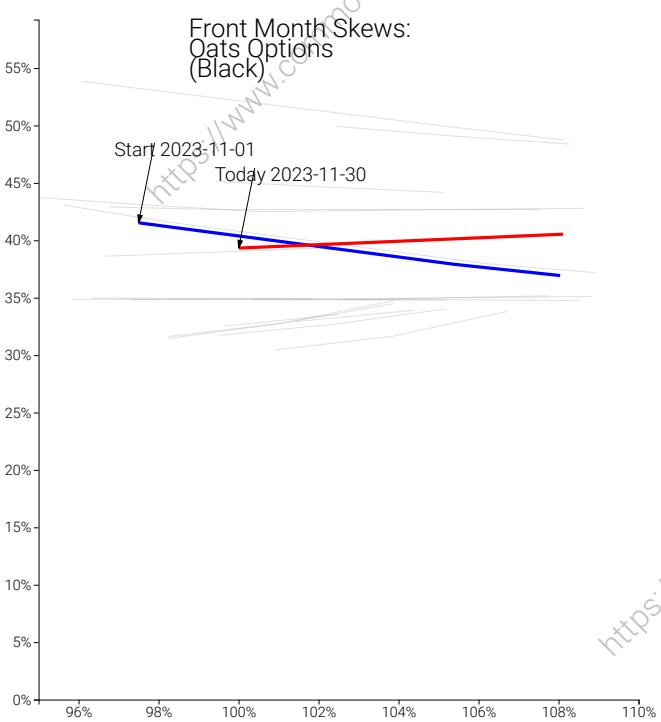
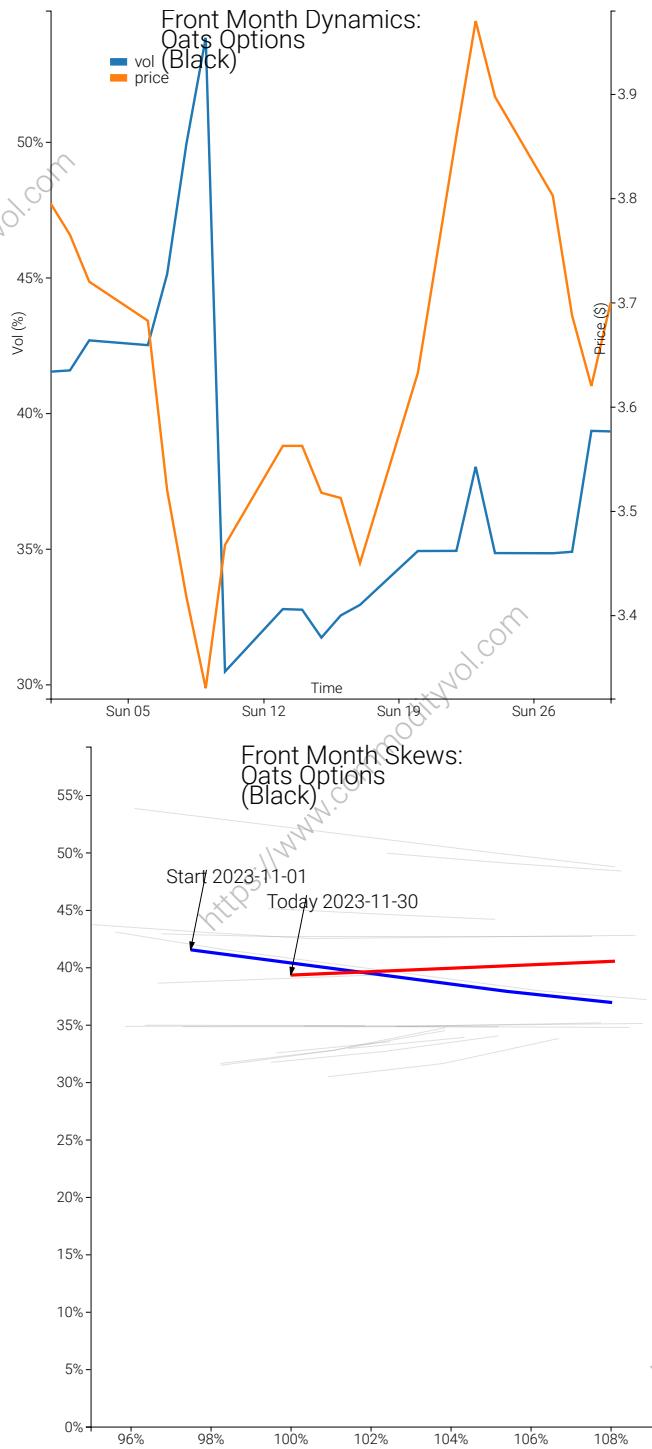
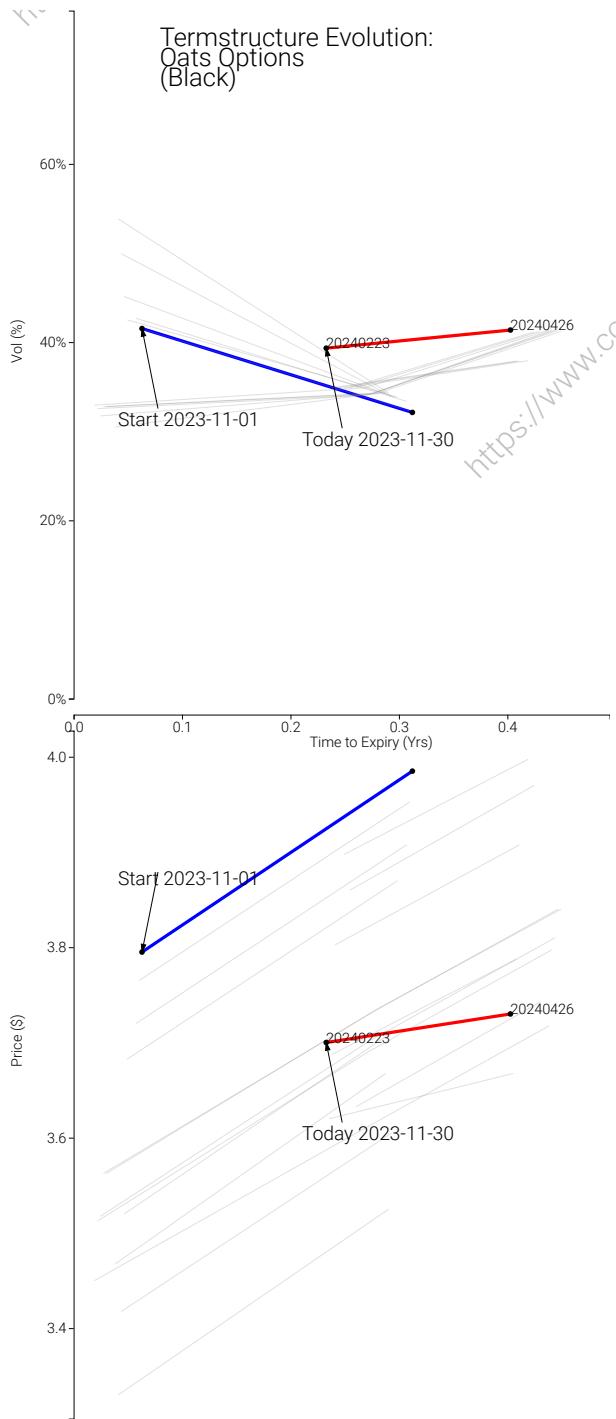


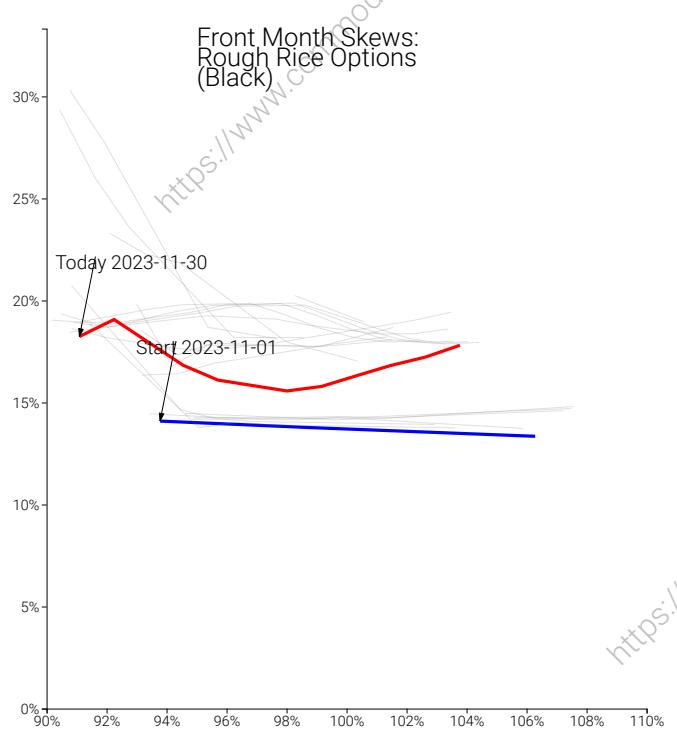
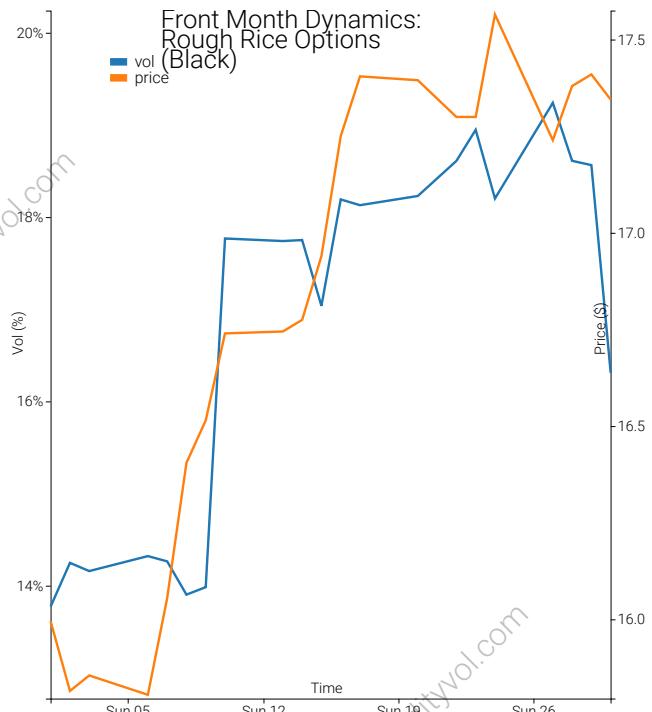
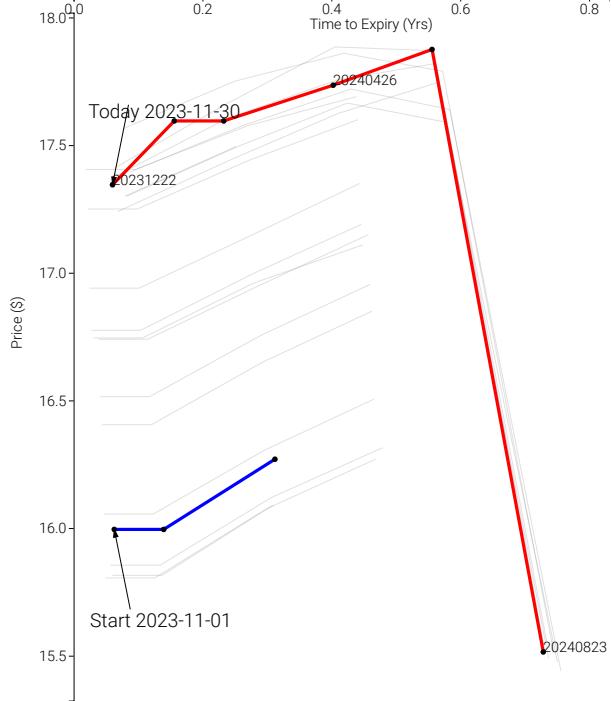
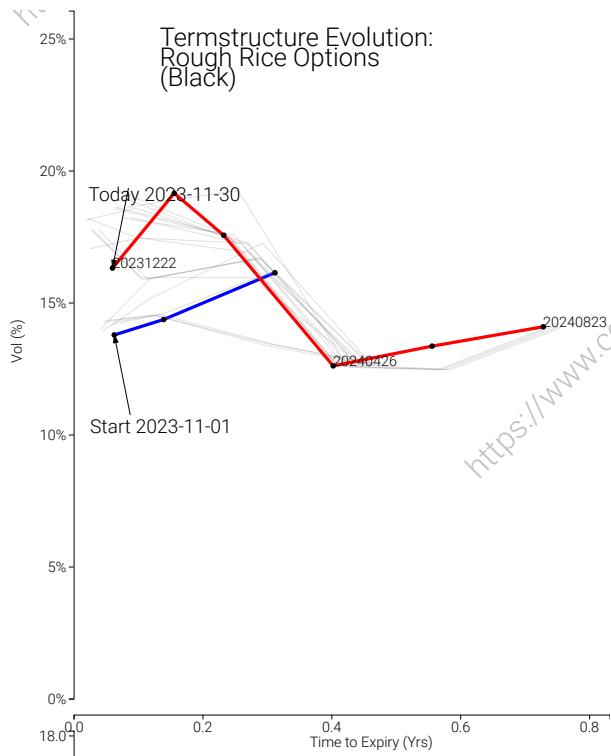


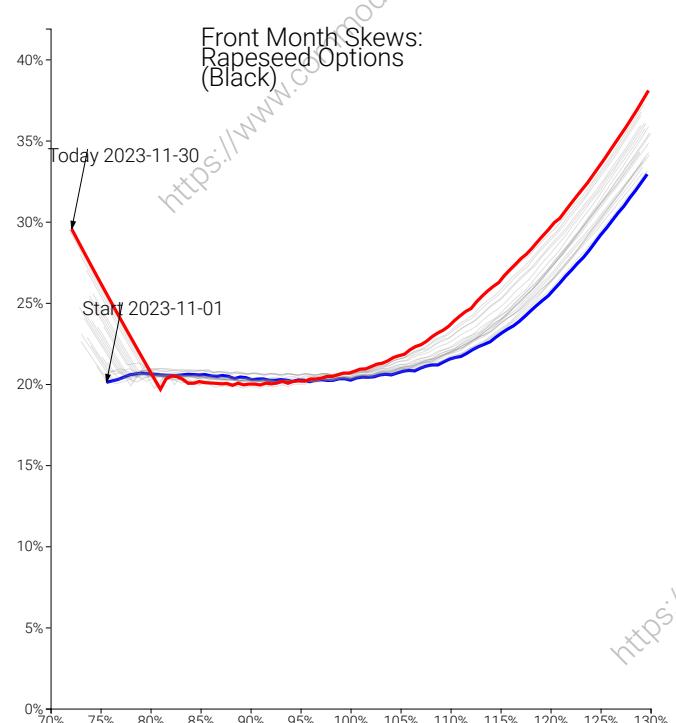
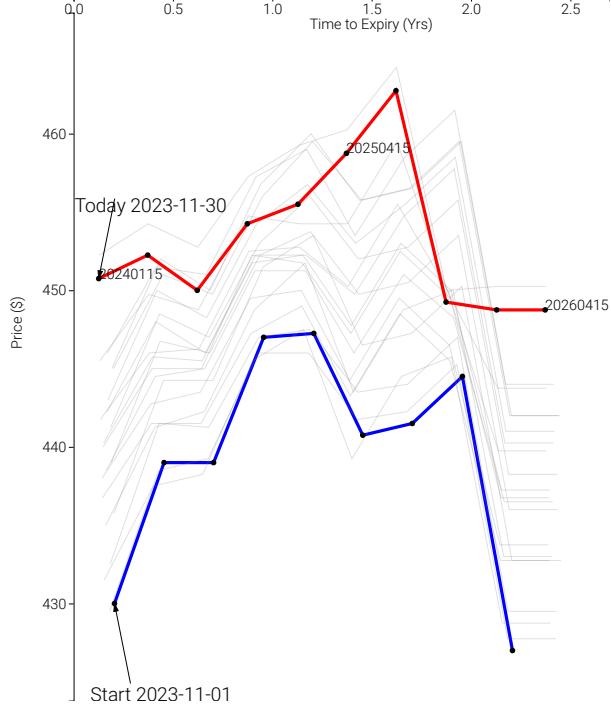
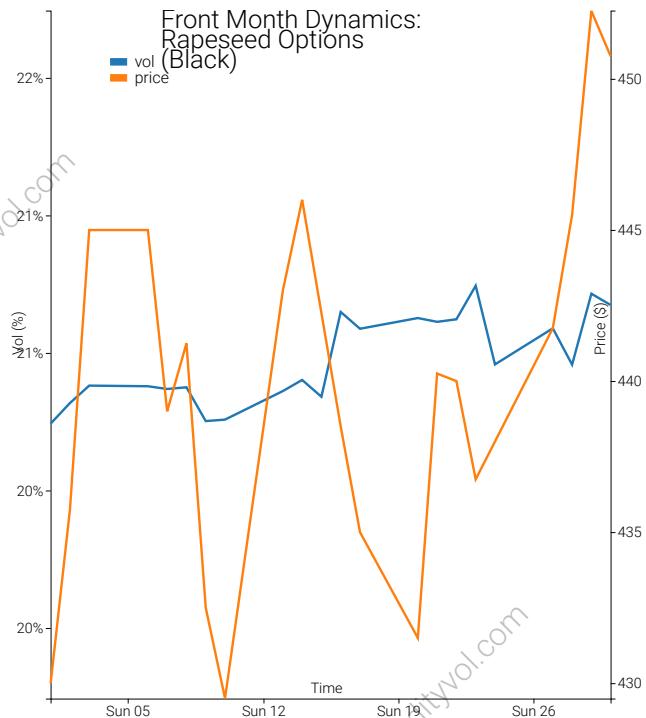
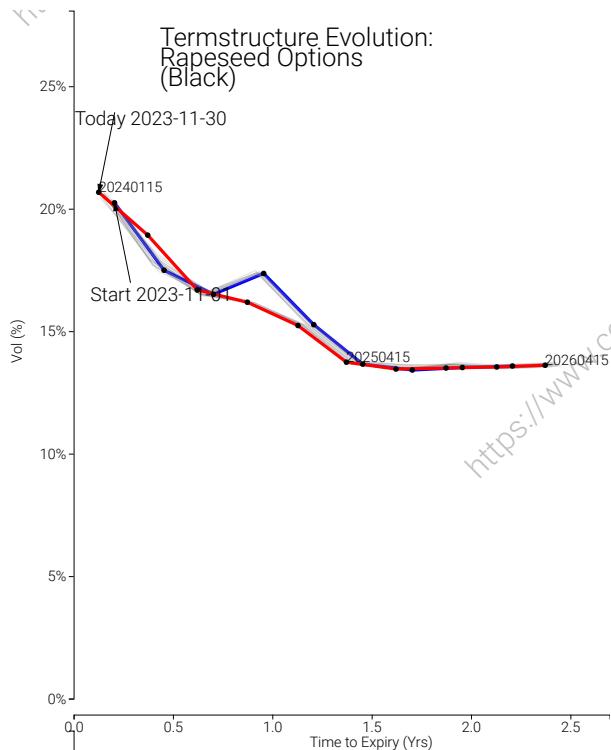




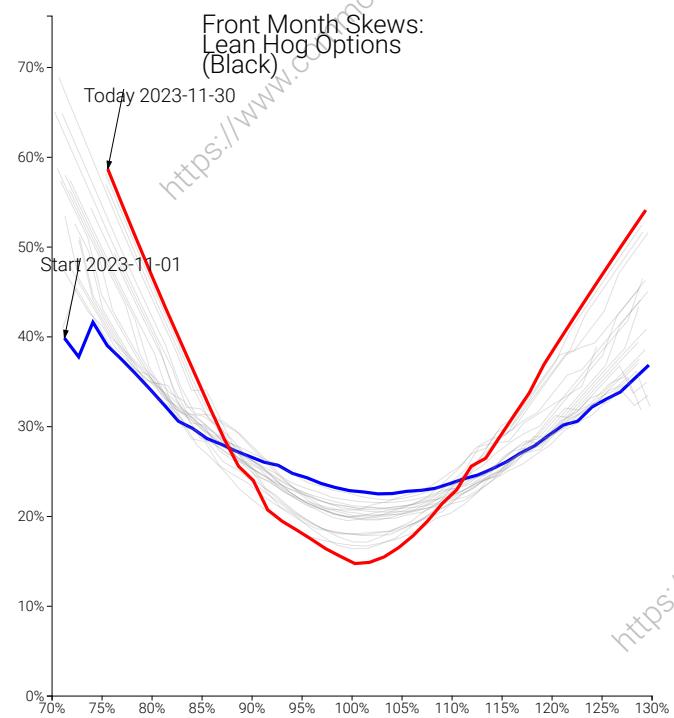
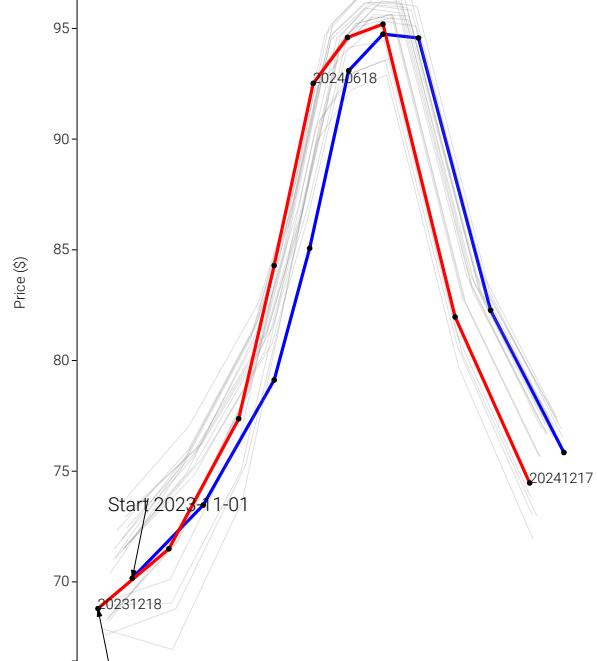
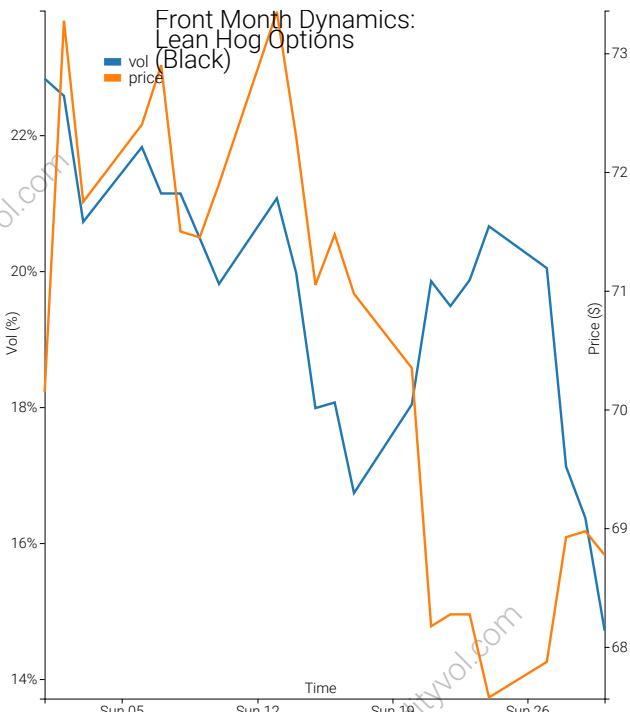
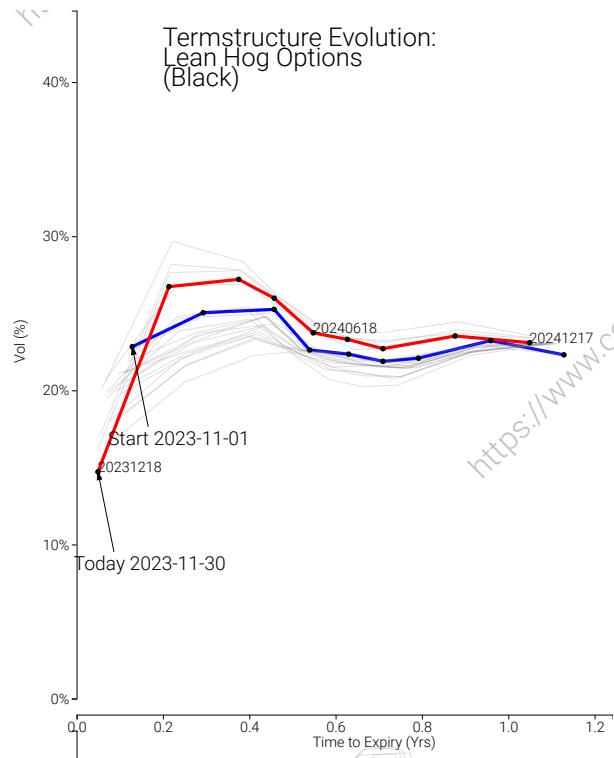


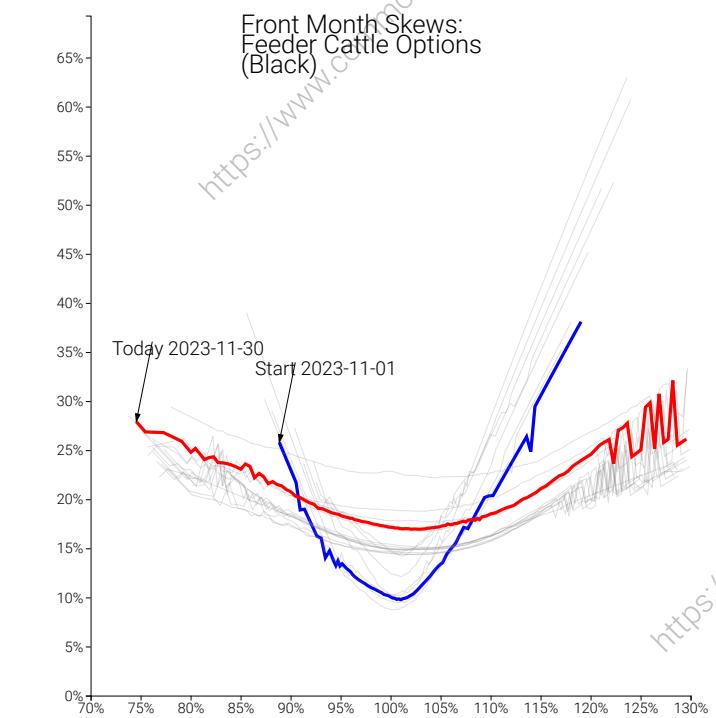
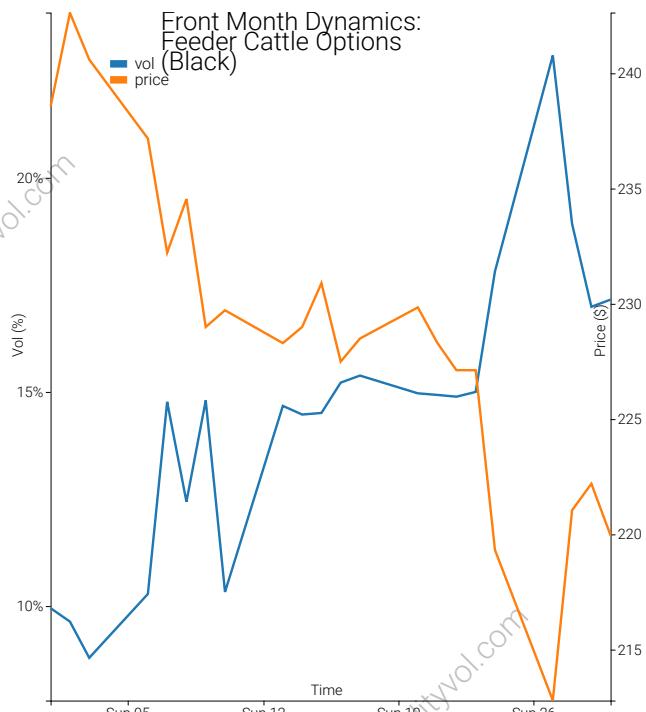
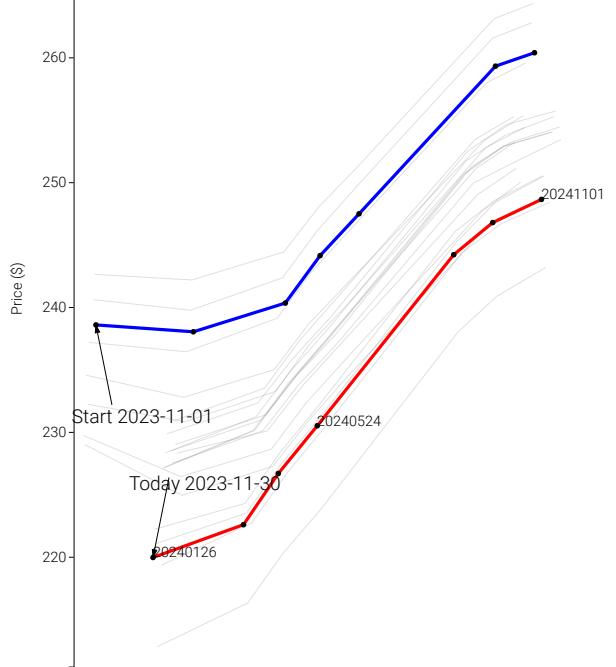
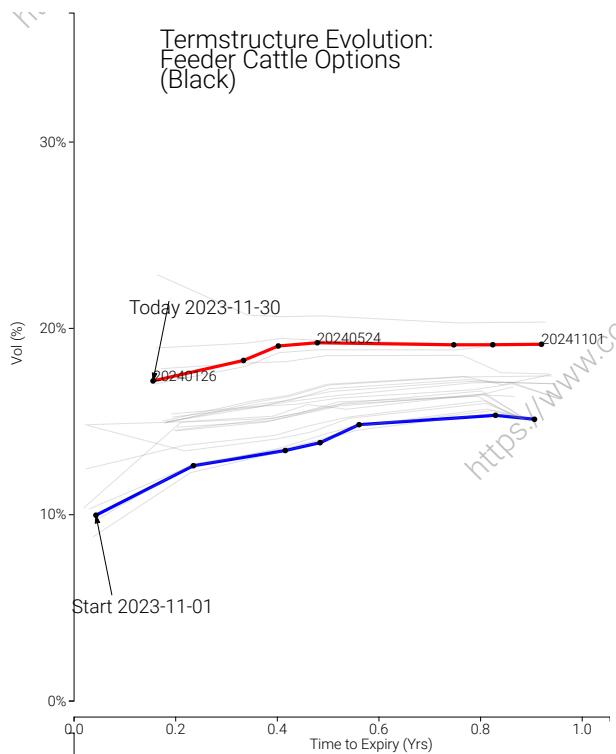


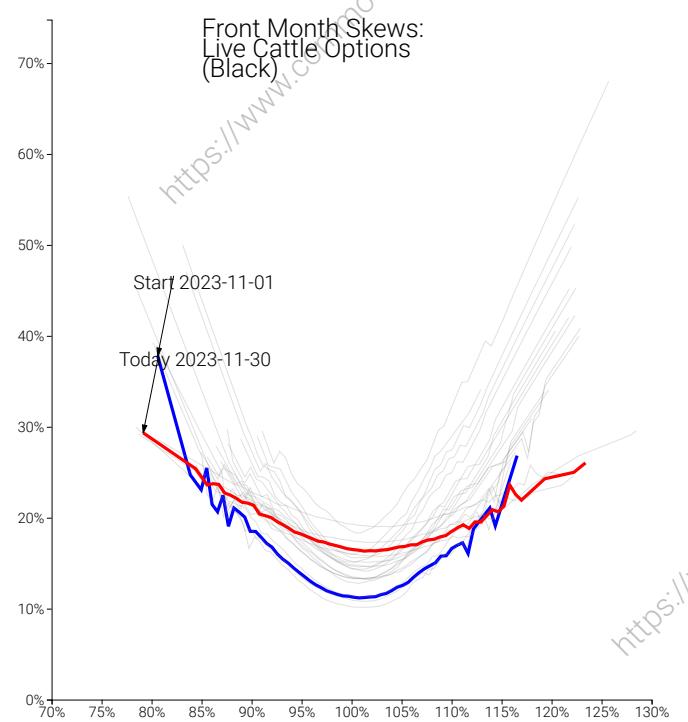
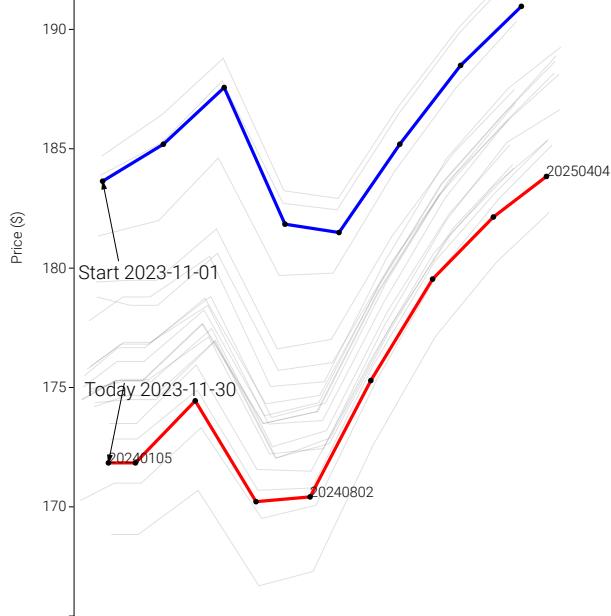
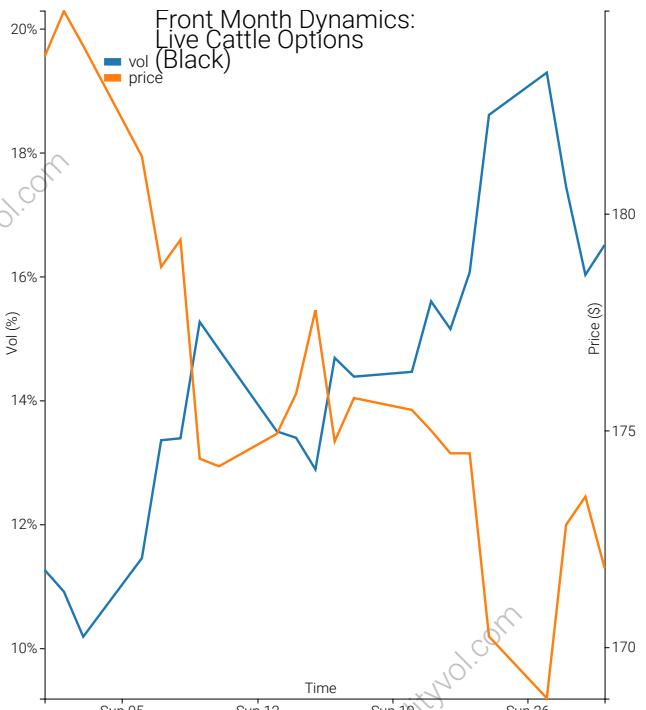
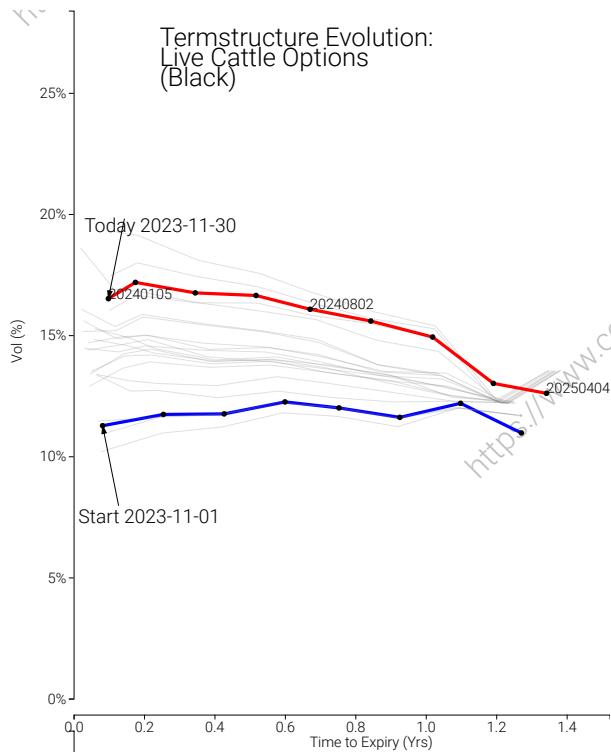


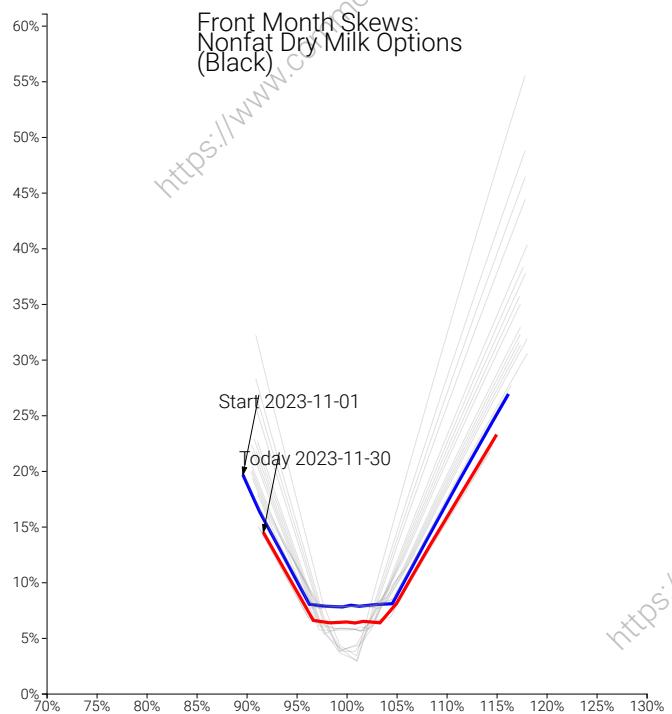
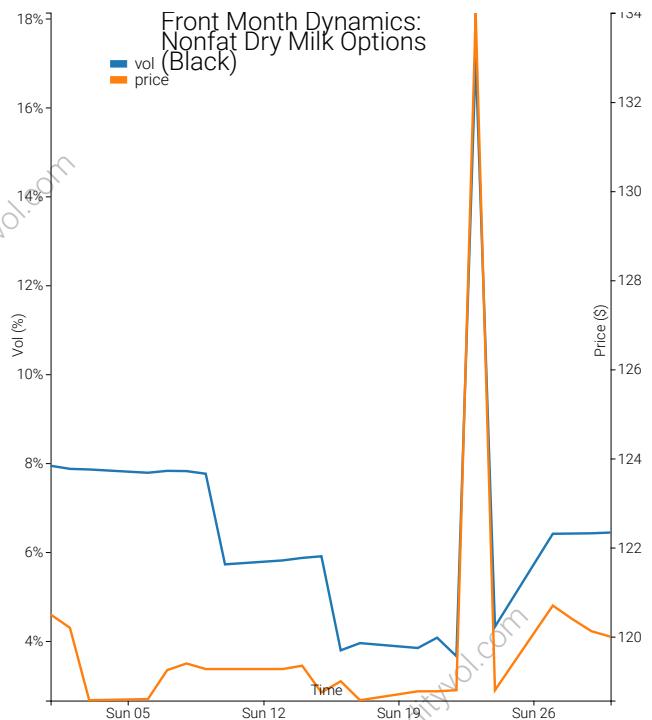
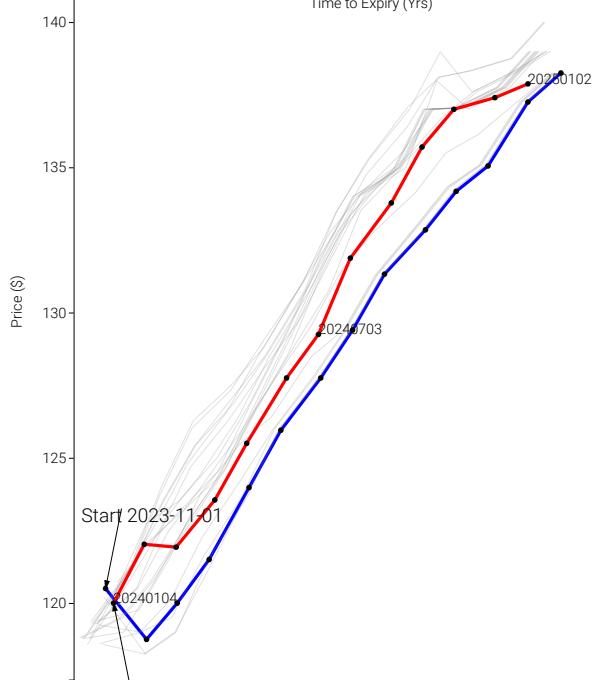
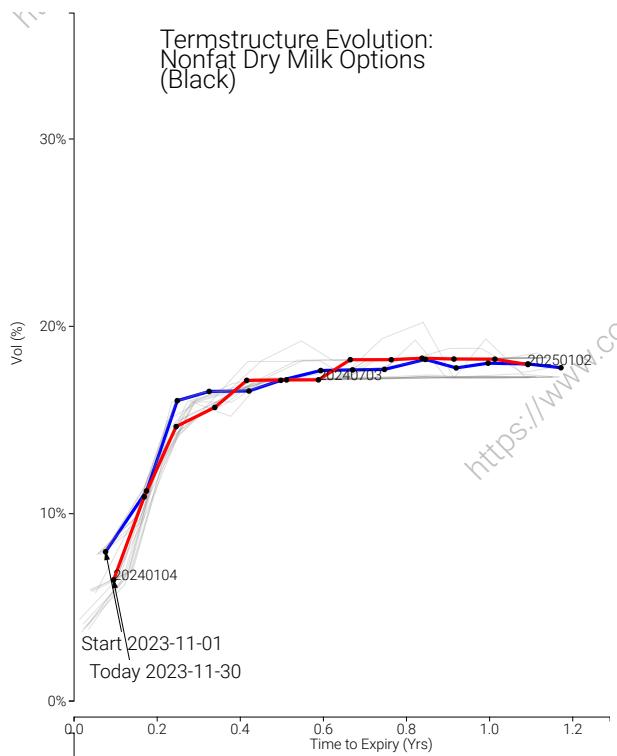


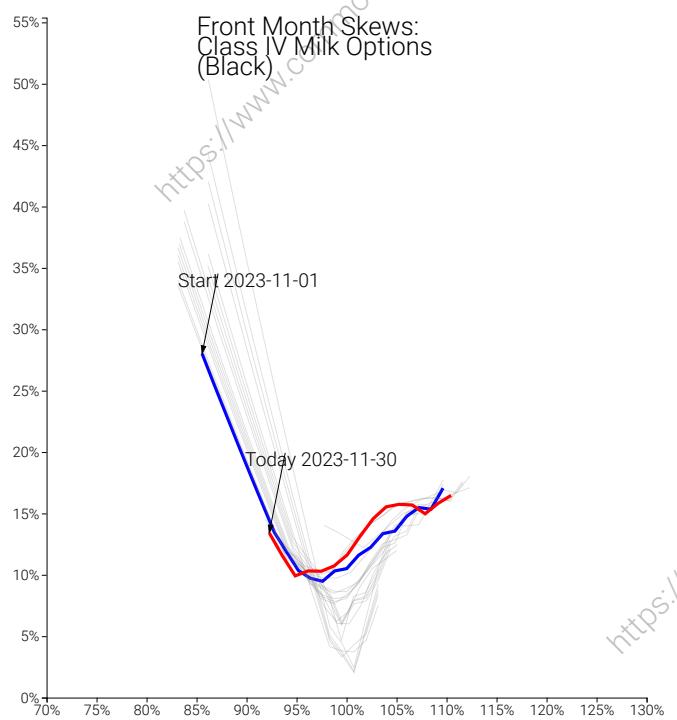
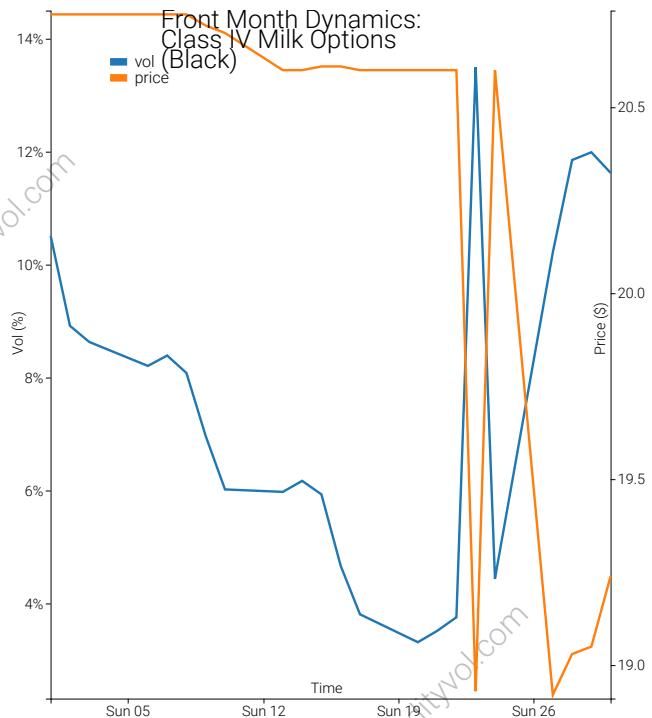
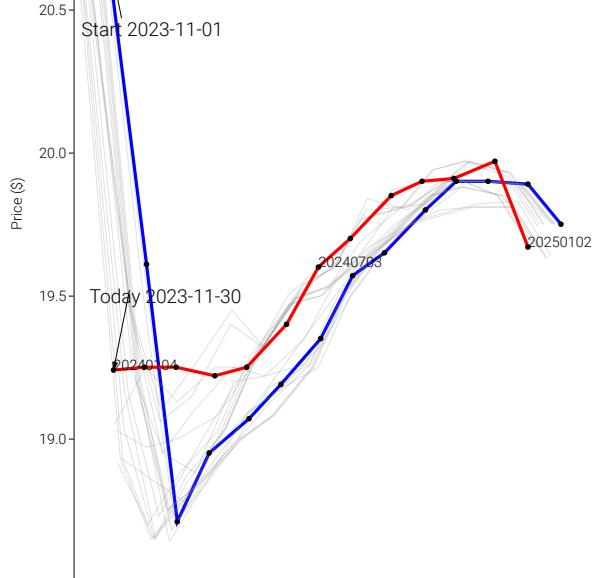
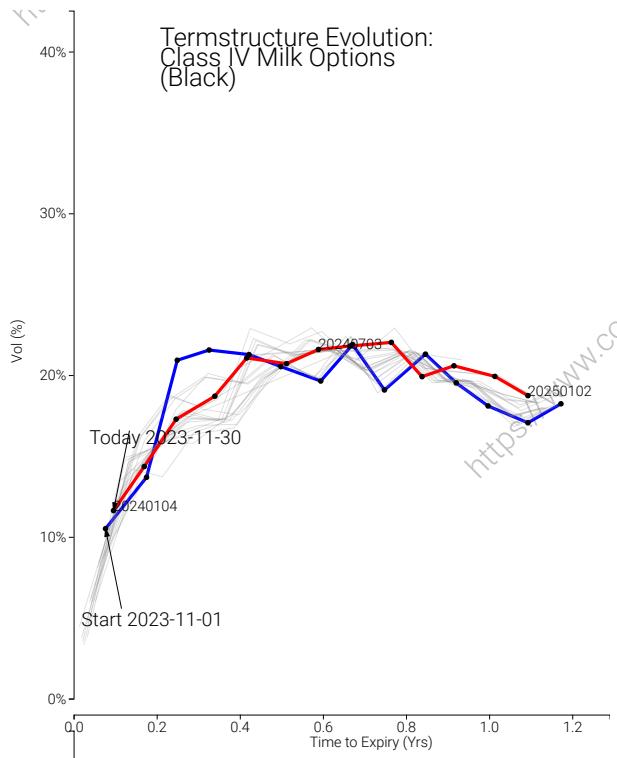
**Ags: Proteins, Meats and so forth**









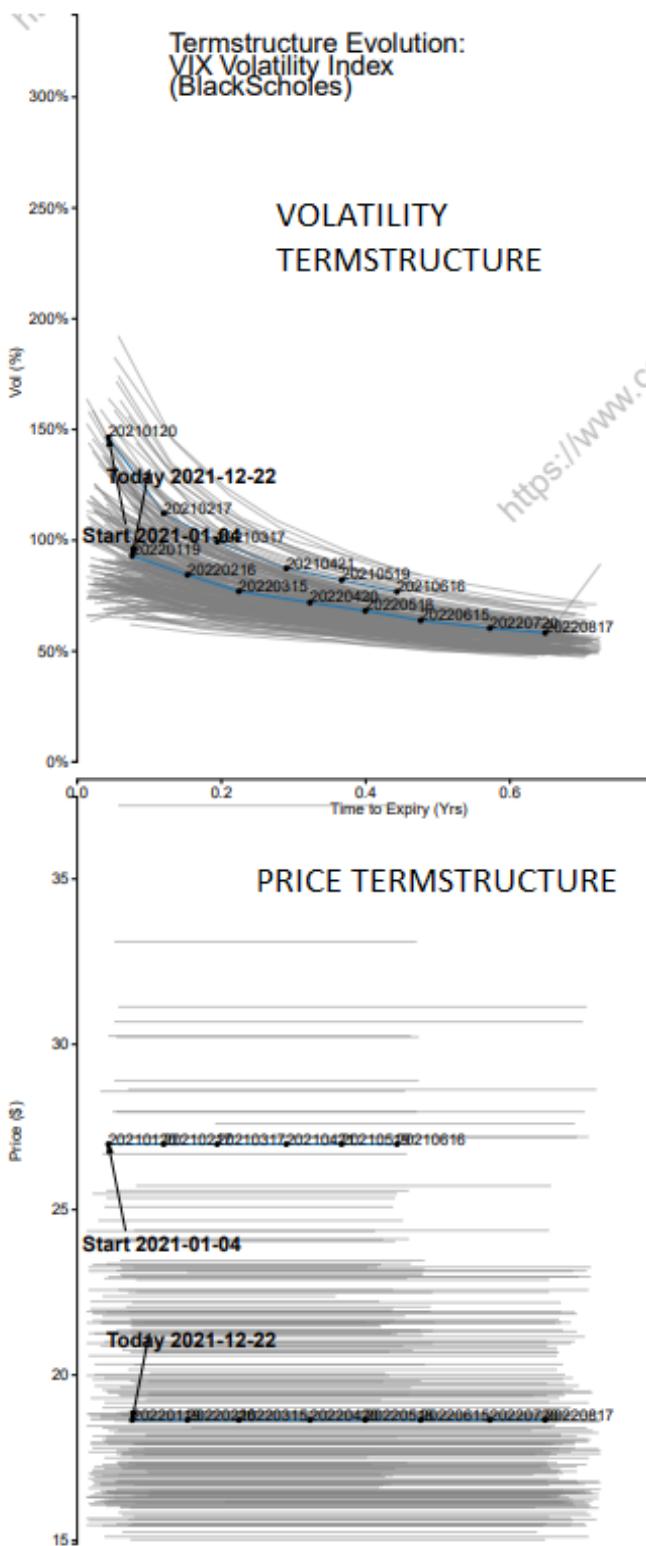


**Explanation:**

The document is composed of two parts. There is a tabular portion which summarizes the changes in front month futures prices and the changes in the at the money front month implied volatility. The results are presented as raw differences and percentage changes. The plots in this document try to give a feel for the evolution of the futures and options for each product type. The skew/termstructure/xyplots are broken out by major asset classes: Indexes, Fixed Income and so on.

## At the Money Volatility and Price Term Structures:

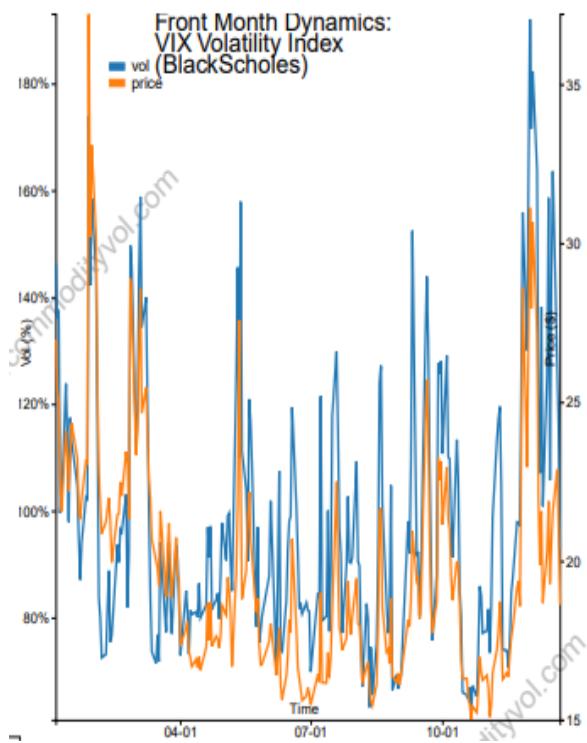
Stacked on top of the other on the left hand side, see the termstructures of vol and the (underlying) futures contract price.



The starting curve is the termstructure at the beginning of the period. This curve is labelled start and is typically colored blue. The ending curve is typically colored red and denoted by the text: Today. The greyed out lines are the termstructures for each day of the period. The hope is that the range of movements becomes apparent.

## Front Month At the Money Volatility and Front Month Price Over the Year:

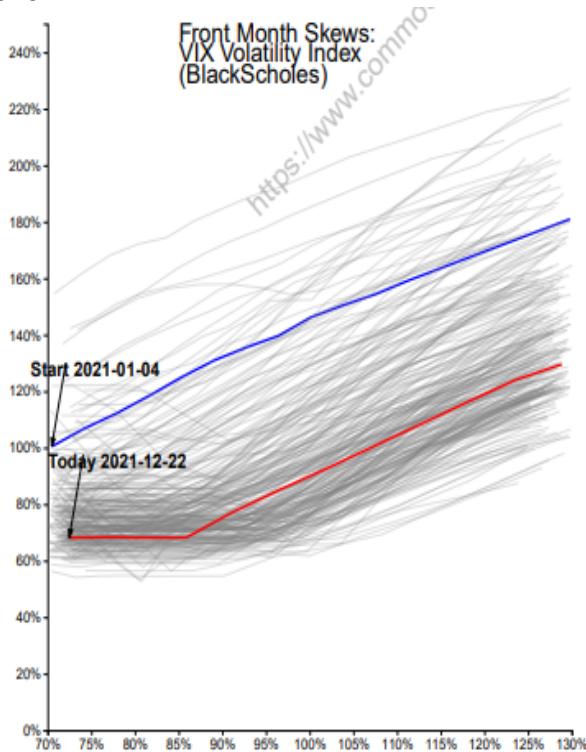
On the right hand panel we have the price and implied volatility of the front month contract.



At the money implied volatility is shown in blue and the axis on the left should be used to read off the values. The front month futures price is in orange and the right hand axis is where its value can be read.

## Front Month Skew:

On the right hand in the bottom panel we have the starting front month skew and the ending front month skew.



The front month skew is shown for the starting date. The starting curve is labelled as 'Start' and captioned with the date. The starting curve is blue. Conversely, the ending curve is shown in red and labeled Today. The y-axis shows the implied volatility and the x-axis shows the moneyness. The moneyness is a way to normalize the skew so that it is comparable across time.

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