Month End Summary of Commodity Futues and Options

Intro:
We are pleased to welcome you to our May 2022 month end report.

May could be considered a more consolidating month for most markets. In general we see some of the nosebleed moves abate, but the equity indexes have taken somewhat of a swan dive.

The US interest rate and government debt market showed a general rally in the short and medium ends of the term structure. This extended to the option implied volatility skews. The general trend was a parallel shift downwards in the curves. The threat of further rate moves is dependent on inflation numbers being released in the coming days and FED statements.

Agricultural commodities had more muted moves this month. However, the higher interest rates, real estate prices and general fear of economic malaise have put the brakes on timber. Implied volatility was up, but in a very measured way. Some of the proteins: milk, feeder cattle and lean hogs showed spikes in their prices. Milk, Soybean meal and rice exhibit vol spikes. The front month skews of corn, wheat and soybeans were mostly unchanged month over month. This doesn't mean the skews didn't move. They moved a lot, but settled near where they started. The vol of vol was high, even if that did not translate into a sticky move. Wheat's put wing is significantly down (even if the rest of the skew didn't change much).

Equity index futures were down across the board. The at the money vols were also, paradoxically, down. The VIX index was also down this period. The sell off may be headed into some short term exhaustion. Perhaps the summer doldrums have come a bit earlier and this down draft is on autopilot. The skews were quite stiff, with the odd exception that the near puts were offered, while extreme downside seems to have caught a bid. Again, perhaps the major players aren't worried about a slow grind and the risk is a sharp massive move down.

The metals markets, perhaps taking a cue from rates, were mostly quiet. Platinum was up 4% while its sister element palladium was down 9.5%. The palladium move could be in connection to fears of economic slowdown and less spending on autos. At the money volatility was mostly down. The curves were all mostly parallel shifted down, with the exception of gold. In gold we see call vol being a bit more aggressively sold.

Indexes were all down, with the exception of the VIX. In general, the Dow Jones futures were down the least with the Nasdaq 100 down the most. The VIX was up 13 vol points. The implied volatility for all of the contracts was up dramatically. This bid in equity index vol is the strongest we have witnessed since the 2020 drawdown.

Energy was the fly in the ointment. Even a rock on a dusty country road in Texas has heard about the rise in Natty gas prices. Natural gas rallied 9%, as did WTI and Brent Crude. Refined gasoline futures rallied 11%. The old heating oil/diesel/ULSD contract fell 6.4%. The fall was a bit surprising since there were stories circulating about the imminent stock outs in the commodity (at least on the US East coast). The European gas contract TFT/TFO should a decline in prices and levels. The market is relying on US natural gas slaking the thirst for European demand. Time will tell if this will be enough. The crude and crude derivative markets exhibited reductions in vol, while natural gas vol rallied. The change in skews in these markets was somewhat unremarkable.

Foreign exchange markets were mostly a one way train. Implied volatility lessened this month, and the US dollar lost ground against other currencies, except for BTC, Bitcoin. The Bitcoin contract plummeted another 18% and implied volality rallied. The other interesting things to note is that there are calendar spreads in the Euro and Pound (implied volatility termstructures) that have spiked at the 6 month and one year marks.

As always we welcome you to visit our website and hope to help you manage risk!

CommodityVol.com is here to serve your needs around modeling, forecasting and understanding the market. If you have needs for commodity skews, parameterized surfaces (including stochastic volatility models), please do not hesitate to contact us! info@commodityvol.com

At The Money Roundup of Products

exch/prod	desc	futures chng [%]	vol chng [%]
CBT/26	2 YR US Treasury Note	+0.188 [+0.2%]	-0.005 [-19.8%]
CBT/25	5 YR US Treasury Note	+0.695 [+0.6%]	-0.016 [-25.1%]
CBT/21	10 YR US Treasury Note	+1.109 [+0.9%]	-0.020 [-21.9%]
CBT/17	30 YR US Treasury Bond	+0.344 [+0.2%]	-0.031 [-19.1%]
CME/ED	Eurodollar	+0.135 [+0.1%]	-0.005 [-67.6%]
CBT/UBE	Long Term US Treasury Bond	-1.344 [-0.9%]	-0.042 [-17.7%]

Ags

exch/prod	desc	futures chng [%]	vol chng [%]
CME/DK	Class IV Milk	+1.100 [+4.5%]	+0.027 [+33.1%]
CBT/C	Corn	-0.500 [-6.2%]	+0.010 [+3.2%]
CME/62	Feeder Cattle	+3.700 [+2.3%]	-0.006 [-3.8%]
CBT/KW	KC HRW Wheat	+0.675 [+6.1%]	-0.012 [-3.2%]
CME/LN	Lean Hog	+8.100 [+8.1%]	-0.037 [-16.6%]
CME/48	Live Cattle	-4.825 [-3.6%]	-0.029 [-15.3%]
CME/LB	Lumber110	-264.500 [-28.8%]	+0.056 [+10.0%]
CME/NF	Nonfat Dry Milk	+3.200 [+1.8%]	+0.010 [+19.3%]
CBT/O	Oats	+0.157 [+2.4%]	-0.004 [-0.9%]
ENXT_COM/OCO	Rapeseed	-2.250 [-0.3%]	-0.002 [-0.6%]
CBT/14	Rough Rice	+0.380 [+2.2%]	+0.099 [+60.1%]
CBT/S	Soybean	+0.380 [+2.3%]	+0.010 [+4.8%]
CBT/06	Soybean Meal	-16.100 [-3.7%]	+0.028 [+12.1%]
CBT/07	Soybean Oil	-2.170 [-2.7%]	-0.018 [-5.1%]
CBT/W	Wheat	+0.320 [+3.0%]	-0.014 [-3.5%]

EquityIndex

exch/prod	desc	futures chng [%]	vol chng [%]
CBT/YM	E-Mini Dow	-9.000 [-0.0%]	-0.027 [-12.0%]
CME/NQ	E-Mini Nasdaq	-426.500 [-3.3%]	-0.020 [-6.1%]
CME/RTO	E-Mini Russell 2000	-17.900 [-1.0%]	-0.021 [-6.7%]
CME/RTM	E-Mini Russell EOM	-17.200 [-0.9%]	-0.029 [-9.1%]
CME/ES	E-Mini S&P 500	-19.750 [-0.5%]	-0.018 [-6.9%]
CBOE/VIX	VIX Volatility Index	-6.150 [-19.0%]	-0.626 [-40.4%]

Metals

exch/prod	desc	futures chng [%]	vol chng [%]
COMEX/HX	Copper	+0.028 [+0.7%]	-0.059 [-19.2%]
COMEX/OG	Gold	-15.200 [-0.8%]	-0.033 [-18.6%]
NYMEX/PAO	Palladium	-209.700 [-9.5%]	-0.032 [-5.9%]
NYMEX/PO	Platinum	+35.500 [+3.8%]	+0.011 [+3.6%]
COMEX/SO	Silver	-0.896 [-4.0%]	-0.043 [-14.1%]

Energy

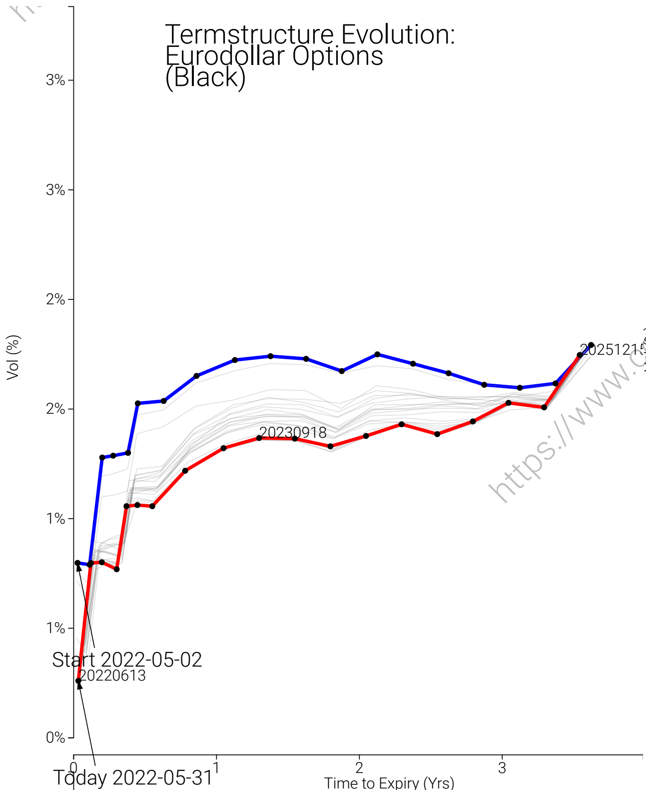
exch/prod	desc	futures chng [%]	vol chng [%]
NYMEX/BZO	Brent Crude Oil Margin	+8.020 [+7.5%]	-0.065 [-12.1%]
NYMEX/BE	Brent Euro Style	+8.020 [+7.5%]	-0.057 [-10.7%]
NYMEX/CVR	Chicago Ethanol(platts) Average Price	+0.085 [+3.2%]	-0.040 [-18.3%]
NYMEX/LO	Crude Oil	+9.500 [+9.0%]	-0.024 [-4.4%]
NYMEX/TFO	Dutch TTF Natural Gas	-3.047 [-3.1%]	-0.696 [-38.6%]
NYMEX/LN	European Natural Gas	+0.670 [+9.0%]	+0.073 [+9.9%]
NYMEX/E7	Henry Hub Financial Last Day	+0.670 [+9.0%]	+0.067 [+9.2%]
NYMEX/ON	Natural Gas	+0.670 [+9.0%]	+0.071 [+9.7%]
NYMEX/OH	NY Harbor ULSD	-0.270 [-6.4%]	-0.115 [-18.0%]
NYMEX/OB	RBOB	+0.406 [+11.6%]	-0.029 [-5.3%]

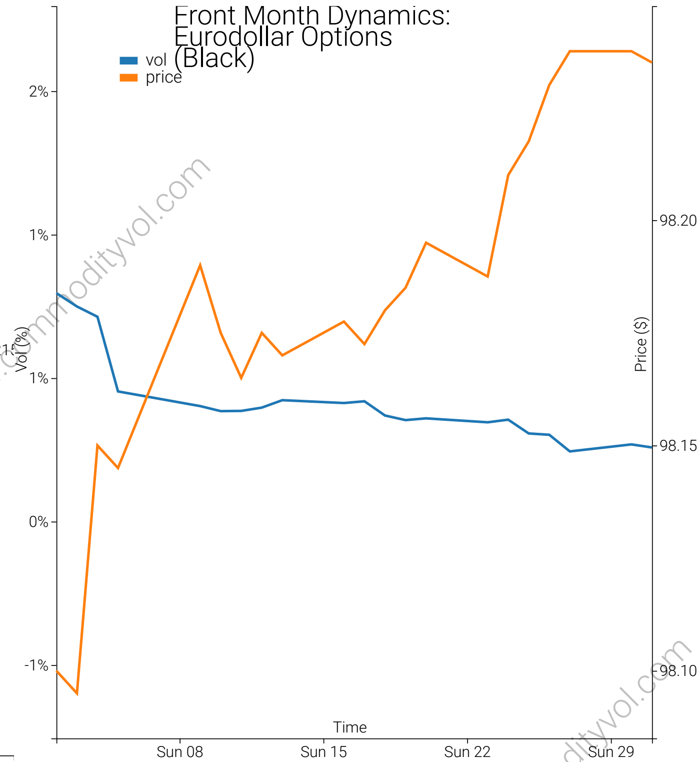
Forex

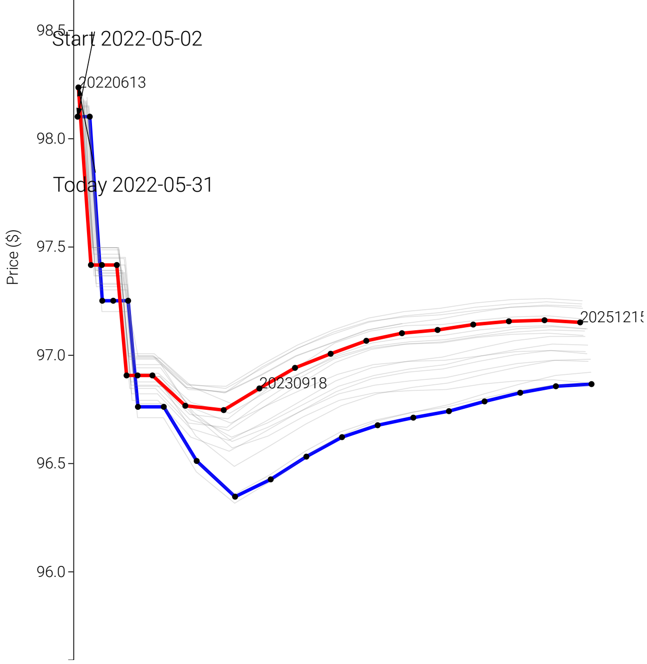
exch/prod	desc	futures chng [%]	vol chng [%]
CME/ADU	AUDUSD 2pmfix	+0.014 [+2.0%]	-0.075 [-40.1%]
CME/BTC	Bitcoin	-6890.000 [-17.9%]	+0.094 [+18.0%]
CME/BR	BRLUSD Monthly	+0.016 [+8.2%]	-0.078 [-39.6%]
CME/CAU	CADUSD 2pmfix	+0.016 [+2.0%]	-0.055 [-44.2%]
CME/CHU	CHFUSD 2pmfix	+0.027 [+2.6%]	-0.044 [-35.6%]
CME/EUU	EURUSD 2pmfix	+0.029 [+2.8%]	-0.063 [-44.5%]
CME/GBU	GBPUSD 2pmfix	+0.014 [+1.1%]	-0.066 [-41.4%]
CME/JPU	JPYUSD 2pmfix	+0.000 [+1.6%]	-0.073 [-43.5%]
CME/MP	Mexican Peso	+0.001 [+2.7%]	-0.052 [-32.0%]
CME/NE	New Zealand	+0.009 [+1.4%]	-0.079 [-37.4%]

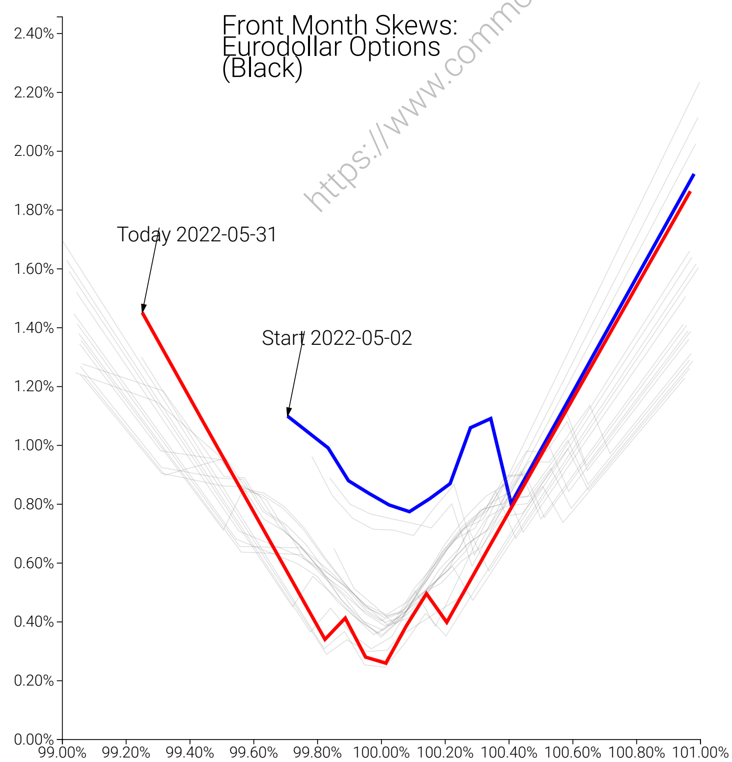
Skews, Termstructures and more

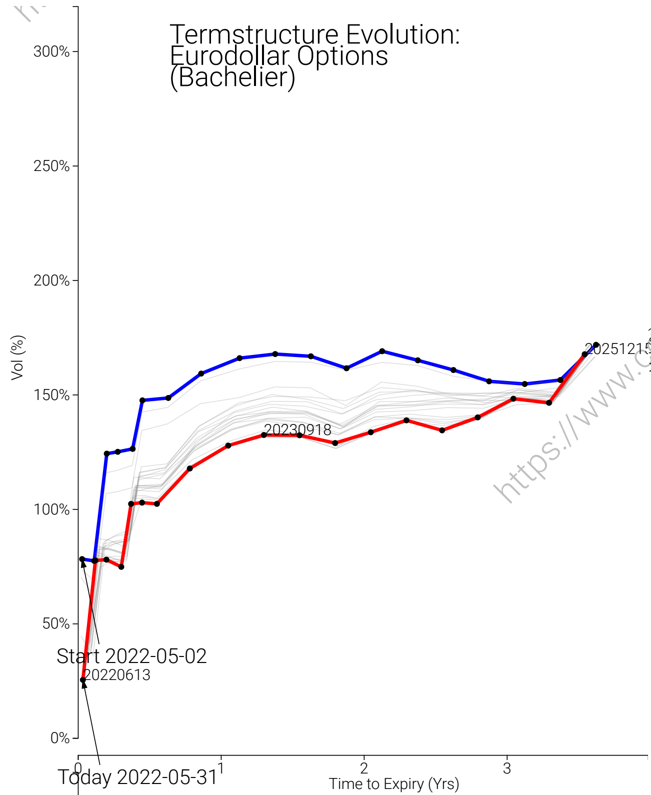
InterestRates: Fixed Income and STIRS

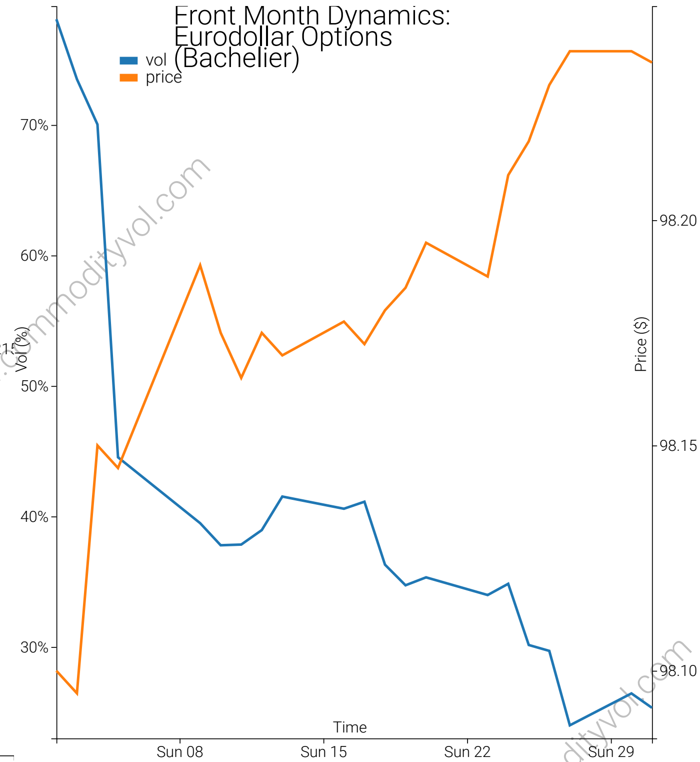

Termstructure Evolution:
Eurodollar Options
(Black)
Vol (%)
Time to Expiry (Yrs)
Start 2022-05-02
Today 2022-05-31
20220613
20230918
20251215

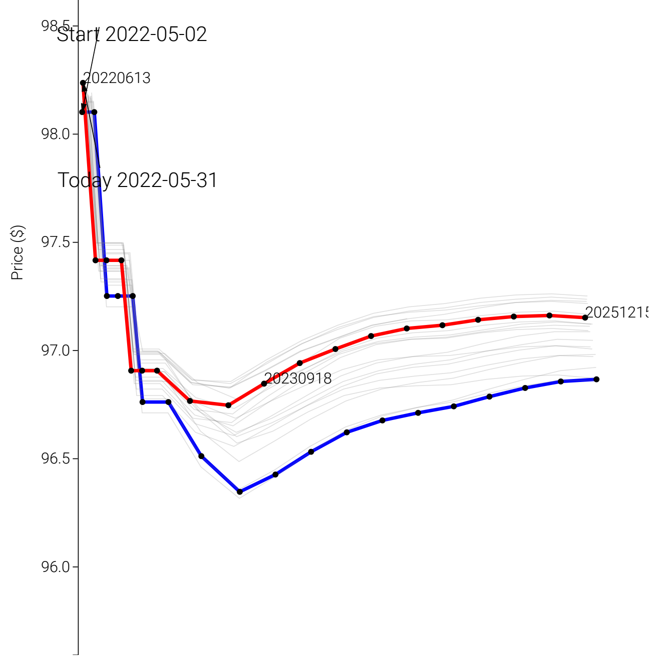

Front Month Dynamics:
Eurodollar Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

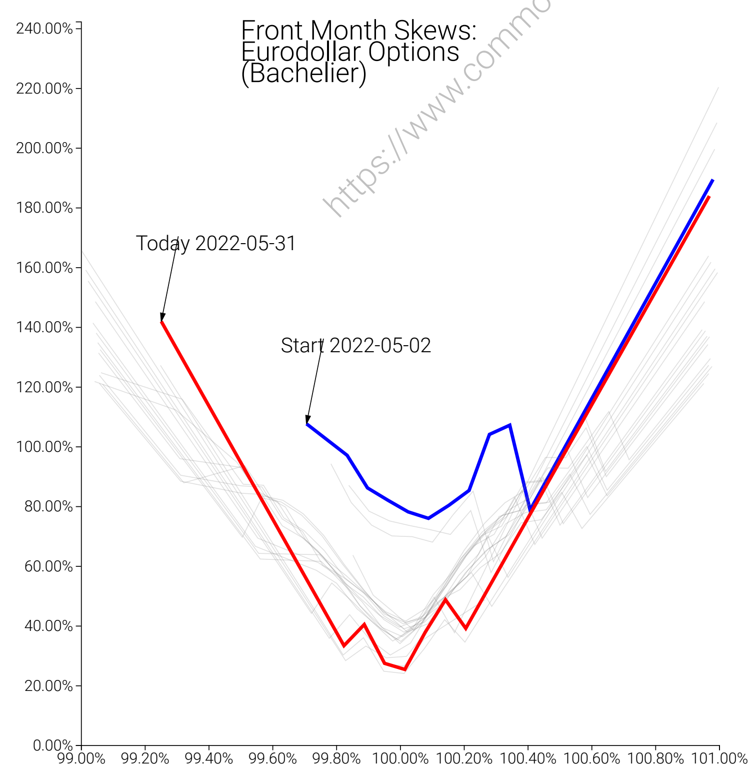

Price ($)
Start 2022-05-02
Today 2022-05-31
20220613
20230918
20251215

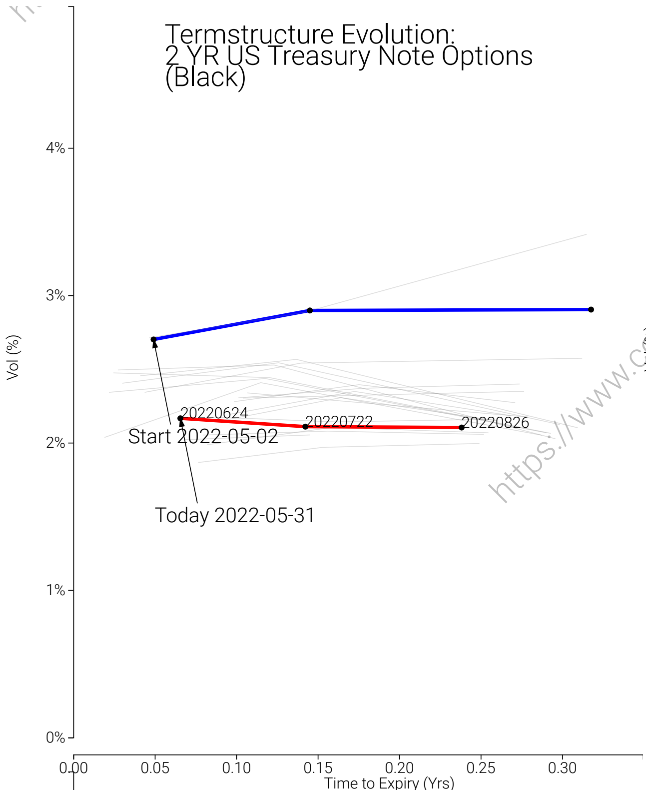

Front Month Skews:
Eurodollar Options
(Black)
Today 2022-05-31
Start 2022-05-02

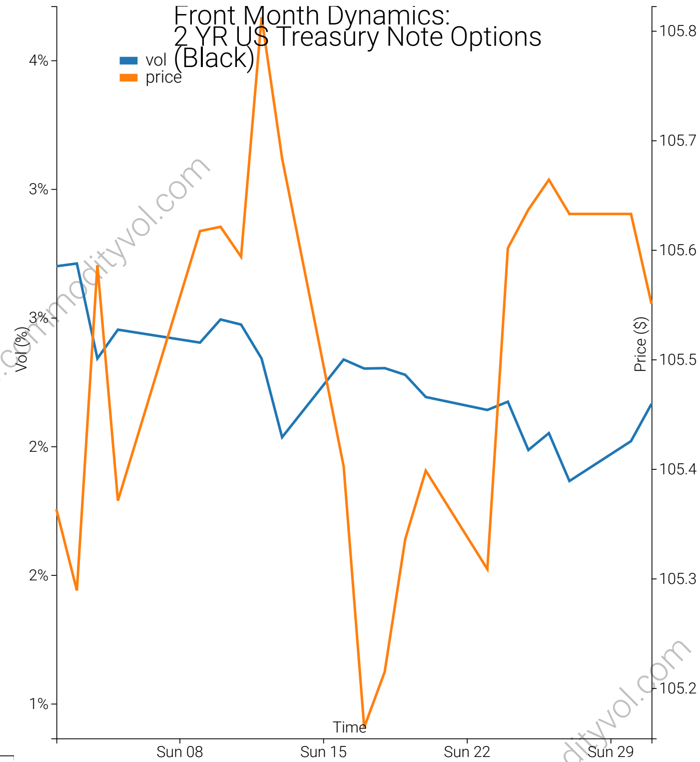

Termstructure Evolution:
Eurodollar Options
(Bachelier)
Vol (%)
Time to Expiry (Yrs)
Start 2022-05-02
Today 2022-05-31
20220613
20230918

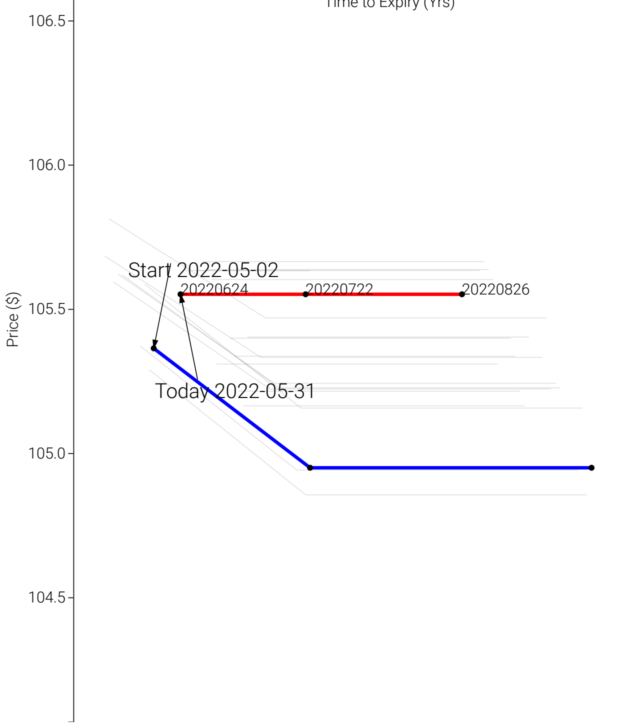

Front Month Dynamics:
Eurodollar Options
(Bachelier)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

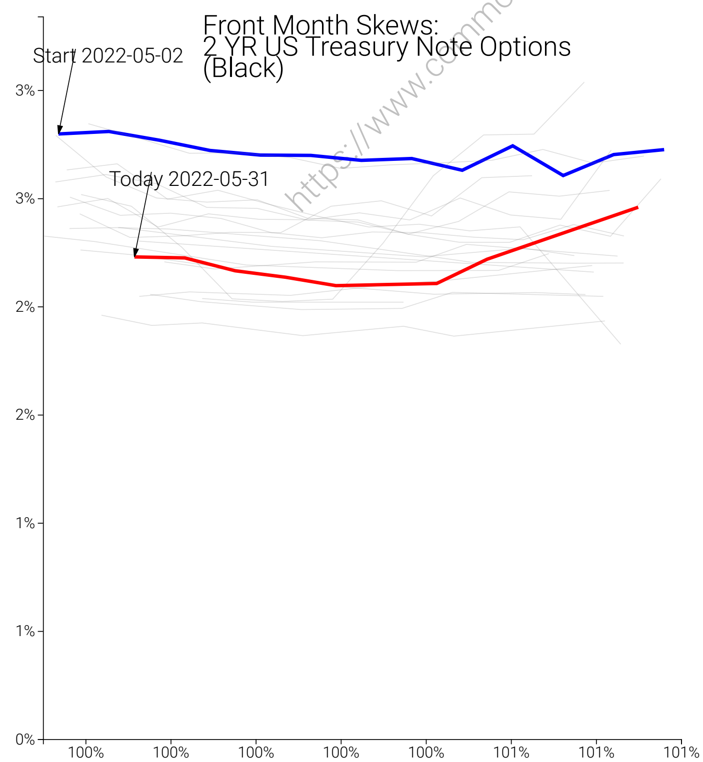

Start 2022-05-02
20220613
Today 2022-05-31
Price ($)
20230918

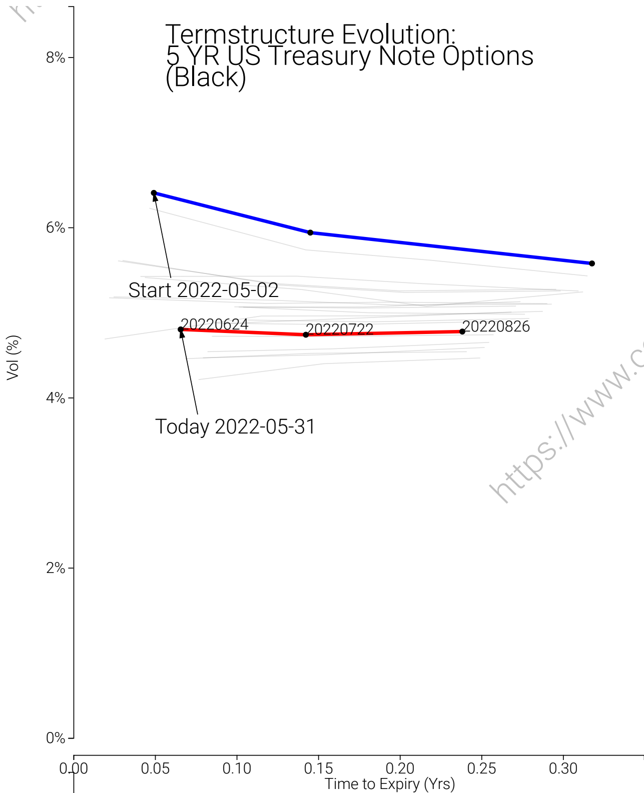

Front Month Skews:
Eurodollar Options
(Bachelier)
Today 2022-05-31
Start 2022-05-02

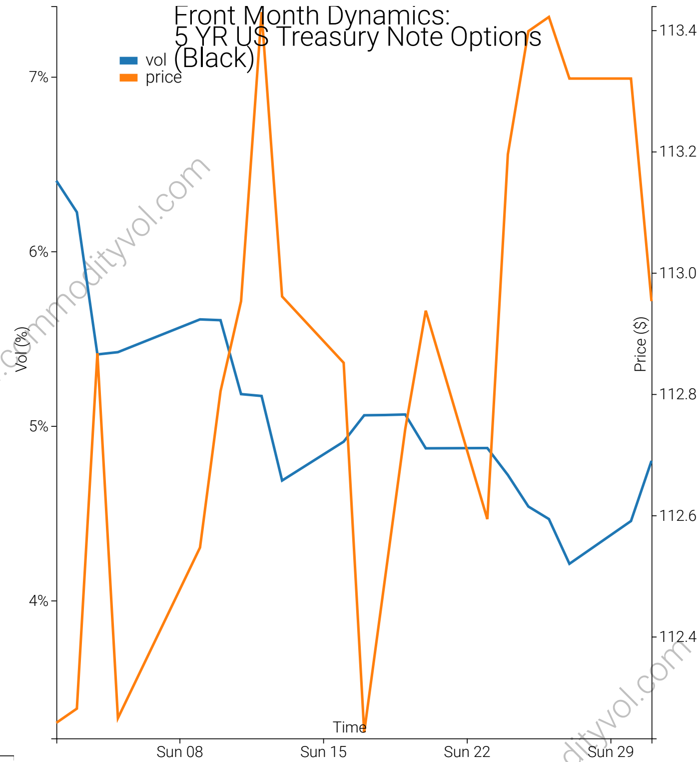

Termstructure Evolution:
2 YR US Treasury Note Options
(Black)
Vol (%)
4%
3%
2%
1%
0%
20220624
20220722
20220826
Start 2022-05-02
Today 2022-05-31
0.00
0.05
0.10
0.15
0.20
0.25
0.30
Time to Expiry (Yrs)

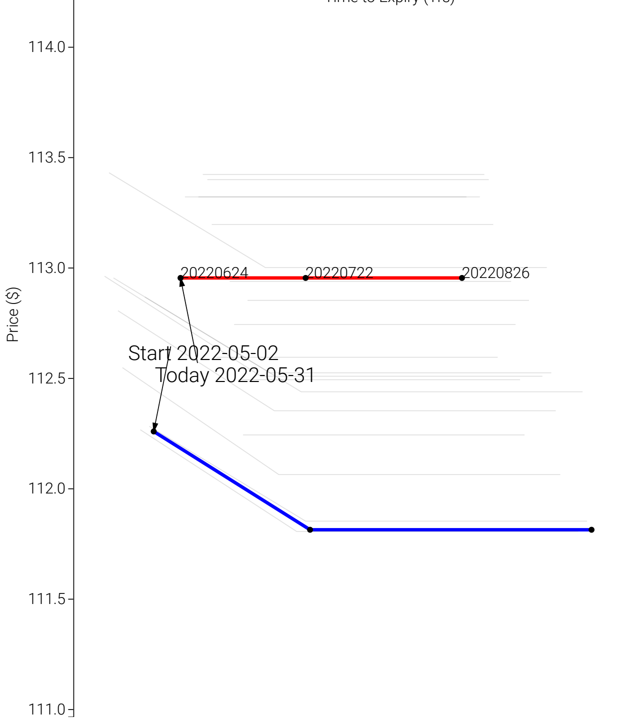

Front Month Dynamics:
2 YR US Treasury Note Options
(Black)
vol
price
Vol (%)
4%
3%
3%
2%
2%
1%
Price ($)
105.8
105.7
105.6
105.5
105.4
105.3
105.2
Time
Sun 08
Sun 15
Sun 22
Sun 29

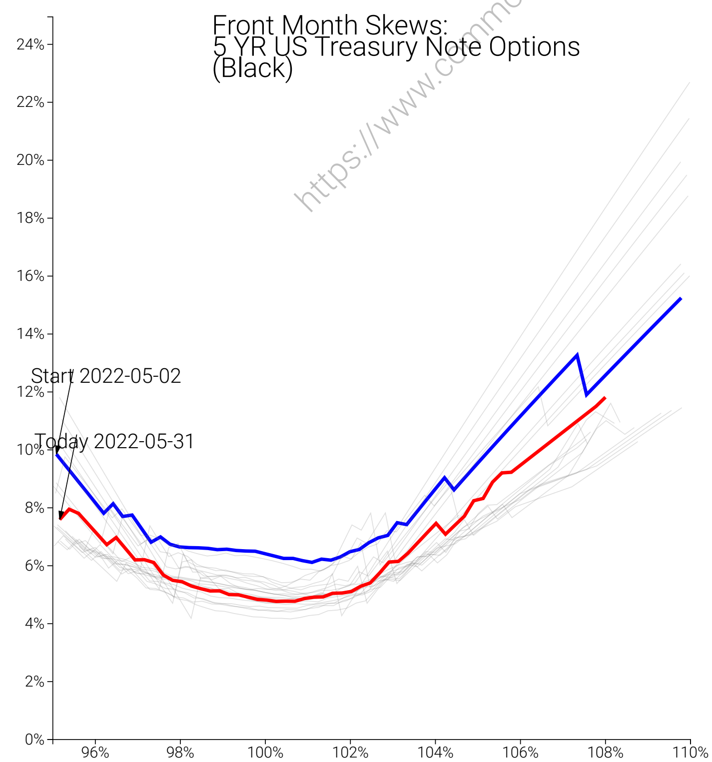

Price ($)
106.5
106.0
105.5
105.0
104.5
Start 2022-05-02
20220624
20220722
20220826
Today 2022-05-31

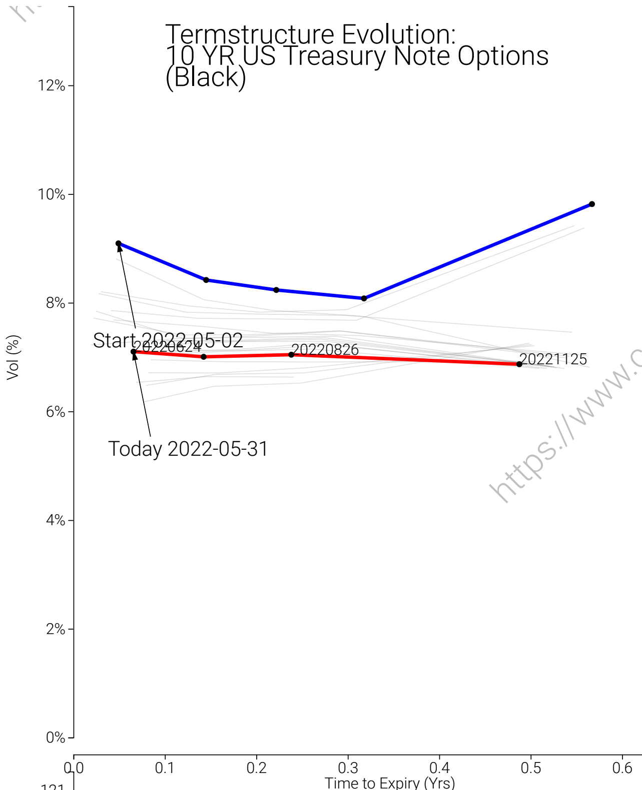

Front Month Skews:
2 YR US Treasury Note Options
(Black)
Start 2022-05-02
Today 2022-05-31
3%
3%
2%
2%
1%
1%
0%
100%
100%
100%
100%
100%
101%
101%
101%

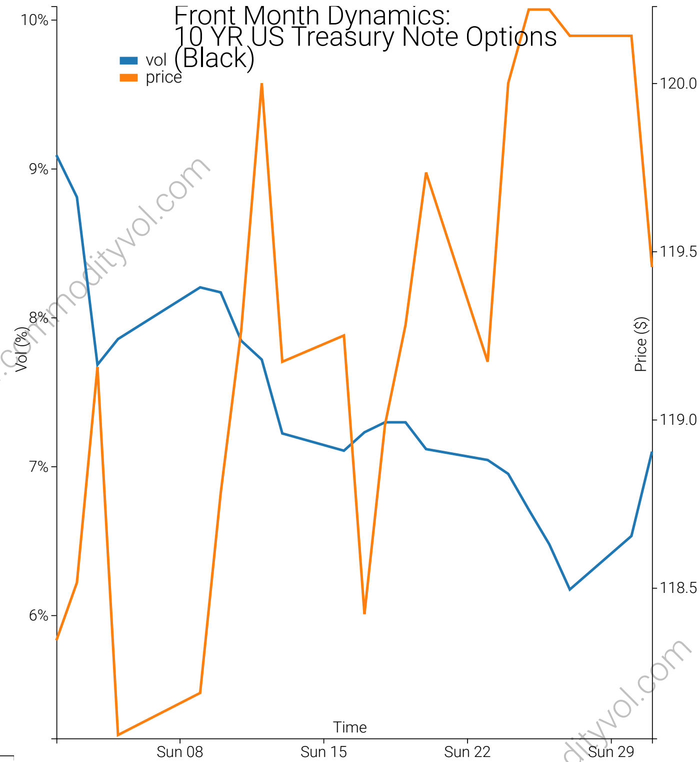

Termstructure Evolution:
5 YR US Treasury Note Options
(Black)
Vol (%)
8%
6%
4%
2%
0%
Start 2022-05-02
20220624
20220722
20220826
Today 2022-05-31
0.00
0.05
0.10
0.15
0.20
0.25
0.30
Time to Expiry (Yrs)

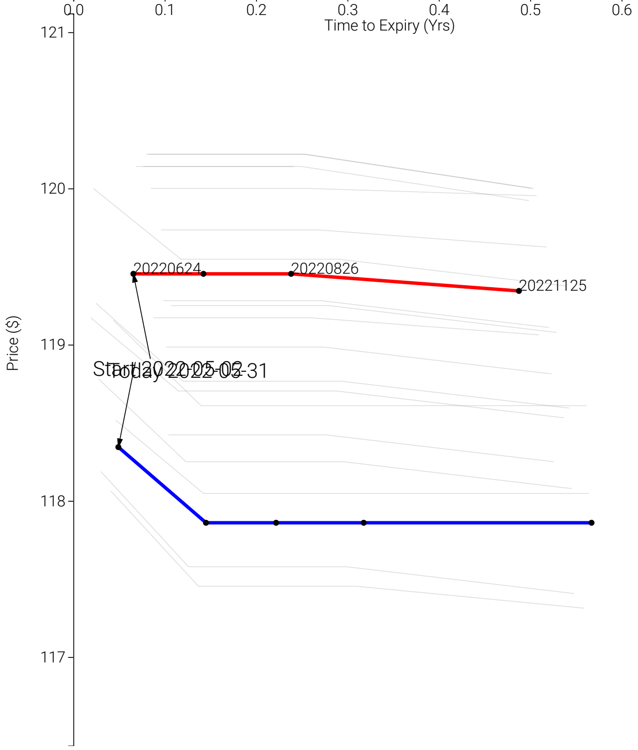

Front Month Dynamics:
5 YR US Treasury Note Options
(Black)
vol
price
Vol (%)
7%
6%
5%
4%
Price ($)
113.4
113.2
113.0
112.8
112.6
112.4
Time
Sun 08
Sun 15
Sun 22
Sun 29

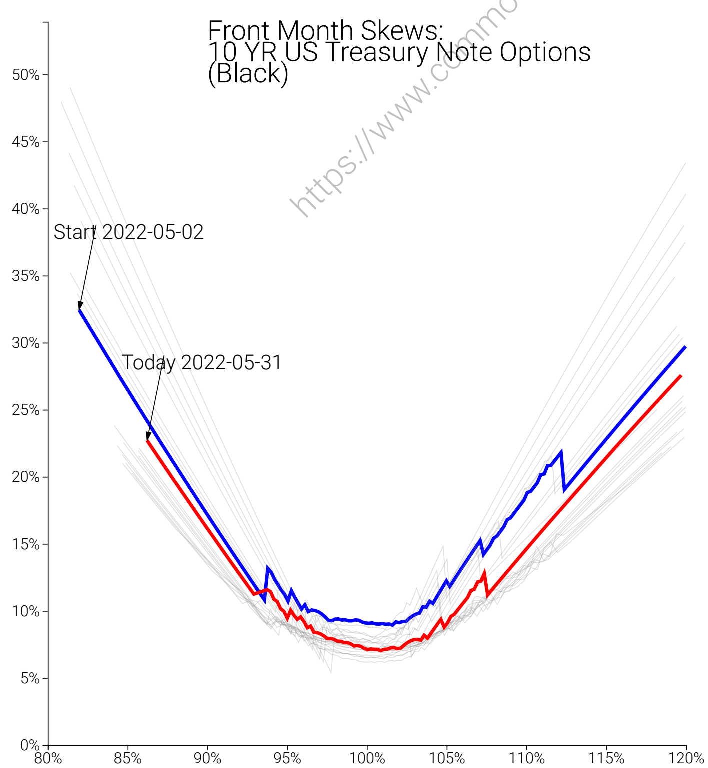

Price ($)
114.0
113.5
113.0
112.5
112.0
111.5
111.0
20220624
20220722
20220826
Start 2022-05-02
Today 2022-05-31

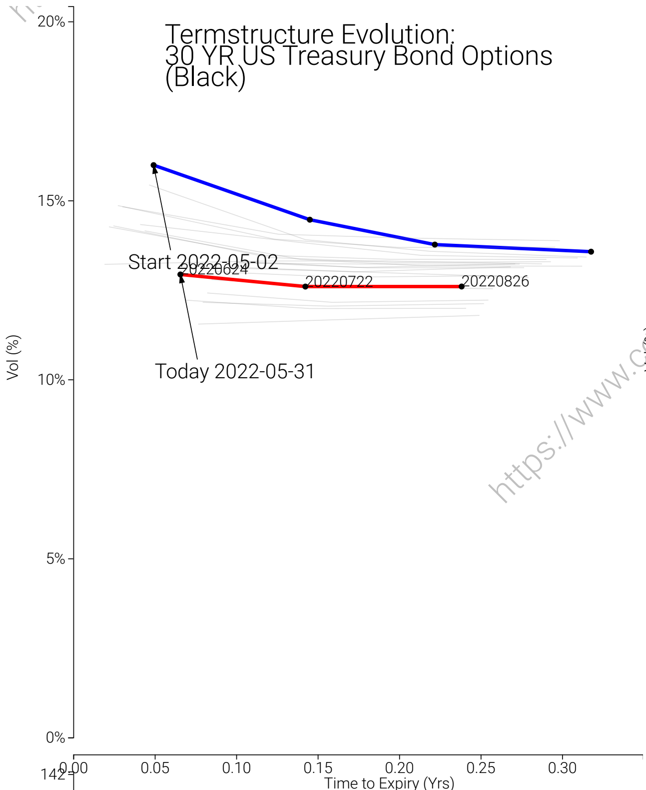

Front Month Skews:
5 YR US Treasury Note Options
(Black)
24%
22%
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
Start 2022-05-02
Today 2022-05-31
96%
98%
100%
102%
104%
106%
108%
110%


Termstructure Evolution:
10 YR US Treasury Note Options
(Black)
Vol (%)
Time to Expiry (Yrs)
Start 2022-05-02
Today 2022-05-31
20220624
20220826
20221125

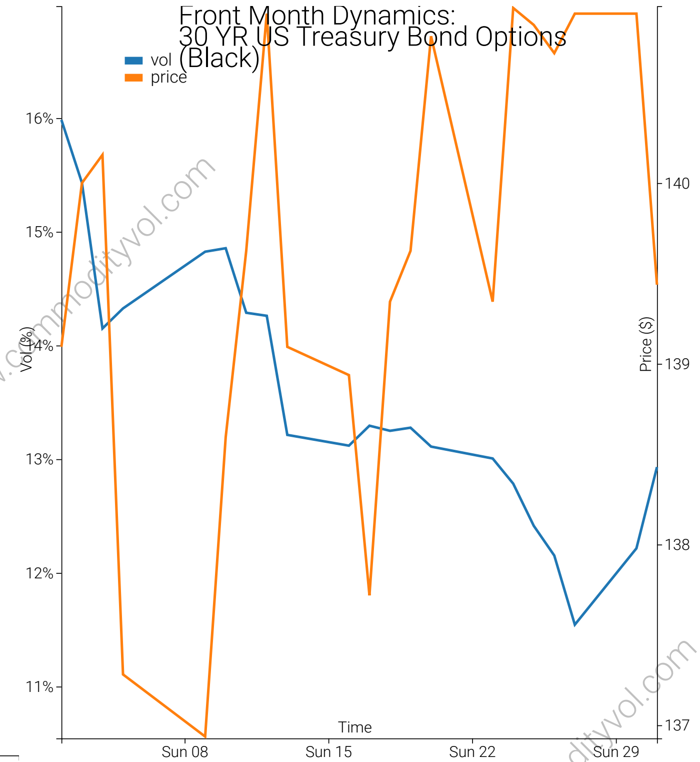

Front Month Dynamics:
10 YR US Treasury Note Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29


Price ($)
Start 2022-05-02
Today 2022-05-31
20220624
20220826
20221125

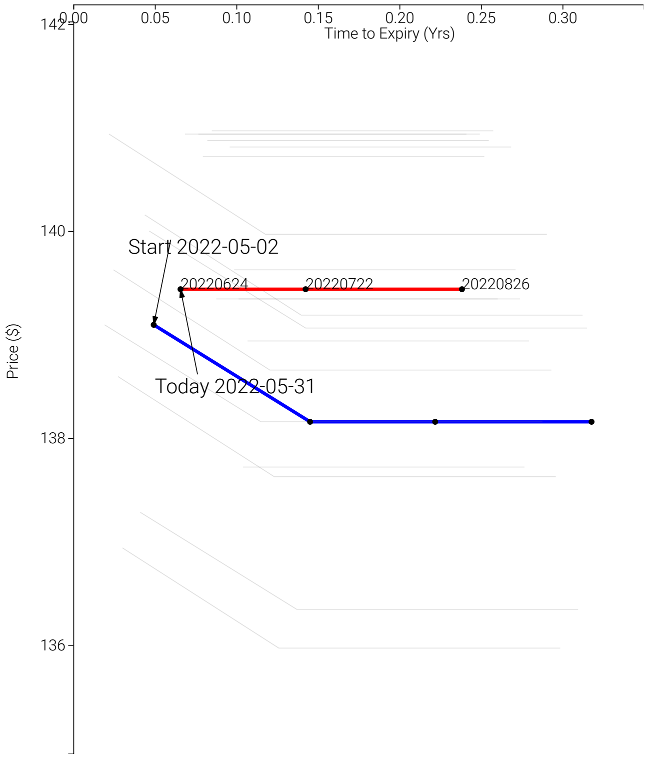

Front Month Skews:
10 YR US Treasury Note Options
(Black)
Start 2022-05-02
Today 2022-05-31



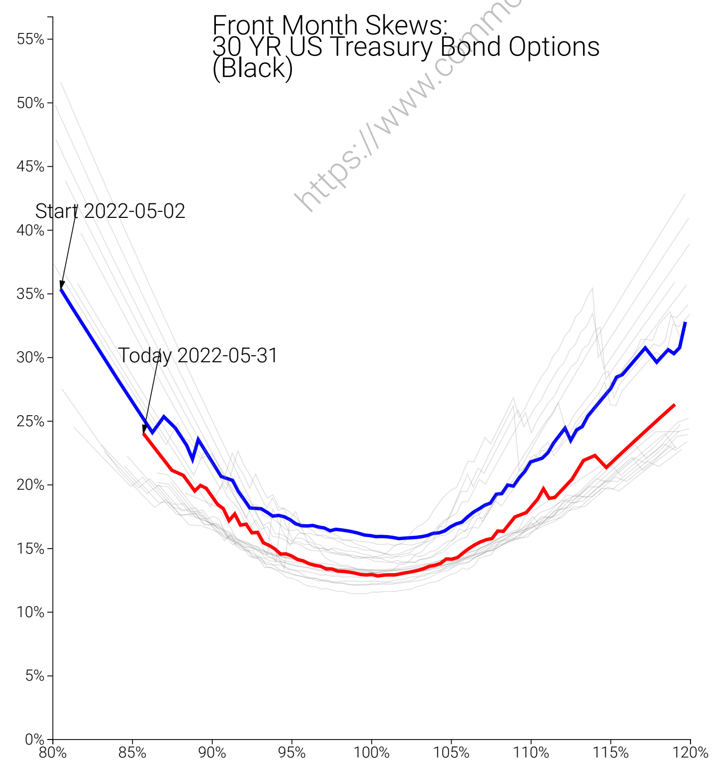
Termstructure Evolution:
30 YR US Treasury Bond Options
(Black)
Start 2022-05-02
Today 2022-05-31
20220624
20220722
20220826
Vol (%)
Time to Expiry (Yrs)



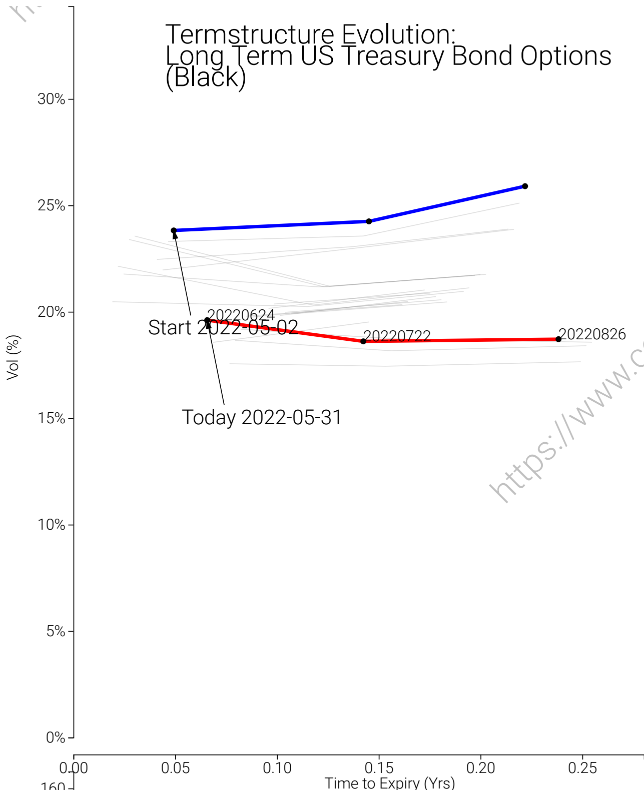
Front Month Dynamics:
30 YR US Treasury Bond Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

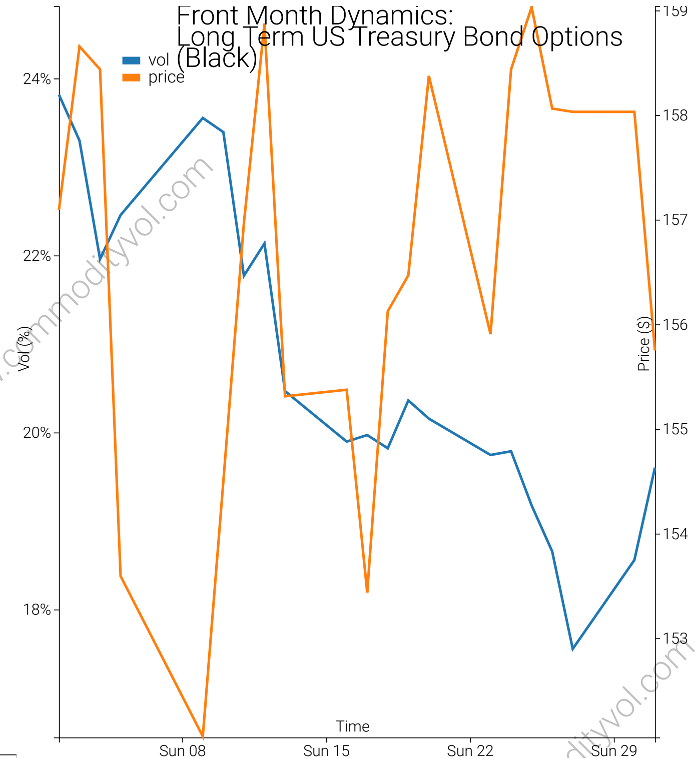


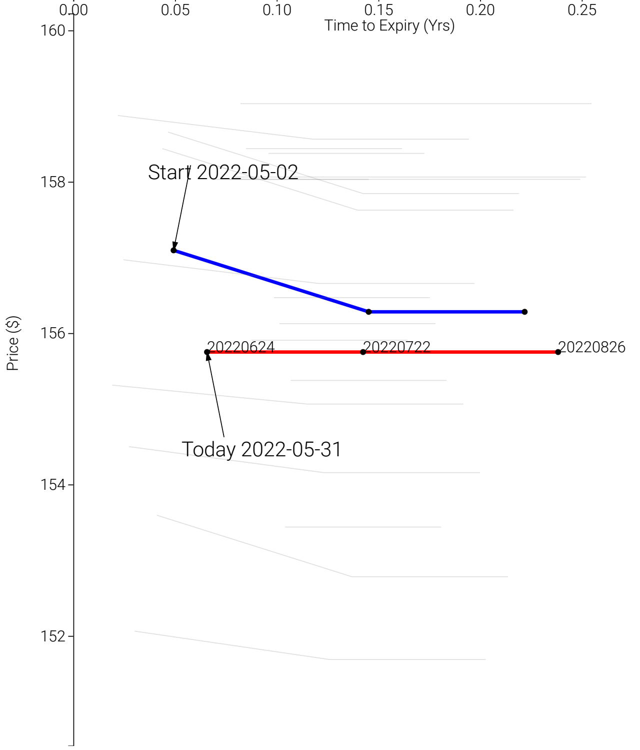
Start 2022-05-02
Today 2022-05-31
20220624
20220722
20220826
Price ($)

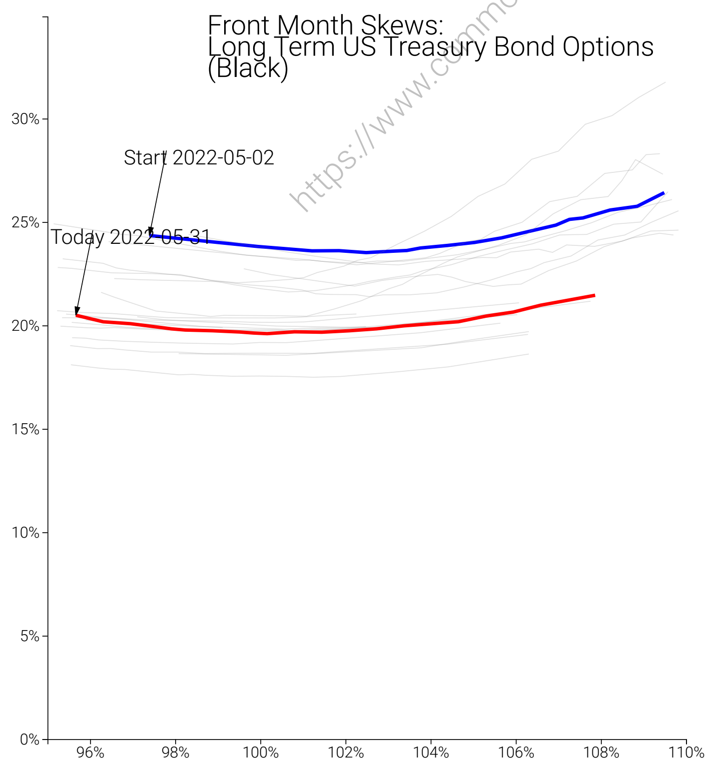


Front Month Skews:
30 YR US Treasury Bond Options
(Black)
Start 2022-05-02
Today 2022-05-31

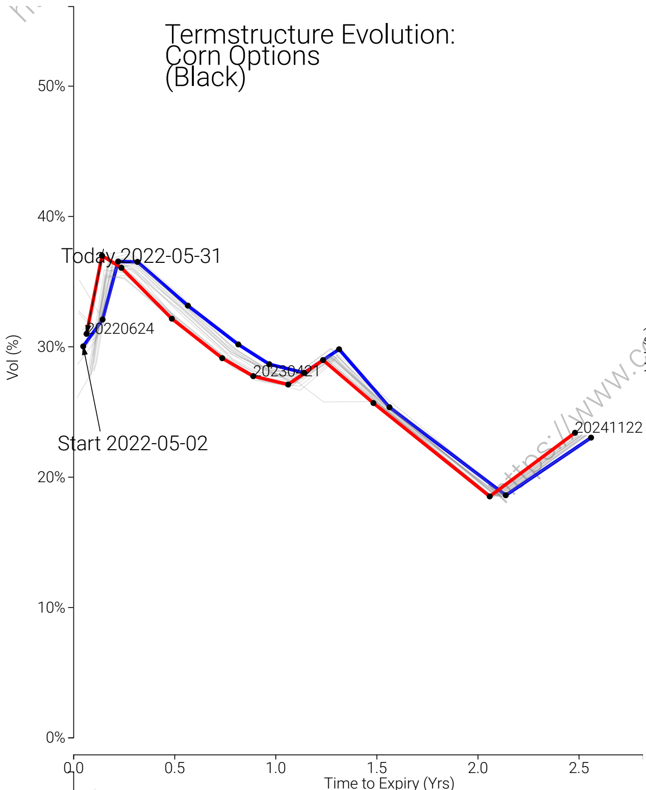

Termstructure Evolution:
Long Term US Treasury Bond Options
(Black)
Vol (%)
Time to Expiry (Yrs)
Start 2022-05-02
Today 2022-05-31
20220624
20220722
20220826
0%
5%
10%
15%
20%
25%
30%
0.00
0.05
0.10
0.15
0.20
0.25

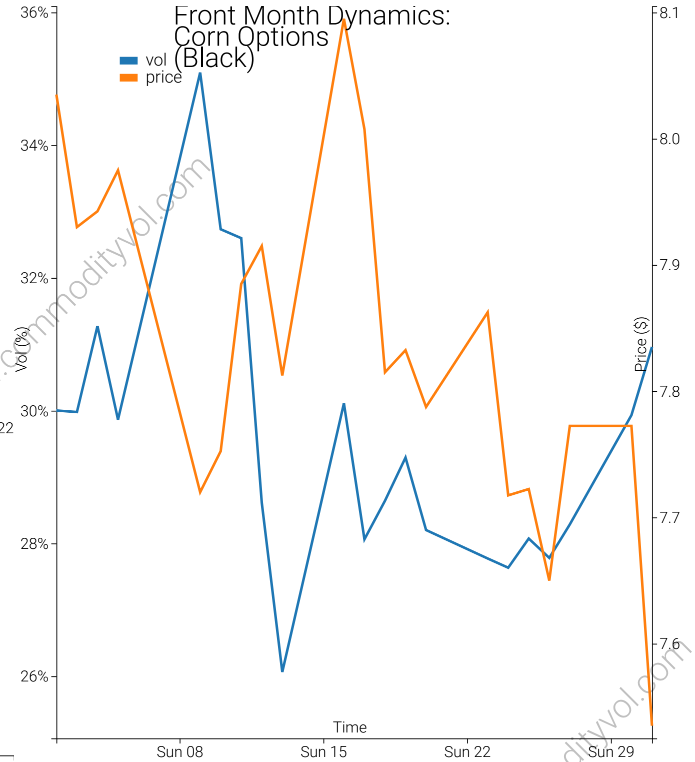

Front Month Dynamics:
Long Term US Treasury Bond Options
(Black)
vol
price
Vol (%)
Price ($)
Time
18%
20%
22%
24%
153
154
155
156
157
158
159
Sun 08
Sun 15
Sun 22
Sun 29

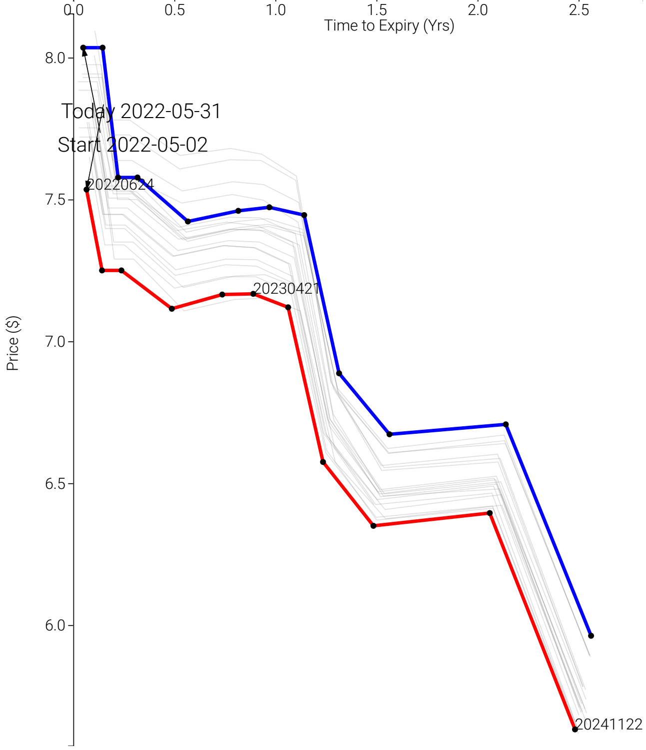

Price ($)
Start 2022-05-02
Today 2022-05-31
20220624
20220722
20220826
152
154
156
158
160

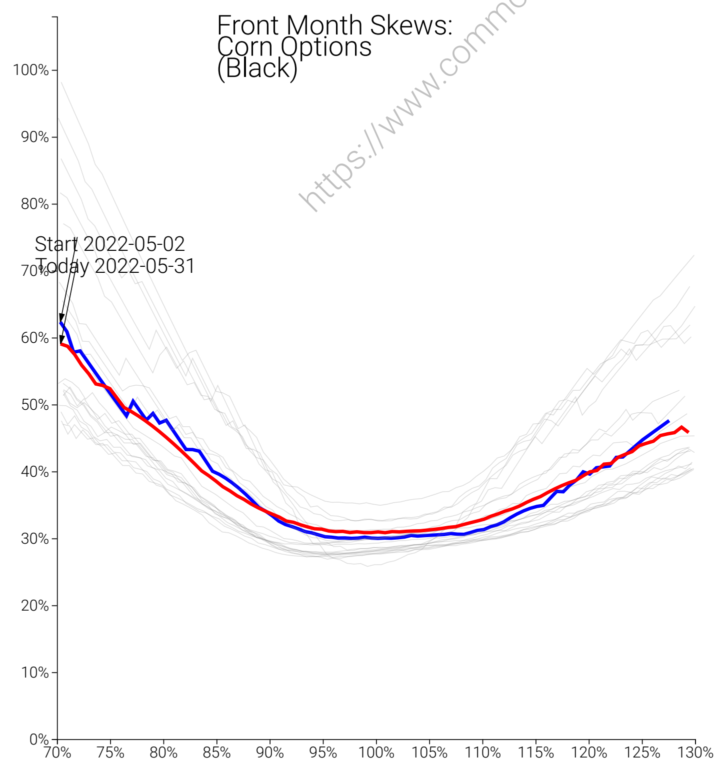

Front Month Skews:
Long Term US Treasury Bond Options
(Black)
Start 2022-05-02
Today 2022-05-31
0%
5%
10%
15%
20%
25%
30%
96%
98%
100%
102%
104%
106%
108%
110%

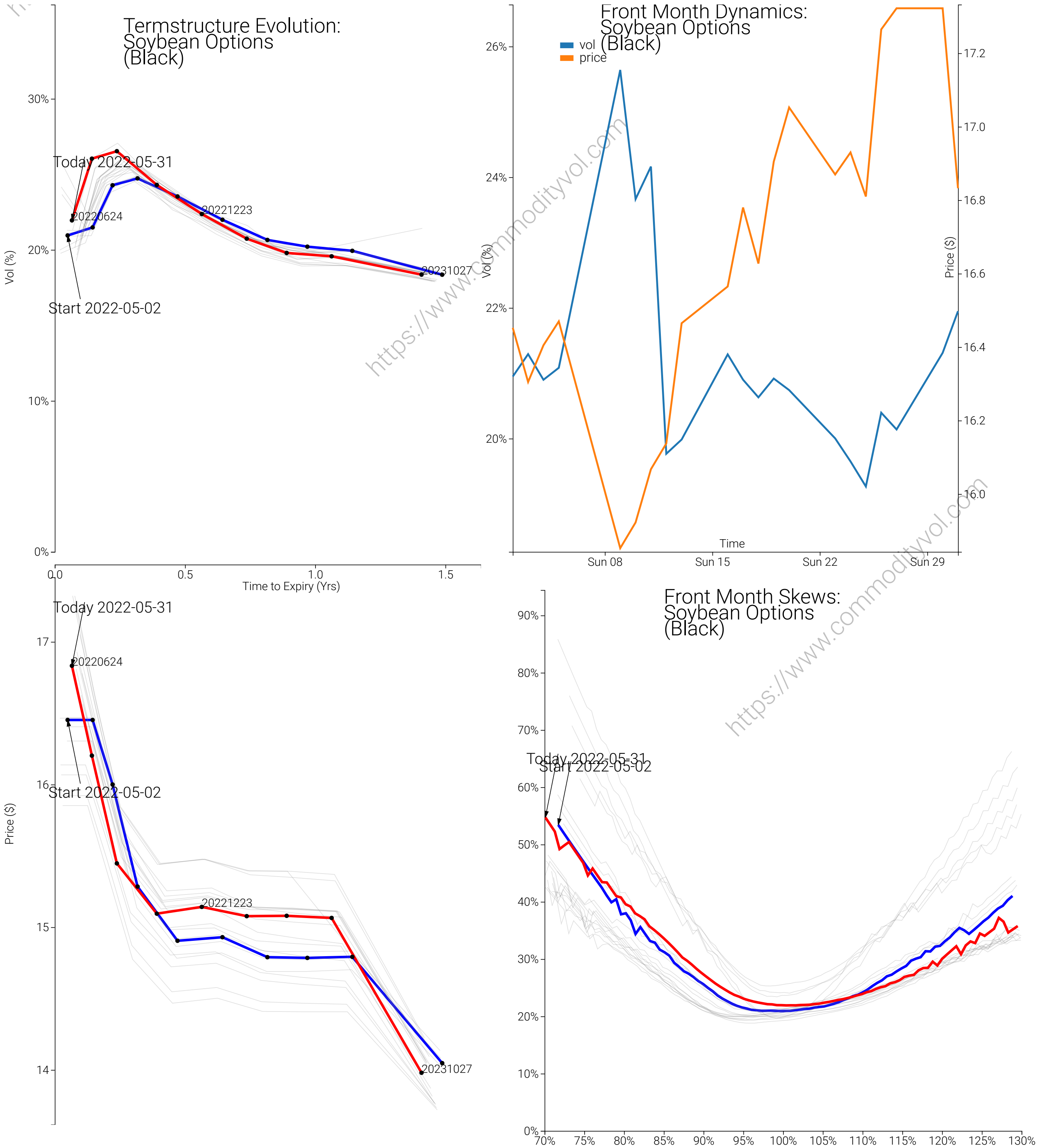
Ags: Grains, Oilseeds, and so forth

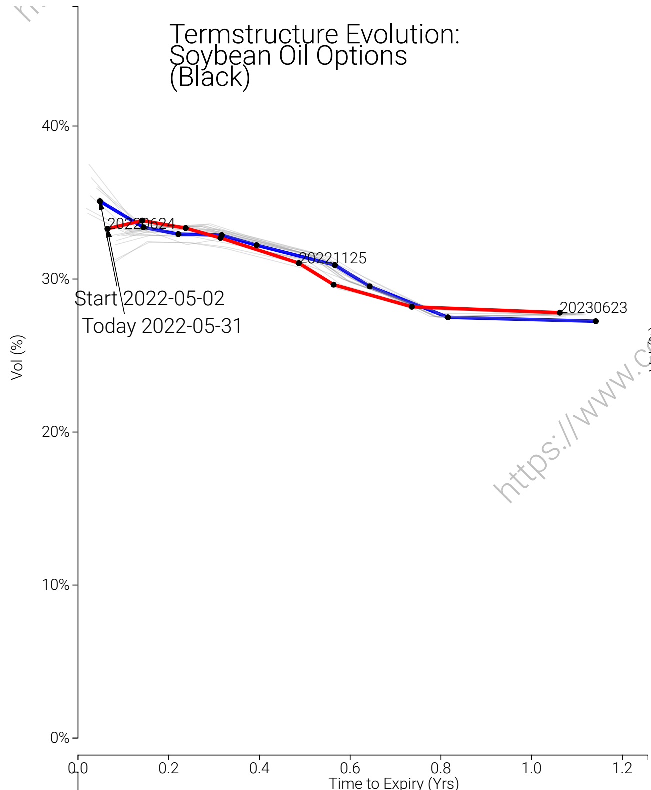

Termstructure Evolution:
Corn Options
(Black)
Today 2022-05-31
20220624
20230421
20241122
Start 2022-05-02
Vol (%)
Time to Expiry (Yrs)


Front Month Dynamics:
Corn Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

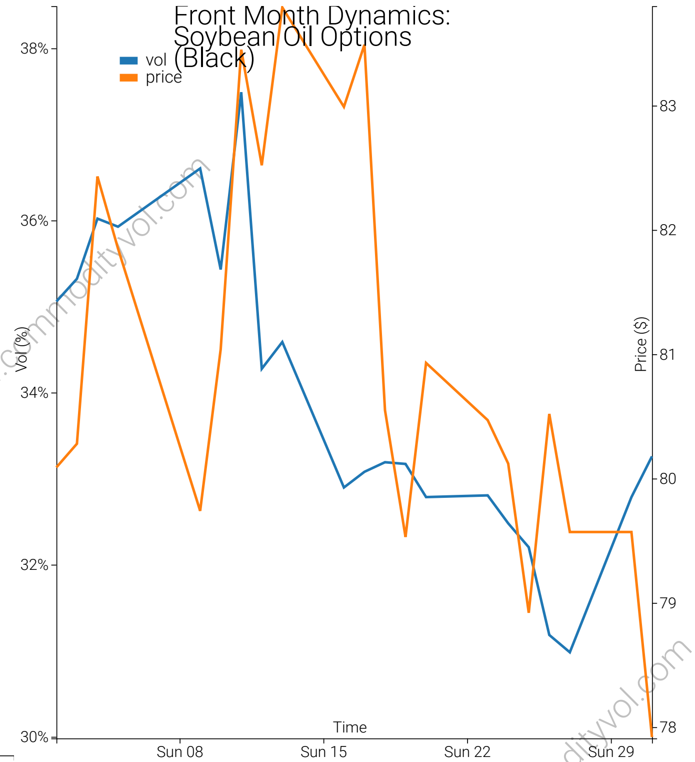

Today 2022-05-31
Start 2022-05-02
20220624
20230421
20241122
Price ($)


Front Month Skews:
Corn Options
(Black)
Start 2022-05-02
Today 2022-05-31

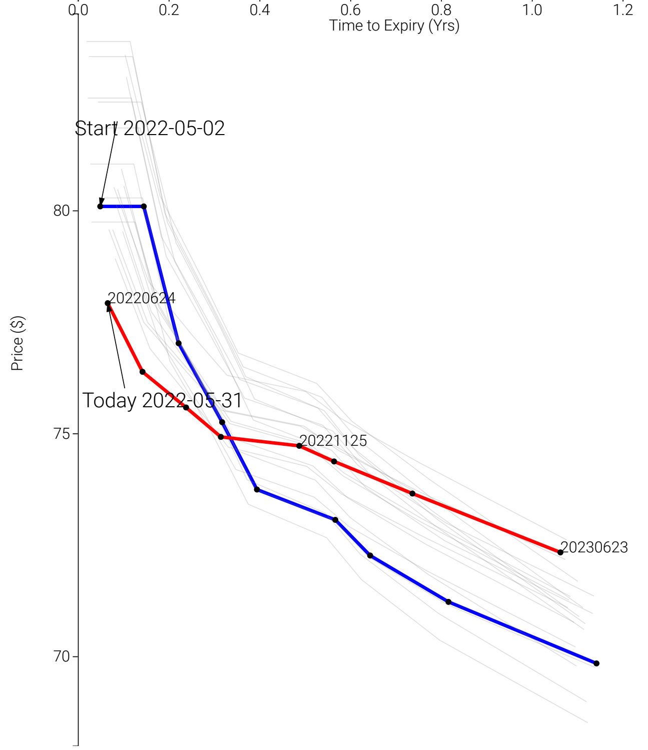

Termstructure Evolution:
Soybean Options
(Black)
Today 2022-05-31
20220624
20221223
20231027
Start 2022-05-02
Vol (%)
30%
20%
10%
0%
0.0
0.5
1.0
1.5
Time to Expiry (Yrs)
Front Month Dynamics:
Soybean Options
(Black)
vol
price
Vol (%)
Price ($)
26%
24%
22%
20%
17.2
17.0
16.8
16.6
16.4
16.2
16.0
Time
Sun 08
Sun 15
Sun 22
Sun 29
Today 2022-05-31
20220624
16
Start 2022-05-02
20221223
20231027
Price ($)
17
15
14
Front Month Skews:
Soybean Options
(Black)
Today 2022-05-31
Start 2022-05-02
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%
https://www.commodityvol.com



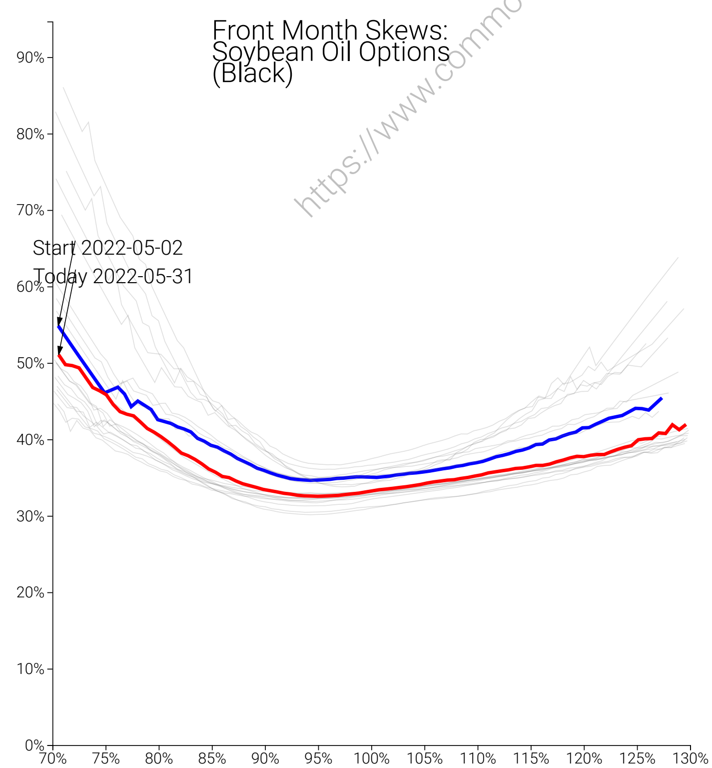
Termstructure Evolution:
Soybean Oil Options
(Black)
Vol (%)
Time to Expiry (Yrs)
Start 2022-05-02
Today 2022-05-31
20220624
20221125
20230623



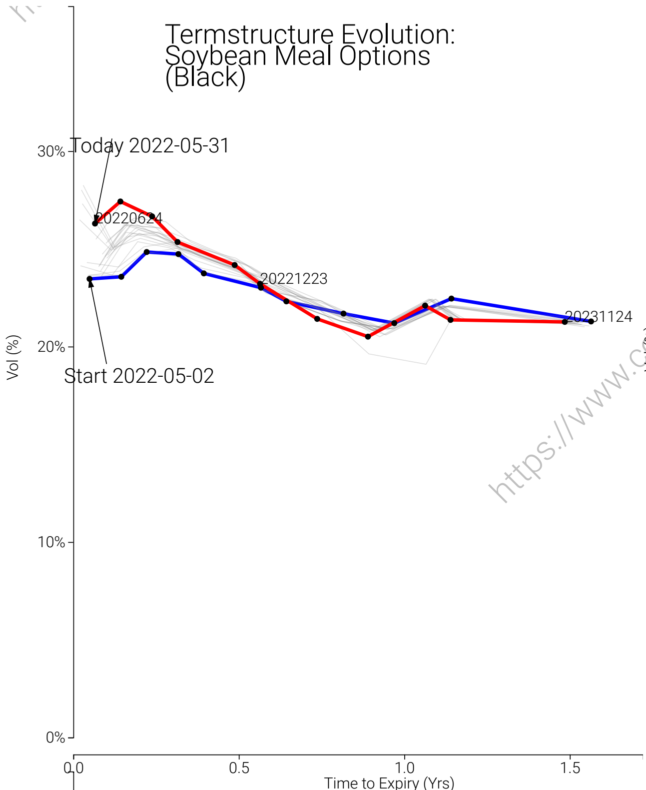
Front Month Dynamics:
Soybean Oil Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

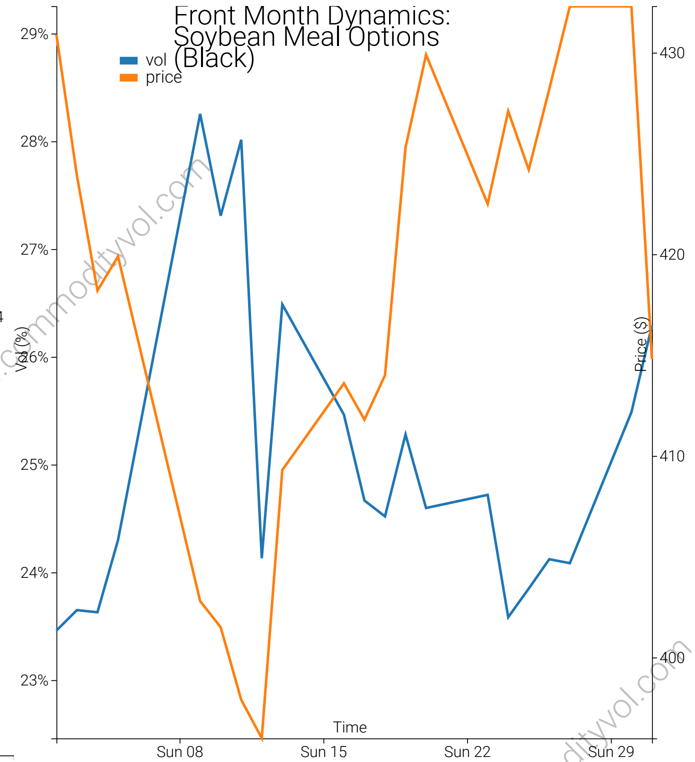


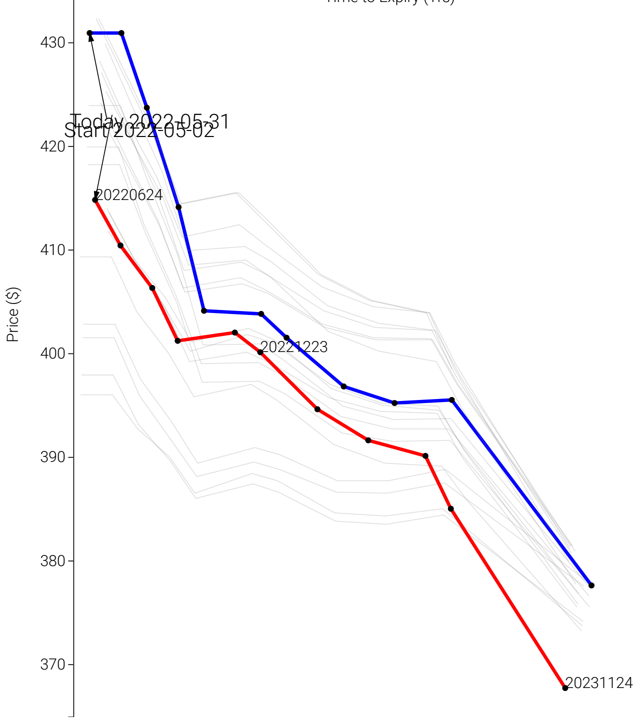
Price ($)
Start 2022-05-02
Today 2022-05-31
20220624
20221125
20230623

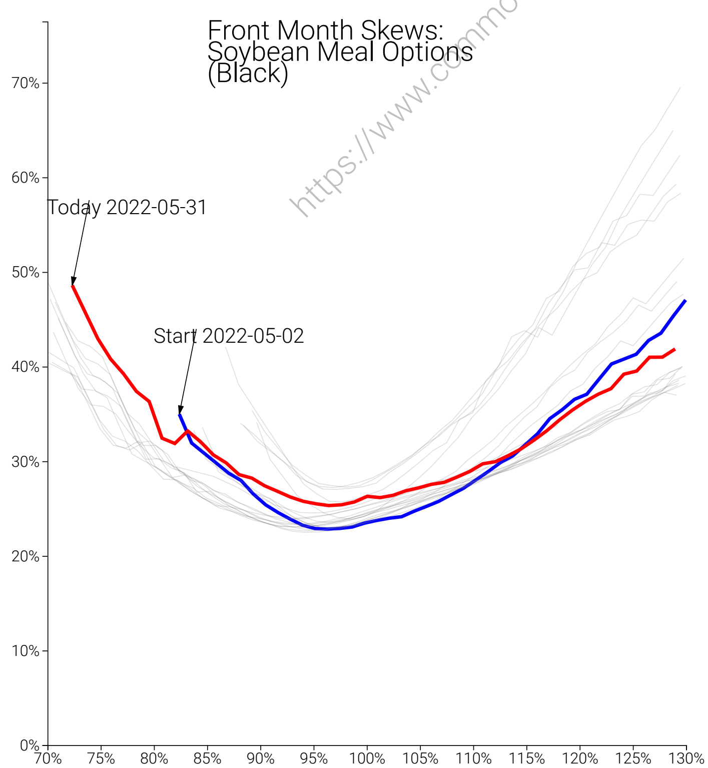


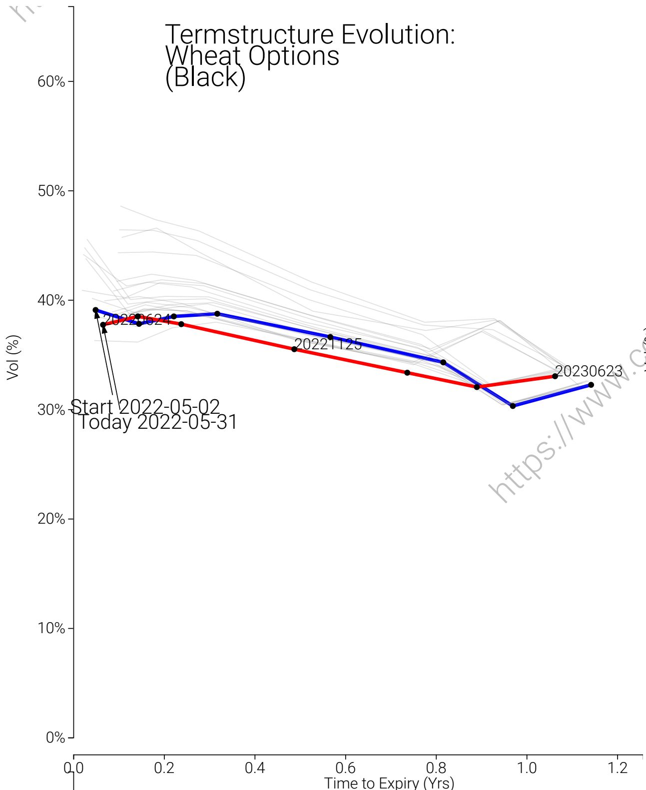
Front Month Skews:
Soybean Oil Options
(Black)
Start 2022-05-02
Today 2022-05-31


Termstructure Evolution:
Soybean Meal Options
(Black)
Today 2022-05-31
20220624
20221223
20231124
Start 2022-05-02
Vol (%)
30%
20%
10%
0%
0.0
0.5
1.0
1.5
Time to Expiry (Yrs)

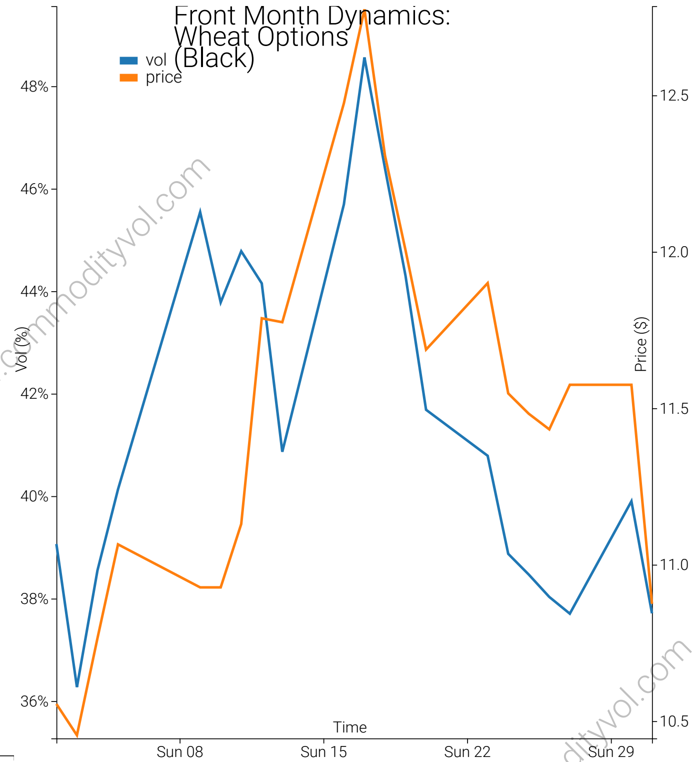

Front Month Dynamics:
Soybean Meal Options
(Black)
vol
price
29%
28%
27%
26%
25%
24%
23%
Vol (%)
Price ($)
430
420
410
400
Time
Sun 08
Sun 15
Sun 22
Sun 29


Today 2022-05-31
Start 2022-05-02
20220624
20221223
20231124
Price ($)
430
420
410
400
390
380
370

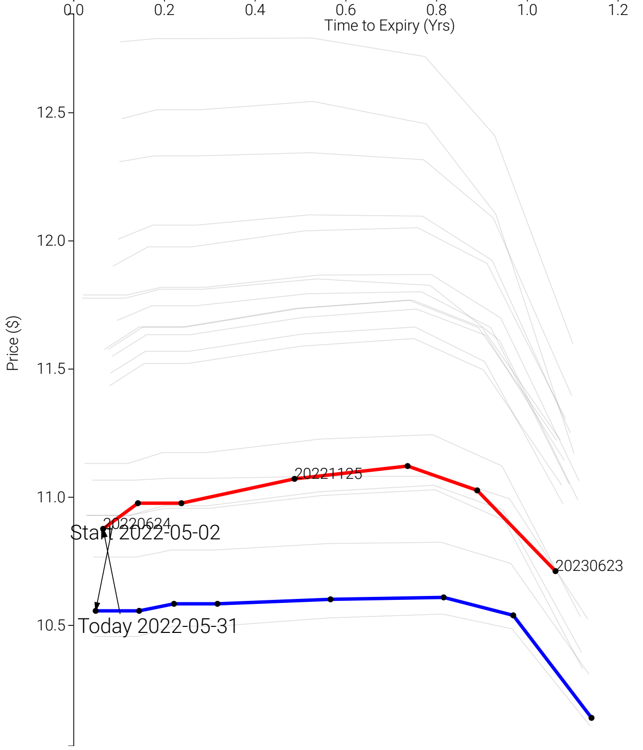

Front Month Skews:
Soybean Meal Options
(Black)
Today 2022-05-31
Start 2022-05-02
70%
60%
50%
40%
30%
20%
10%
0%
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%



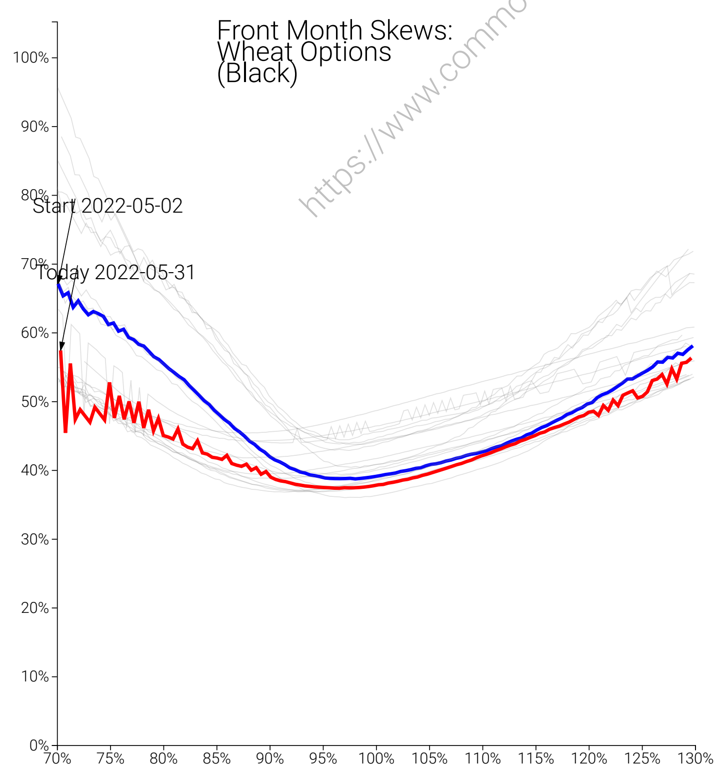
Termstructure Evolution:
Wheat Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20220624
20221125
20230623
Start 2022-05-02
Today 2022-05-31



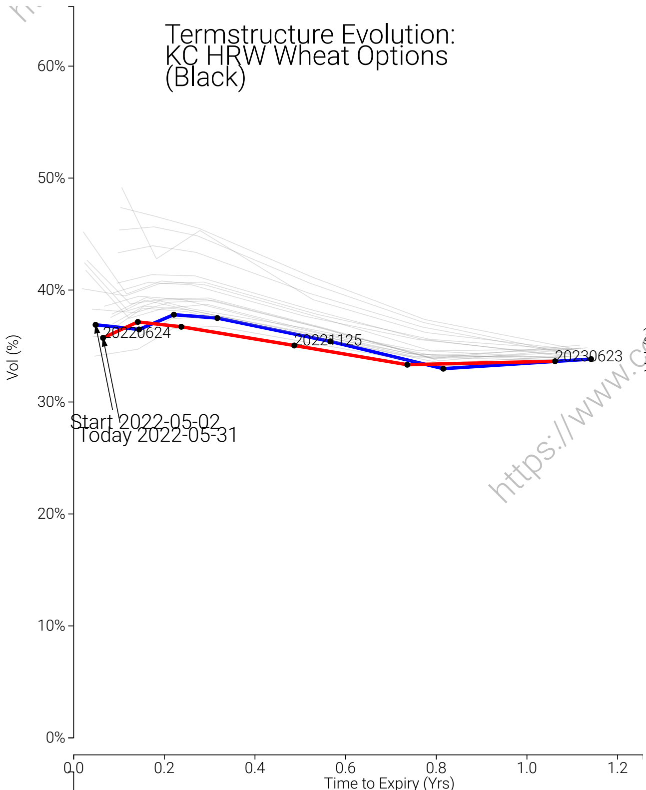
Front Month Dynamics:
Wheat Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

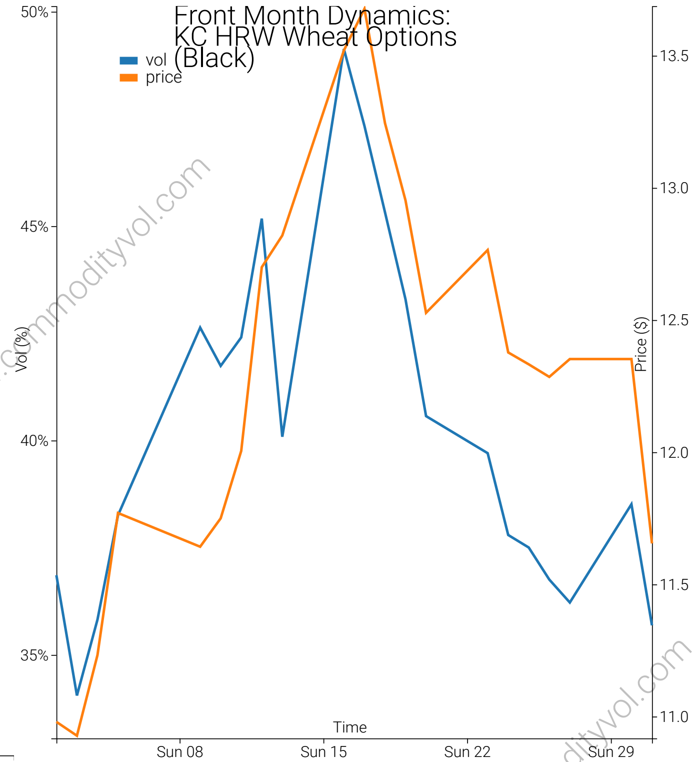


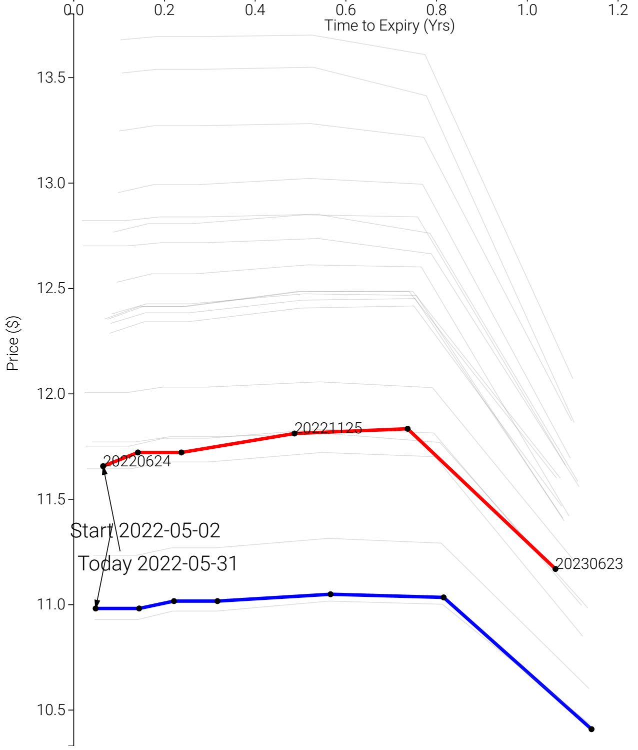
Price ($)
20220624
20221125
20230623
Start 2022-05-02
Today 2022-05-31

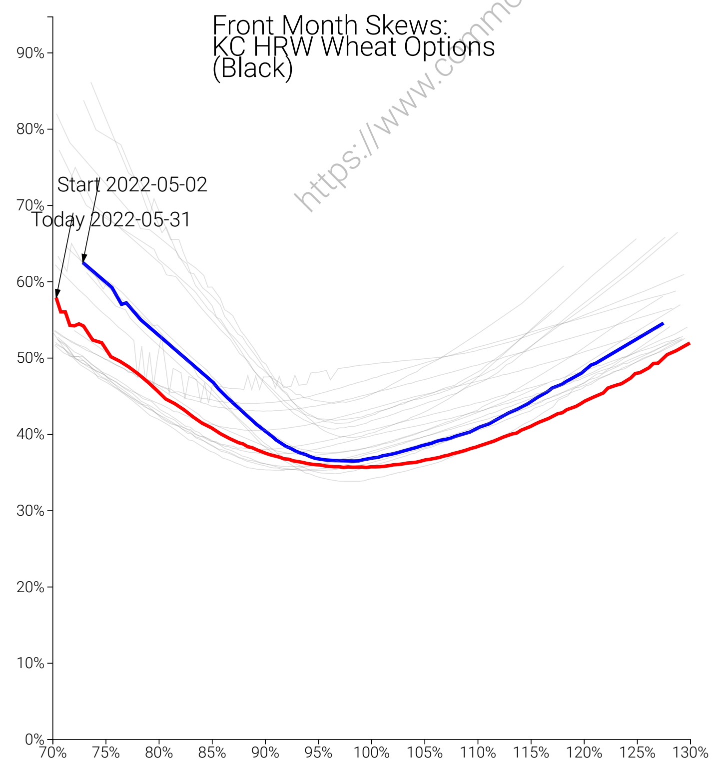


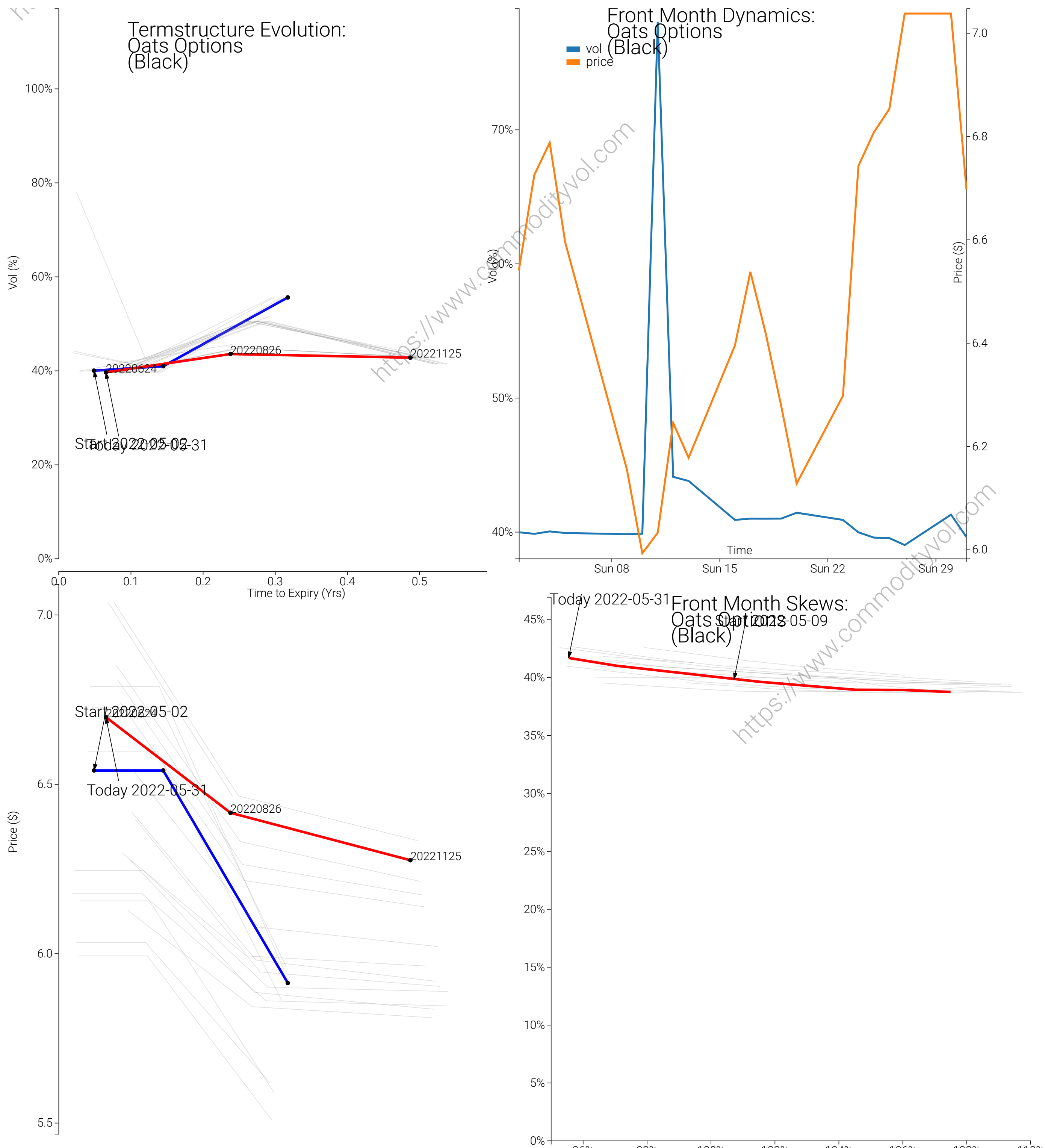
Front Month Skews:
Wheat Options
(Black)
Start 2022-05-02
Today 2022-05-31

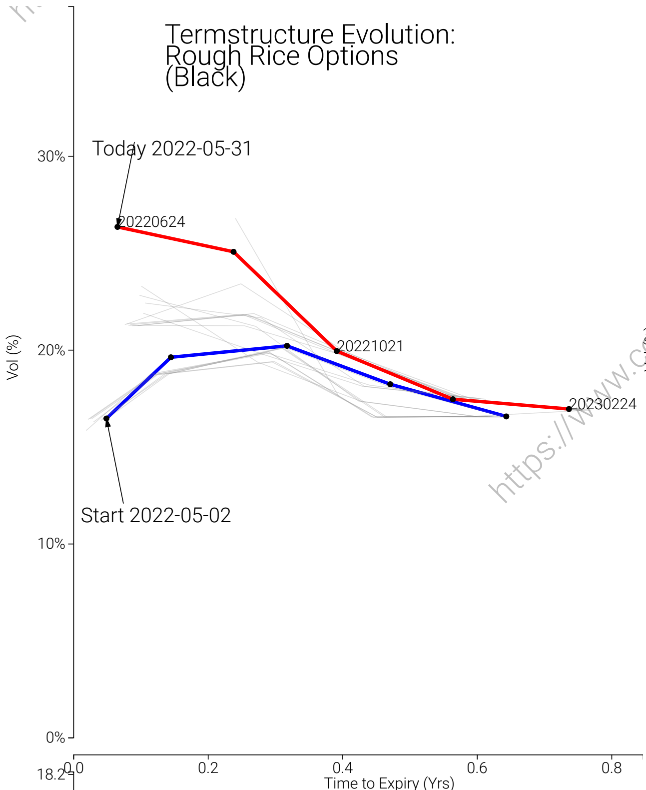

Termstructure Evolution:
KC HRW Wheat Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20220624
20221125
20230623
Start 2022-05-02
Today 2022-05-31

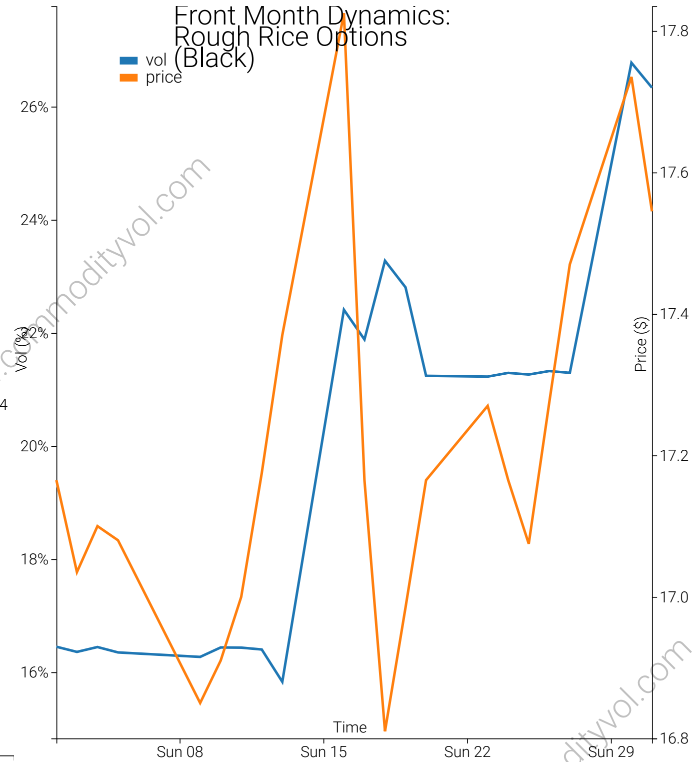

Front Month Dynamics:
KC HRW Wheat Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

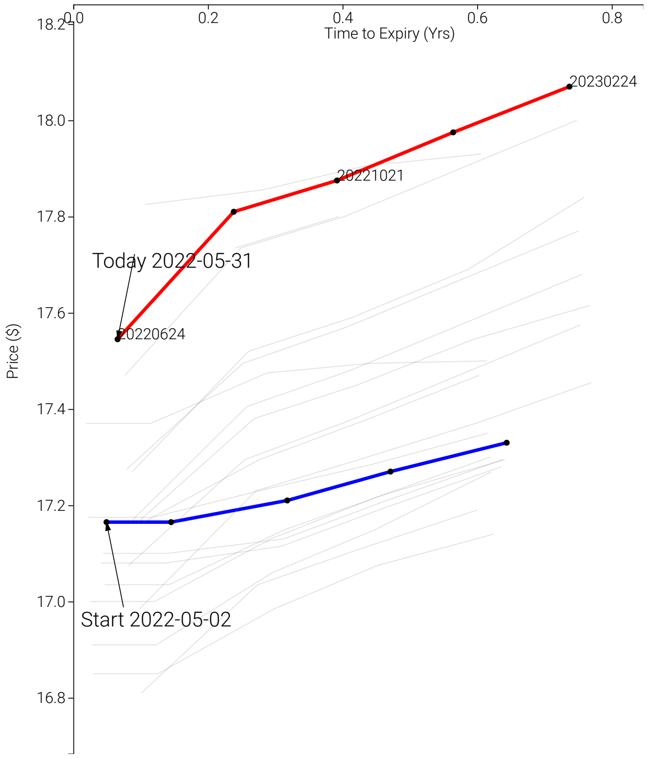

Price ($)
20220624
20221125
20230623
Start 2022-05-02
Today 2022-05-31

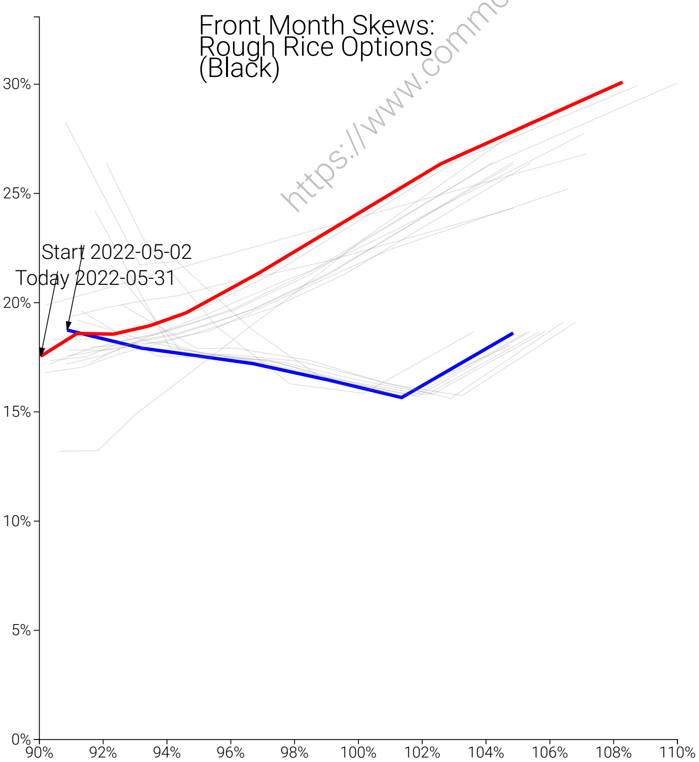

Front Month Skews:
KC HRW Wheat Options
(Black)
Start 2022-05-02
Today 2022-05-31

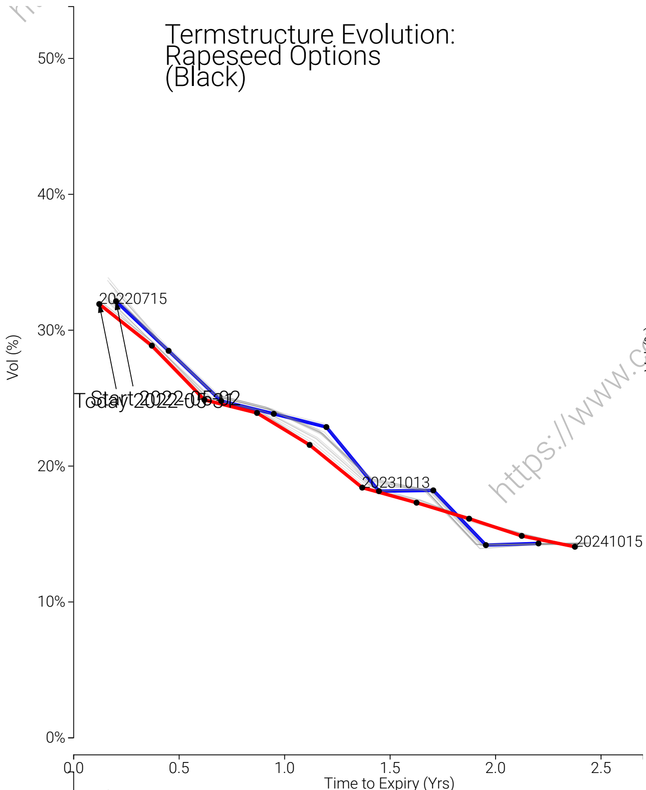

Termstructure Evolution:
Oats Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20220624
20220826
20221125
Start 2022-05-02
Today 2022-05-31
Front Month Dynamics:
Oats Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29
Price ($)
Front Month Skews:
Oats Options
(Black)
Today 2022-05-31
Start 2022-05-09

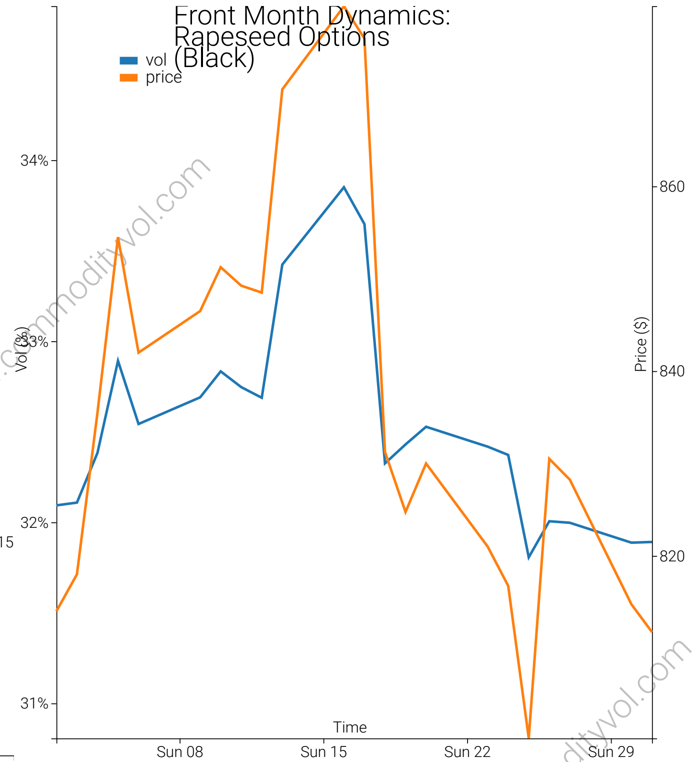

Termstructure Evolution:
Rough Rice Options
(Black)
Today 2022-05-31
20220624
20221021
20230224
Start 2022-05-02
Vol (%)
Time to Expiry (Yrs)
https://www.commodityvol.com

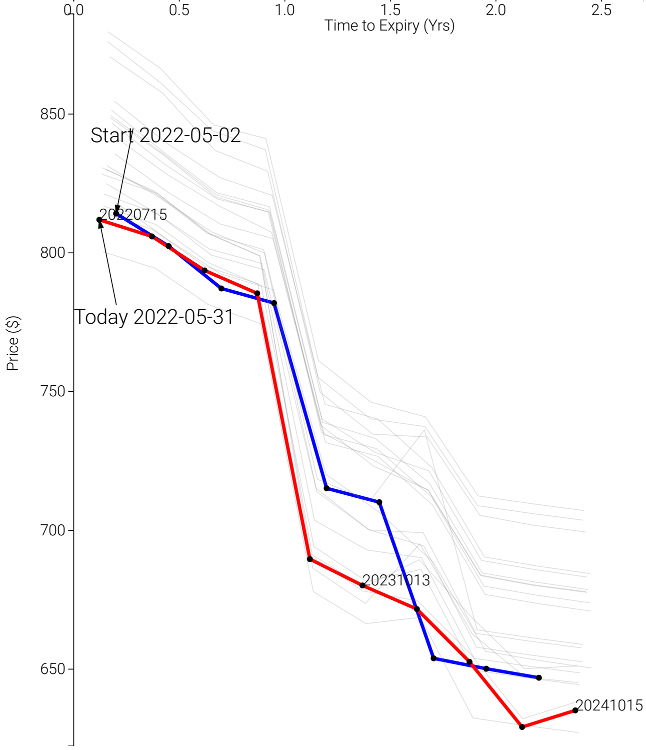

Front Month Dynamics:
Rough Rice Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29
https://www.commodityvol.com

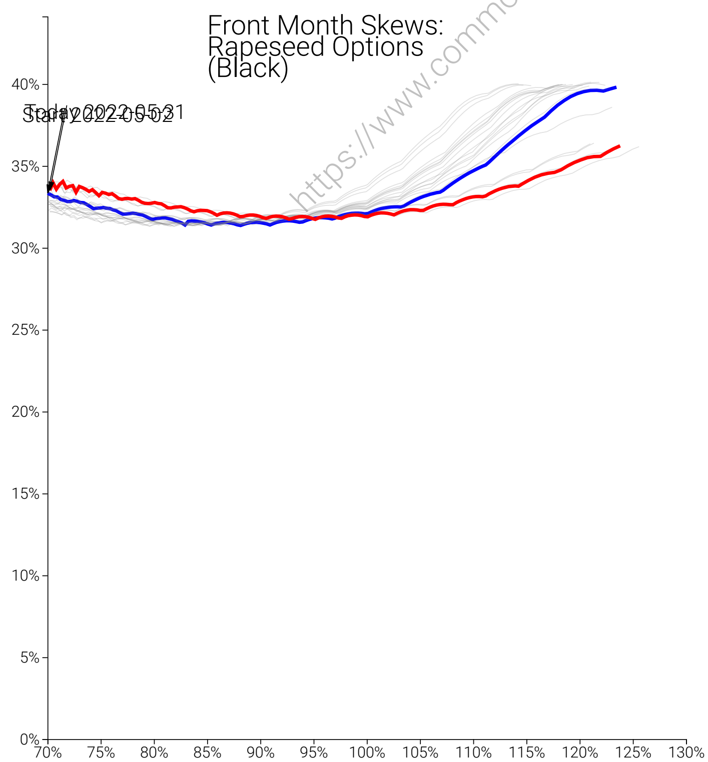

20230224
20221021
Today 2022-05-31
20220624
Start 2022-05-02
Price ($)

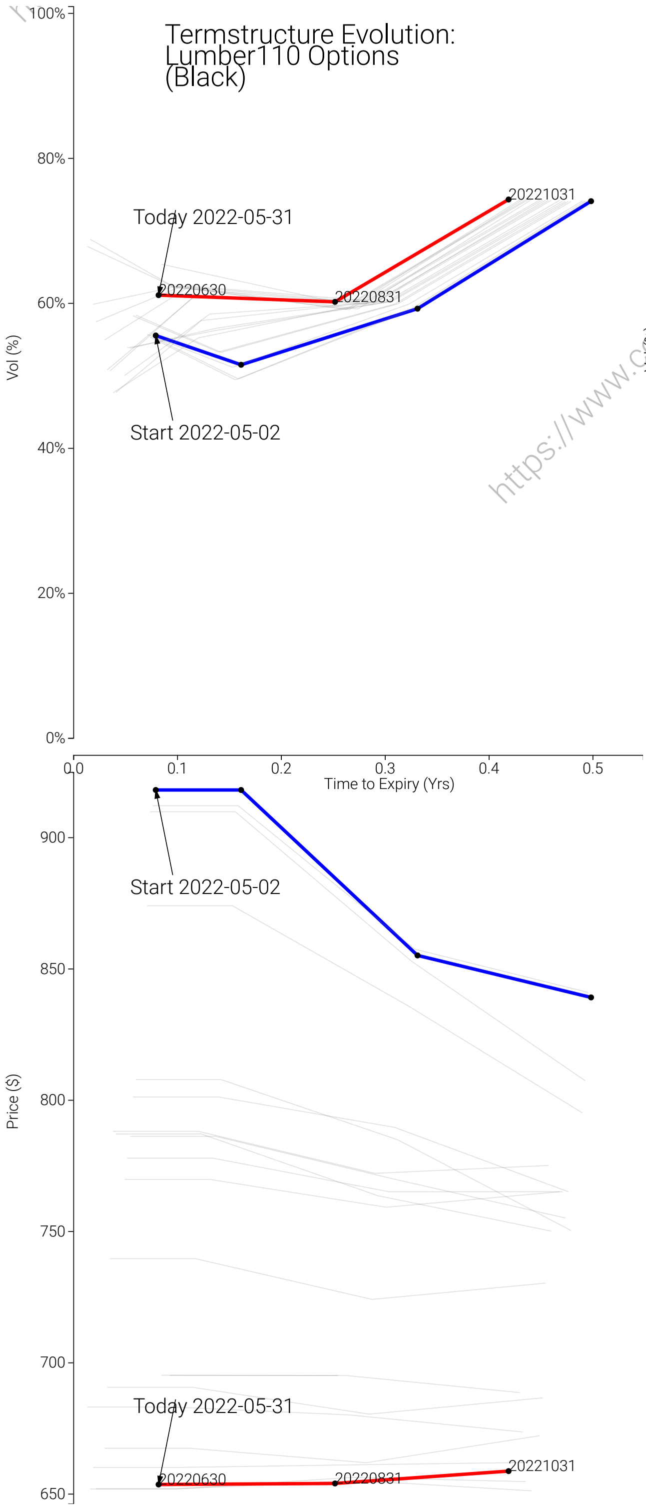

Front Month Skews:
Rough Rice Options
(Black)
Start 2022-05-02
Today 2022-05-31
https://www.commodityvol.com

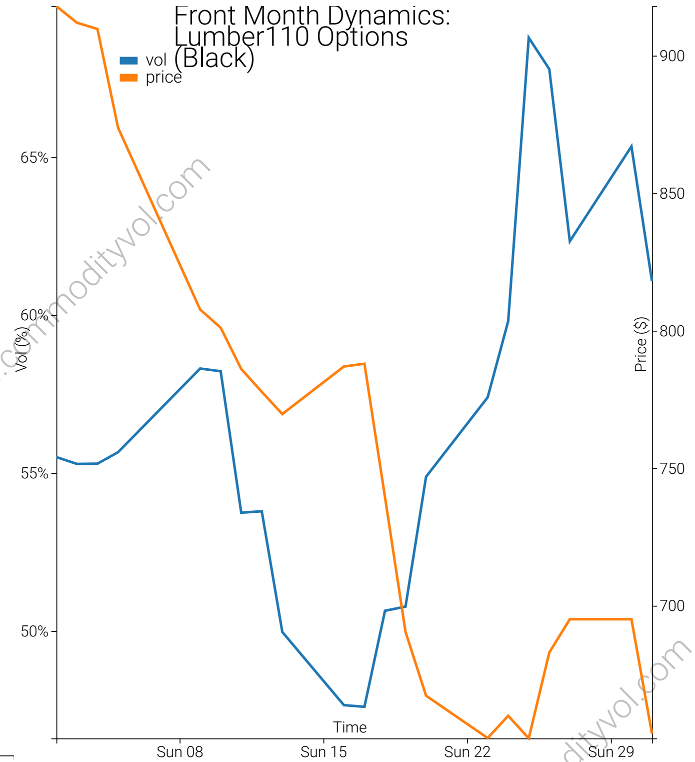

Termstructure Evolution:
Rapeseed Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20220715
Start 2022-05-02
Today 2022-05-31
20231013
20241015

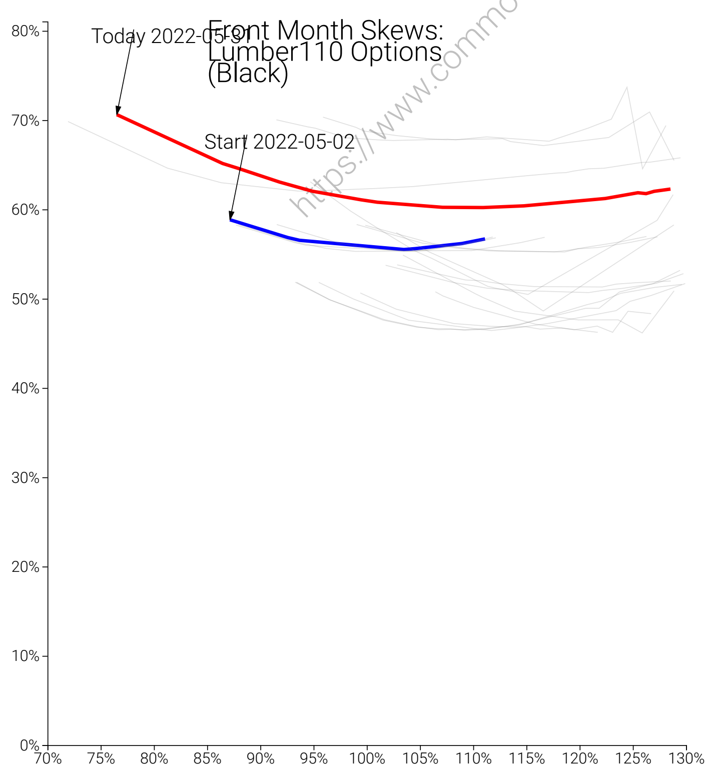

Front Month Dynamics:
Rapeseed Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29


Price ($)
Start 2022-05-02
20220715
Today 2022-05-31
20231013
20241015

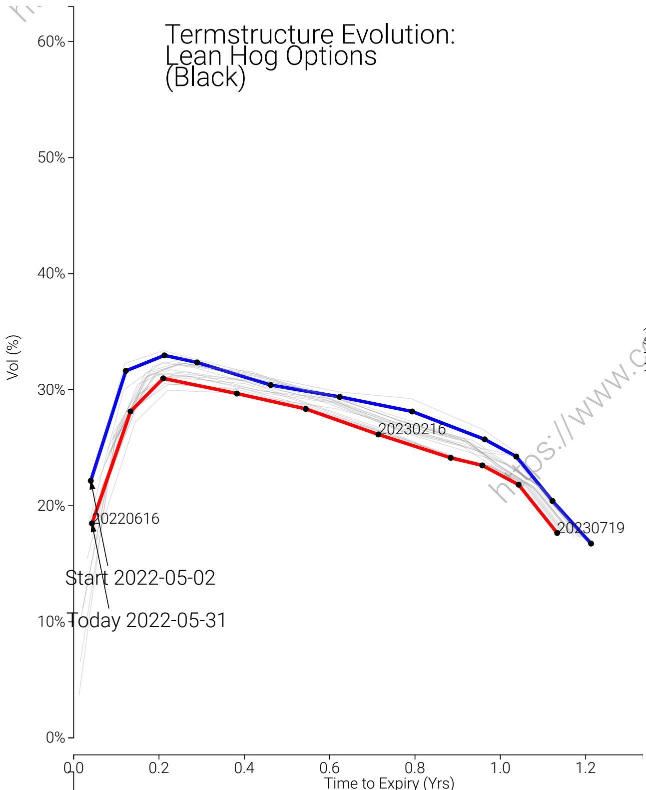

Front Month Skews:
Rapeseed Options
(Black)
Today 2022-05-31
Start 2022-05-02

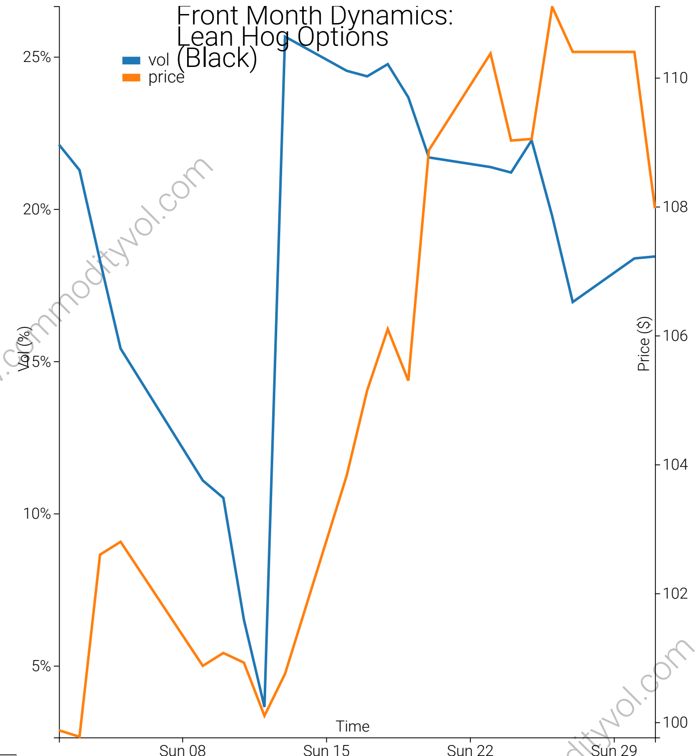

Termstructure Evolution:
Lumber110 Options
(Black)
Today 2022-05-31
Start 2022-05-02
20220630
20220831
20221031
Vol (%)
Time to Expiry (Yrs)
Price ($)

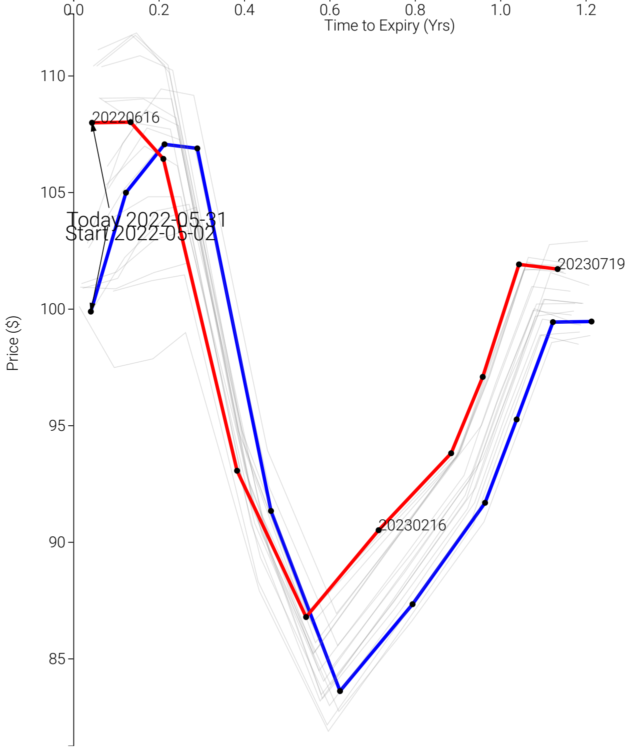

Front Month Dynamics:
Lumber110 Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

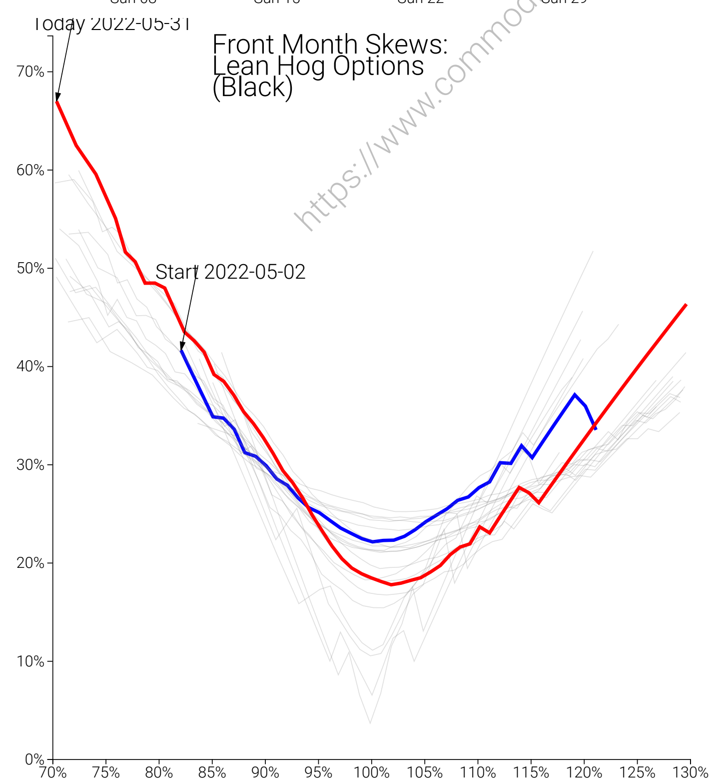

Front Month Skews:
Lumber110 Options
(Black)
Today 2022-05-31
Start 2022-05-02

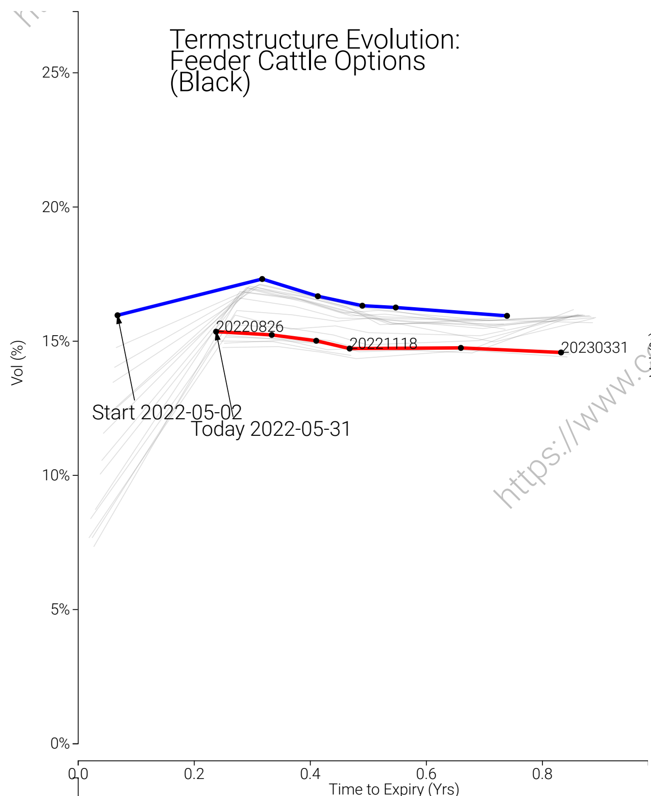
Ags: Proteins, Meats and so forth

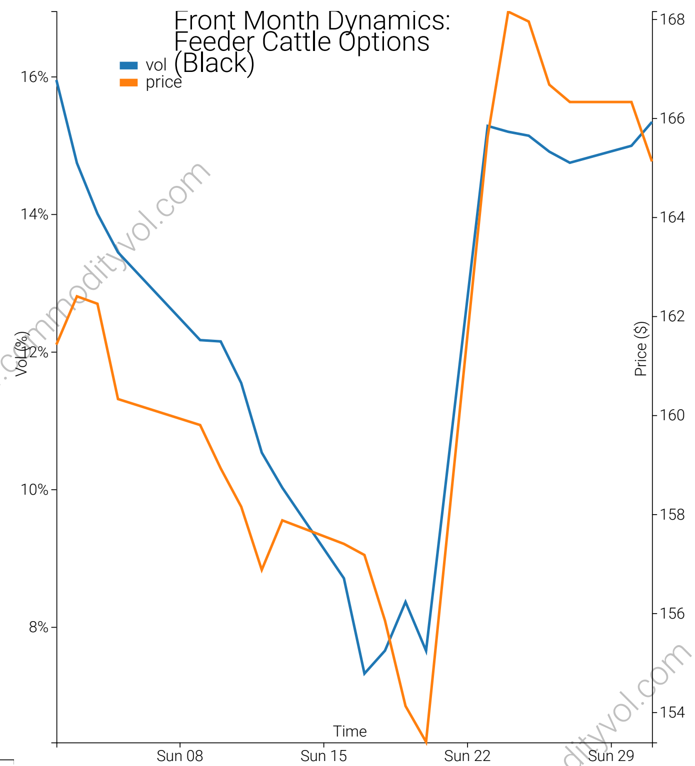

Termstructure Evolution:
Lean Hog Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20220616
20230216
20230719
Start 2022-05-02
Today 2022-05-31

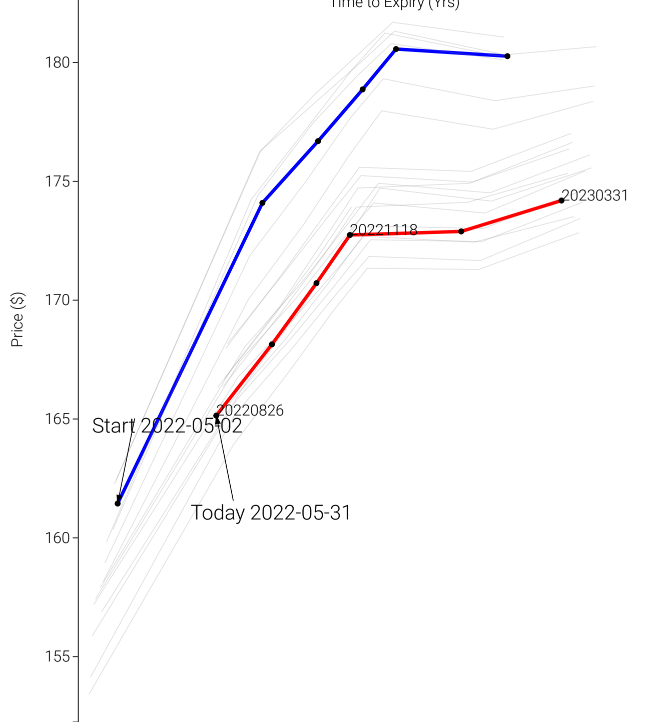

Front Month Dynamics:
Lean Hog Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

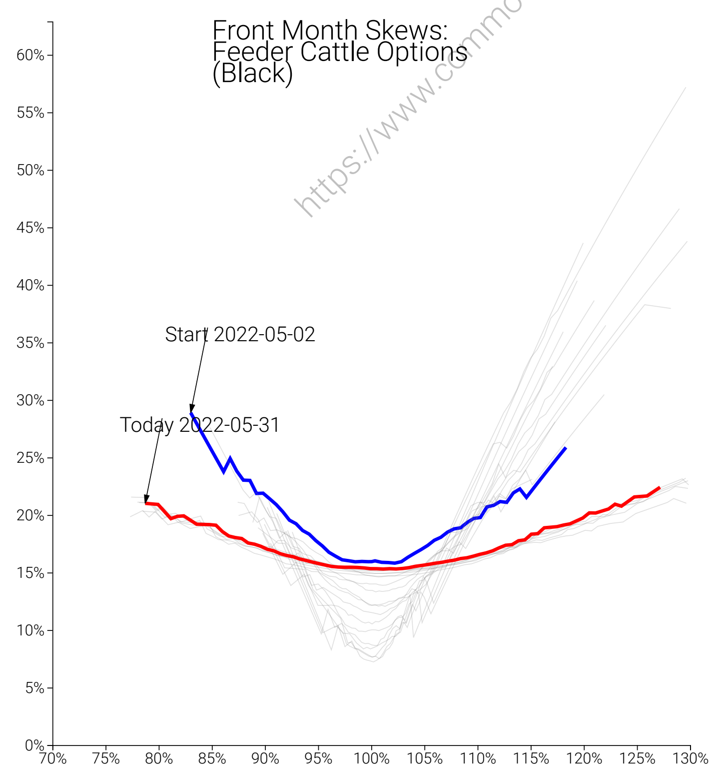

Price ($)
20220616
Today 2022-05-31
Start 2022-05-02
20230216
20230719

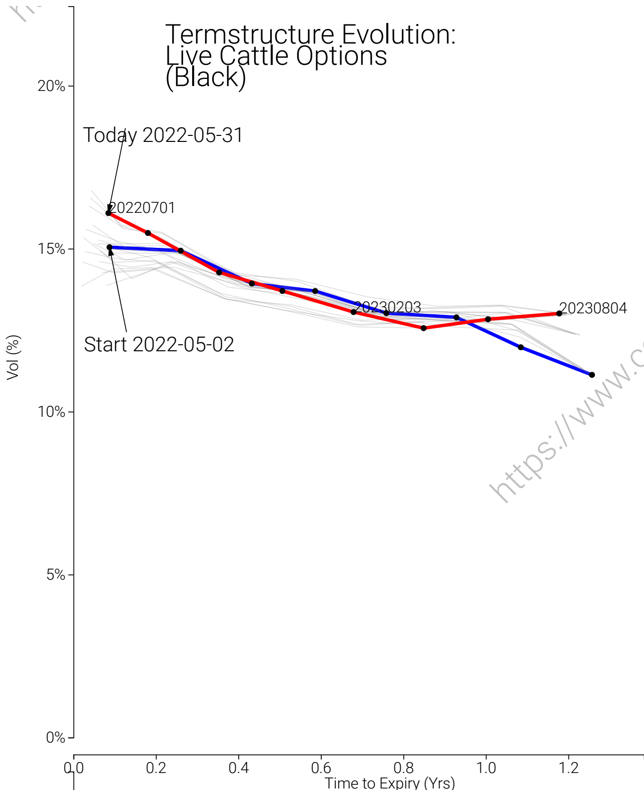

Today 2022-05-31
Front Month Skews:
Lean Hog Options
(Black)
Start 2022-05-02


Termstructure Evolution:
Feeder Cattle Options
(Black)
Vol (%)
25%
20%
15%
10%
5%
0%
20220826
20221118
20230331
Start 2022-05-02
Today 2022-05-31
0.0
0.2
0.4
0.6
0.8
Time to Expiry (Yrs)

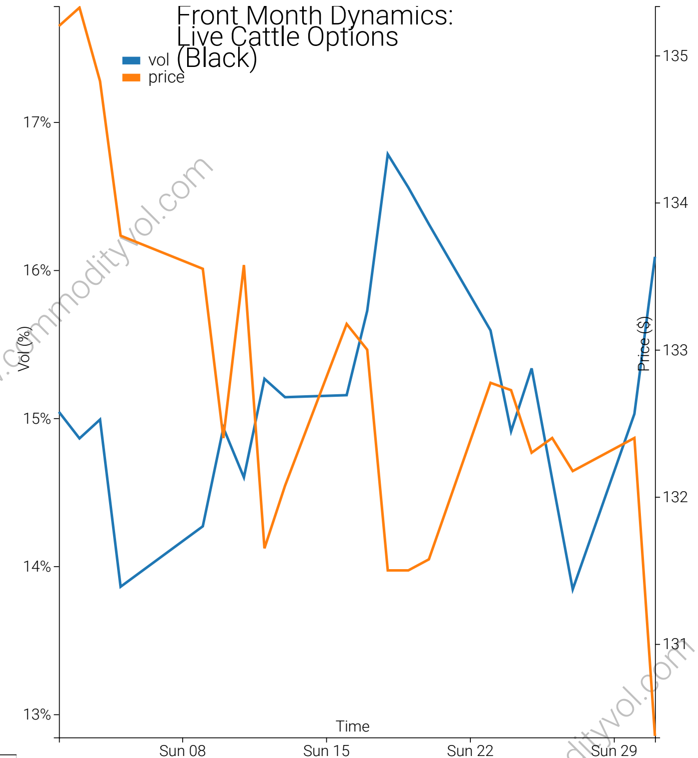

Front Month Dynamics:
Feeder Cattle Options
(Black)
vol
price
Vol (%)
16%
14%
12%
10%
8%
Price ($)
168
166
164
162
160
158
156
154
Time
Sun 08
Sun 15
Sun 22
Sun 29
https://www.commodityvol.com


Price ($)
180
175
170
165
160
155
20230331
20221118
20220826
Start 2022-05-02
Today 2022-05-31

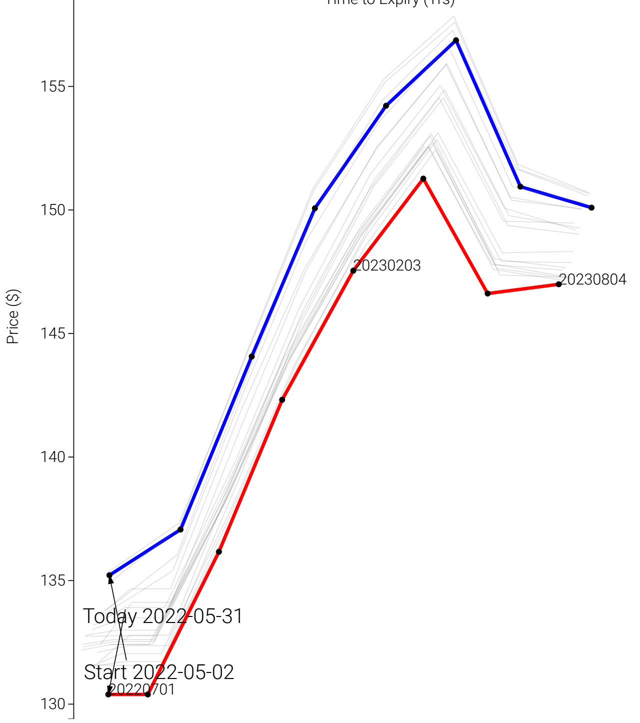

Front Month Skews:
Feeder Cattle Options
(Black)
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
Start 2022-05-02
Today 2022-05-31
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%
https://www.commodityvol.com



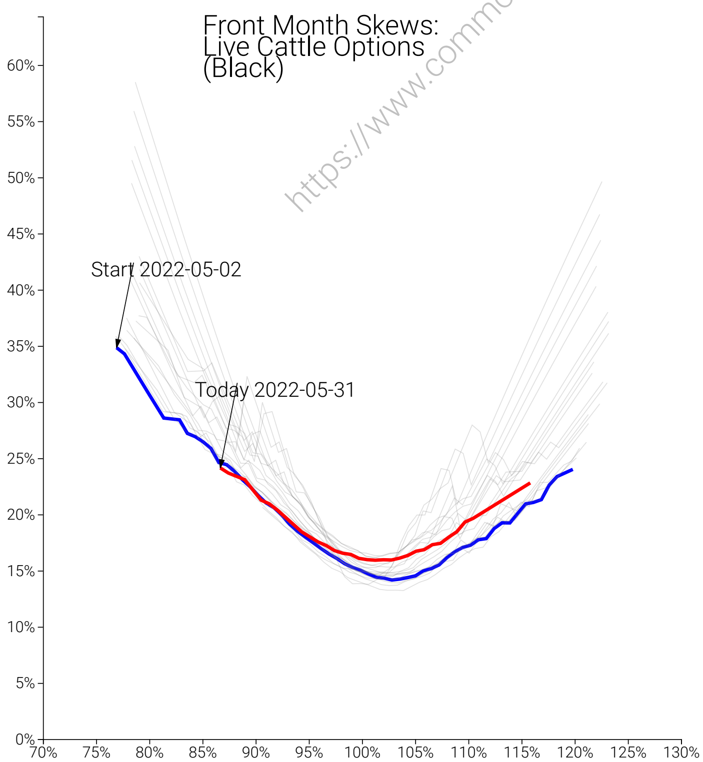
Termstructure Evolution:
Live Cattle Options
(Black)
Today 2022-05-31
20220701
Start 2022-05-02
20230203
20230804
Vol (%)
Time to Expiry (Yrs)



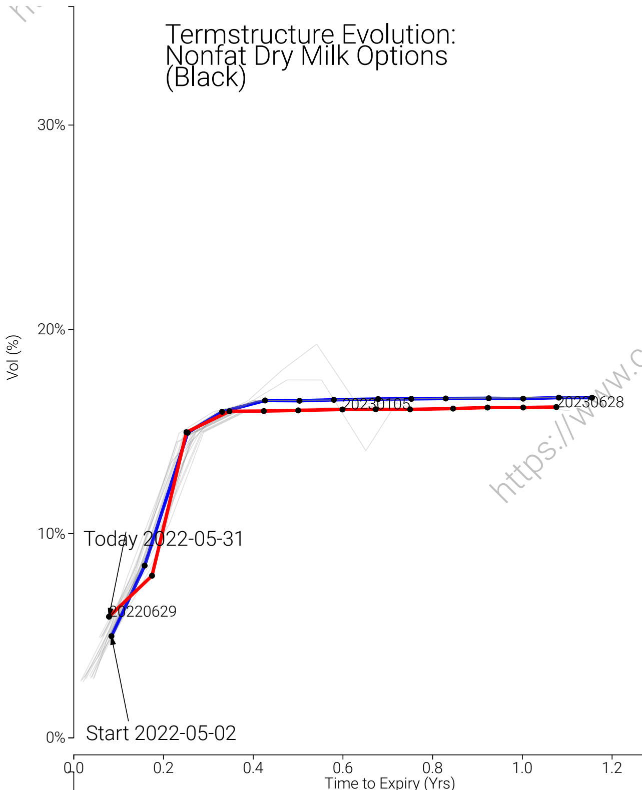
Front Month Dynamics:
Live Cattle Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

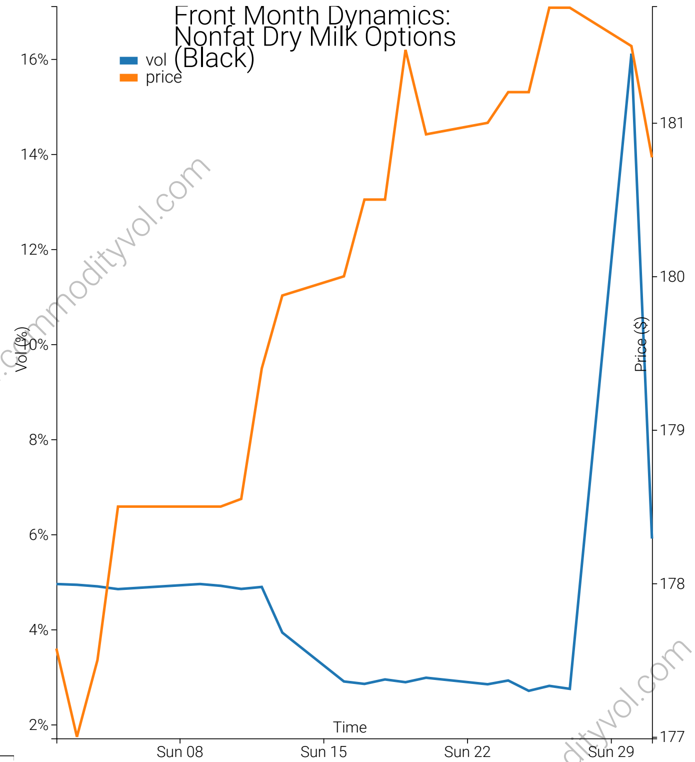


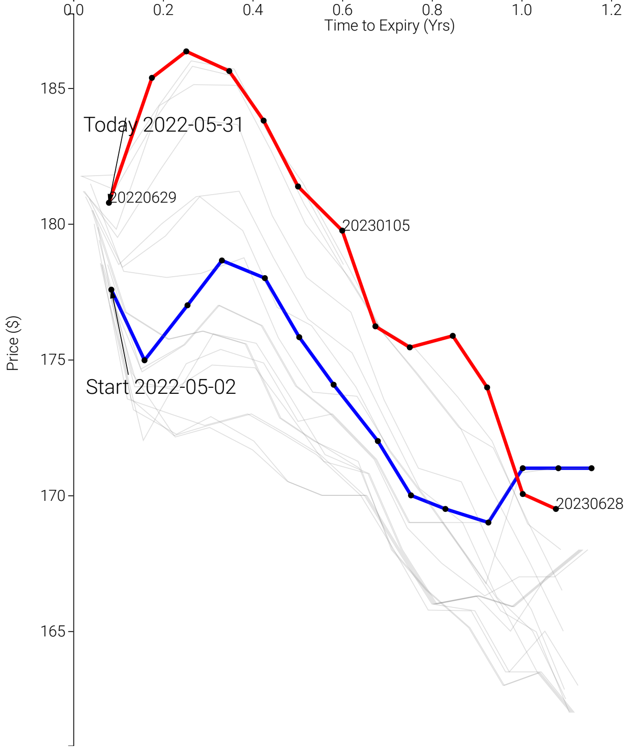
Price ($)
Today 2022-05-31
Start 2022-05-02
20220701
20230203
20230804

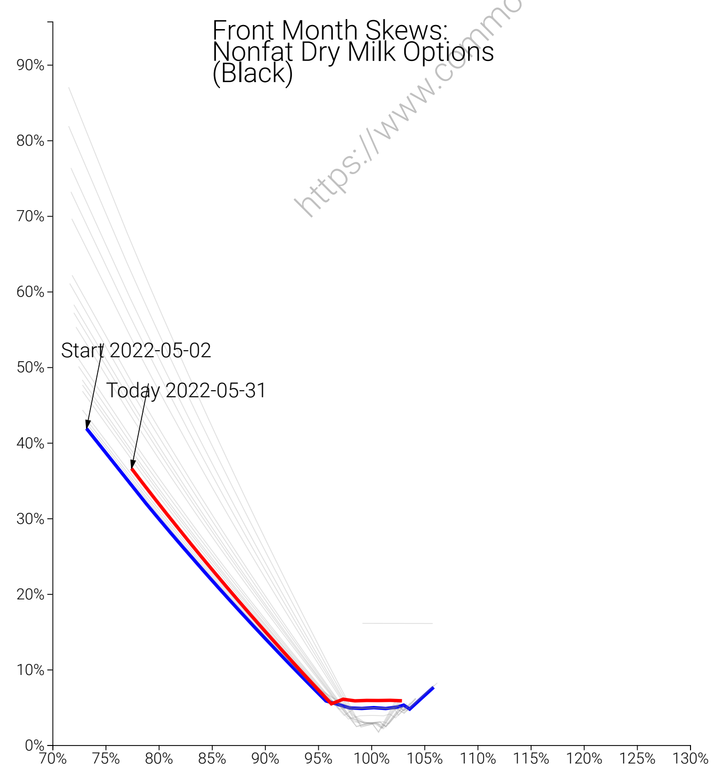


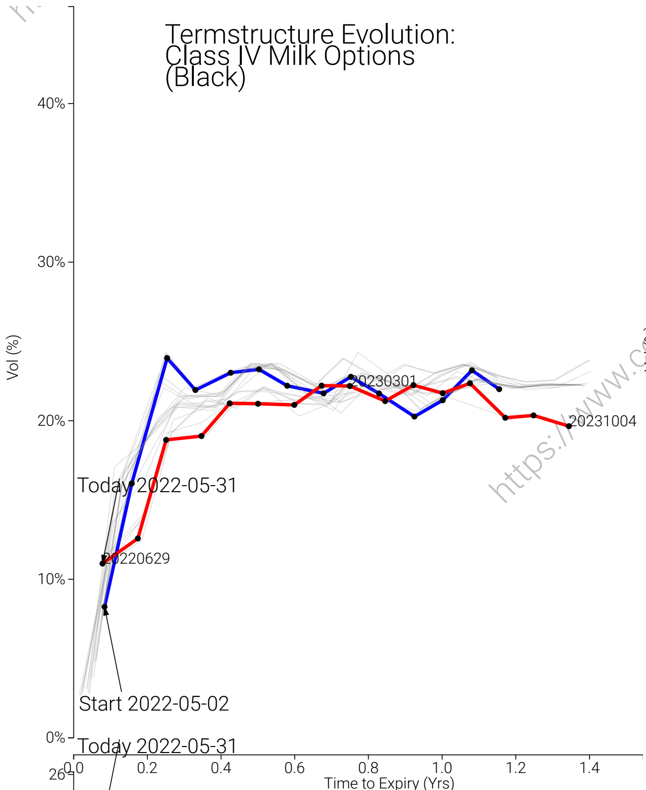
Front Month Skews:
Live Cattle Options
(Black)
Start 2022-05-02
Today 2022-05-31

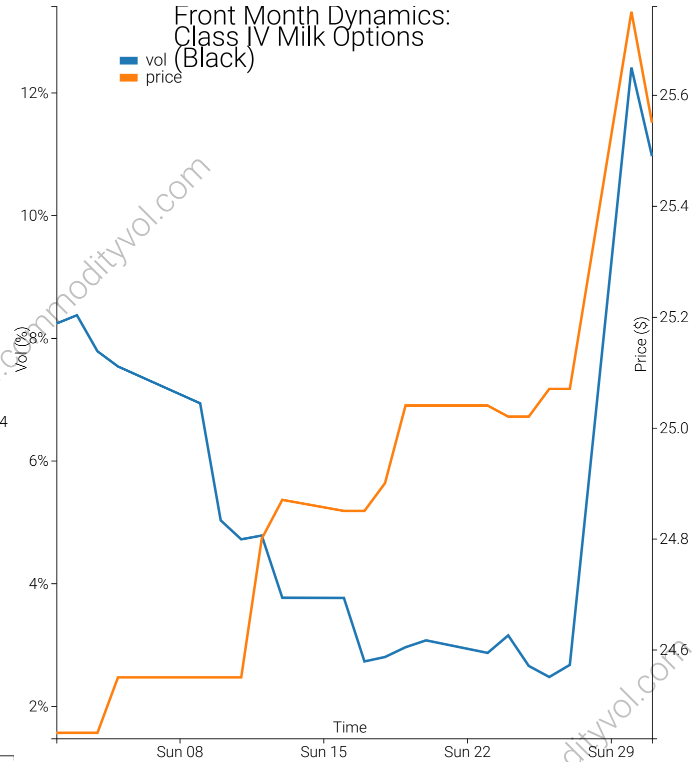

Termstructure Evolution:
Nonfat Dry Milk Options
(Black)
Vol (%)
Time to Expiry (Yrs)
Today 2022-05-31
Start 2022-05-02
20220629
20230105
20230628
https://www.commodityvol.com

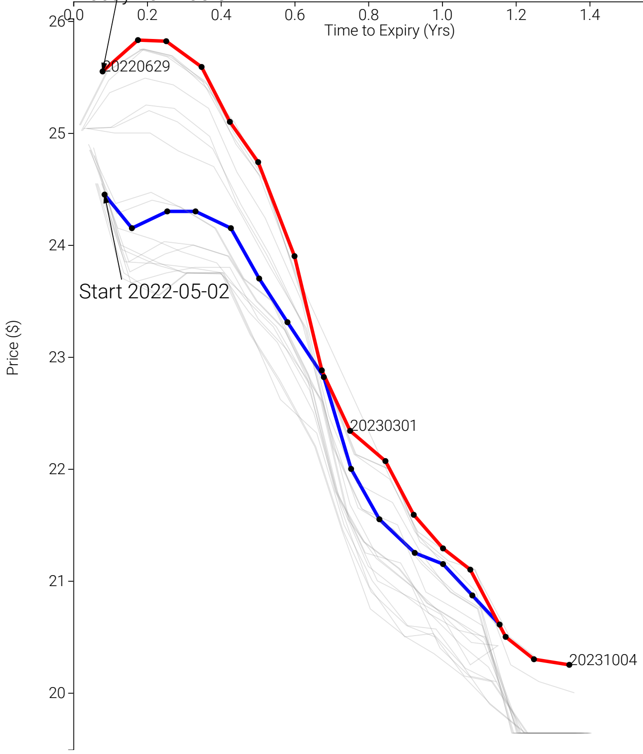

Front Month Dynamics:
Nonfat Dry Milk Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

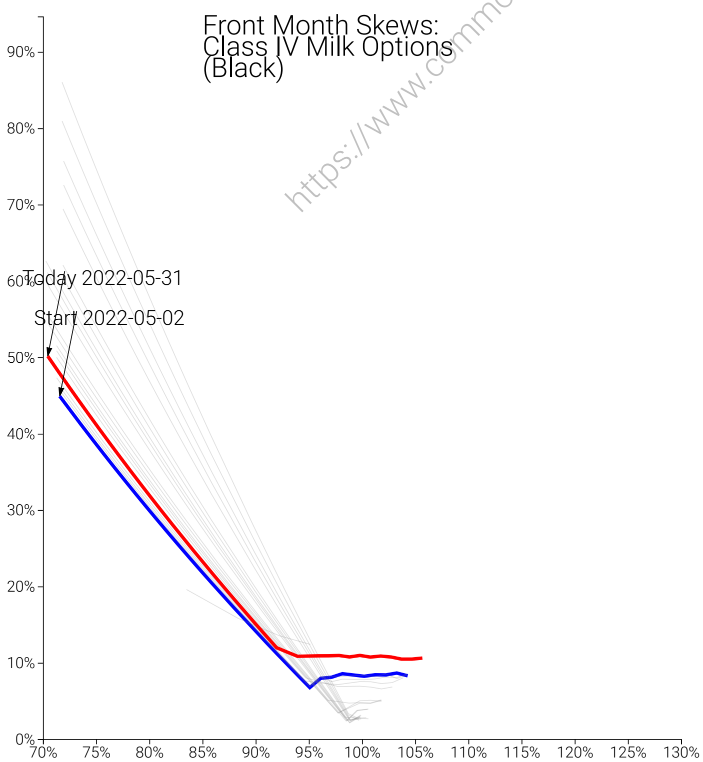

Price ($)
Today 2022-05-31
Start 2022-05-02
20220629
20230105
20230628


Front Month Skews:
Nonfat Dry Milk Options
(Black)
Start 2022-05-02
Today 2022-05-31
https://www.commodityvol.com

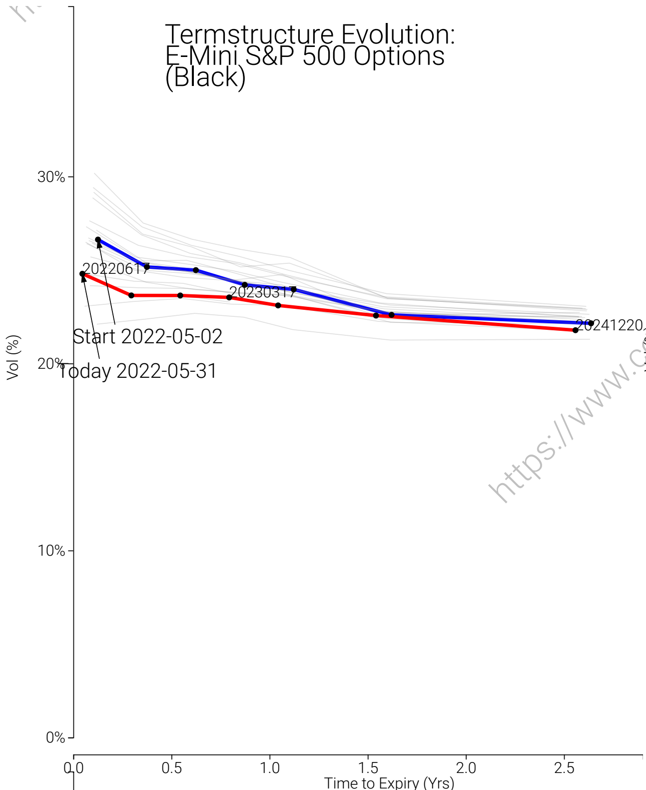

Termstructure Evolution:
Class IV Milk Options
(Black)
Vol (%)
40%
30%
20%
10%
0%
Today 2022-05-31
20220629
20230301
20231004
Start 2022-05-02
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
Time to Expiry (Yrs)
https://www.commodityvol.com


Front Month Dynamics:
Class IV Milk Options
(Black)
vol
price
Vol (%)
12%
10%
8%
6%
4%
2%
Price ($)
25.6
25.4
25.2
25.0
24.8
24.6
Time
Sun 08
Sun 15
Sun 22
Sun 29

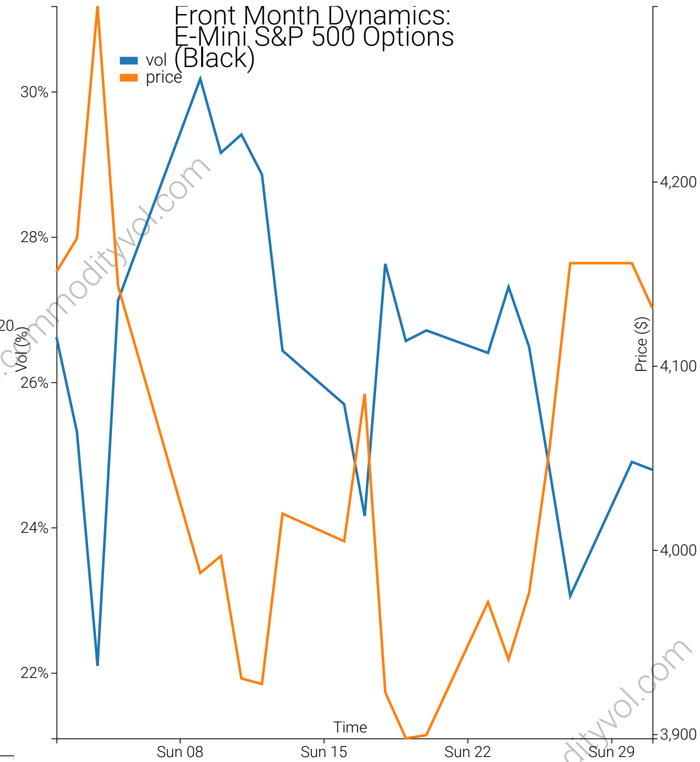

Price ($)
26
25
24
23
22
21
20
Today 2022-05-31
20220629
Start 2022-05-02
20230301
20231004


Front Month Skews:
Class IV Milk Options
(Black)
https://www.commodityvol.com
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Today 2022-05-31
Start 2022-05-02
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

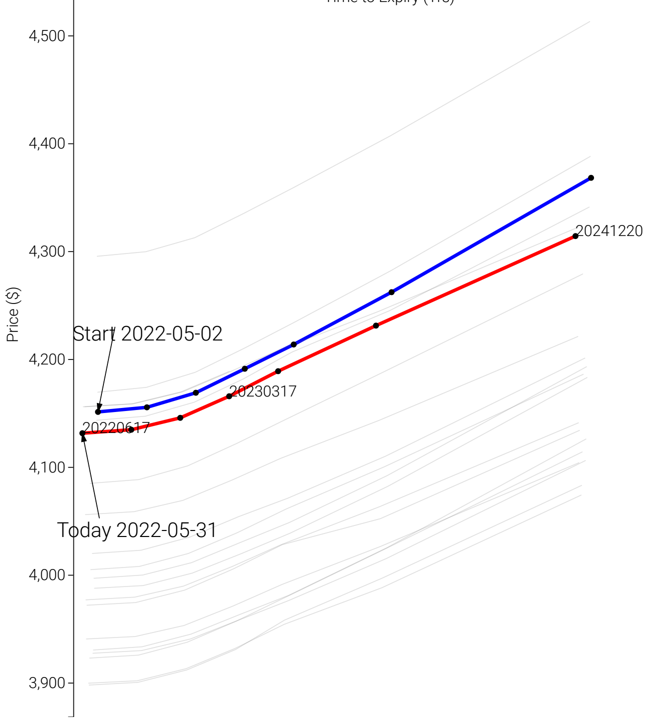
EquityIndex



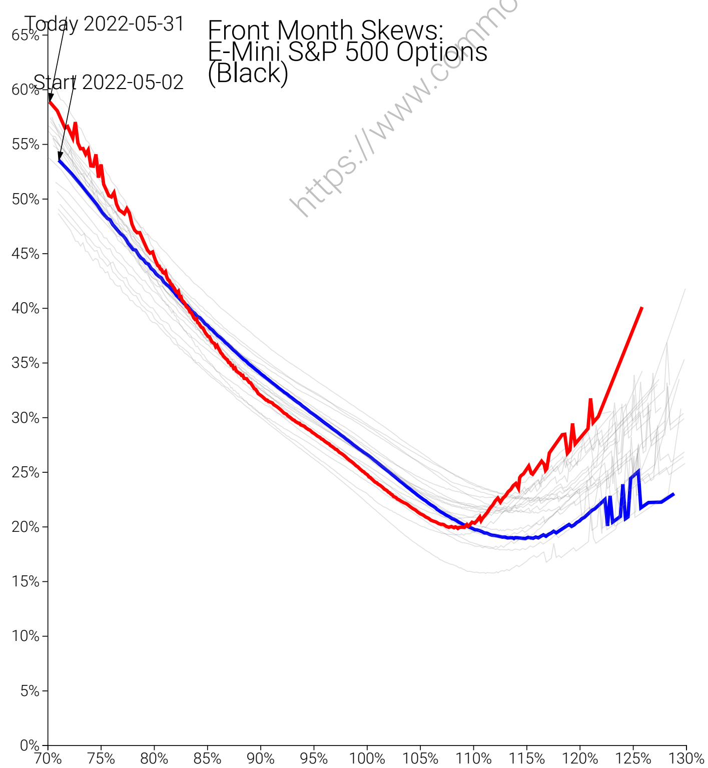
Termstructure Evolution:
E-Mini S&P 500 Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20220617
20230317
20241220
Start 2022-05-02
Today 2022-05-31
https://www.commodityvol.com



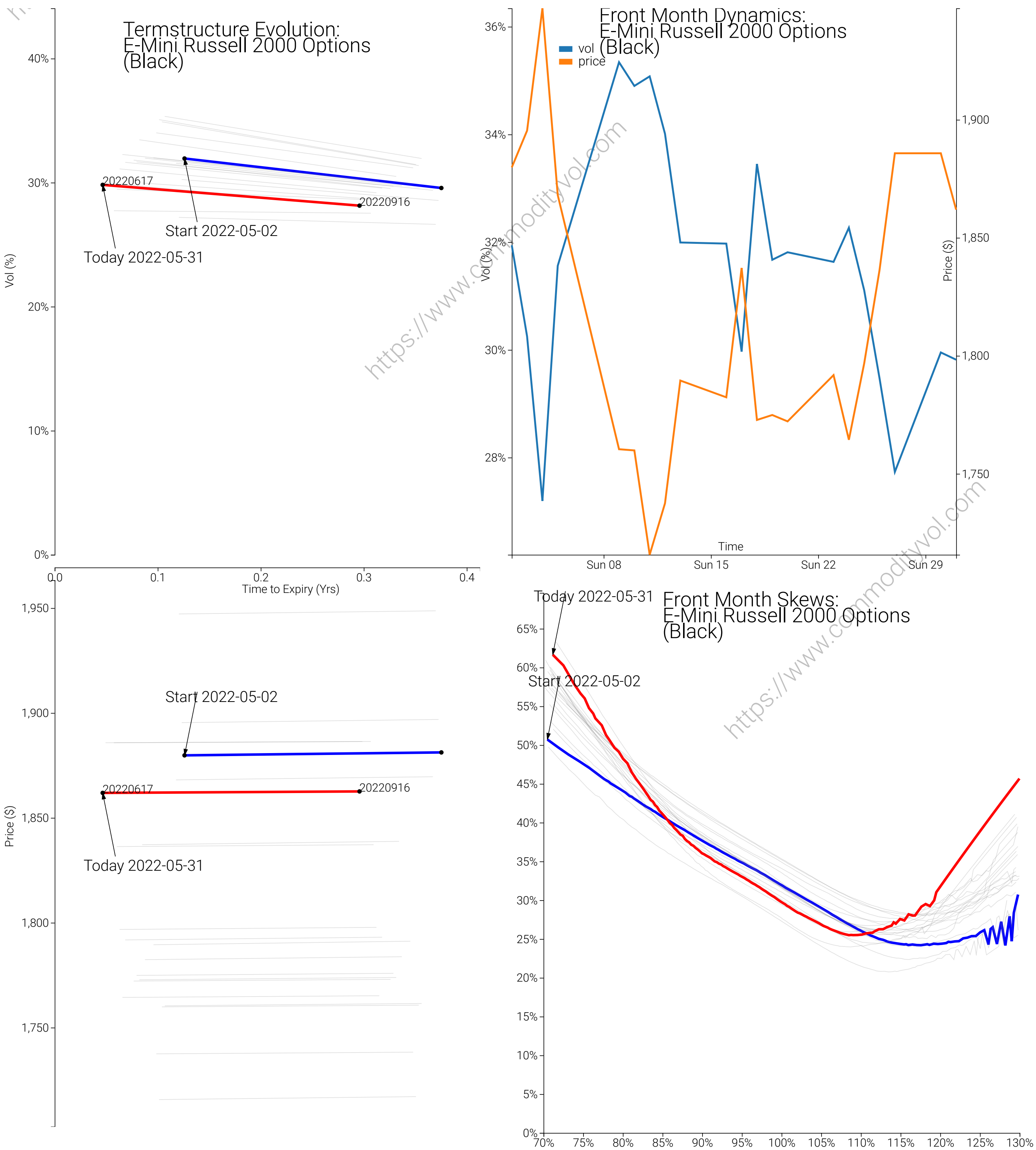
Front Month Dynamics:
E-Mini S&P 500 Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29
https://www.commodityvol.com

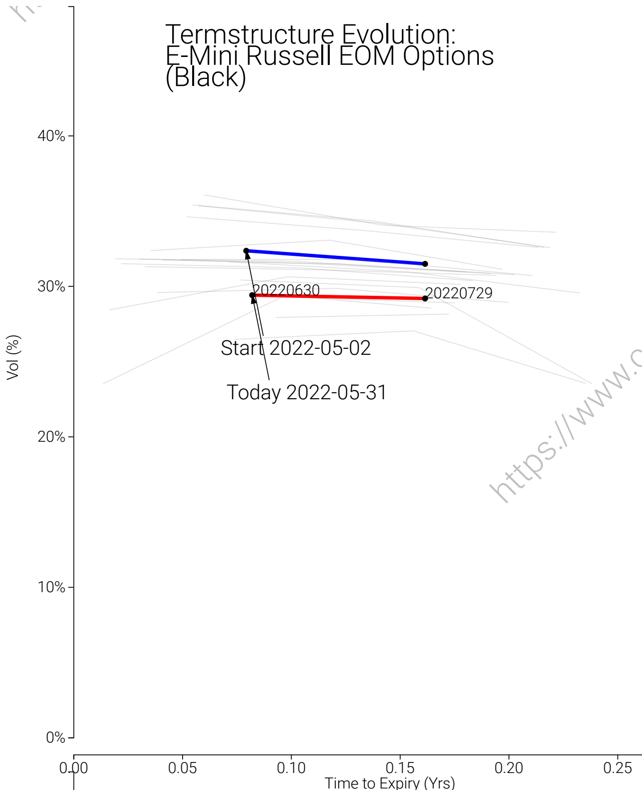


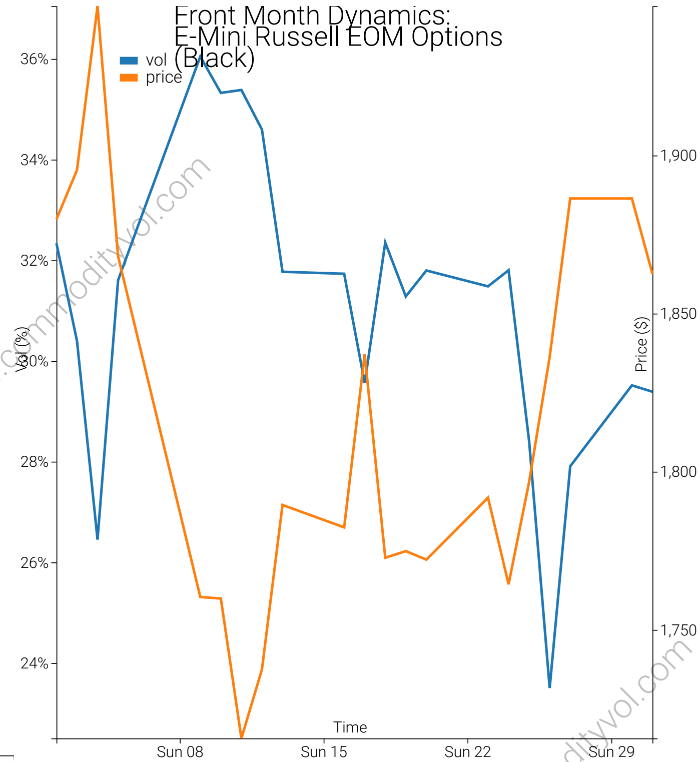
Price ($)
Start 2022-05-02
Today 2022-05-31
20220617
20230317
20241220

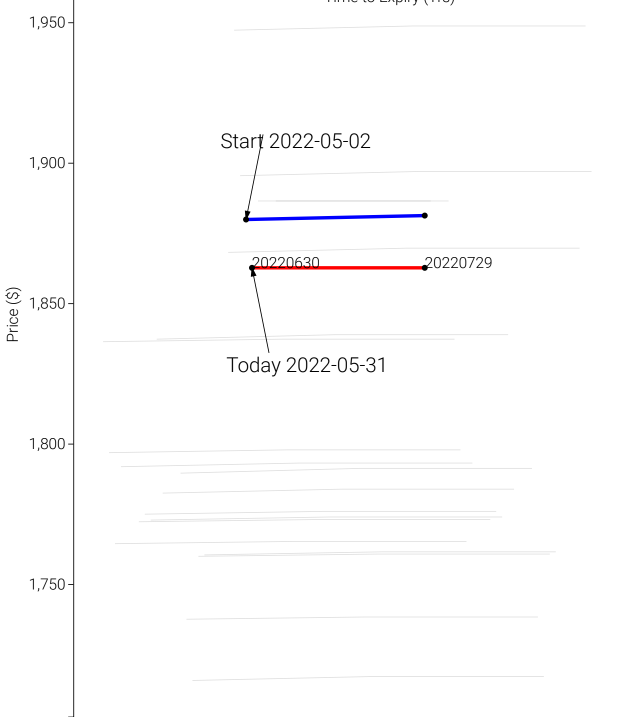


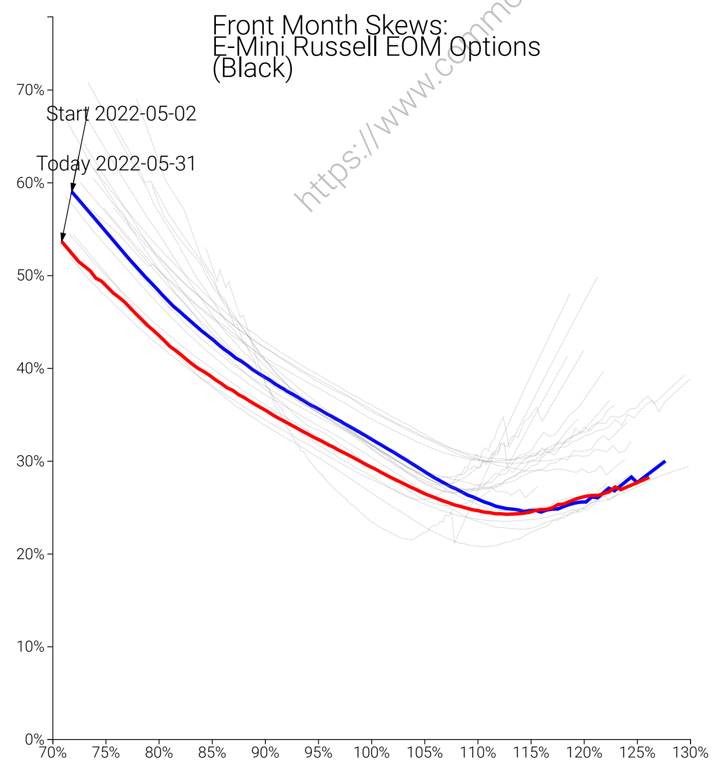
Front Month Skews:
E-Mini S&P 500 Options
(Black)
Today 2022-05-31
Start 2022-05-02
https://www.commodityvol.com

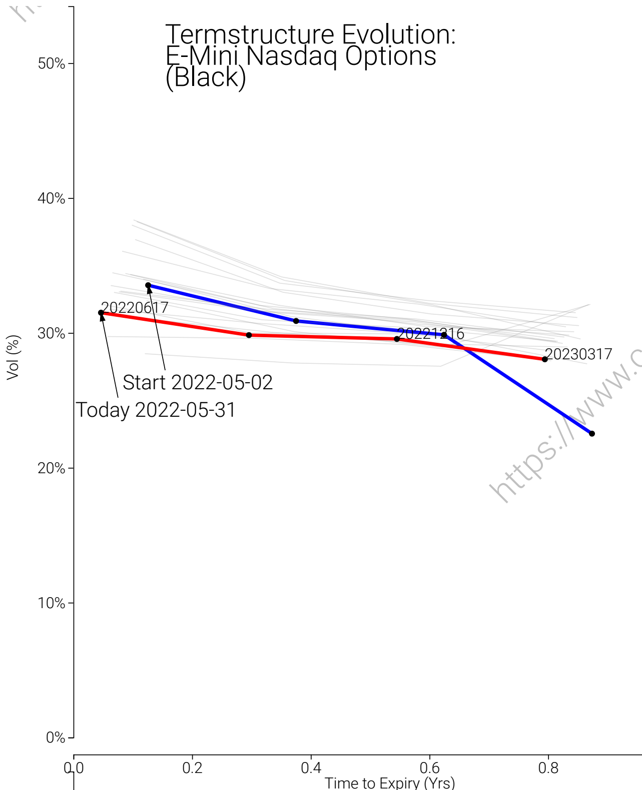

Termstructure Evolution:
E-Mini Russell 2000 Options
(Black)
Vol (%)
40%
30%
20%
10%
0%
20220617
20220916
Start 2022-05-02
Today 2022-05-31
0.0
0.1
0.2
0.3
0.4
Time to Expiry (Yrs)
Front Month Dynamics:
E-Mini Russell 2000 Options
(Black)
vol
price
36%
34%
32%
30%
28%
Vol (%)
Price ($)
1,900
1,850
1,800
1,750
Time
Sun 08
Sun 15
Sun 22
Sun 29
Price ($)
1,950
1,900
1,850
1,800
1,750
Start 2022-05-02
20220617
20220916
Today 2022-05-31
Front Month Skews:
E-Mini Russell 2000 Options
(Black)
Today 2022-05-31
Start 2022-05-02
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%
https://www.commodityvol.com

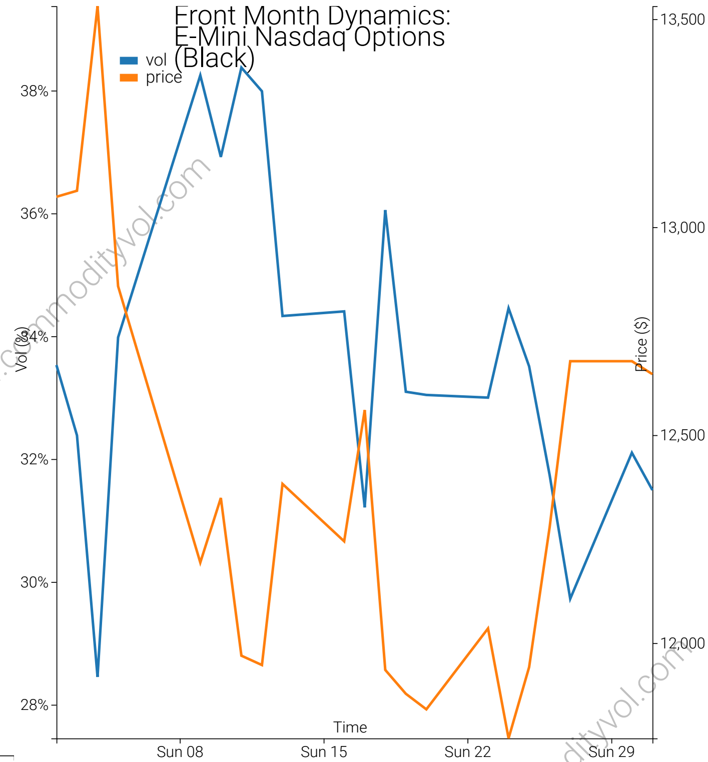

Termstructure Evolution:
E-Mini Russell EOM Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20220630
20220729
Start 2022-05-02
Today 2022-05-31

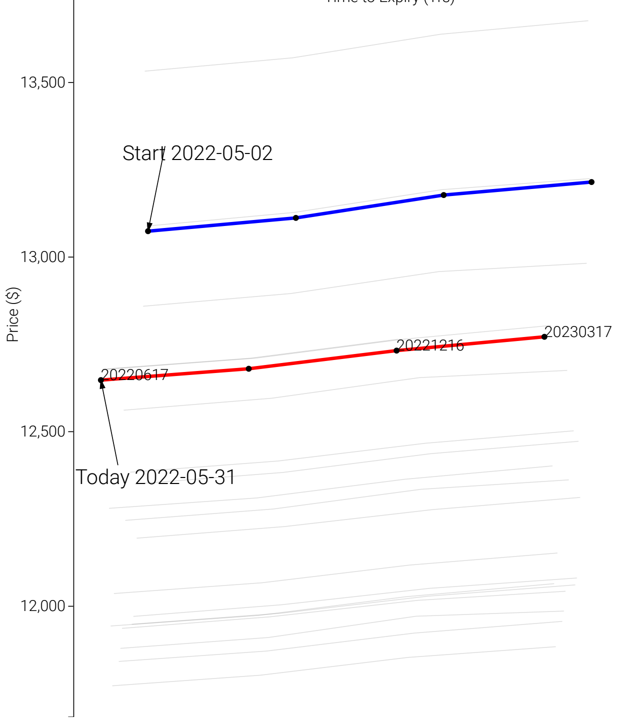

Front Month Dynamics:
E-Mini Russell EOM Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

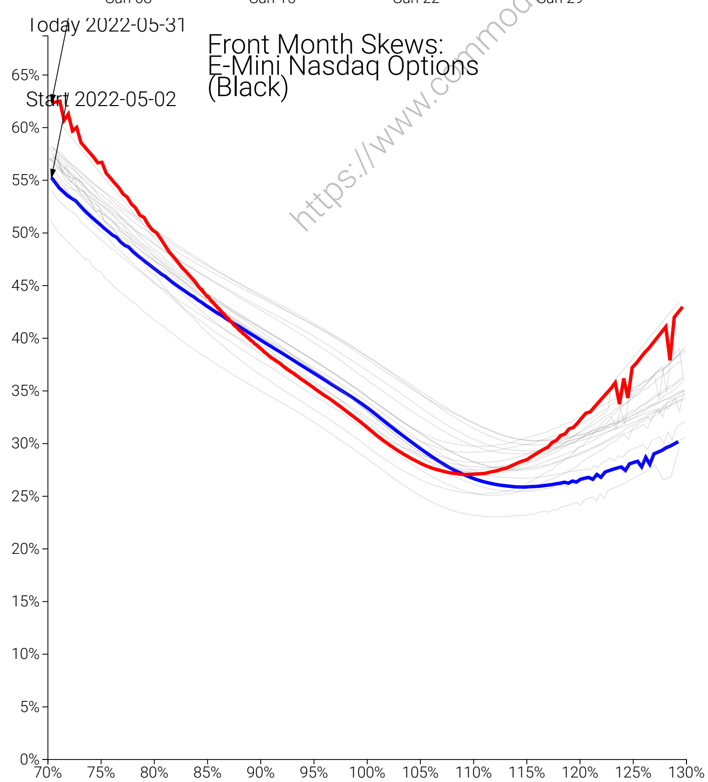

Price ($)
Start 2022-05-02
20220630
20220729
Today 2022-05-31

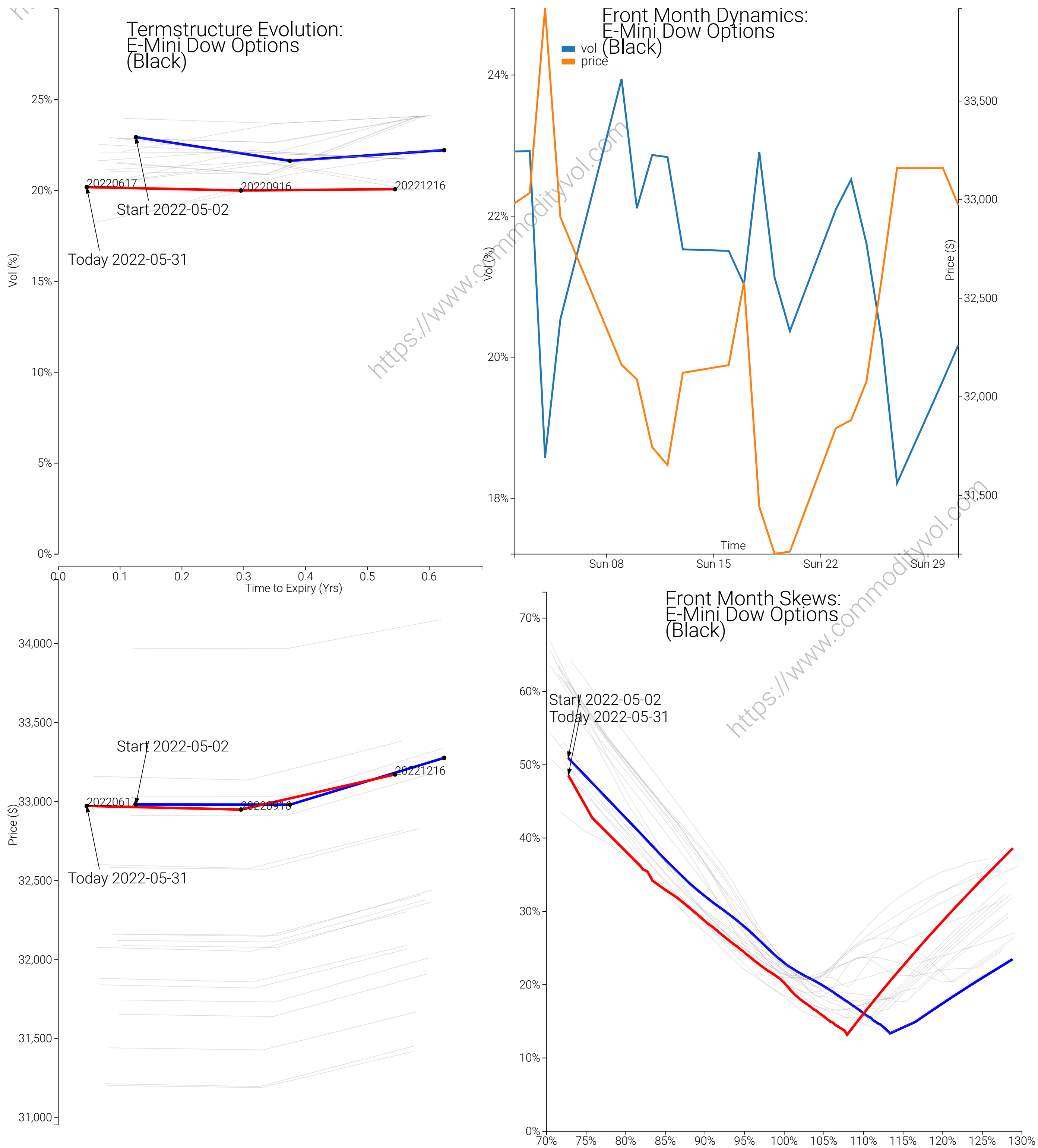

Front Month Skews:
E-Mini Russell EOM Options
(Black)
Start 2022-05-02
Today 2022-05-31


Termstructure Evolution:
E-Mini Nasdaq Options
(Black)
Vol (%)
50%
40%
30%
20%
10%
0%
20220617
20221216
20230317
Start 2022-05-02
Today 2022-05-31
0.0
0.2
0.4
0.6
0.8
Time to Expiry (Yrs)

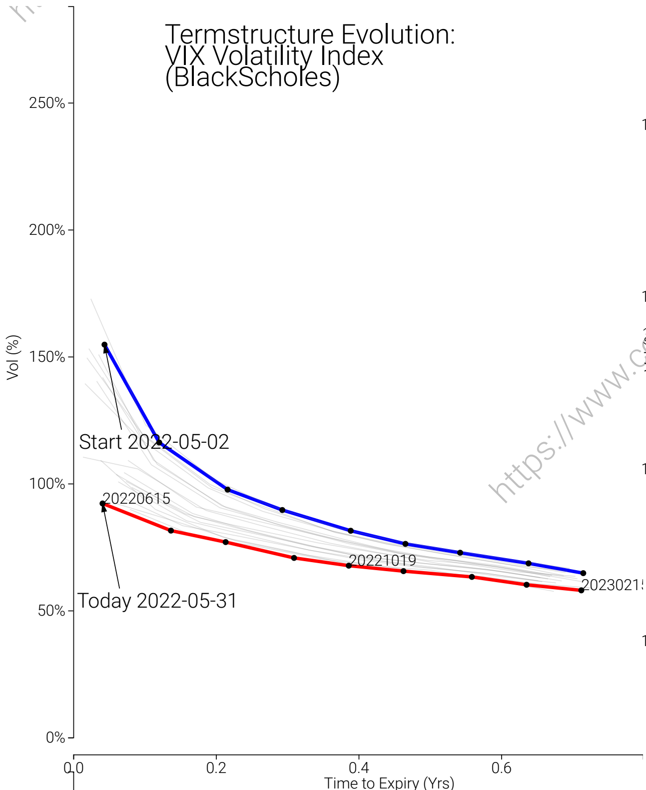

Front Month Dynamics:
E-Mini Nasdaq Options
(Black)
vol
price
Vol (%)
38%
36%
34%
32%
30%
28%
Price ($)
13,500
13,000
12,500
12,000
Time
Sun 08
Sun 15
Sun 22
Sun 29

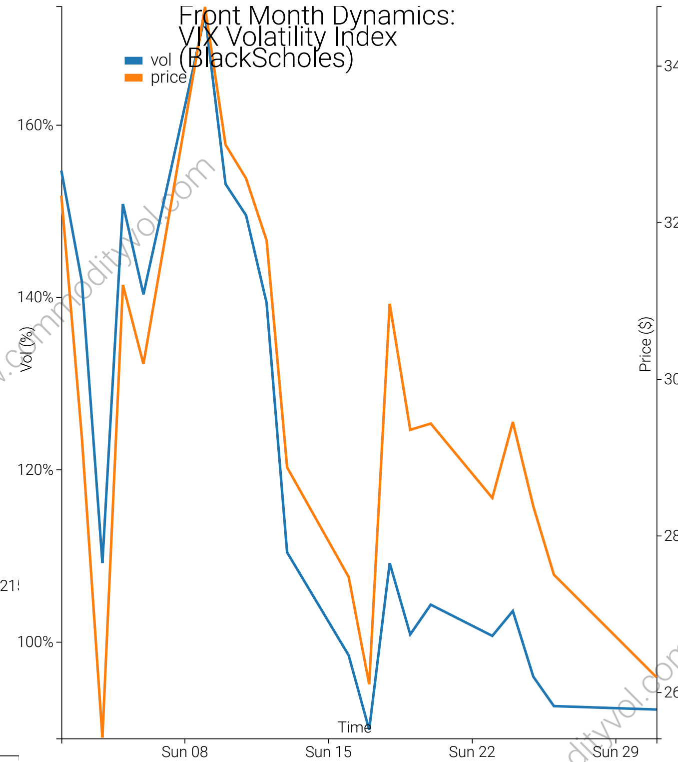

Price ($)
13,500
13,000
12,500
12,000
Start 2022-05-02
Today 2022-05-31
20220617
20221216
20230317

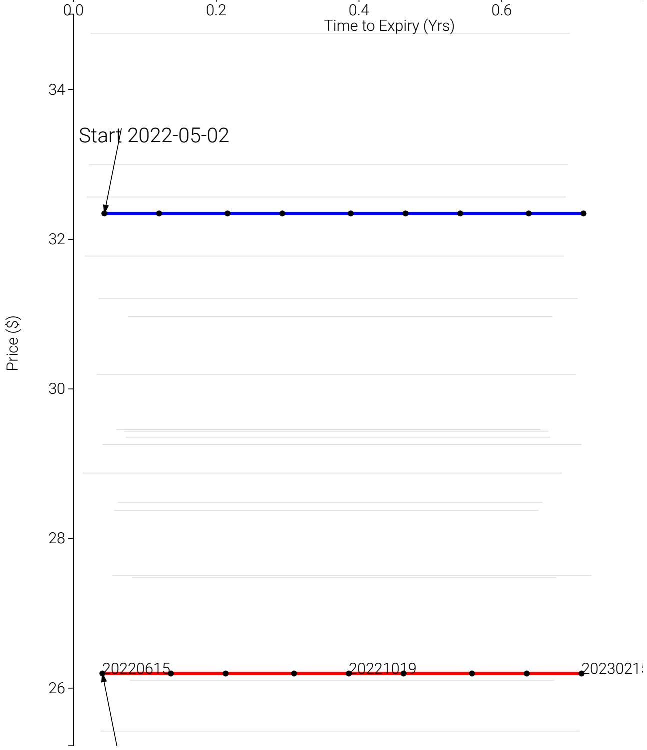

Today 2022-05-31
Start 2022-05-02
Front Month Skews:
E-Mini Nasdaq Options
(Black)
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

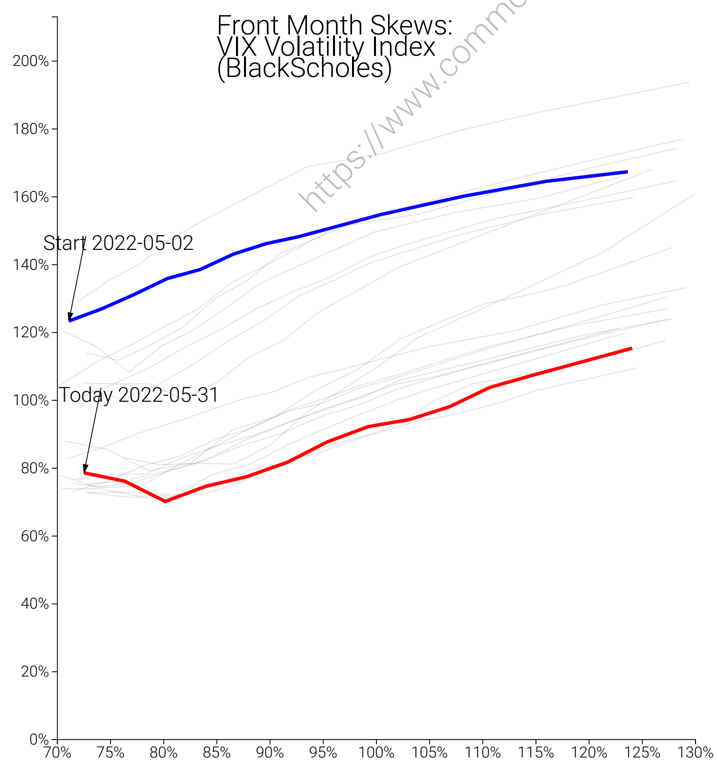


Termstructure Evolution:
E-Mini Dow Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20220617
20220916
20221216
Start 2022-05-02
Today 2022-05-31
Front Month Dynamics:
E-Mini Dow Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29
Price ($)
Front Month Skews:
E-Mini Dow Options
(Black)
https://www.commodityvol.com

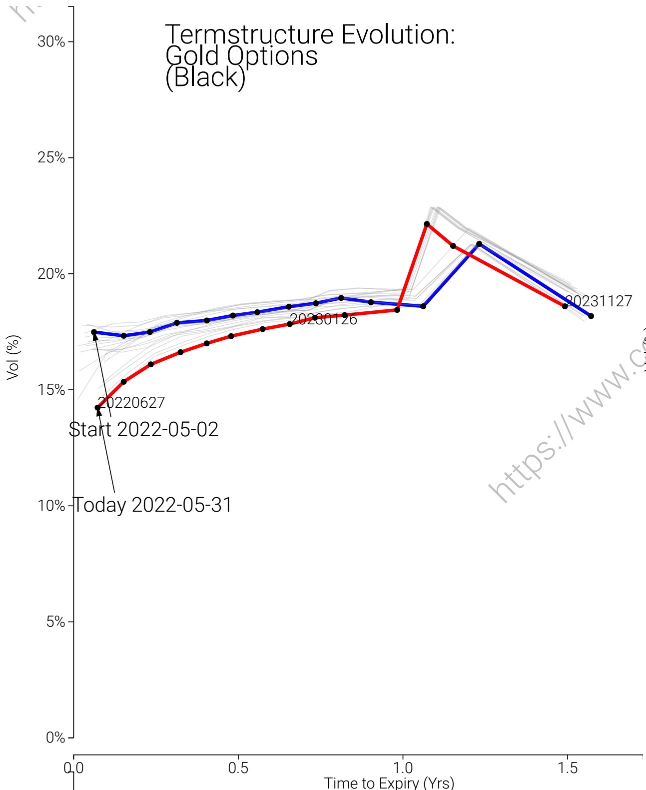

Termstructure Evolution:
VIX Volatility Index
(BlackScholes)
Vol (%)
250%
200%
150%
100%
50%
0%
Start 2022-05-02
Today 2022-05-31
20220615
20221019
2023021
0.0
0.2
0.4
0.6
Time to Expiry (Yrs)

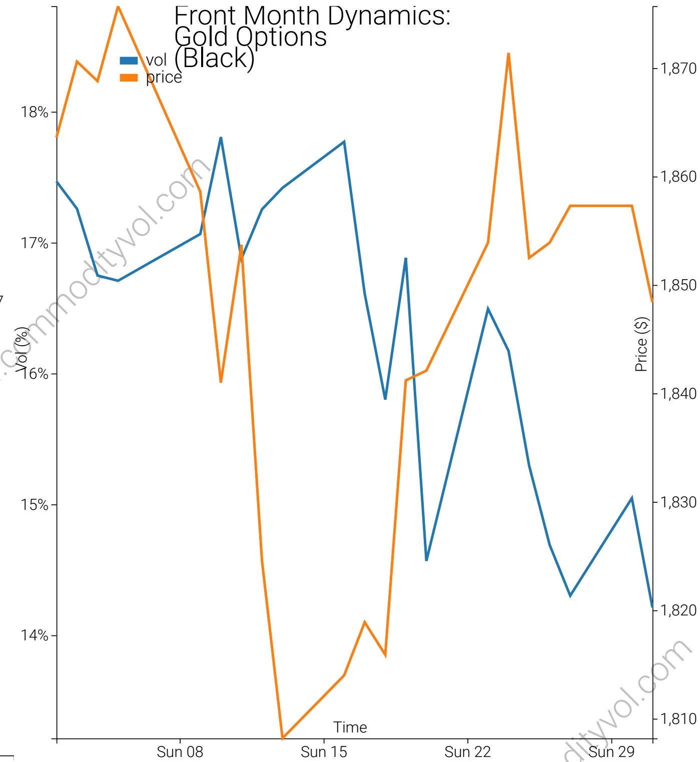

Front Month Dynamics:
VIX Volatility Index
(BlackScholes)
vol
price
Vol (%)
Price ($)
160%
140%
120%
100%
34
32
30
28
26
Sun 08
Sun 15
Sun 22
Sun 29
Time

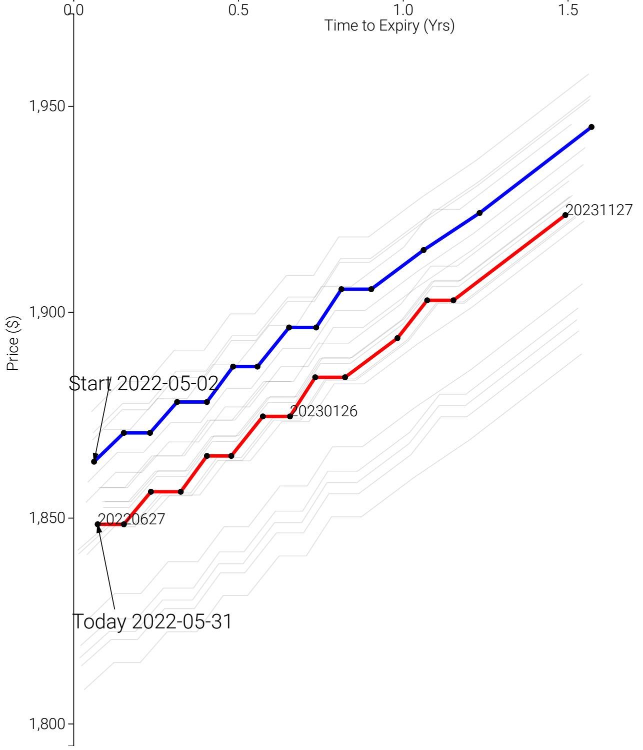

Price ($)
34
32
30
28
26
Start 2022-05-02
20220615
20221019
2023021

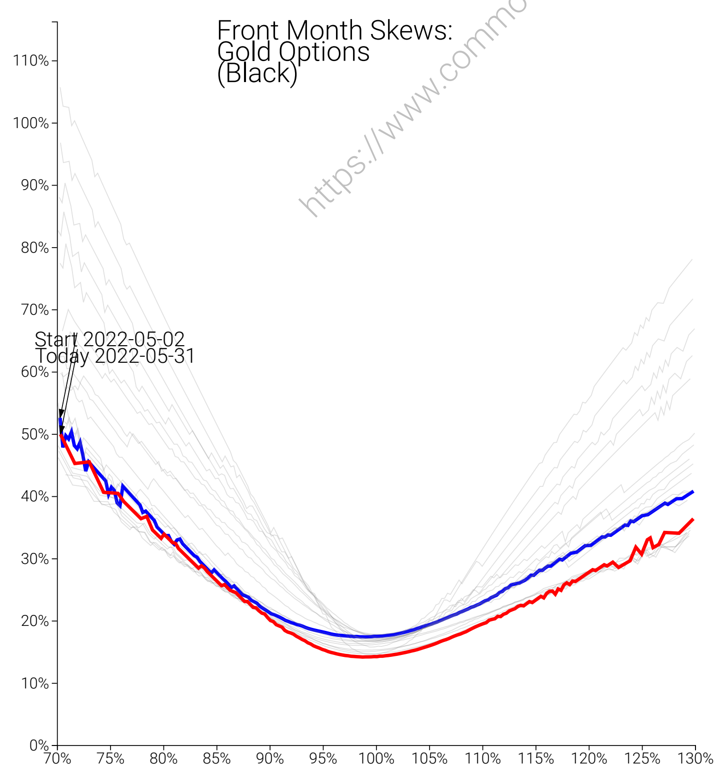

Front Month Skews:
VIX Volatility Index
(BlackScholes)
200%
180%
160%
140%
120%
100%
80%
60%
40%
20%
0%
Start 2022-05-02
Today 2022-05-31
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

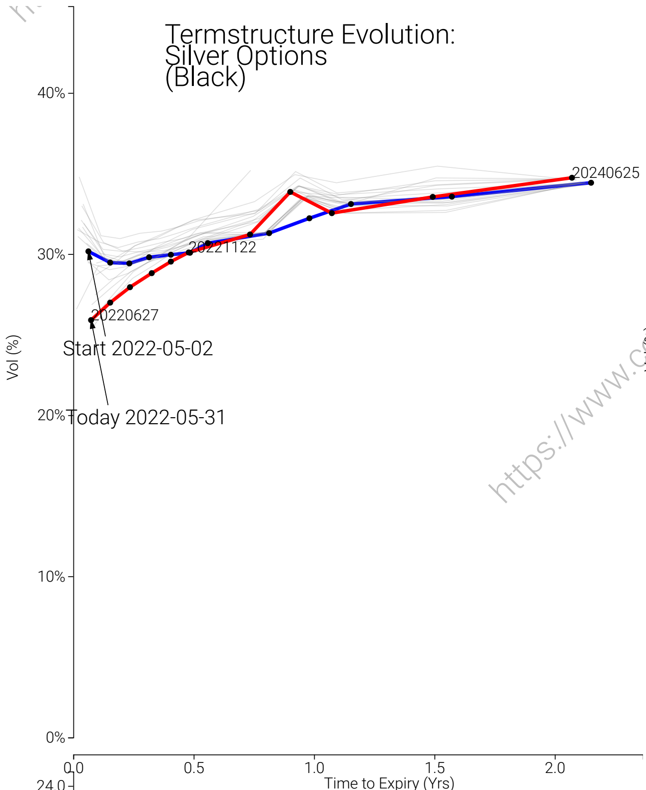
Metals

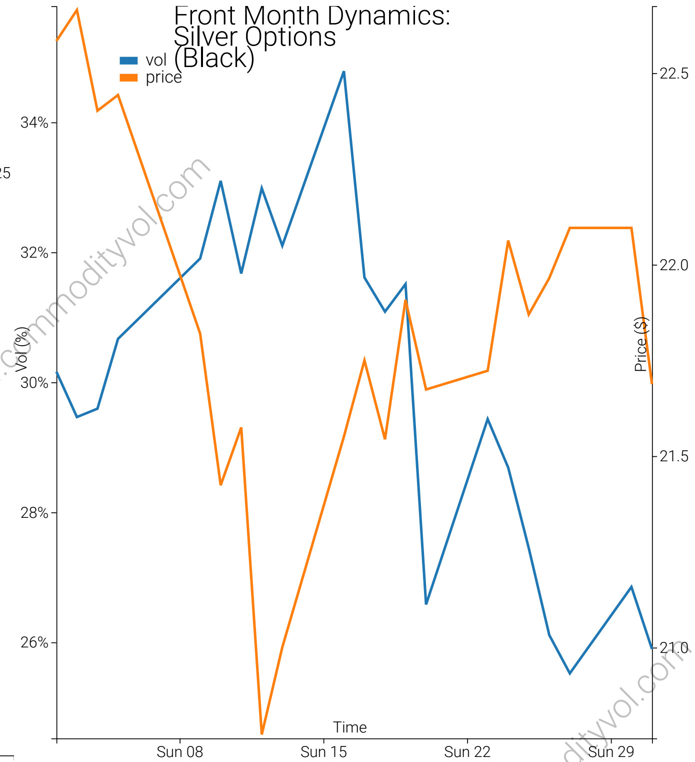

Termstructure Evolution:
Gold Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20231127
20230126
20220627
Start 2022-05-02
Today 2022-05-31

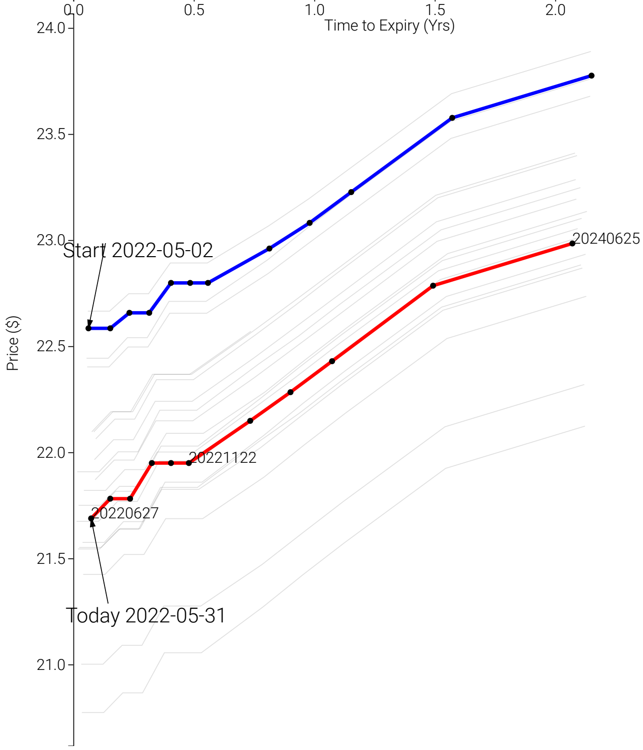

Front Month Dynamics:
Gold Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

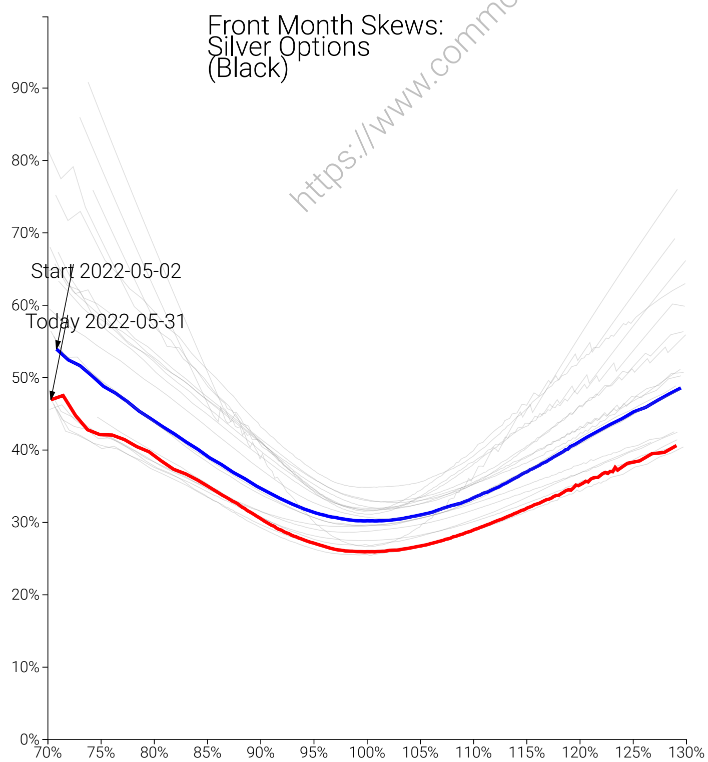

Price ($)
20231127
20230126
20220627
Start 2022-05-02
Today 2022-05-31

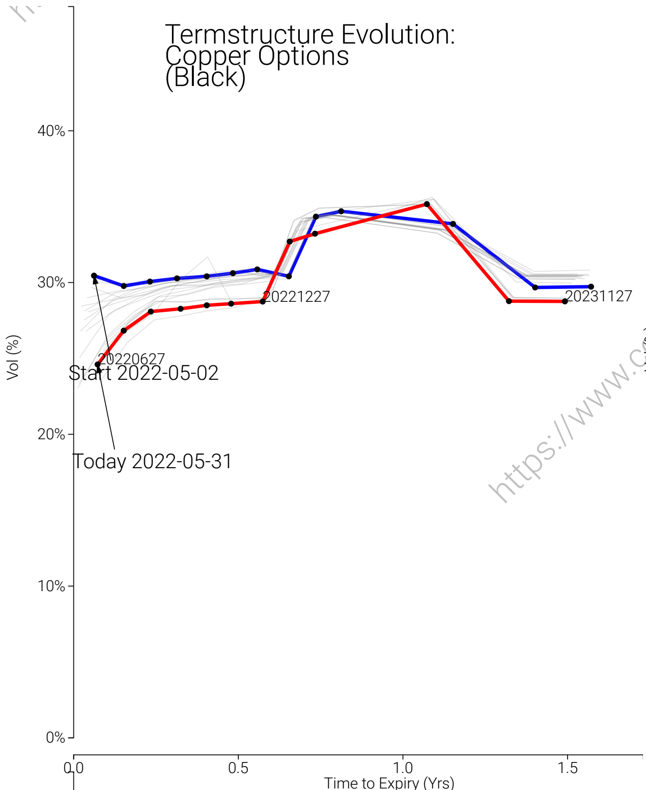

Front Month Skews:
Gold Options
(Black)
Start 2022-05-02
Today 2022-05-31

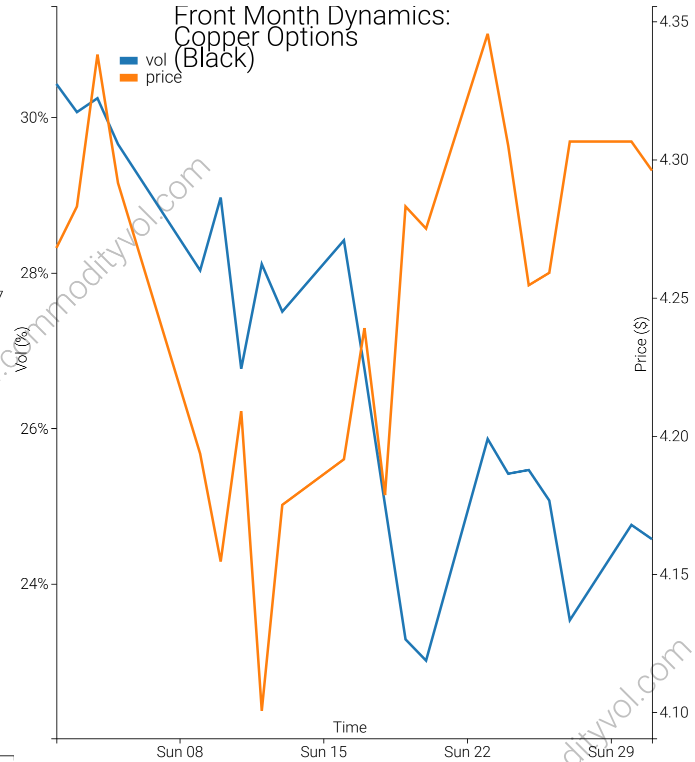

Termstructure Evolution:
Silver Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20240625
20221122
20220627
Start 2022-05-02
Today 2022-05-31

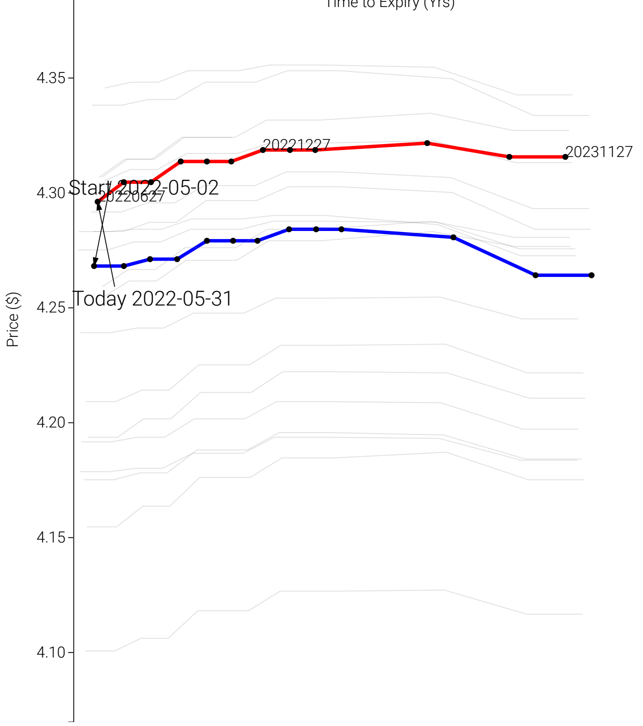

Front Month Dynamics:
Silver Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

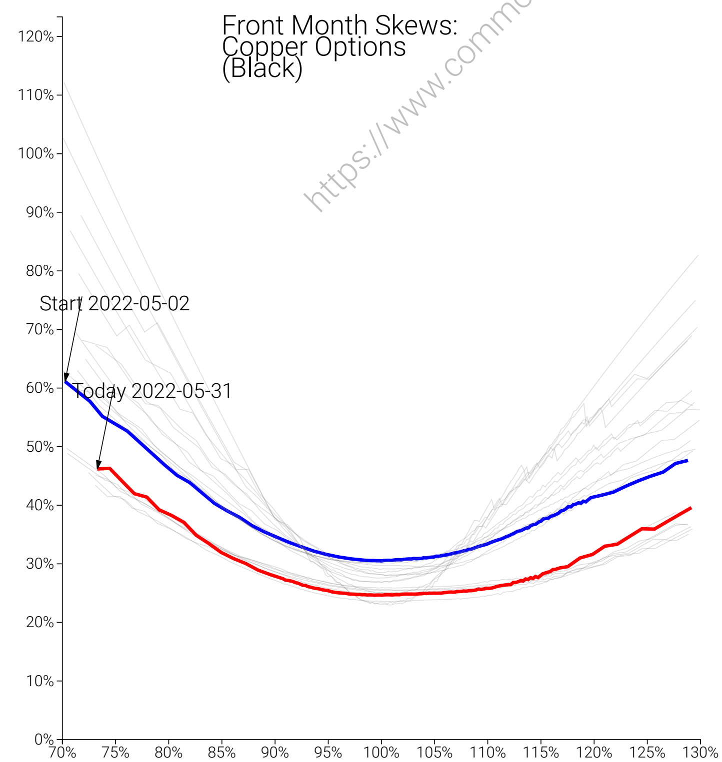

Price ($)
Start 2022-05-02
20240625
20221122
20220627
Today 2022-05-31

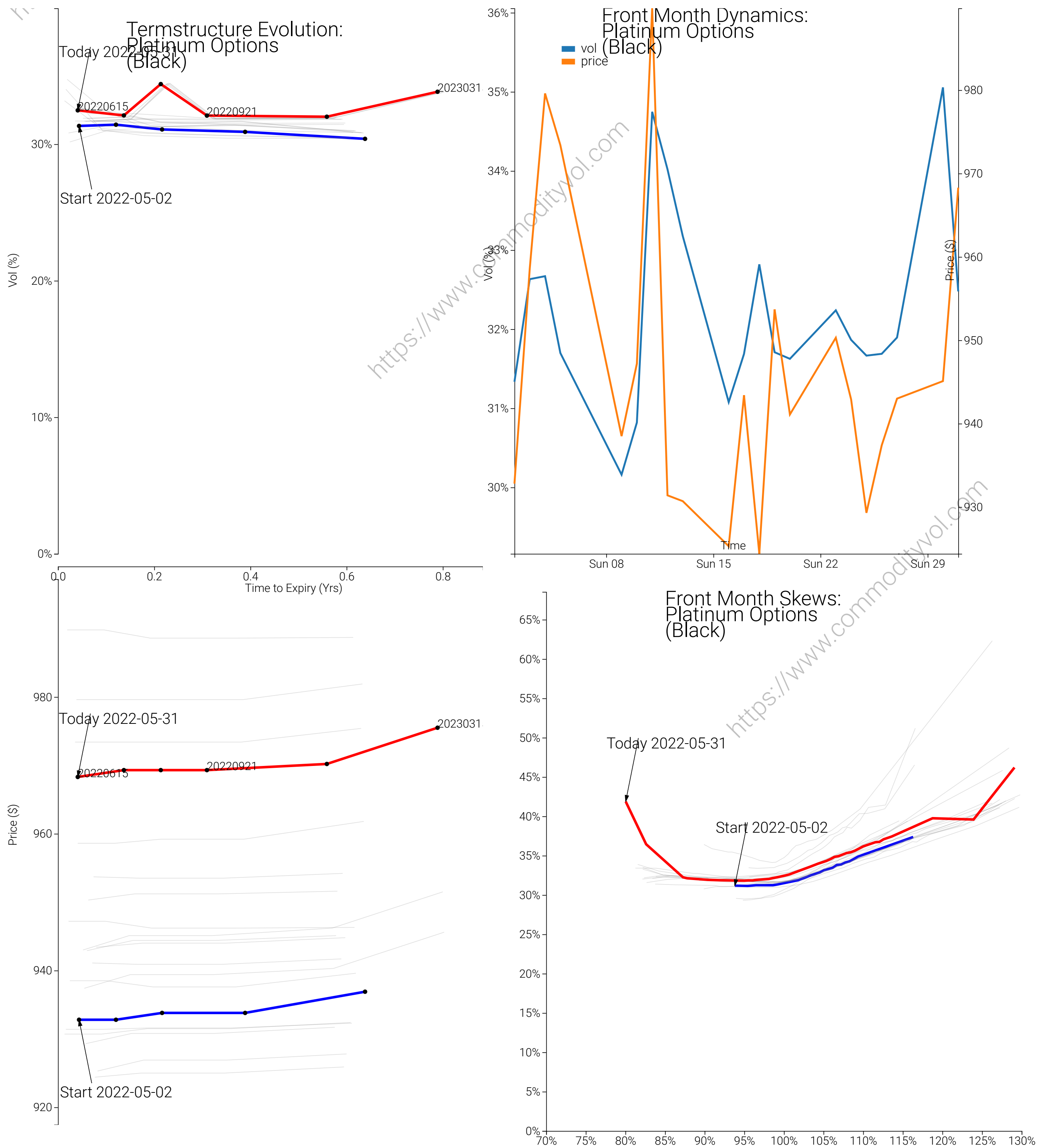

Front Month Skews:
Silver Options
(Black)
Start 2022-05-02
Today 2022-05-31

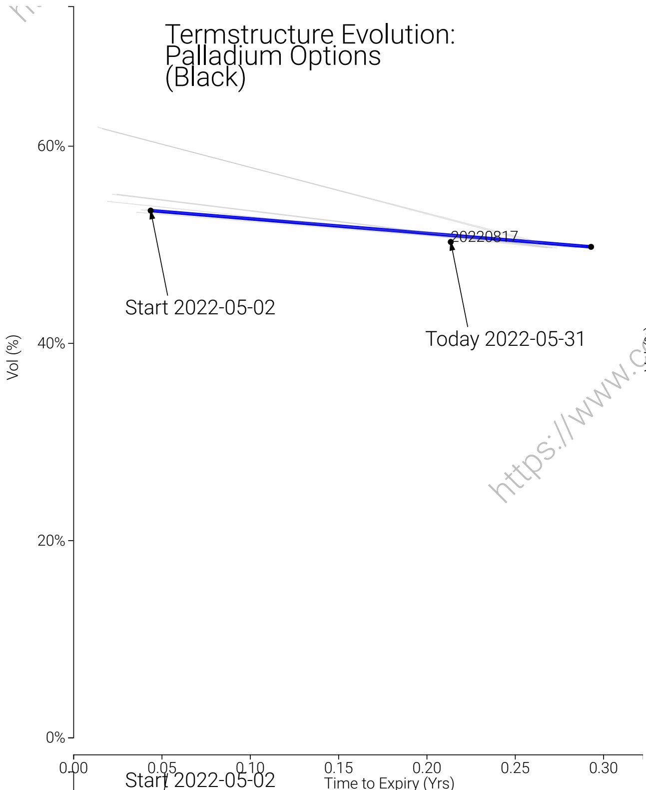

Termstructure Evolution:
Copper Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20220627
20221227
20231127
Start 2022-05-02
Today 2022-05-31
https://www.commodityvol.com

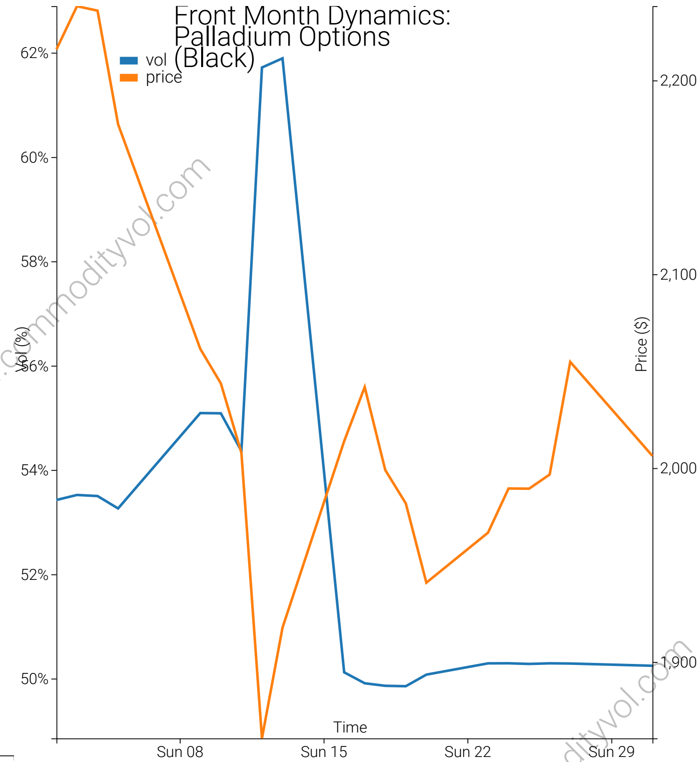

Front Month Dynamics:
Copper Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29
https://www.commodityvol.com

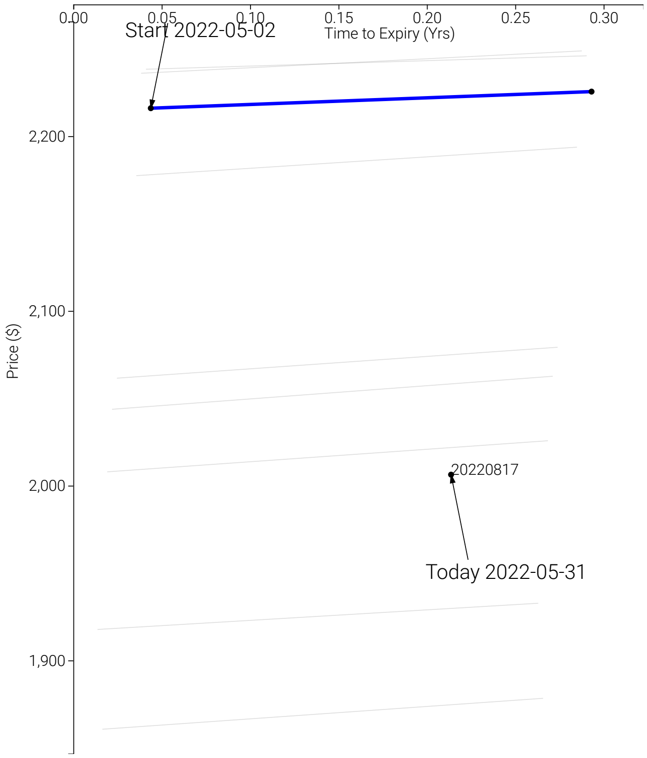

Price ($)
20220627
20221227
20231127
Start 2022-05-02
Today 2022-05-31

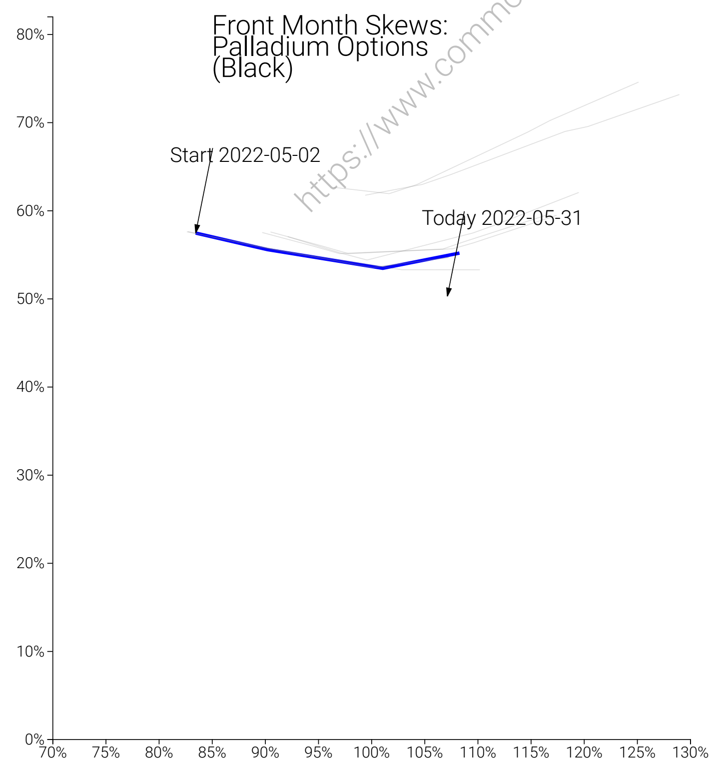

Front Month Skews:
Copper Options
(Black)
Start 2022-05-02
Today 2022-05-31
https://www.commodityvol.com


Termstructure Evolution:
Platinum Options
(Black)
Today 2022-05-31
Start 2022-05-02
20220615
20220921
2023031
Vol (%)
Time to Expiry (Yrs)
Price ($)
Front Month Dynamics:
Platinum Options
(Black)
vol
price
Time
Sun 08
Sun 15
Sun 22
Sun 29
Front Month Skews:
Platinum Options
(Black)
https://www.commodityvol.com

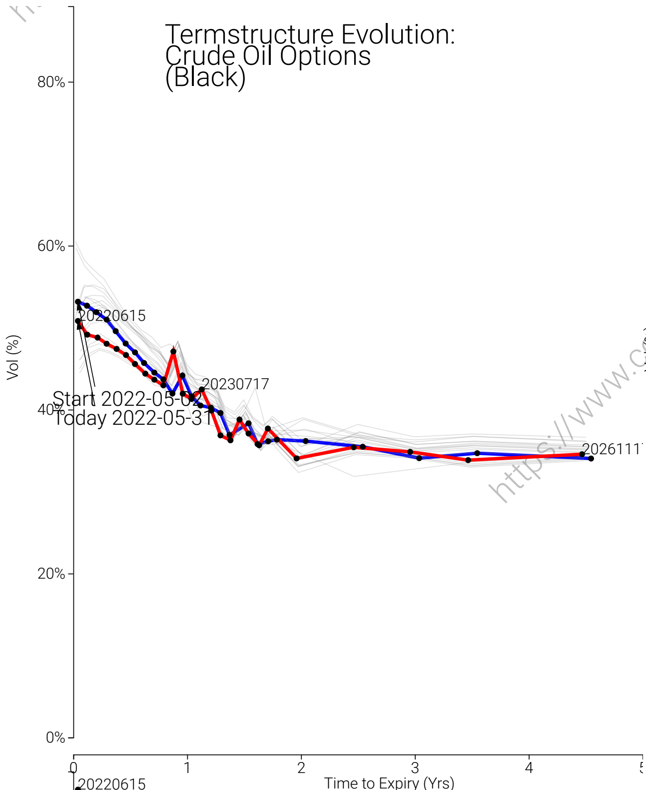

Termstructure Evolution:
Palladium Options
(Black)
Vol (%)
Start 2022-05-02
Today 2022-05-31
20220817
Time to Expiry (Yrs)

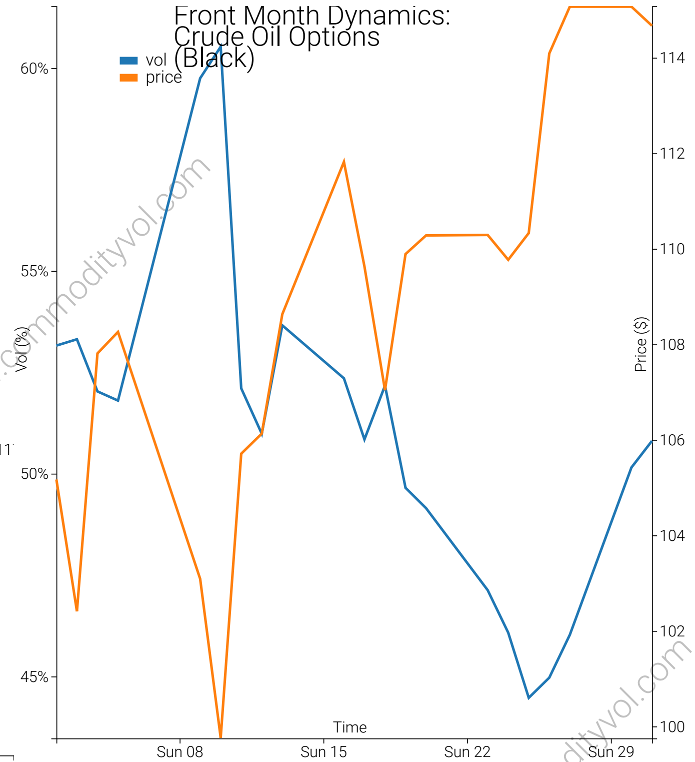

Front Month Dynamics:
Palladium Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

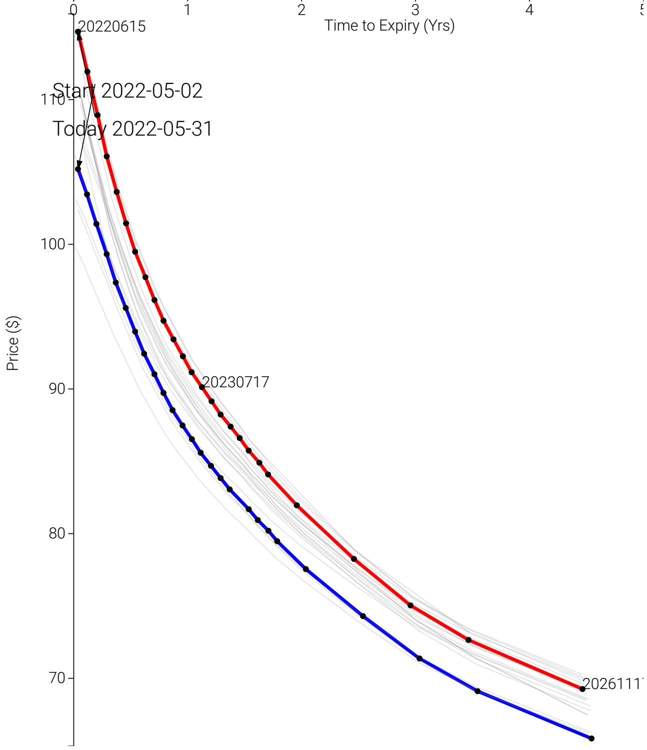

Start 2022-05-02
Price ($)
20220817
Today 2022-05-31

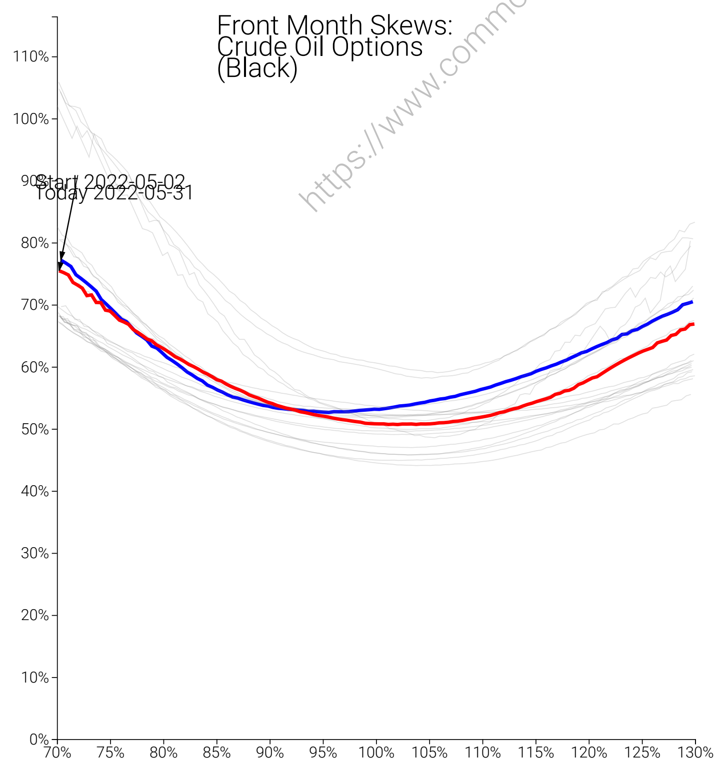

Front Month Skews:
Palladium Options
(Black)
Start 2022-05-02
Today 2022-05-31

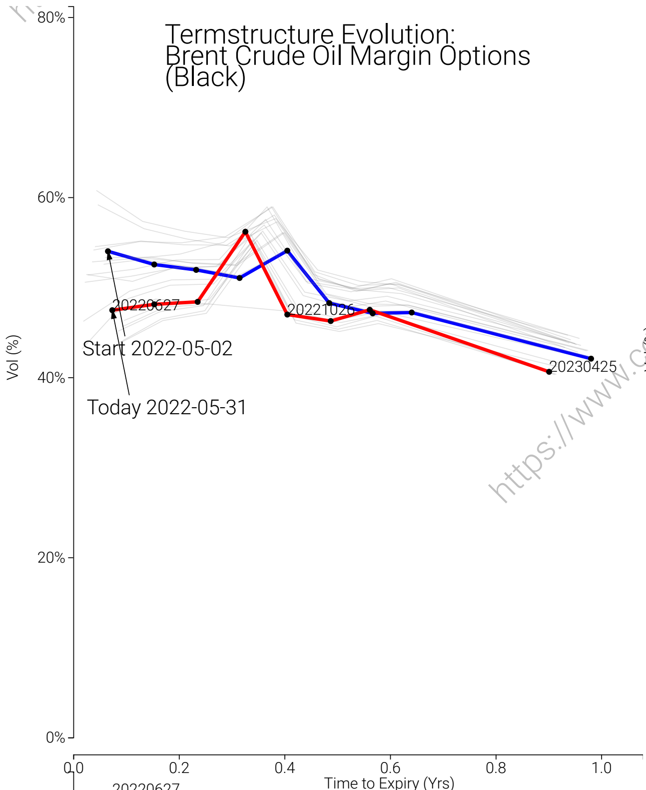
Energy: Crude and Derivatives

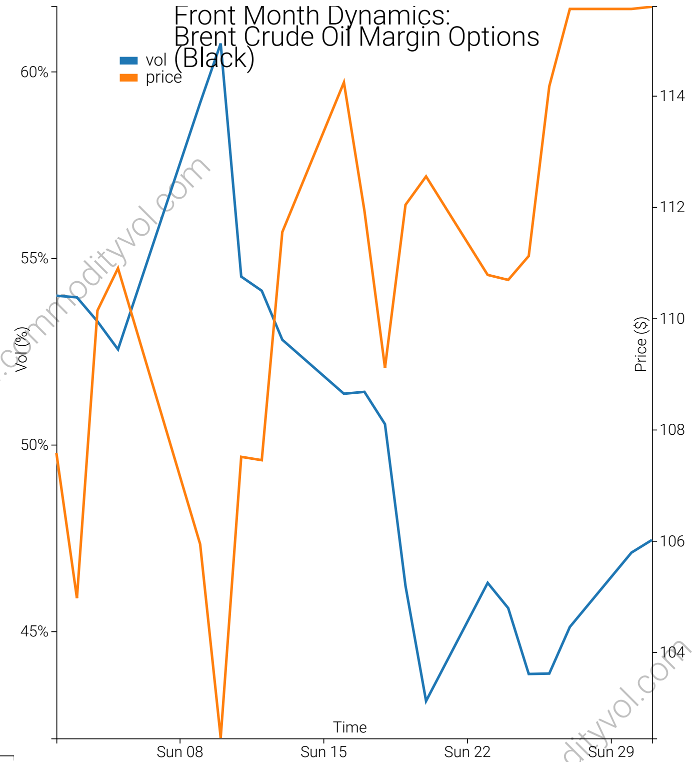

Termstructure Evolution:
Crude Oil Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20220615
20230717
Start 2022-05-02
Today 2022-05-31

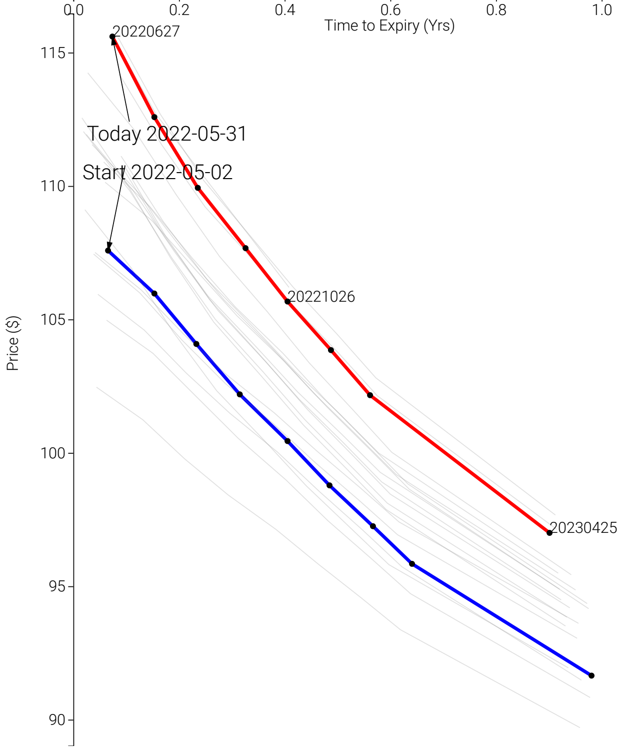

Front Month Dynamics:
Crude Oil Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

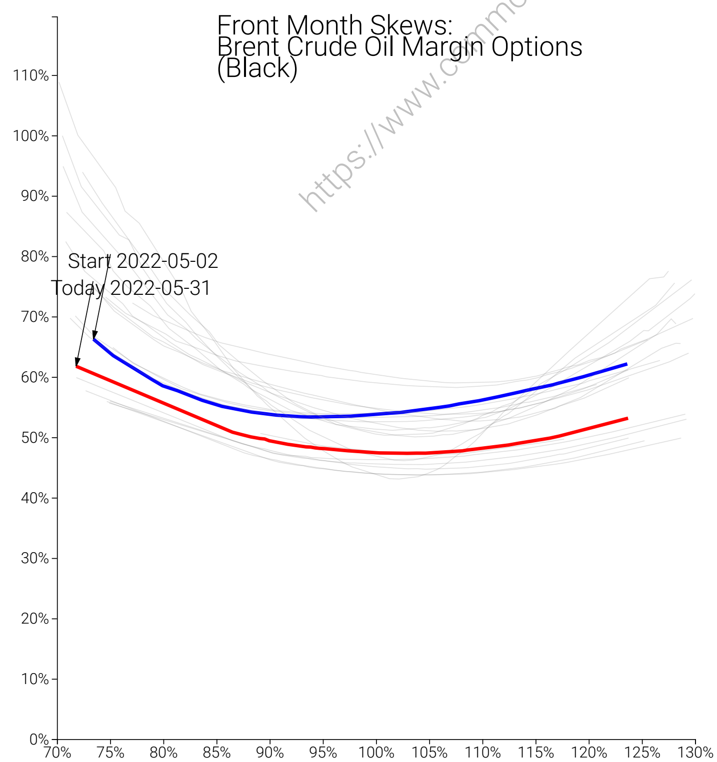

Price ($)
20220615
20230717
Start 2022-05-02
Today 2022-05-31

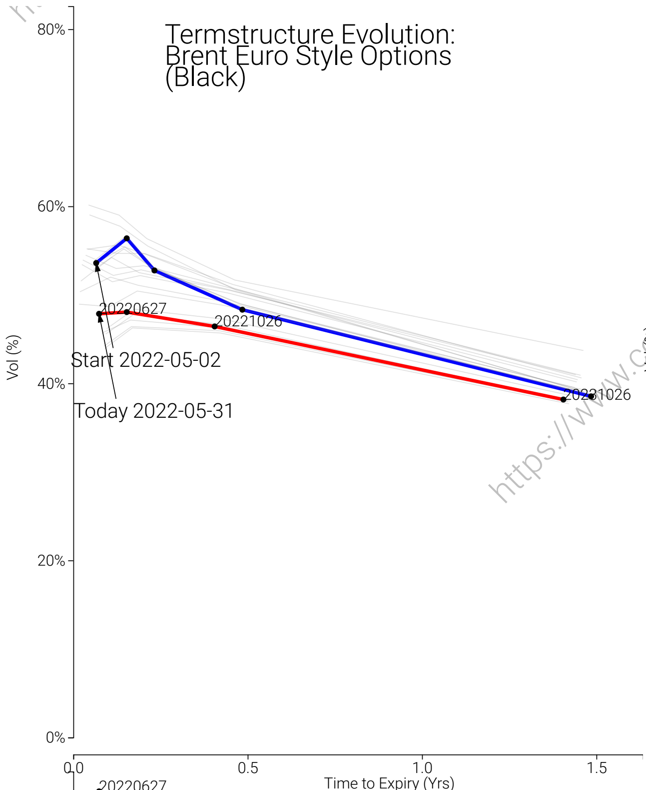

Front Month Skews:
Crude Oil Options
(Black)
Start 2022-05-02
Today 2022-05-31

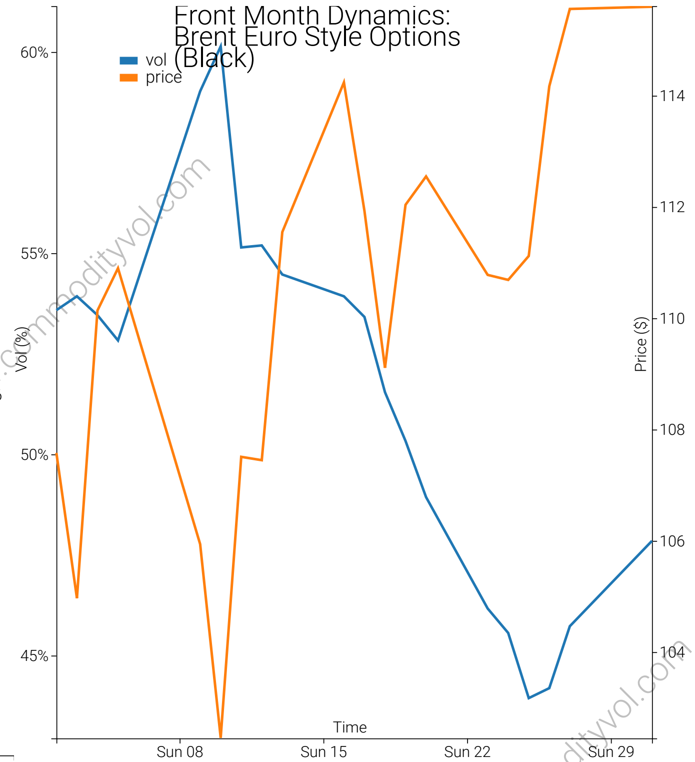

Termstructure Evolution:
Brent Crude Oil Margin Options
(Black)
Vol (%)
Time to Expiry (Yrs)
Start 2022-05-02
Today 2022-05-31
20220627
20221026
20230425

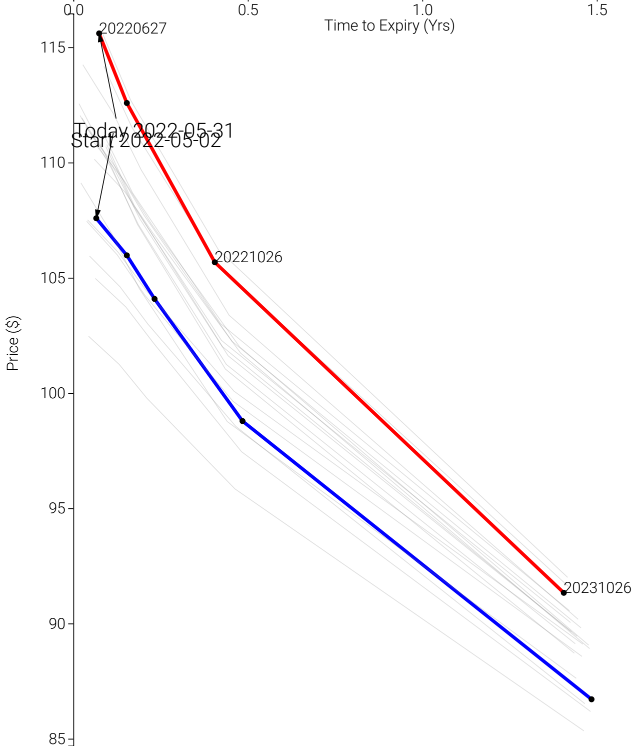

Front Month Dynamics:
Brent Crude Oil Margin Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

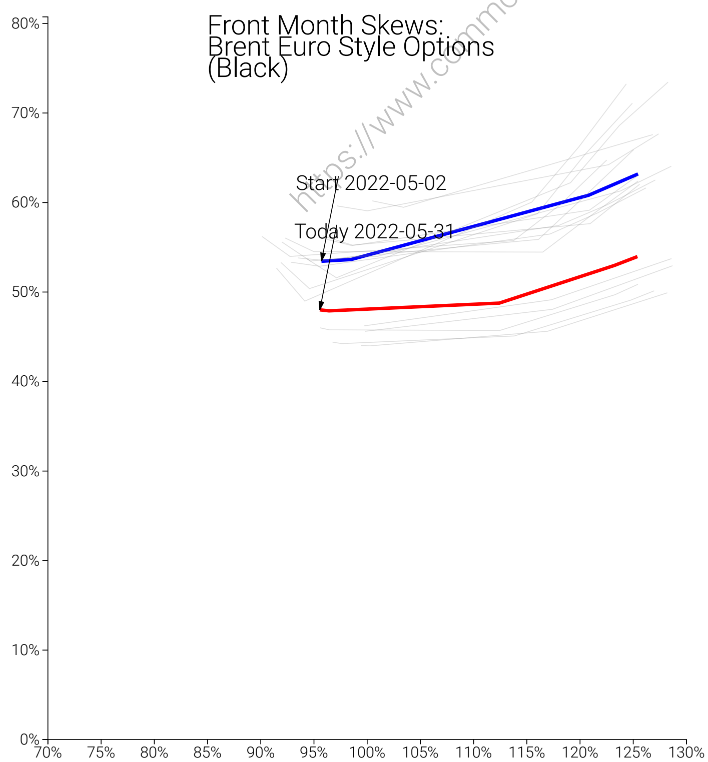

Price ($)
20220627
Today 2022-05-31
Start 2022-05-02
20221026
20230425

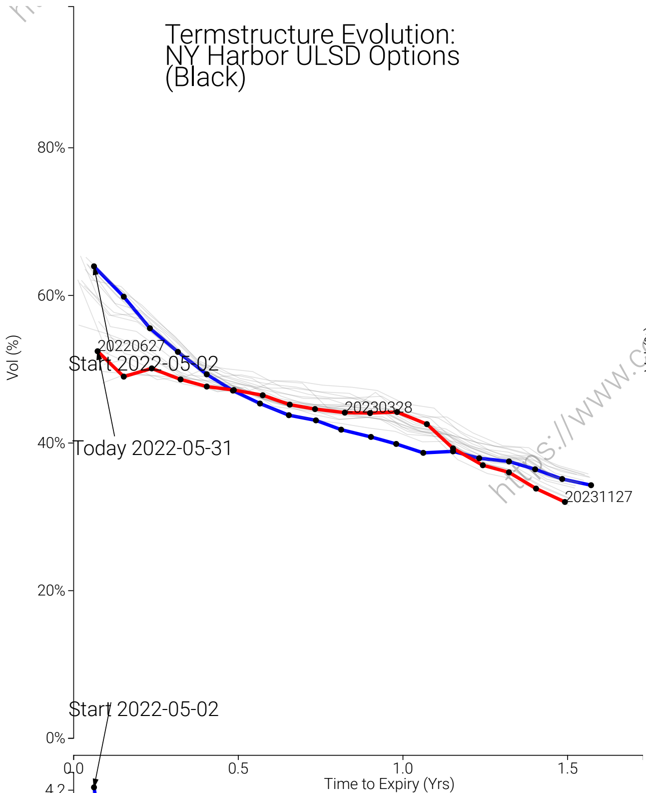

Front Month Skews:
Brent Crude Oil Margin Options
(Black)
Start 2022-05-02
Today 2022-05-31


Termstructure Evolution:
Brent Euro Style Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20220627
20221026
20231026
Start 2022-05-02
Today 2022-05-31

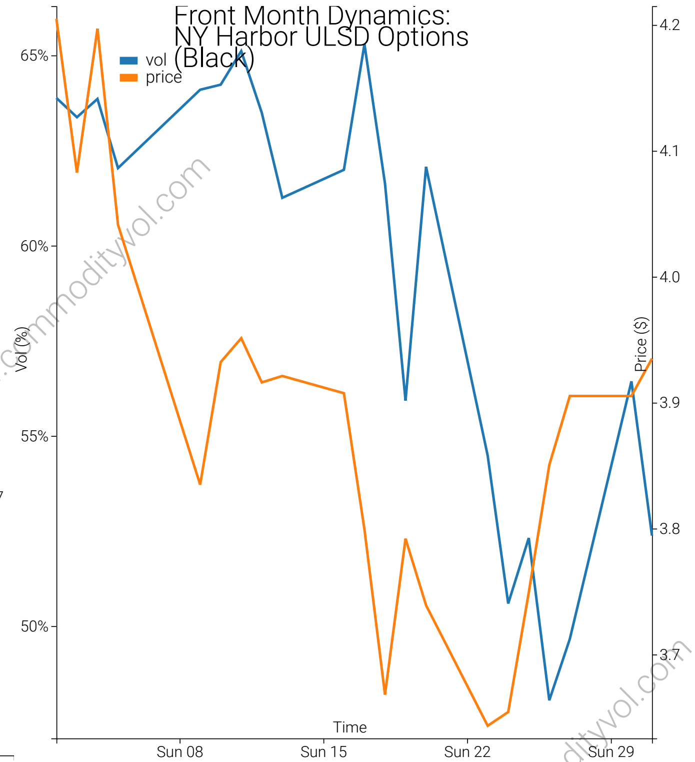

Front Month Dynamics:
Brent Euro Style Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29


Price ($)
20220627
20221026
20231026
Today 2022-05-31
Start 2022-05-02

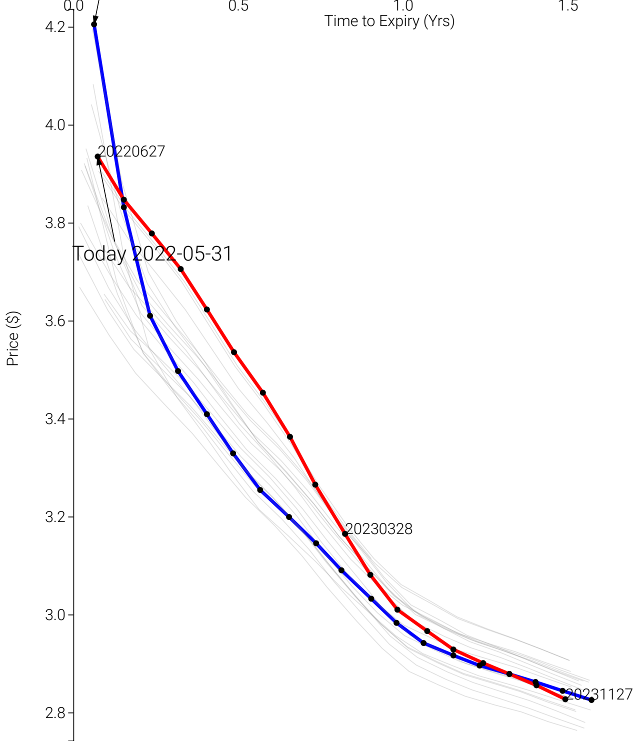

Front Month Skews:
Brent Euro Style Options
(Black)
Start 2022-05-02
Today 2022-05-31



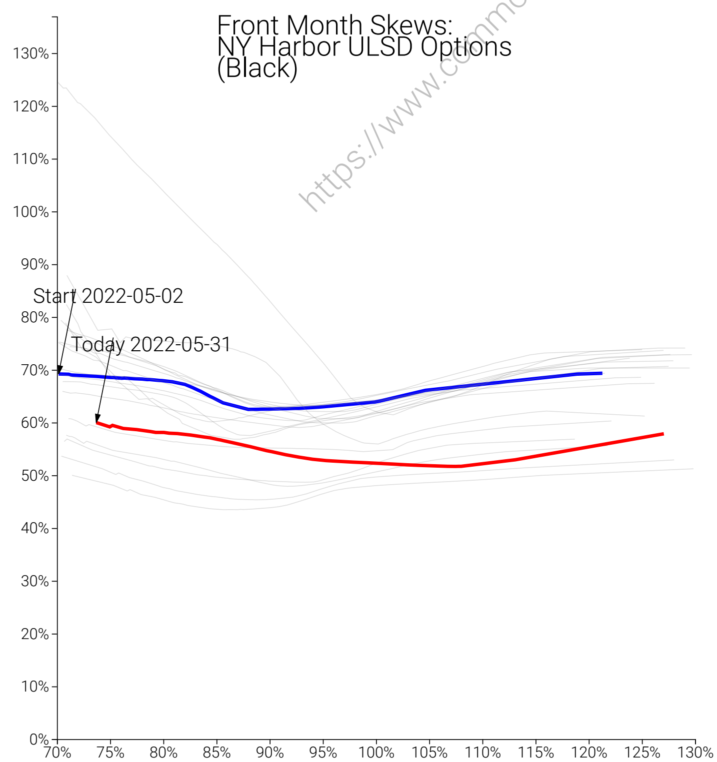
Termstructure Evolution:
NY Harbor ULSD Options
(Black)
Vol (%)
80%
60%
40%
20%
0%
20220627
Start 2022-05-02
Today 2022-05-31
20230328
20231127
0.0
0.5
1.0
1.5
Time to Expiry (Yrs)



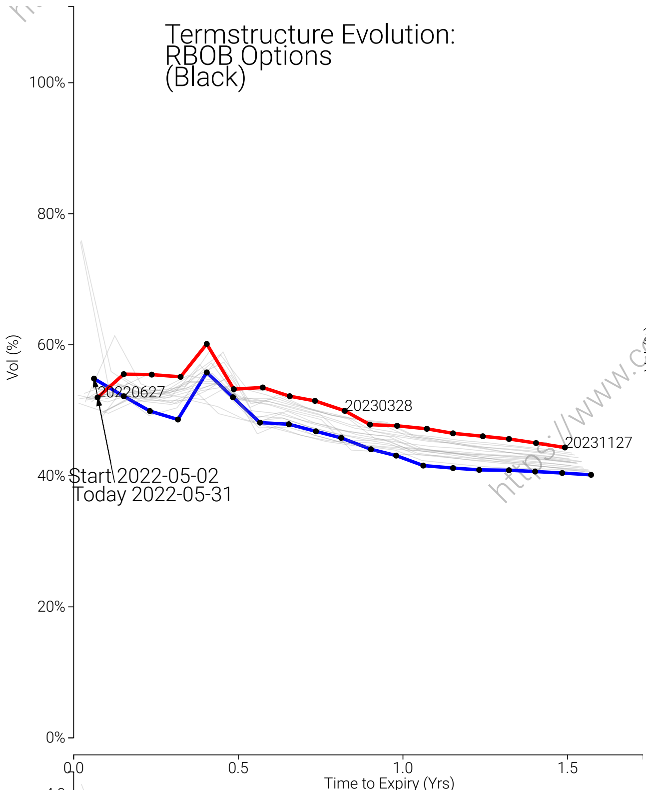
Front Month Dynamics:
NY Harbor ULSD Options
(Black)
vol
price
Vol (%)
Price ($)
65%
60%
55%
50%
4.2
4.1
4.0
3.9
3.8
3.7
Time
Sun 08
Sun 15
Sun 22
Sun 29

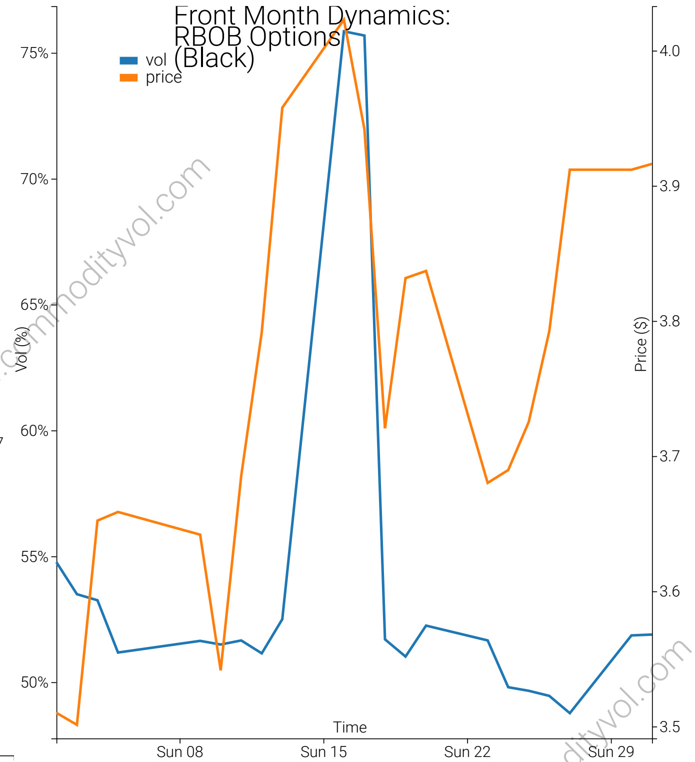


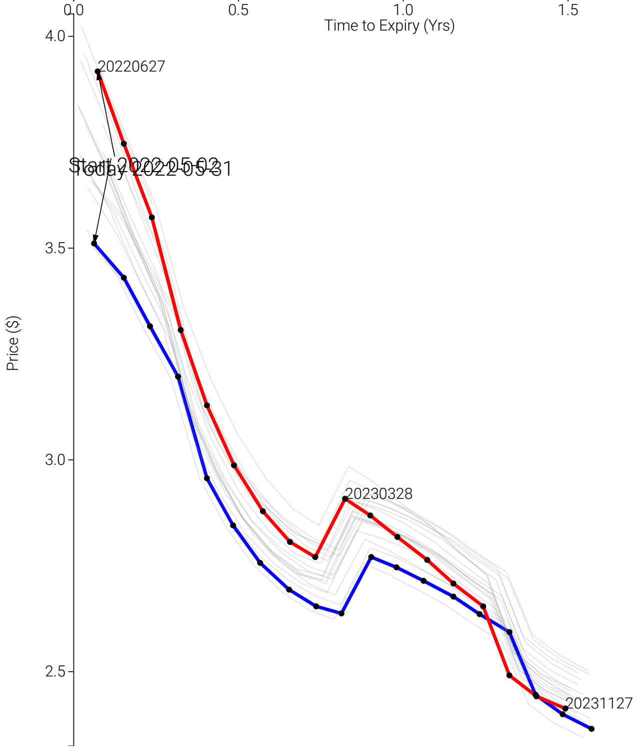
Price ($)
4.2
4.0
3.8
3.6
3.4
3.2
3.0
2.8
Start 2022-05-02
20220627
Today 2022-05-31
20230328
20231127

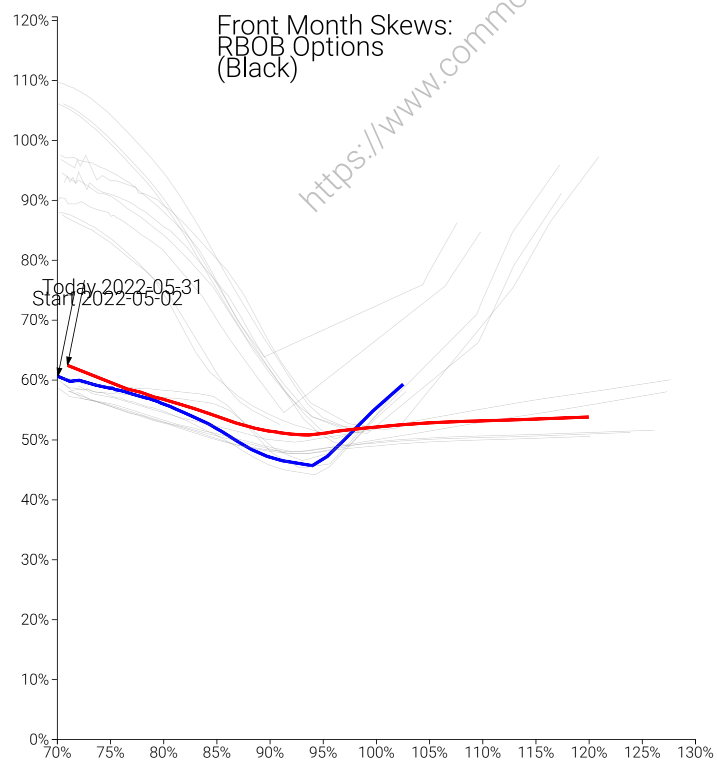


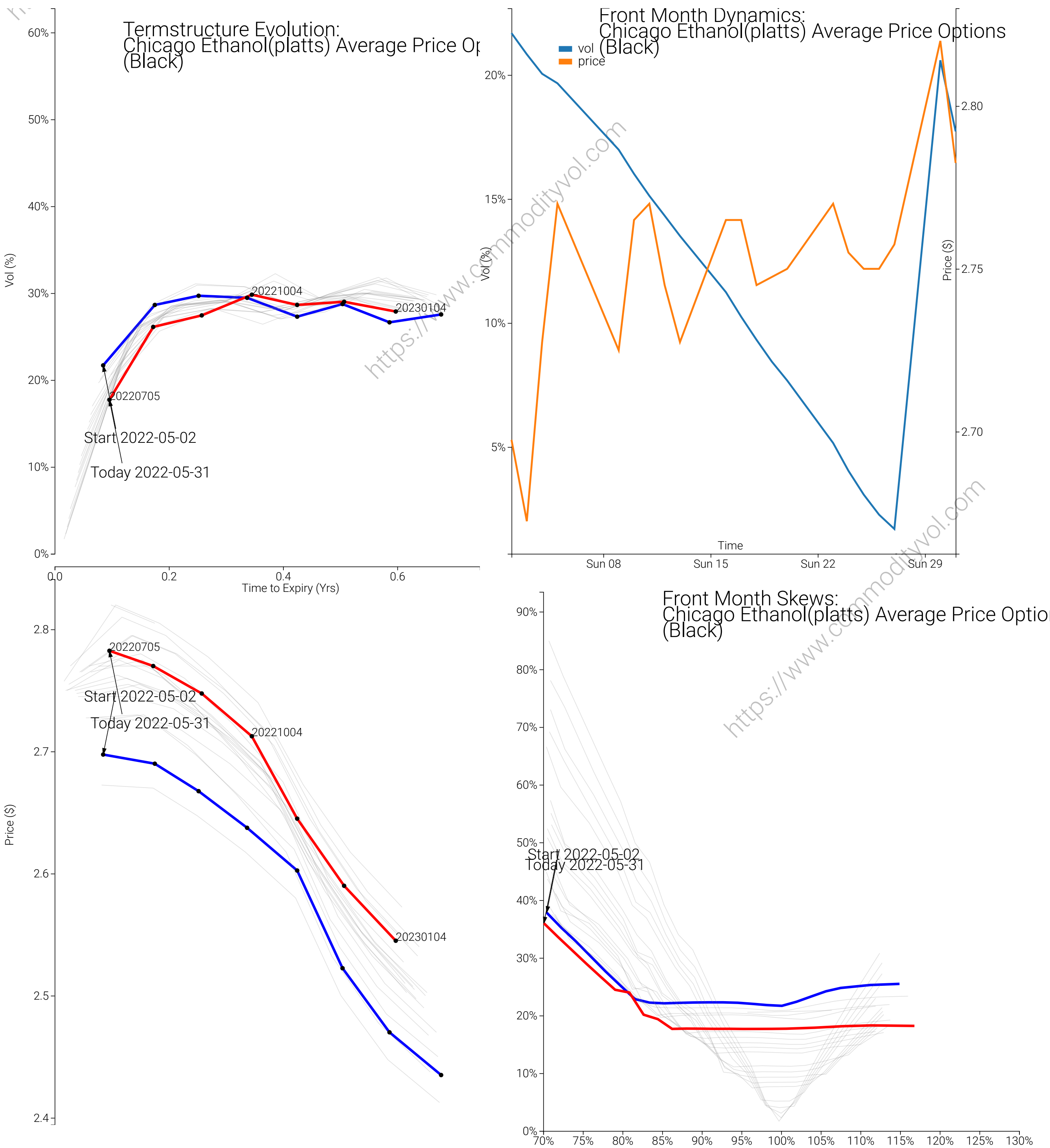
Front Month Skews:
NY Harbor ULSD Options
(Black)
130%
120%
110%
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Start 2022-05-02
Today 2022-05-31
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%


Termstructure Evolution:
RBOB Options
(Black)
Vol (%)
100%
80%
60%
40%
20%
0%
20220627
20230328
20231127
Start 2022-05-02
Today 2022-05-31
0.0
0.5
1.0
1.5
Time to Expiry (Yrs)
https://www.commodityvol.com

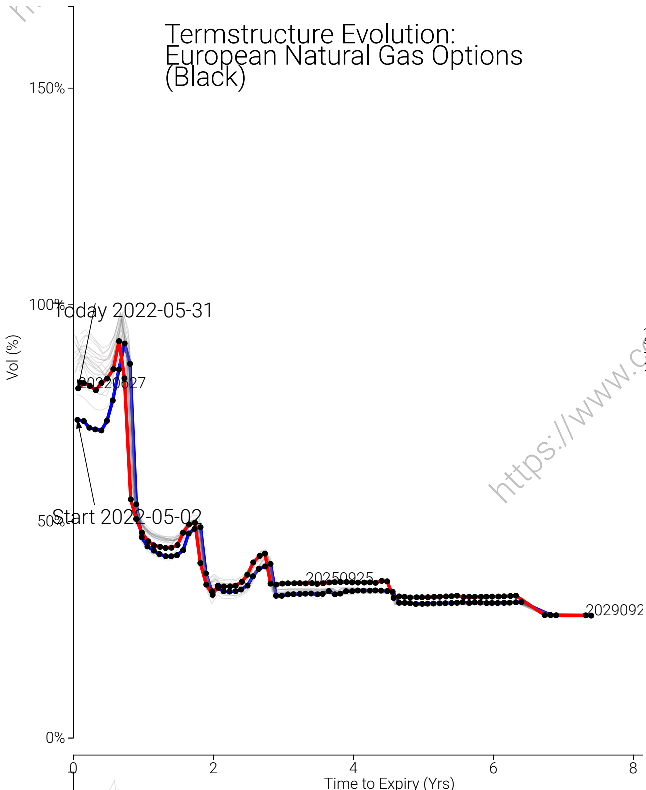

Front Month Dynamics:
RBOB Options
(Black)
vol
price
Vol (%)
Price ($)
75%
70%
65%
60%
55%
50%
4.0
3.9
3.8
3.7
3.6
3.5
Time
Sun 08
Sun 15
Sun 22
Sun 29
https://www.commodityvol.com

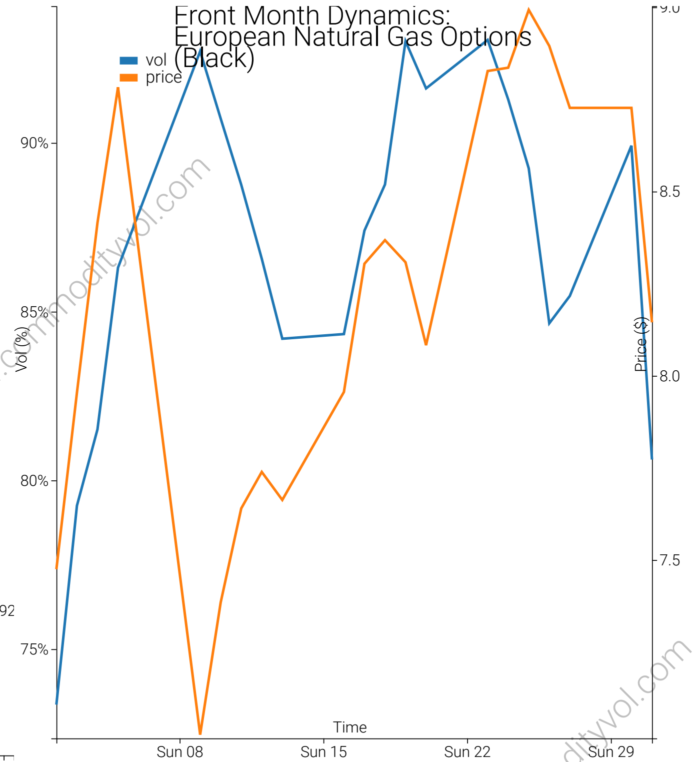

Price ($)
4.0
3.5
3.0
2.5
20220627
20230328
20231127
Start 2022-05-02
Today 2022-05-31

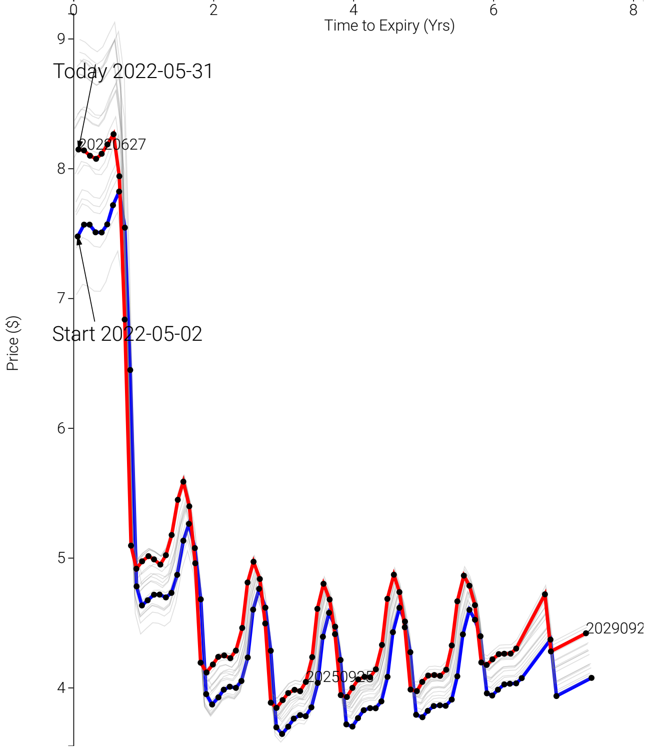

Front Month Skews:
RBOB Options
(Black)
120%
110%
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Today 2022-05-31
Start 2022-05-02
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%
https://www.commodityvol.com

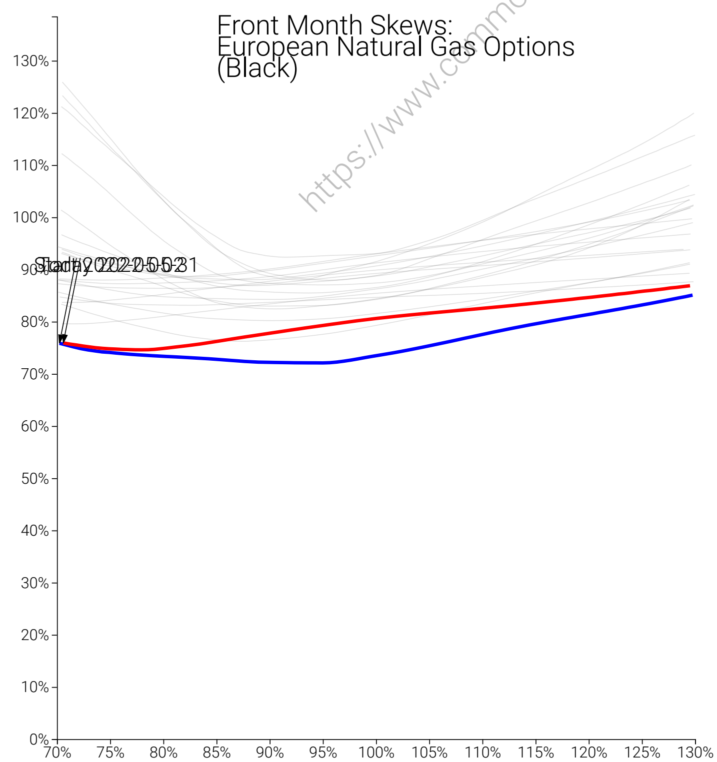

Termstructure Evolution:
Chicago Ethanol(platts) Average Price Op
(Black)
Vol (%)
Time to Expiry (Yrs)
20220705
20221004
20230104
Start 2022-05-02
Today 2022-05-31
Front Month Dynamics:
Chicago Ethanol(platts) Average Price Options
(Black)
vol
price
Time
Sun 08
Sun 15
Sun 22
Sun 29
Price ($)
Front Month Skews:
Chicago Ethanol(platts) Average Price Optio
(Black)

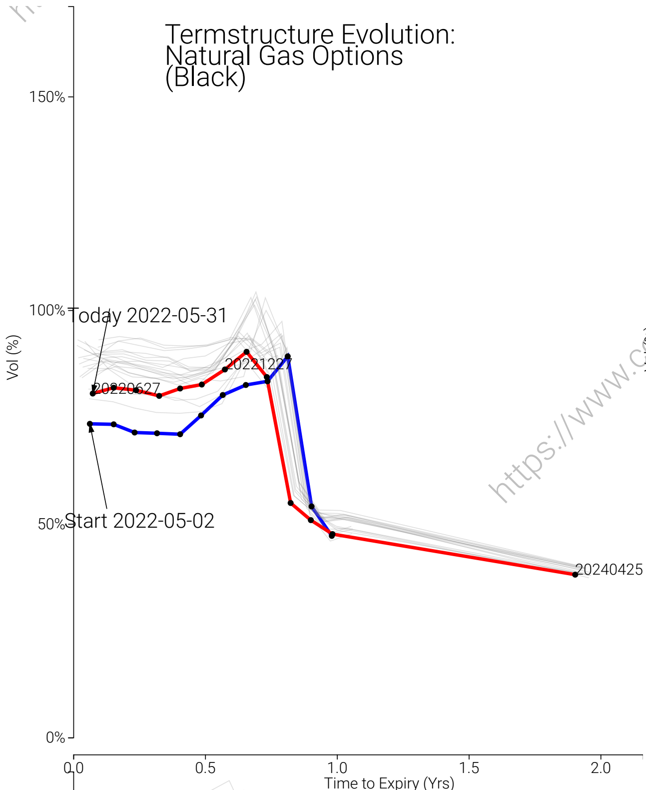
Energy: Natural Gas


Termstructure Evolution:
European Natural Gas Options
(Black)
Vol (%)
150%
100%
50%
0%
Today 2022-05-31
20220627
Start 2022-05-02
20250925
2029092
0
2
4
6
8
Time to Expiry (Yrs)

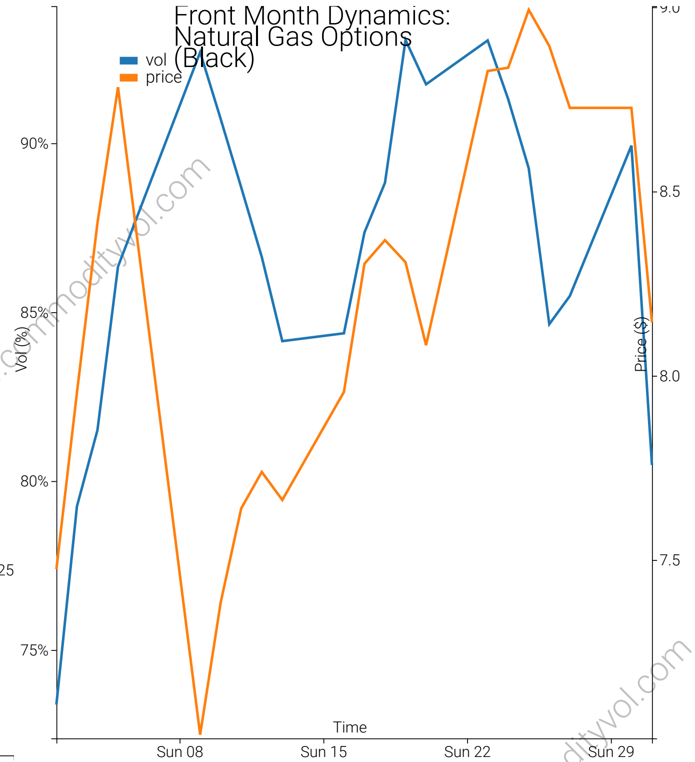

Front Month Dynamics:
European Natural Gas Options
(Black)
vol
price
Vol (%)
Price ($)
90%
85%
80%
75%
9.0
8.5
8.0
7.5
Time
Sun 08
Sun 15
Sun 22
Sun 29


Price ($)
9
8
7
6
5
4
Today 2022-05-31
20220627
Start 2022-05-02
20250925
2029092

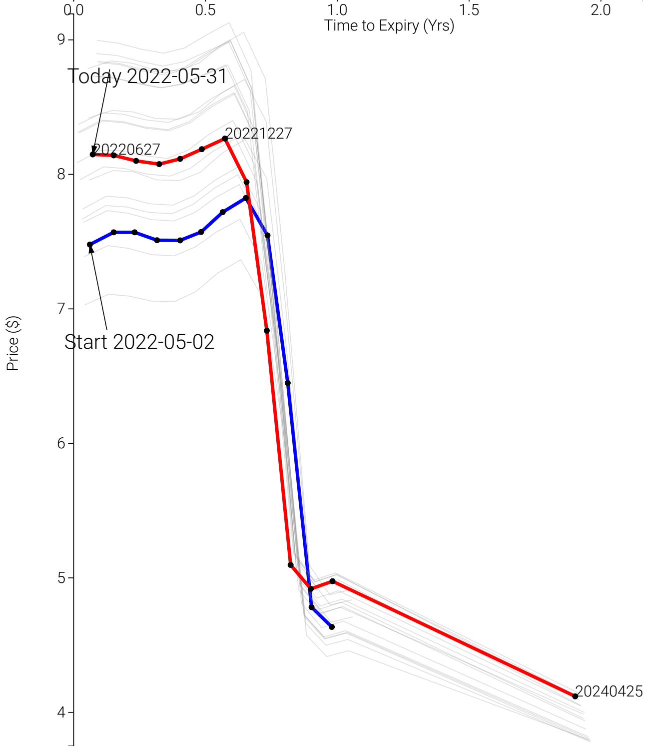

Front Month Skews:
European Natural Gas Options
(Black)
130%
120%
110%
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%



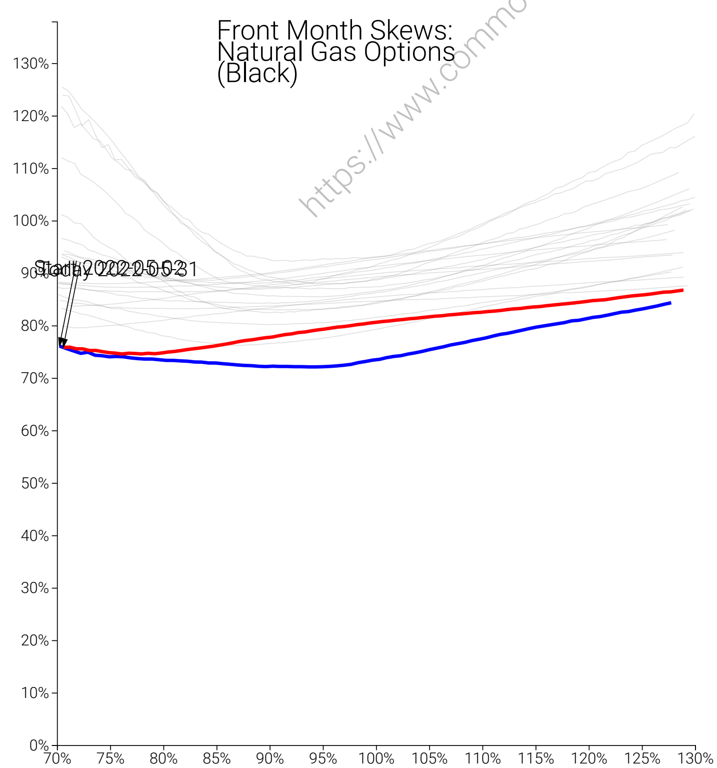
Termstructure Evolution:
Natural Gas Options
(Black)
Vol (%)
Today 2022-05-31
Start 2022-05-02
20220627
20221227
20240425
Time to Expiry (Yrs)



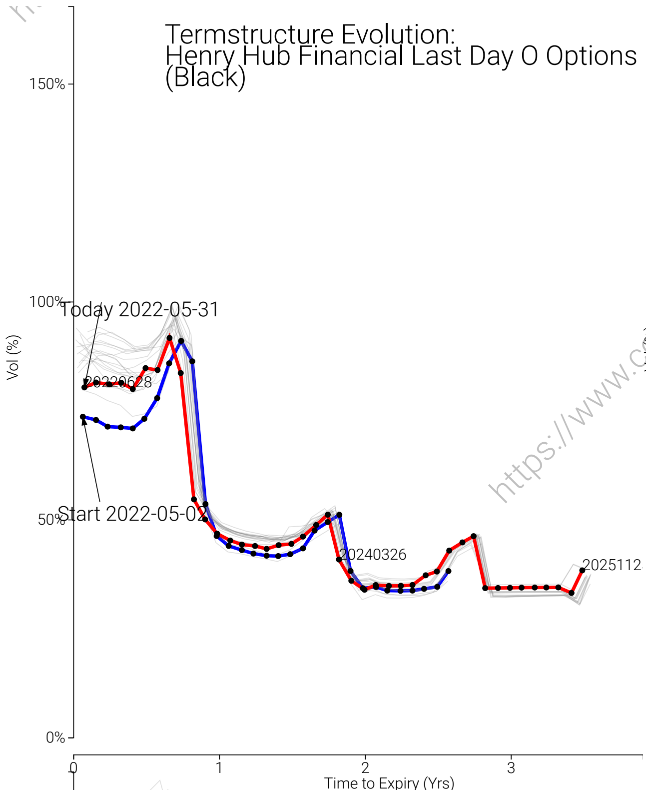
Front Month Dynamics:
Natural Gas Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

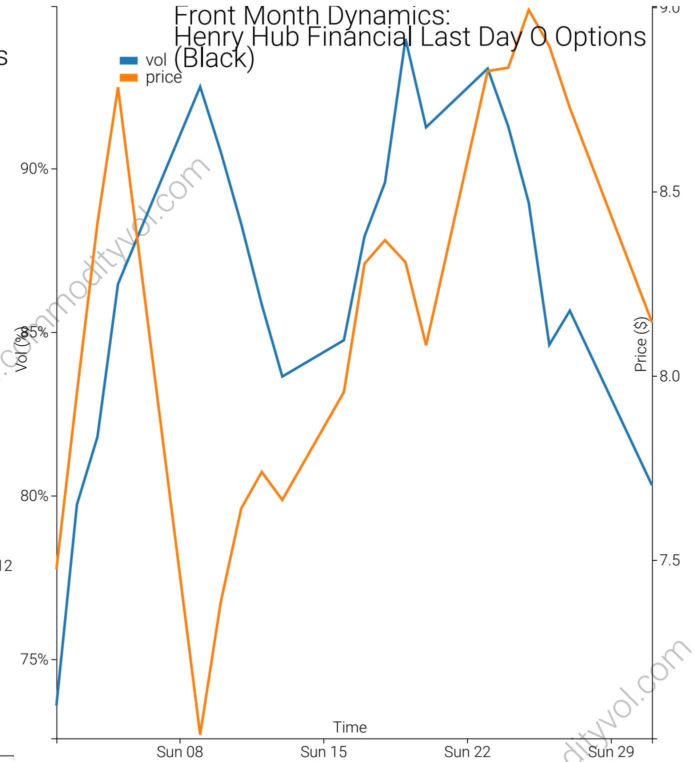


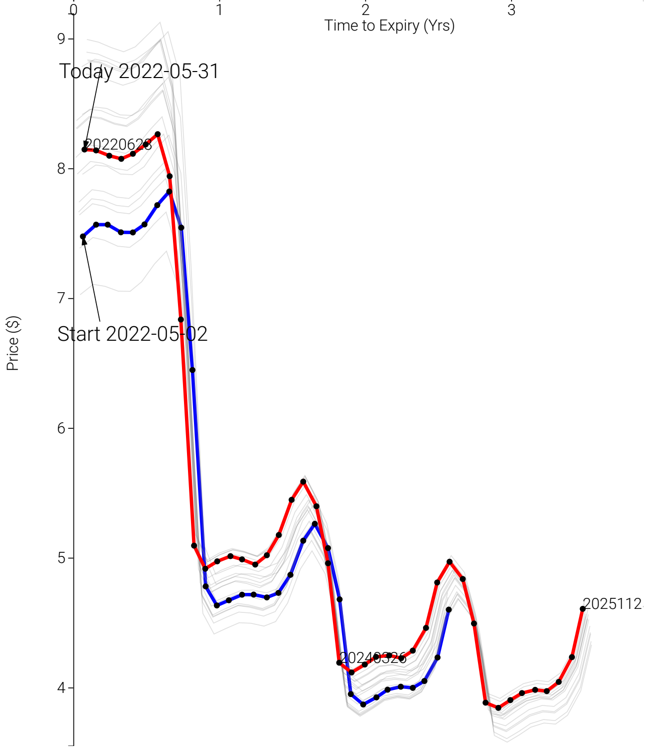
Price ($)
Today 2022-05-31
Start 2022-05-02
20220627
20221227
20240425

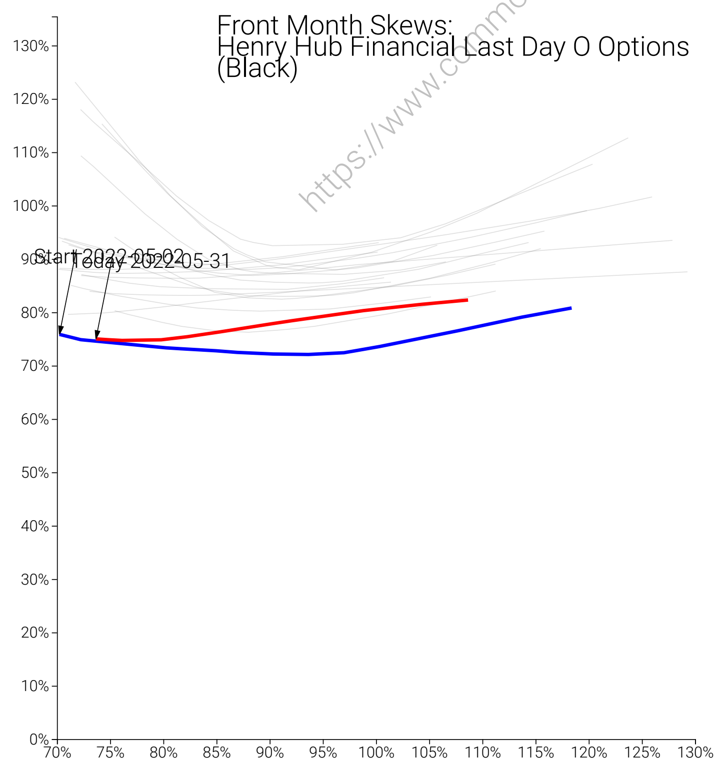


Front Month Skews:
Natural Gas Options
(Black)

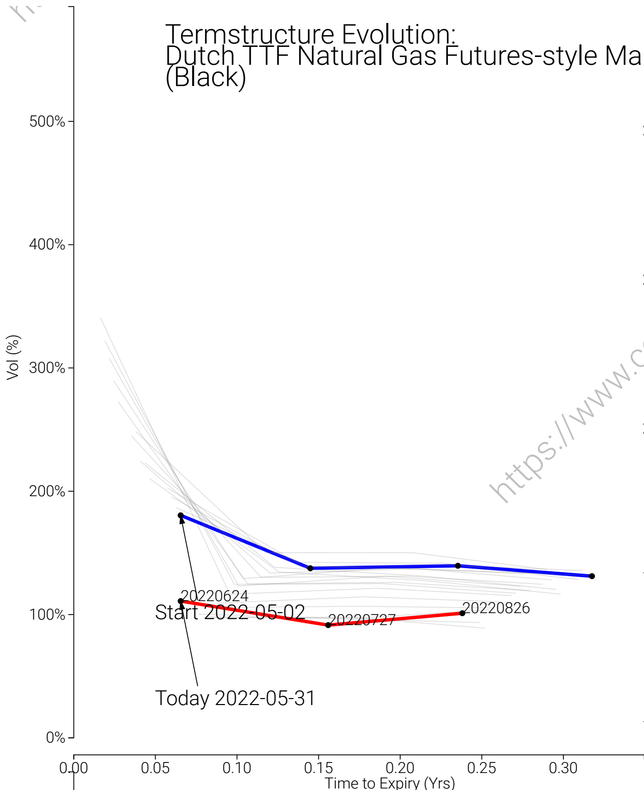

Termstructure Evolution:
Henry Hub Financial Last Day O Options
(Black)
Vol (%)
Today 2022-05-31
Start 2022-05-02
20220628
20240326
2025112
Time to Expiry (Yrs)

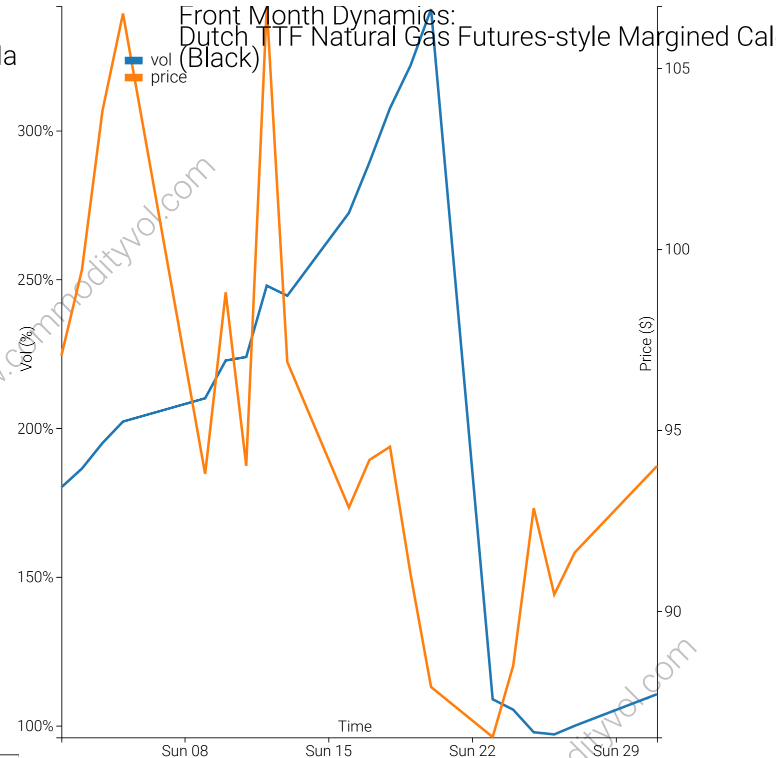

Front Month Dynamics:
Henry Hub Financial Last Day O Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

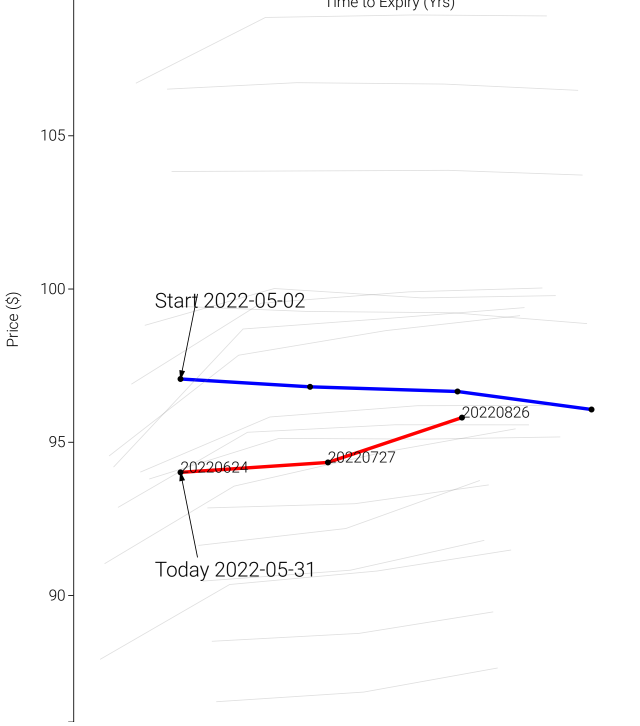

Price ($)
Today 2022-05-31
Start 2022-05-02
20220628
20240326
2025112

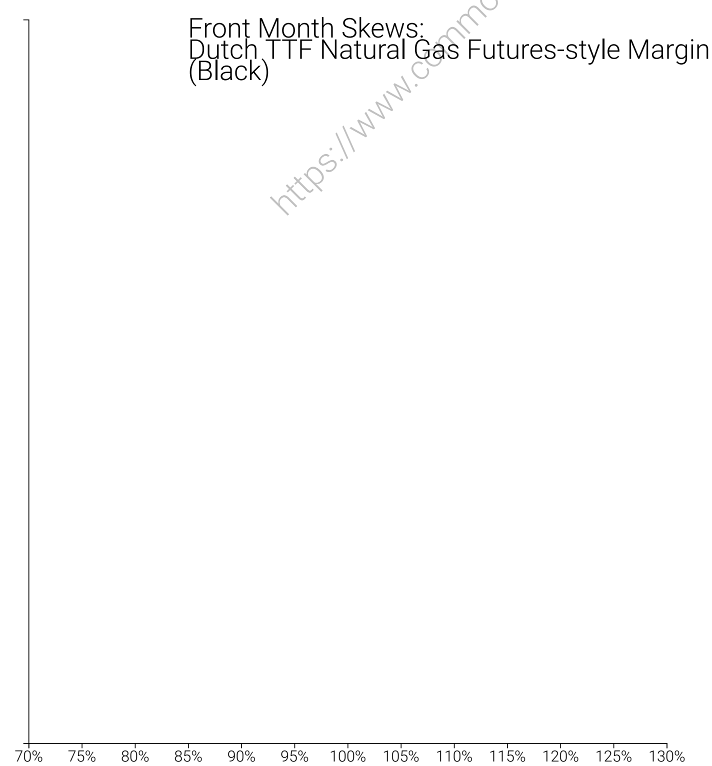

Front Month Skews:
Henry Hub Financial Last Day O Options
(Black)
Start 2022-05-02
Today 2022-05-31

Dutch TTF Gas Options

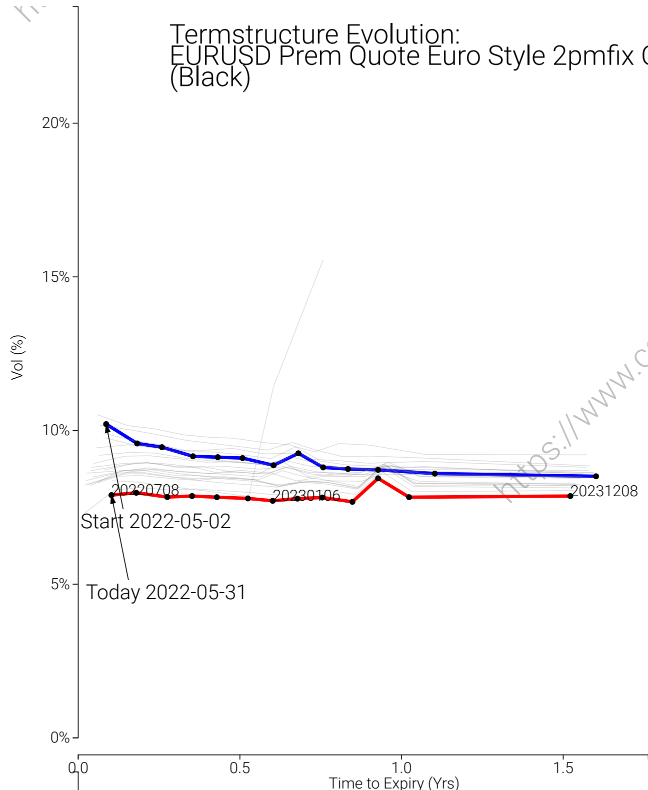


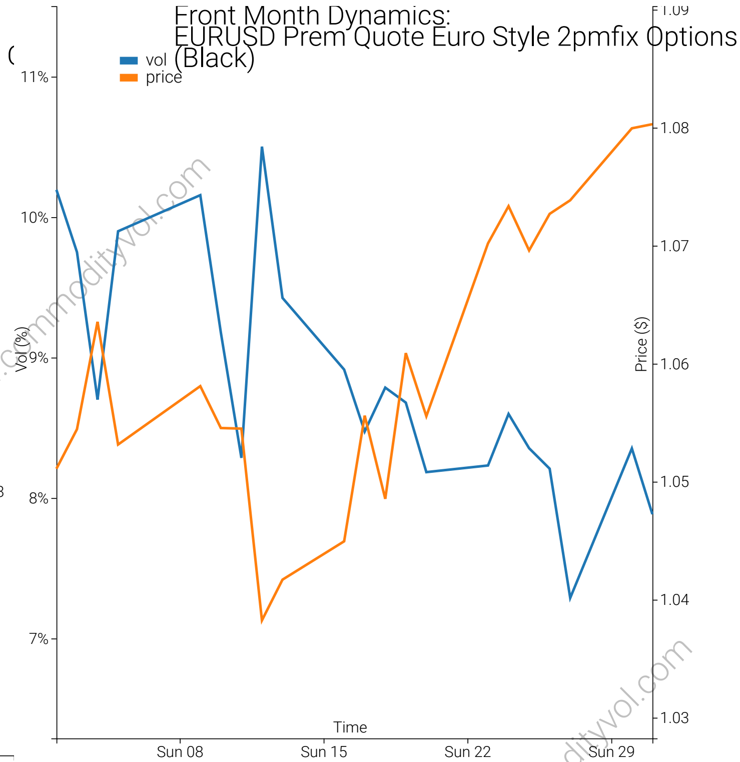


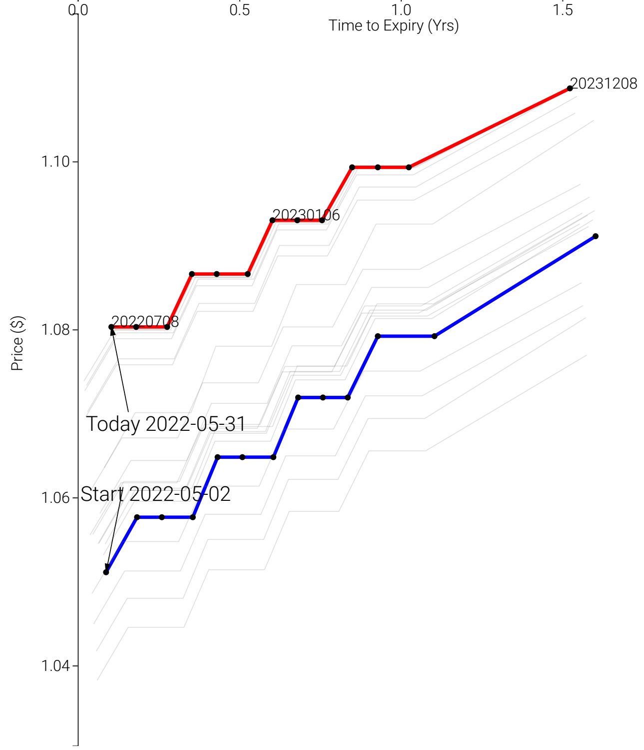


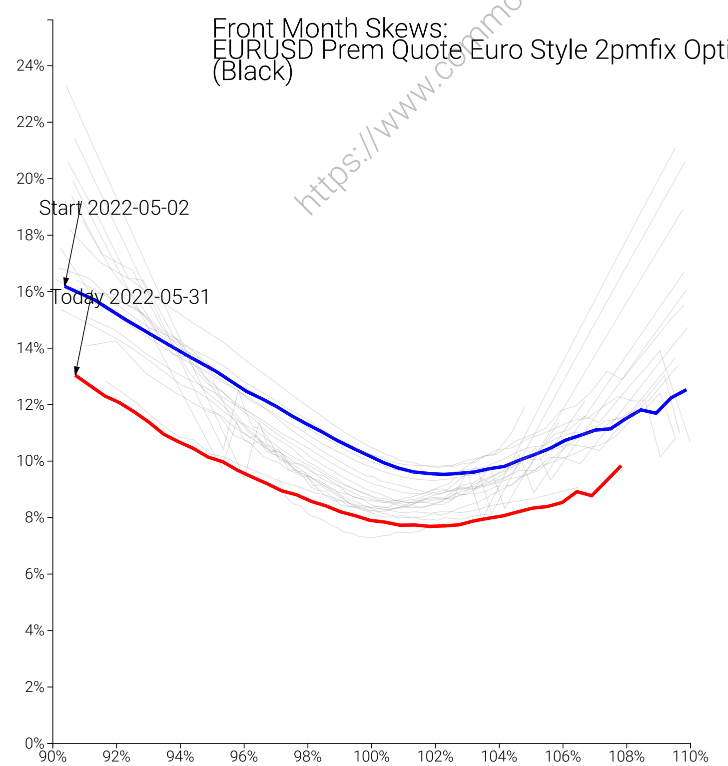


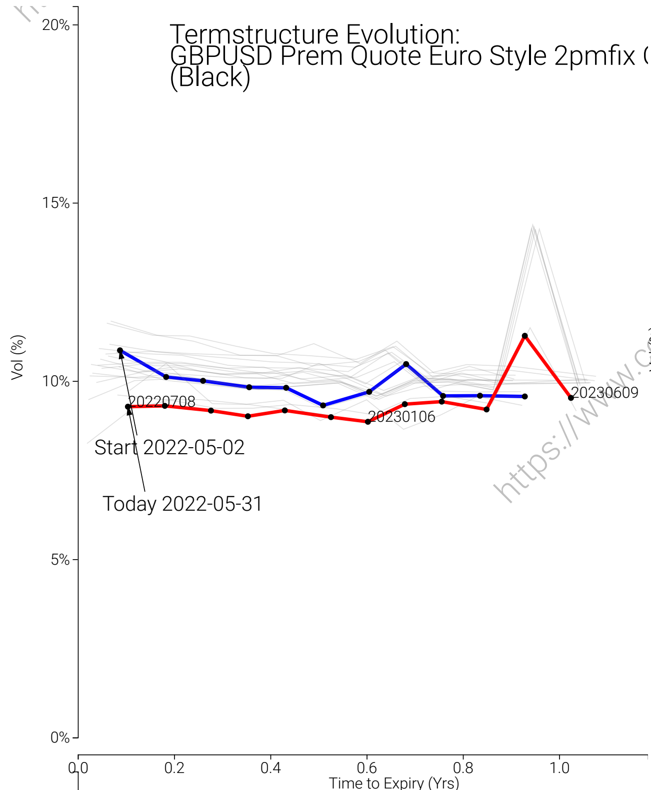
Forex

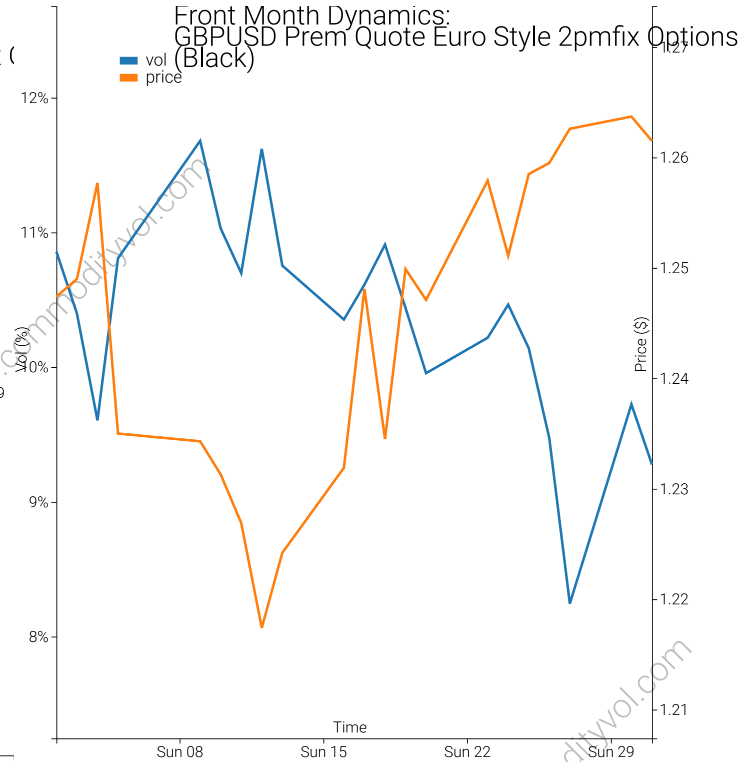

Termstructure Evolution:
EURUSD Prem Quote Euro Style 2pmfix (
(Black)
Vol (%)
20%
15%
10%
5%
0%
20220708
20230106
20231208
Start 2022-05-02
Today 2022-05-31
0.0
0.5
1.0
1.5
Time to Expiry (Yrs)

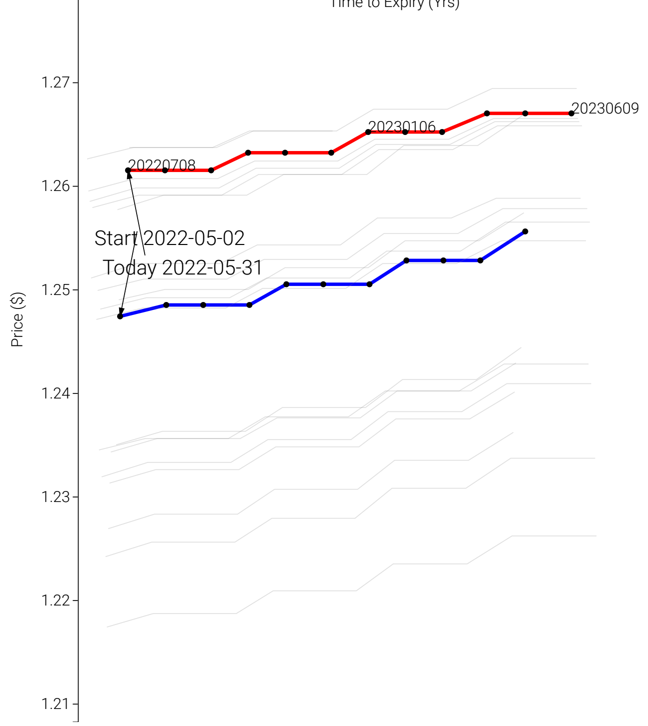

Front Month Dynamics:
EURUSD Prem Quote Euro Style 2pmfix Options
(Black)
vol
price
Vol (%)
11%
10%
9%
8%
7%
Price ($)
1.09
1.08
1.07
1.06
1.05
1.04
1.03
Time
Sun 08
Sun 15
Sun 22
Sun 29

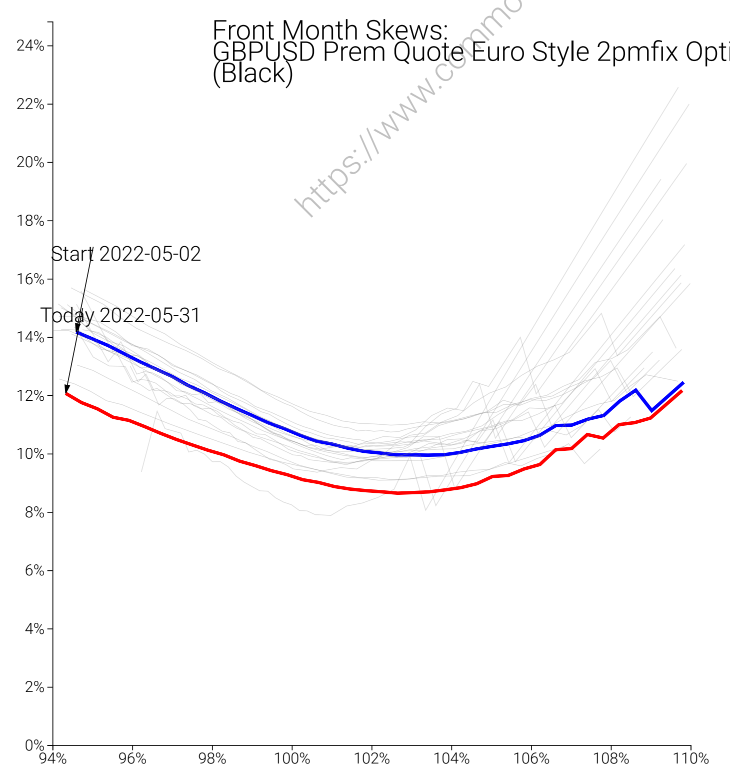

Price ($)
1.10
1.08
1.06
1.04
20231208
20230106
20220708
Today 2022-05-31
Start 2022-05-02

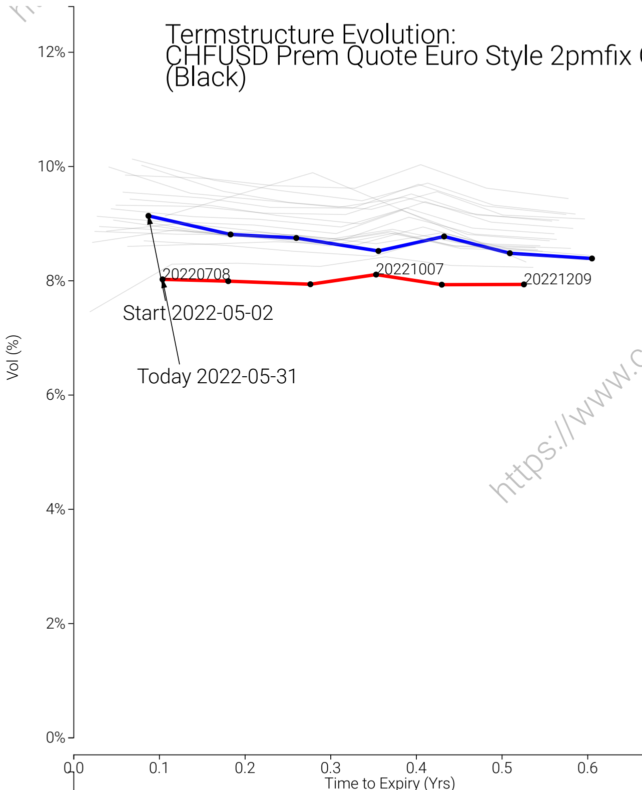

Front Month Skews:
EURUSD Prem Quote Euro Style 2pmfix Opti
(Black)
24%
22%
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
Start 2022-05-02
Today 2022-05-31
90%
92%
94%
96%
98%
100%
102%
104%
106%
108%
110%

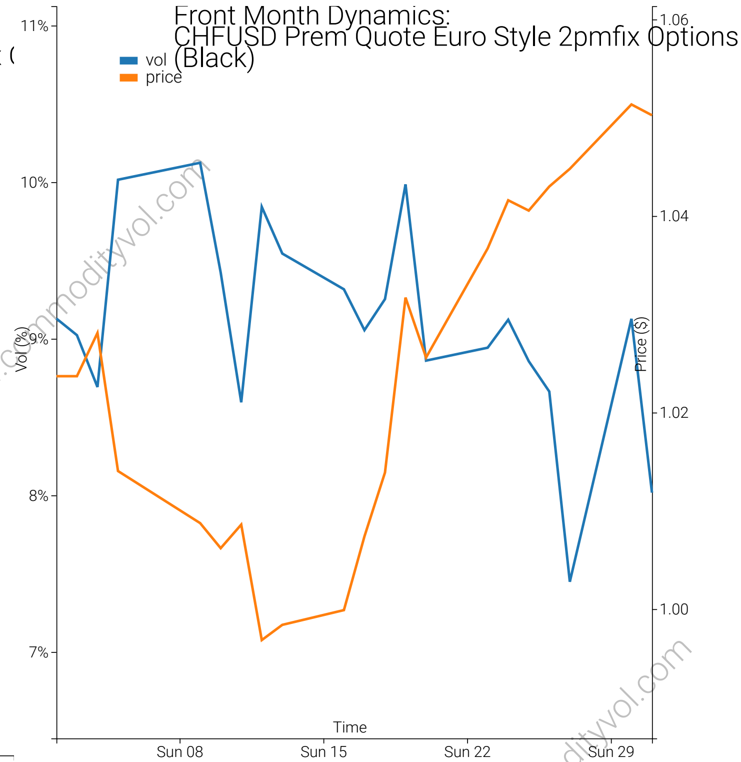

Termstructure Evolution:
GBPUSD Prem Quote Euro Style 2pmfix (
(Black)
Vol (%)
20230609
20220708
20230106
Start 2022-05-02
Today 2022-05-31
Time to Expiry (Yrs)

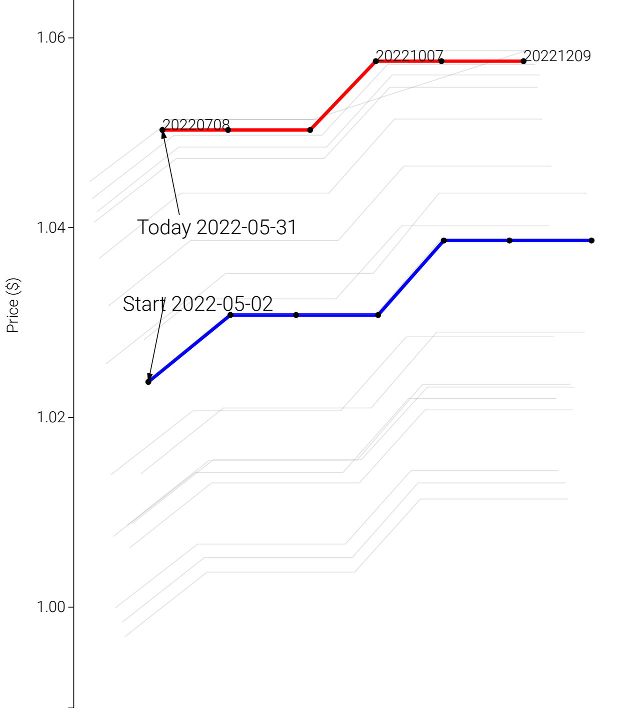

Front Month Dynamics:
GBPUSD Prem Quote Euro Style 2pmfix Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

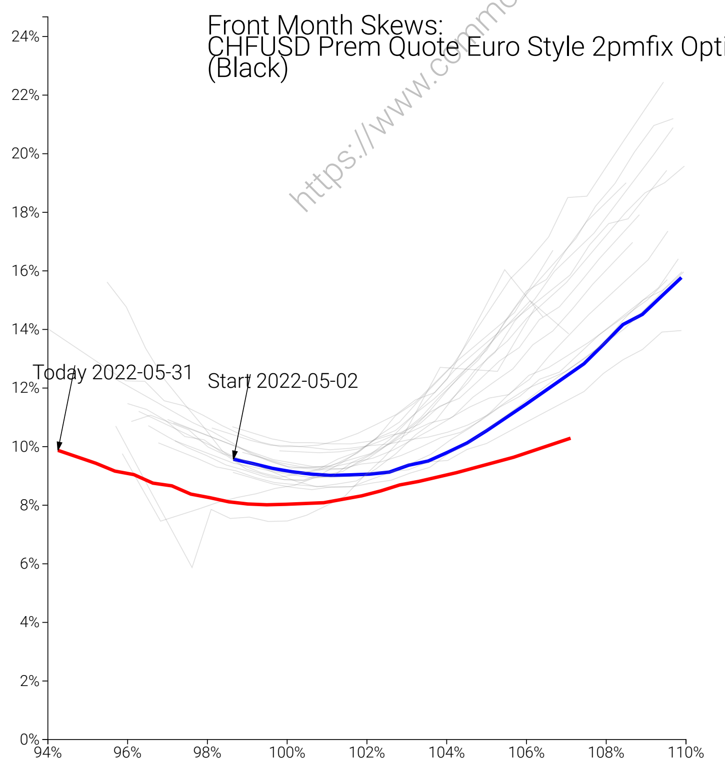

Price ($)
20230609
20230106
20220708
Start 2022-05-02
Today 2022-05-31

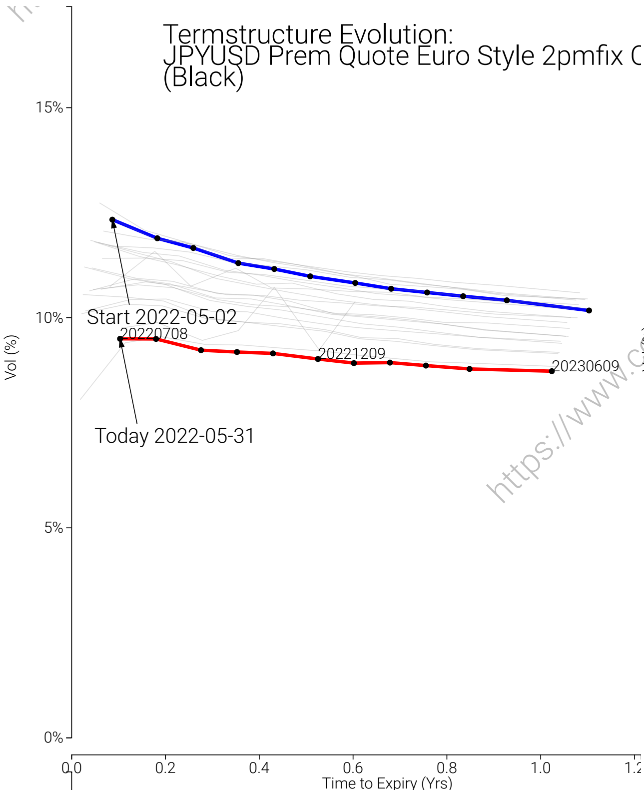

Front Month Skews:
GBPUSD Prem Quote Euro Style 2pmfix Opti
(Black)
Start 2022-05-02
Today 2022-05-31

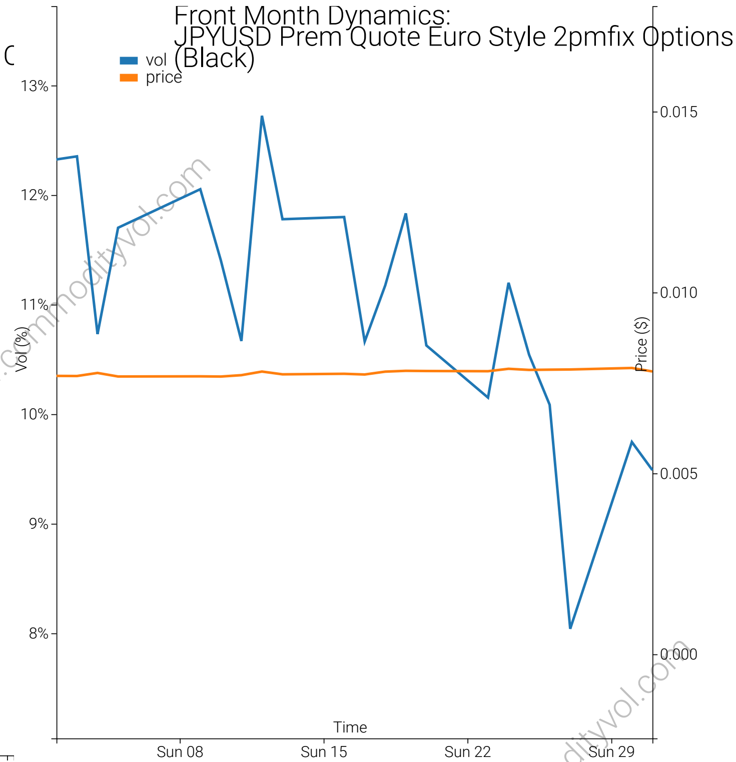

Termstructure Evolution:
CHFUSD Prem Quote Euro Style 2pmfix (
(Black)
Vol (%)
Time to Expiry (Yrs)
20220708
20221007
20221209
Start 2022-05-02
Today 2022-05-31

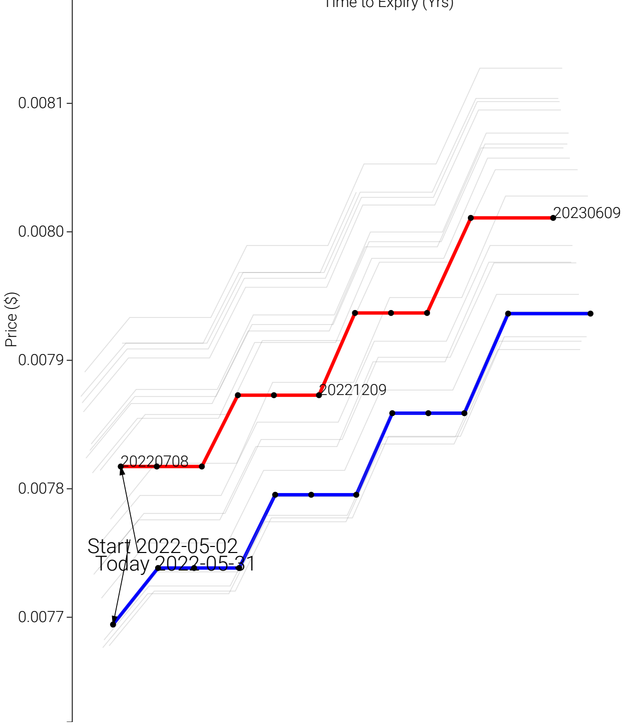

Front Month Dynamics:
CHFUSD Prem Quote Euro Style 2pmfix Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

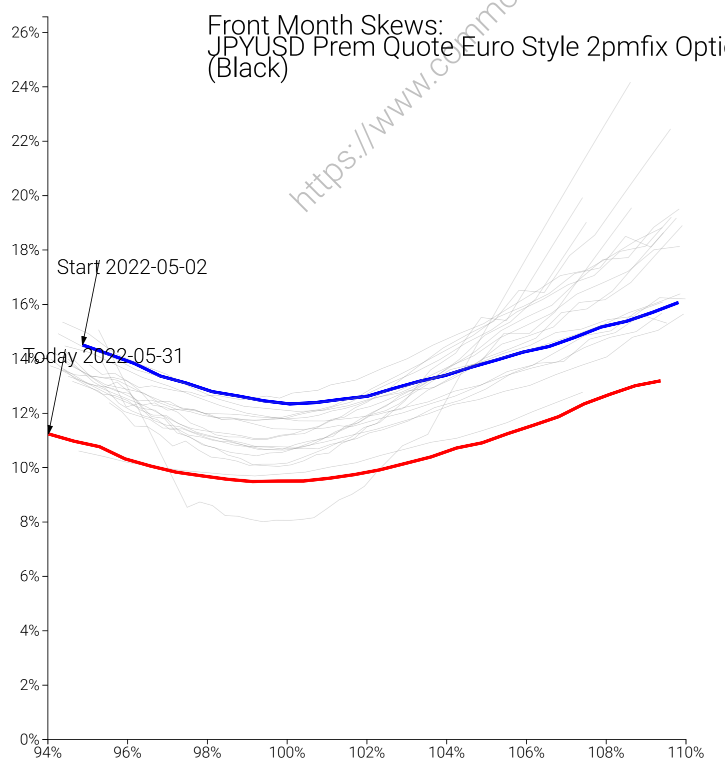

Price ($)
20220708
20221007
20221209
Today 2022-05-31
Start 2022-05-02

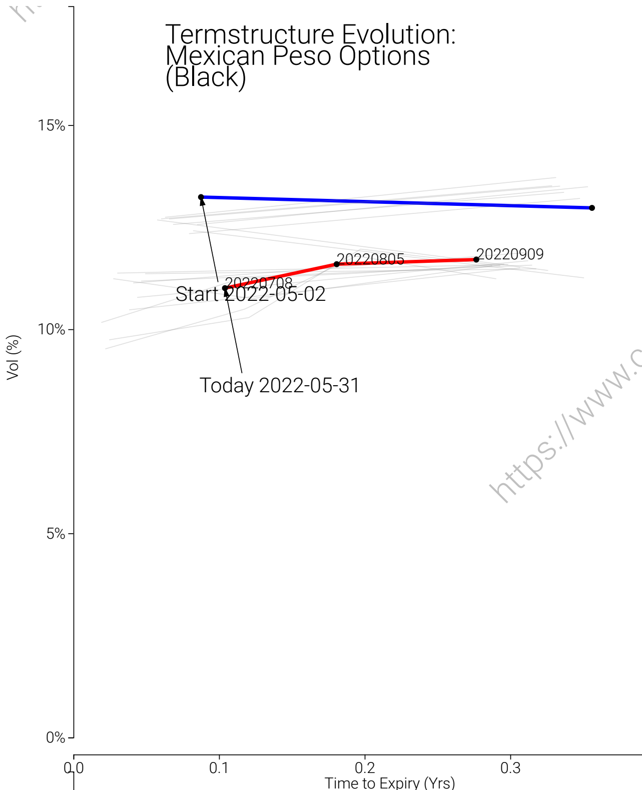

Front Month Skews:
CHFUSD Prem Quote Euro Style 2pmfix Opti
(Black)
Today 2022-05-31
Start 2022-05-02


Termstructure Evolution:
JPYUSD Prem Quote Euro Style 2pmfix O
(Black)
Vol (%)
Time to Expiry (Yrs)
Start 2022-05-02
Today 2022-05-31
20220708
20221209
20230609

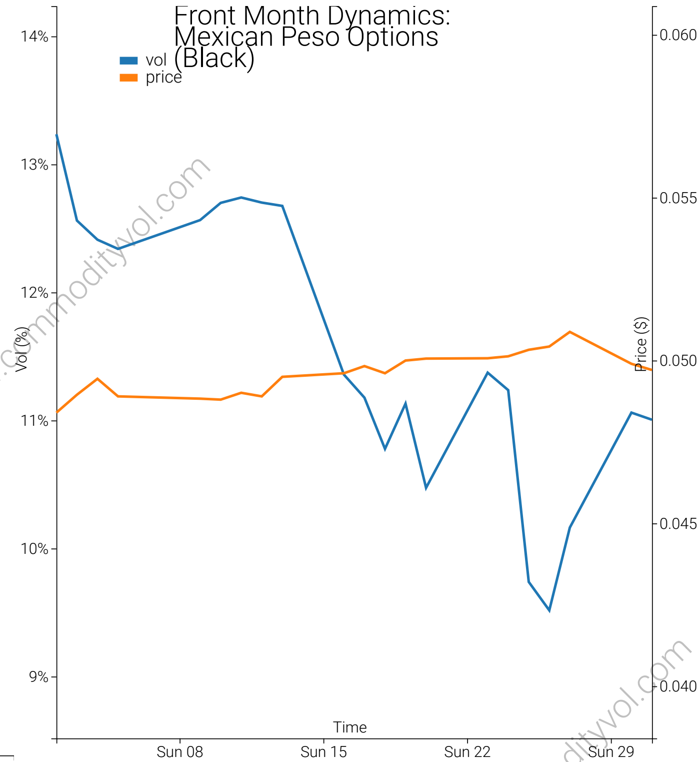

Front Month Dynamics:
JPYUSD Prem Quote Euro Style 2pmfix Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29


Price ($)
Start 2022-05-02
Today 2022-05-31
20220708
20221209
20230609

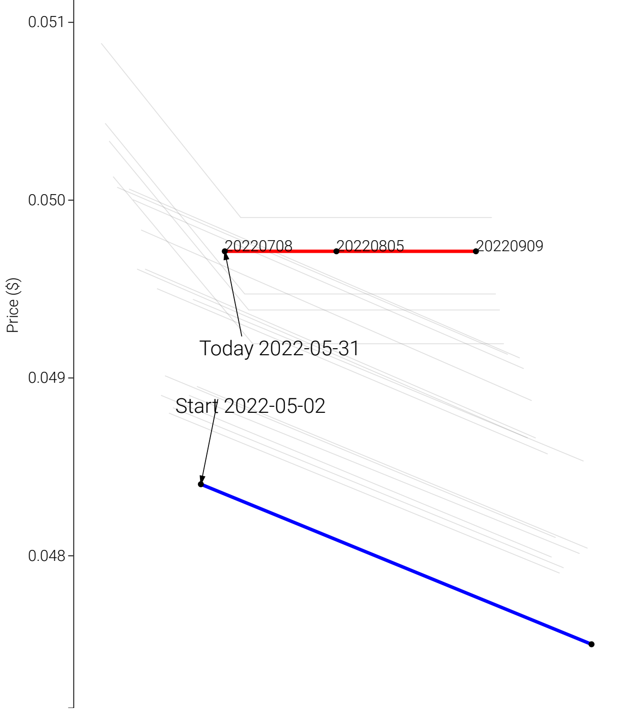

Front Month Skews:
JPYUSD Prem Quote Euro Style 2pmfix Optic
(Black)
Start 2022-05-02
Today 2022-05-31



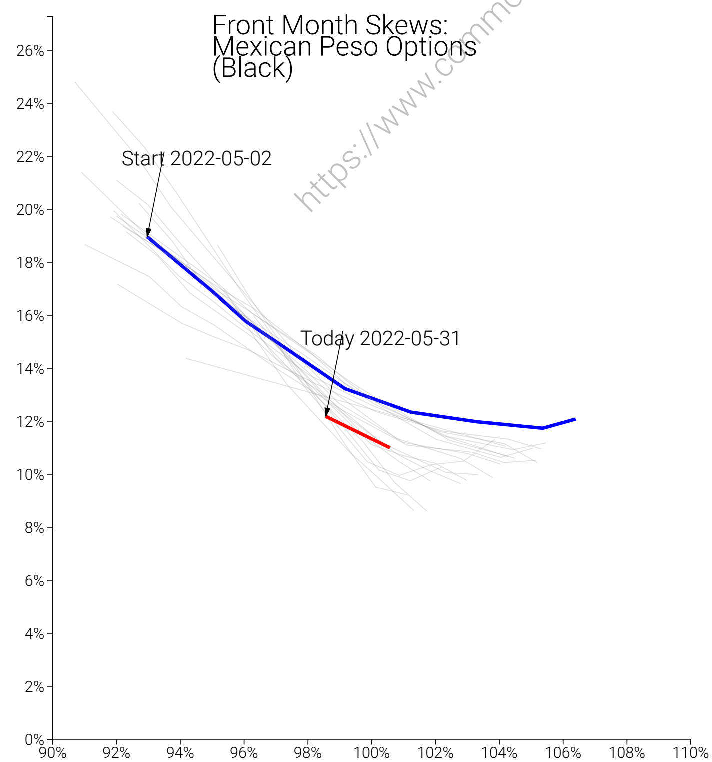
Termstructure Evolution:
Mexican Peso Options
(Black)
Vol (%)
15%
10%
5%
0%
20220708
20220805
20220909
Start 2022-05-02
Today 2022-05-31
0.0
0.1
0.2
0.3
Time to Expiry (Yrs)



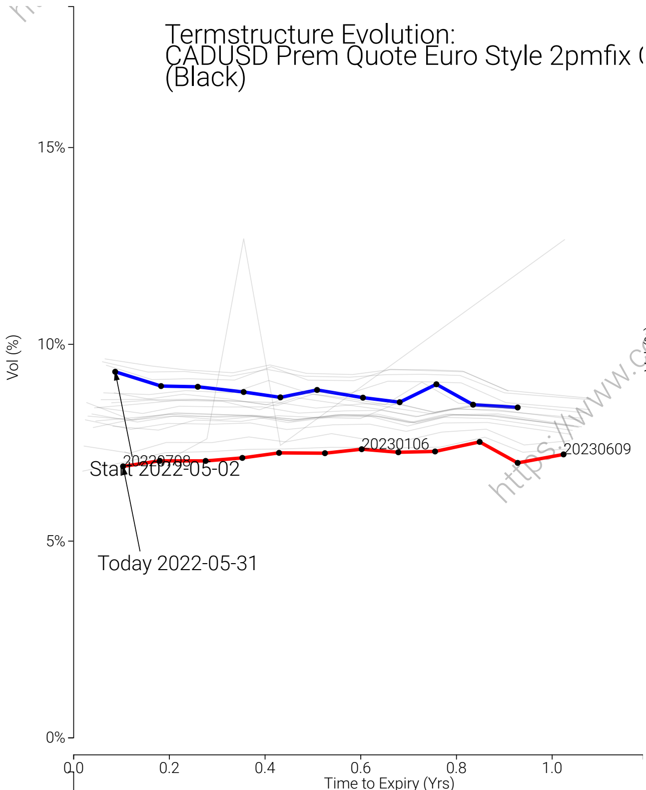
Front Month Dynamics:
Mexican Peso Options
(Black)
vol
price
Vol (%)
Price ($)
14%
13%
12%
11%
10%
9%
0.060
0.055
0.050
0.045
0.040
Time
Sun 08
Sun 15
Sun 22
Sun 29

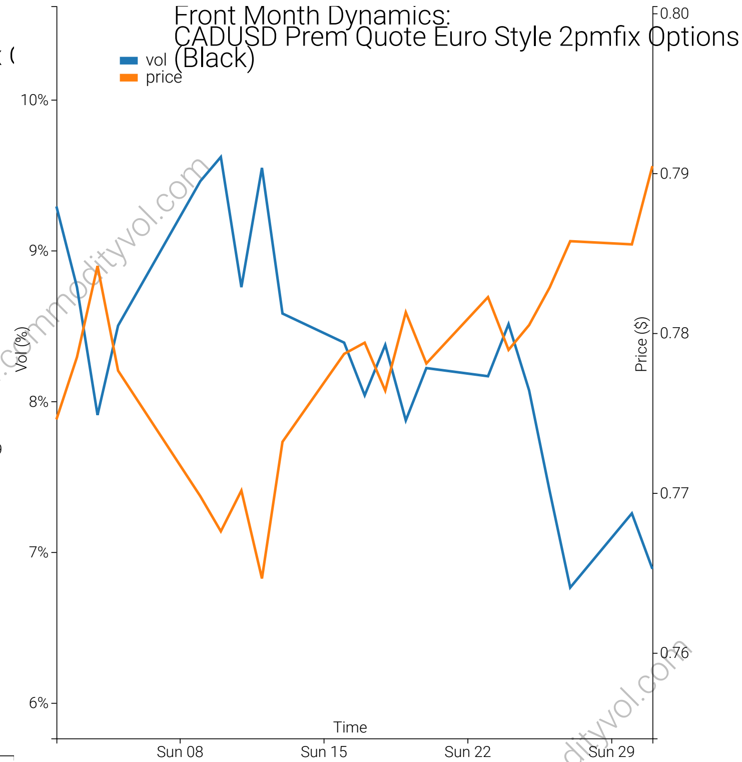


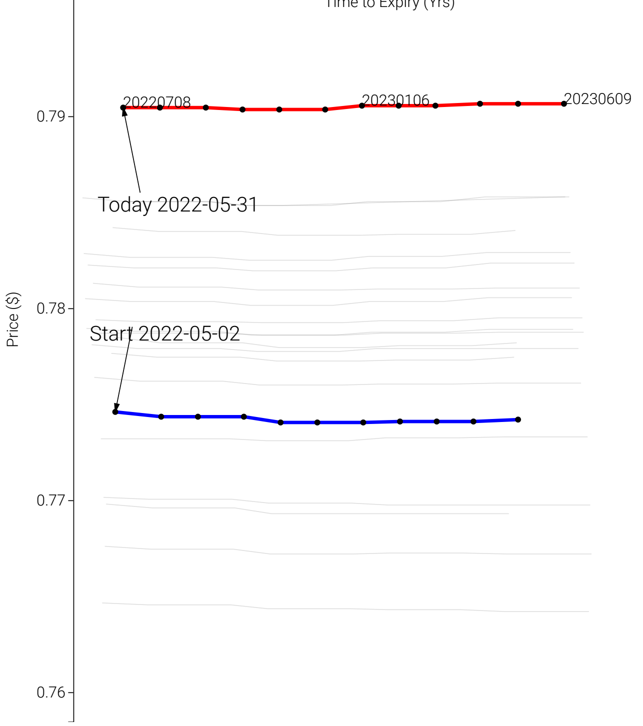
Price ($)
0.051
0.050
0.049
0.048
20220708
20220805
20220909
Today 2022-05-31
Start 2022-05-02

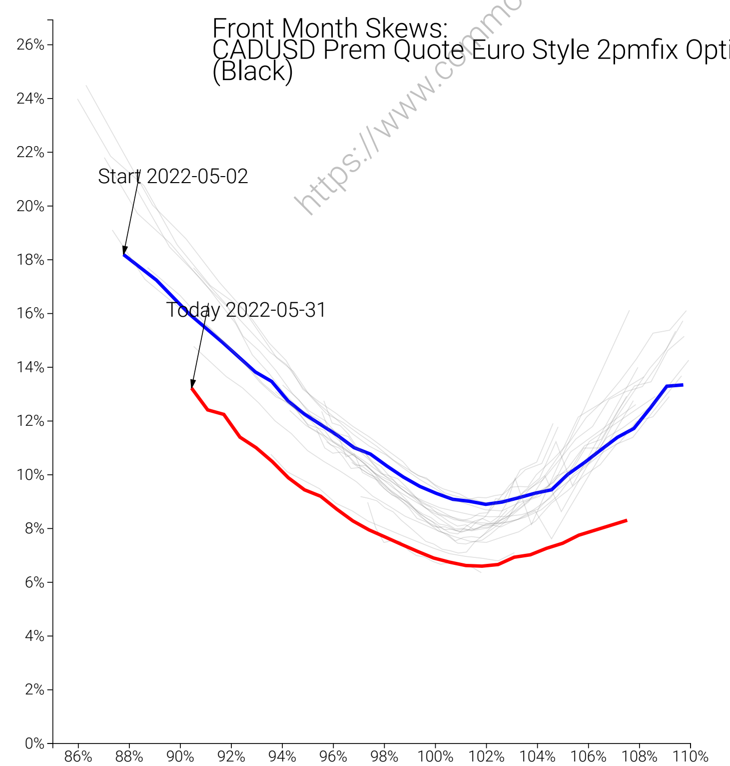


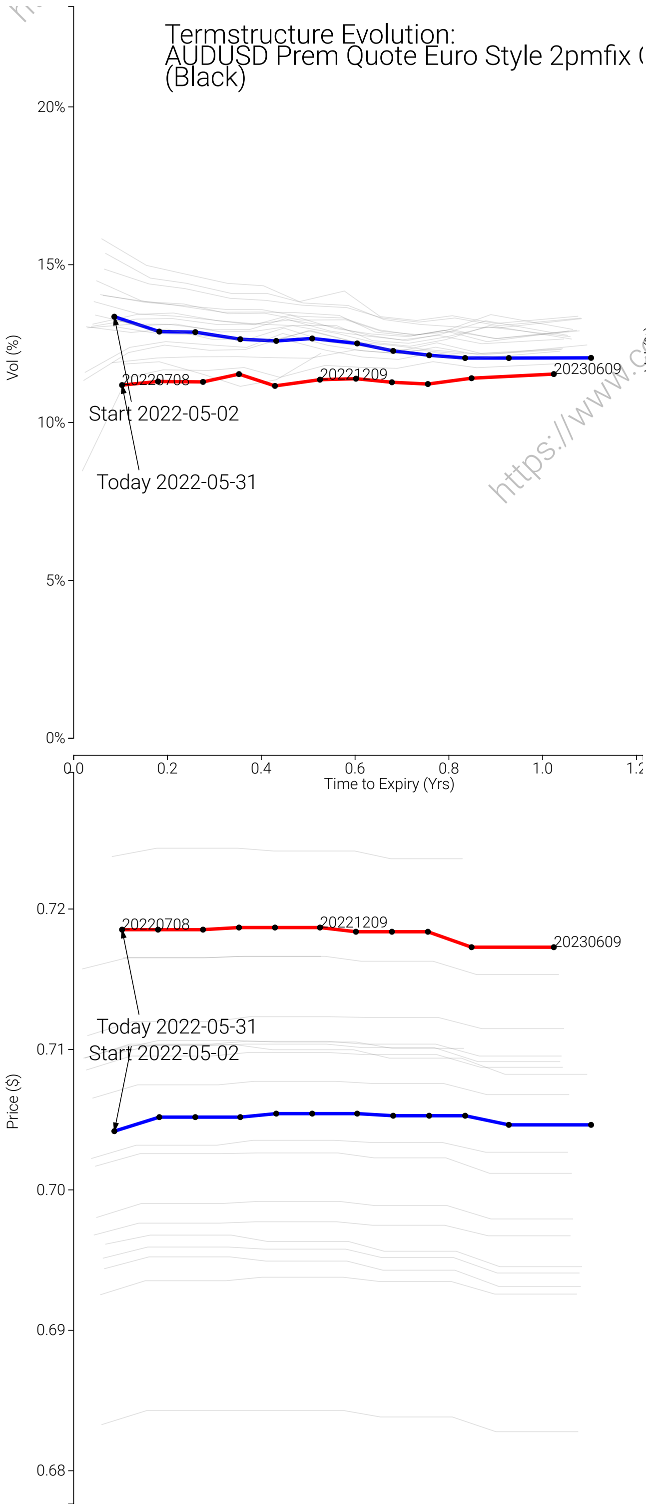
Front Month Skews:
Mexican Peso Options
(Black)
26%
24%
22%
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
Start 2022-05-02
Today 2022-05-31
90%
92%
94%
96%
98%
100%
102%
104%
106%
108%
110%

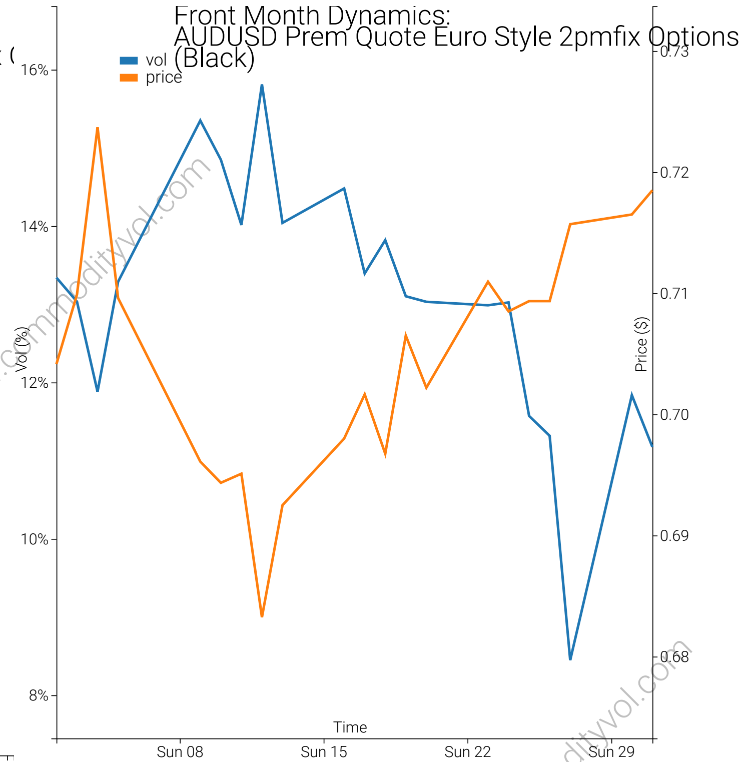

Termstructure Evolution:
CADUSD Prem Quote Euro Style 2pmfix (
(Black)
Vol (%)
0%
5%
10%
15%
Start 2022-05-02
Today 2022-05-31
20220708
20230106
20230609
0.0
0.2
0.4
0.6
0.8
1.0
Time to Expiry (Yrs)

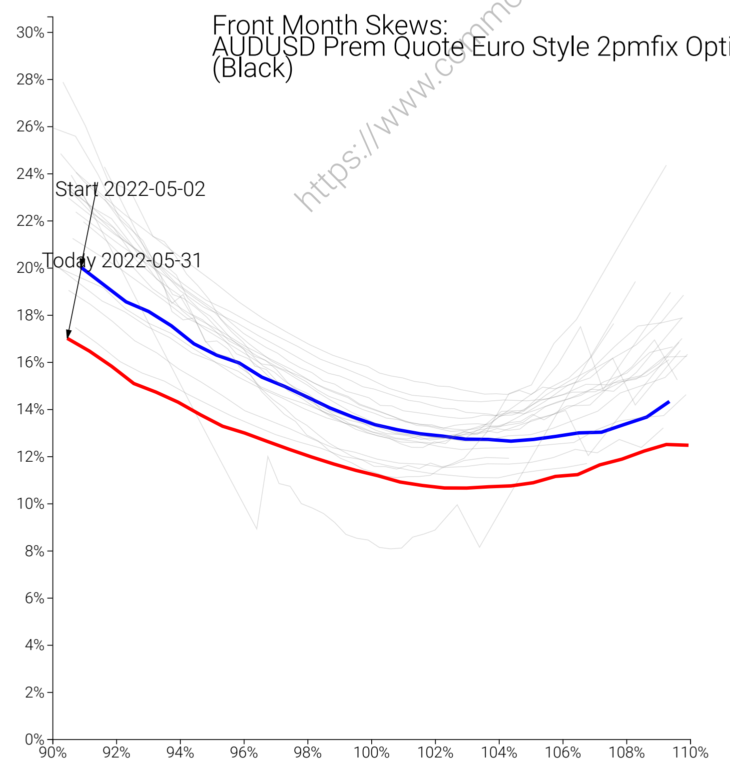

Front Month Dynamics:
CADUSD Prem Quote Euro Style 2pmfix Options
(Black)
vol
price
Vol (%)
Price ($)
6%
7%
8%
9%
10%
0.76
0.77
0.78
0.79
0.80
Time
Sun 08
Sun 15
Sun 22
Sun 29

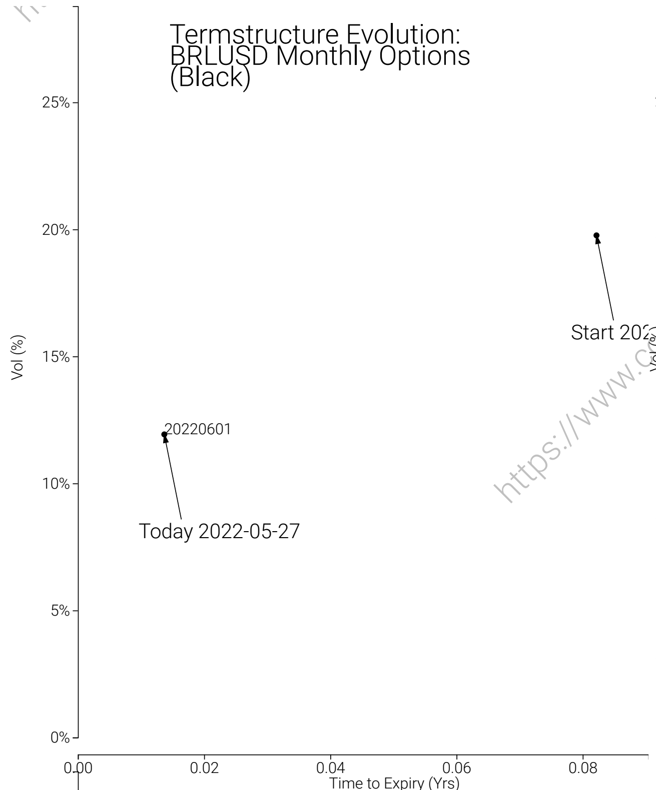

Price ($)
0.76
0.77
0.78
0.79
20220708
20230106
20230609
Today 2022-05-31
Start 2022-05-02

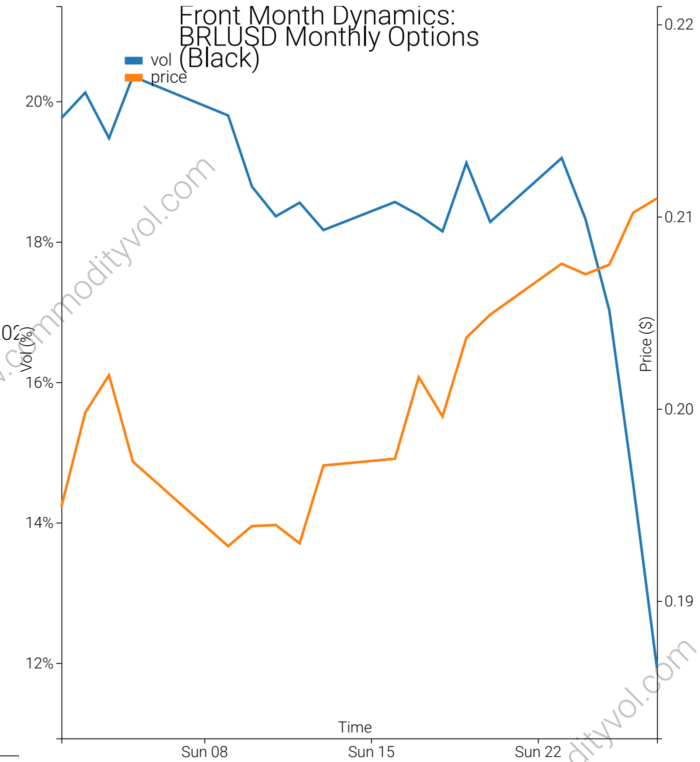

Front Month Skews:
CADUSD Prem Quote Euro Style 2pmfix Opti
(Black)
Start 2022-05-02
Today 2022-05-31
0%
2%
4%
6%
8%
10%
12%
14%
16%
18%
20%
22%
24%
26%
86%
88%
90%
92%
94%
96%
98%
100%
102%
104%
106%
108%
110%

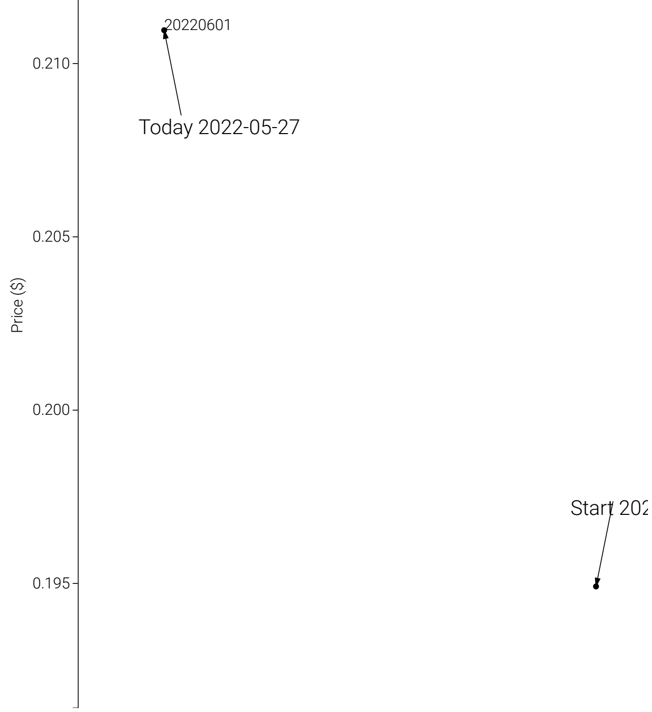

Termstructure Evolution:
AUDUSD Prem Quote Euro Style 2pmfix (
(Black)
Vol (%)
20230609
20221209
20220708
Start 2022-05-02
Today 2022-05-31
Time to Expiry (Yrs)
Price ($)

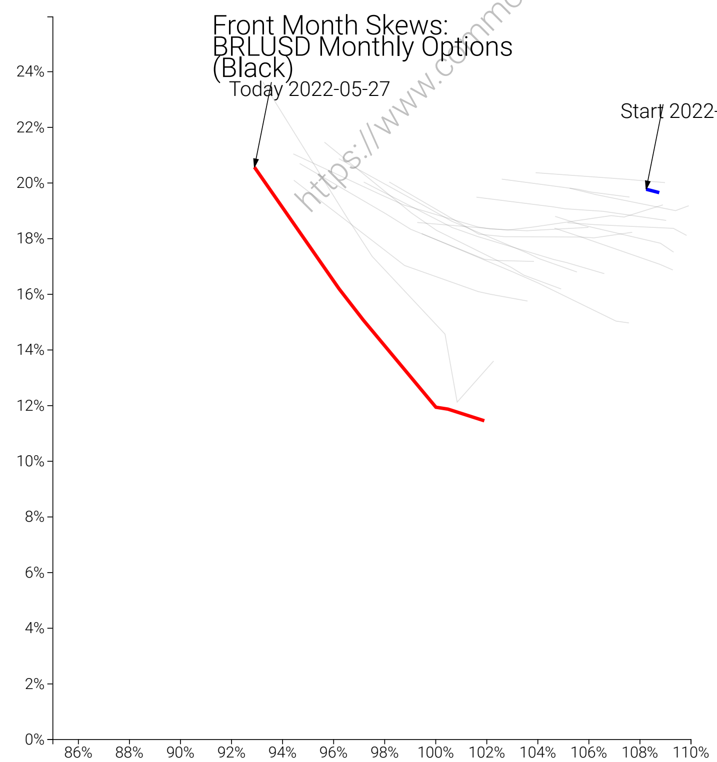

Front Month Dynamics:
AUDUSD Prem Quote Euro Style 2pmfix Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

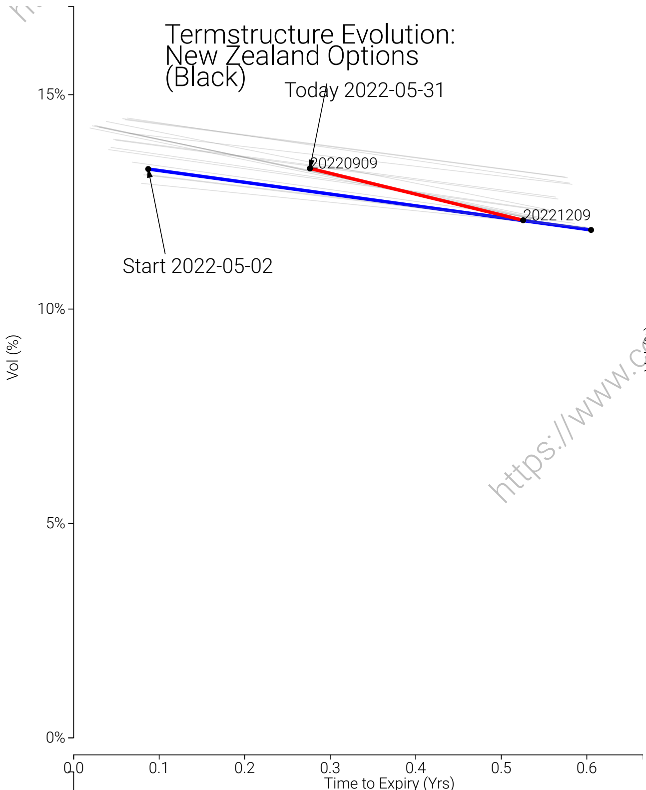

Front Month Skews:
AUDUSD Prem Quote Euro Style 2pmfix Opti
(Black)
Start 2022-05-02
Today 2022-05-31

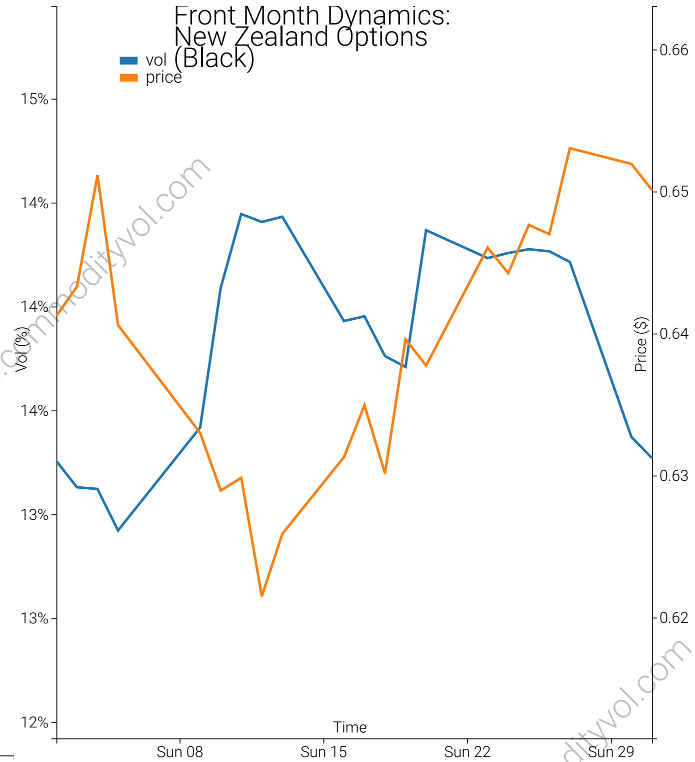

Termstructure Evolution:
BRLUSD Monthly Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20220601
Today 2022-05-27
Start 202

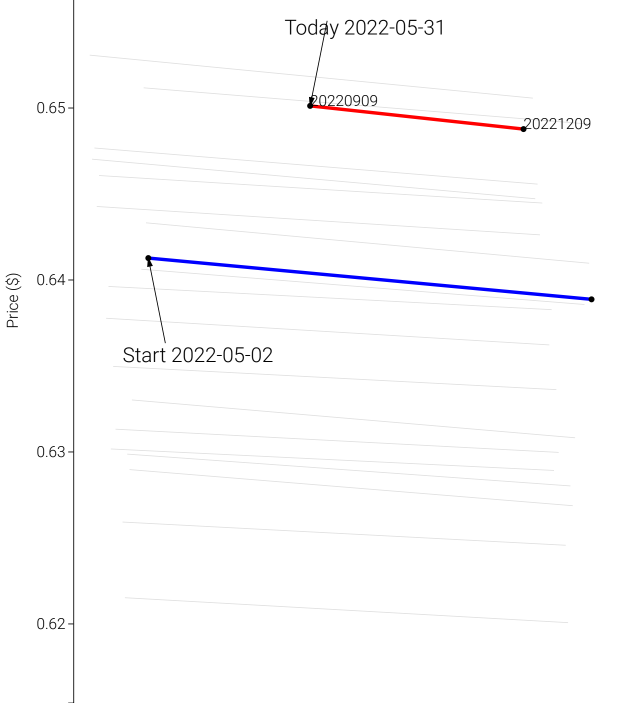

Front Month Dynamics:
BRLUSD Monthly Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22

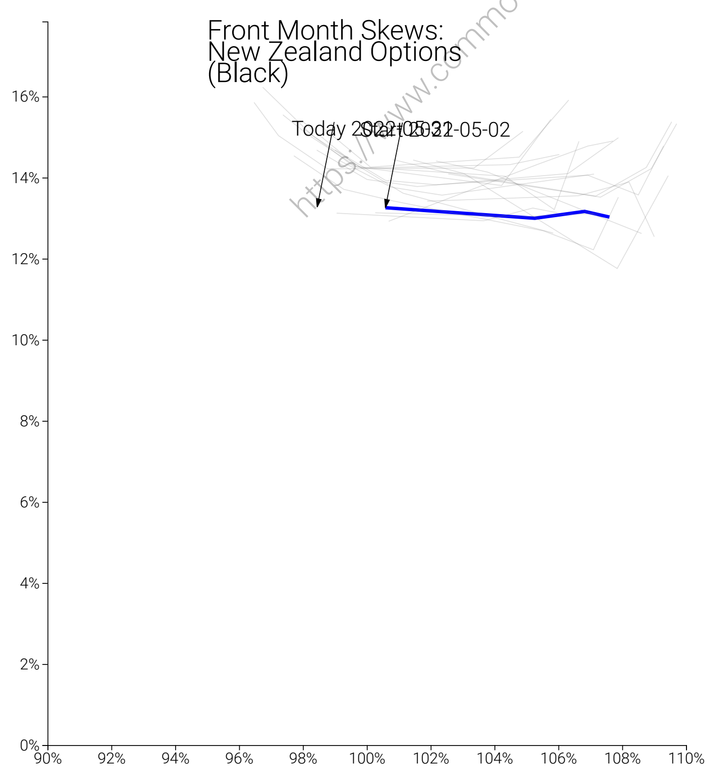

Price ($)
20220601
Today 2022-05-27
Start 202

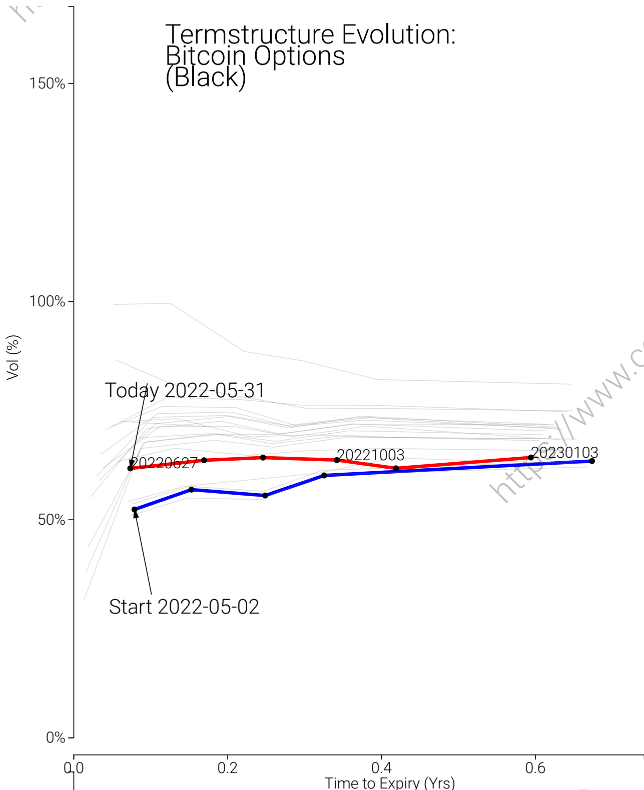

Front Month Skews:
BRLUSD Monthly Options
(Black)
Today 2022-05-27
Start 2022-0

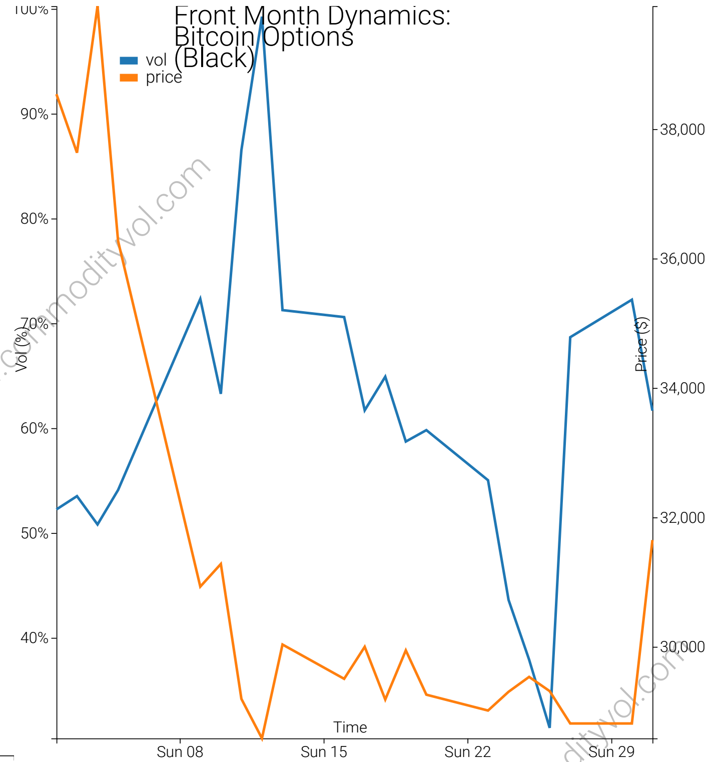

Termstructure Evolution:
New Zealand Options
(Black)
Today 2022-05-31
20220909
20221209
Start 2022-05-02
Vol (%)
Time to Expiry (Yrs)

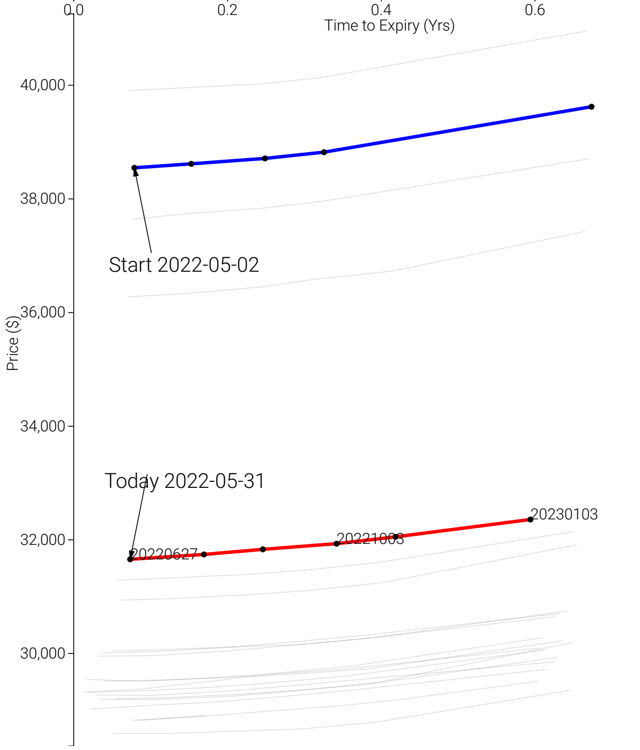

Front Month Dynamics:
New Zealand Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 08
Sun 15
Sun 22
Sun 29

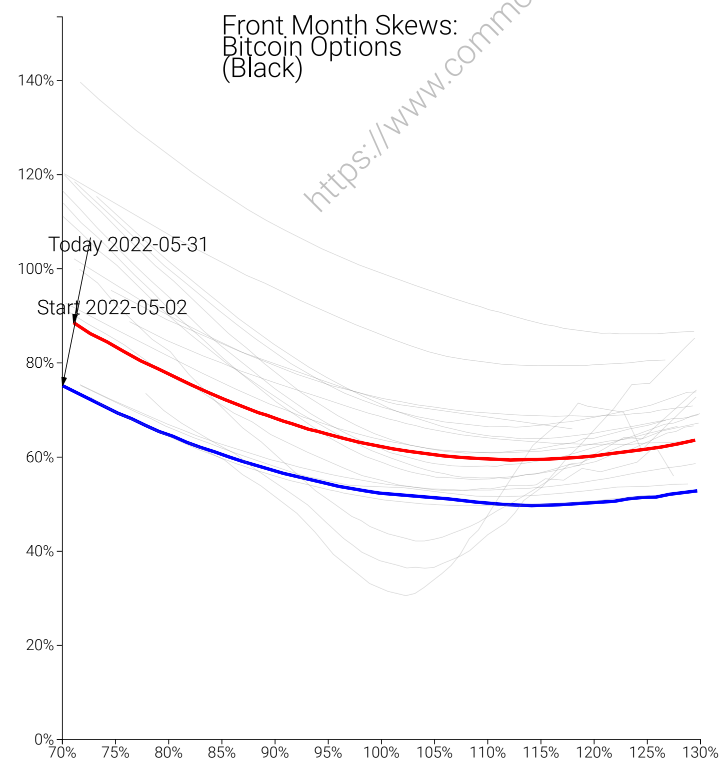

Today 2022-05-31
20220909
20221209
Start 2022-05-02
Price ($)


Front Month Skews:
New Zealand Options
(Black)
Today 2022-05-31
Start 2022-05-02


Termstructure Evolution:
Bitcoin Options
(Black)
Vol (%)
150%
100%
50%
0%
Today 2022-05-31
Start 2022-05-02
20220627
20221003
20230103
0.0
0.2
0.4
0.6
Time to Expiry (Yrs)


Front Month Dynamics:
Bitcoin Options
(Black)
vol
price
Vol (%)
Price ($)
90%
80%
70%
60%
50%
40%
38,000
36,000
34,000
32,000
30,000
Time
Sun 08
Sun 15
Sun 22
Sun 29

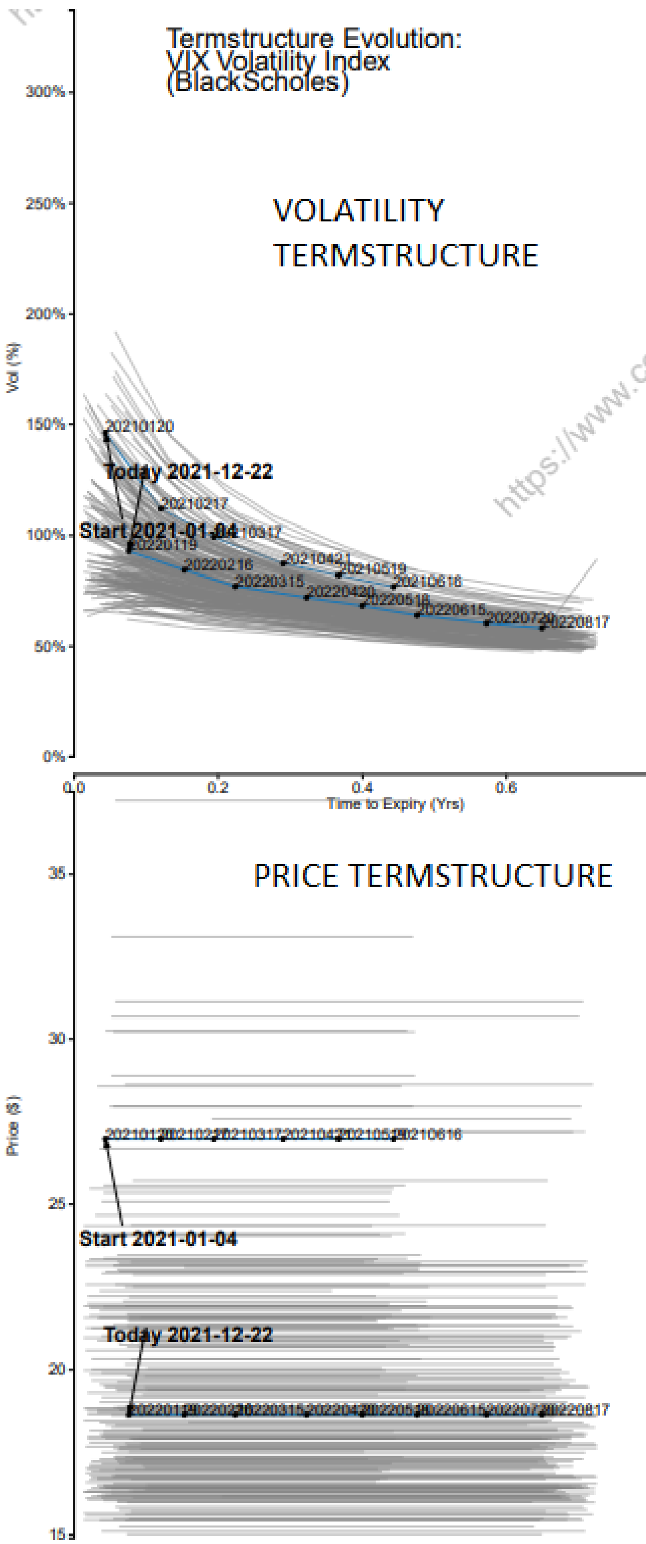

Price ($)
40,000
38,000
36,000
34,000
32,000
30,000
Start 2022-05-02
Today 2022-05-31
20220627
20221003
20230103


Front Month Skews:
Bitcoin Options
(Black)
140%
120%
100%
80%
60%
40%
20%
0%
Today 2022-05-31
Start 2022-05-02
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

Explanation:

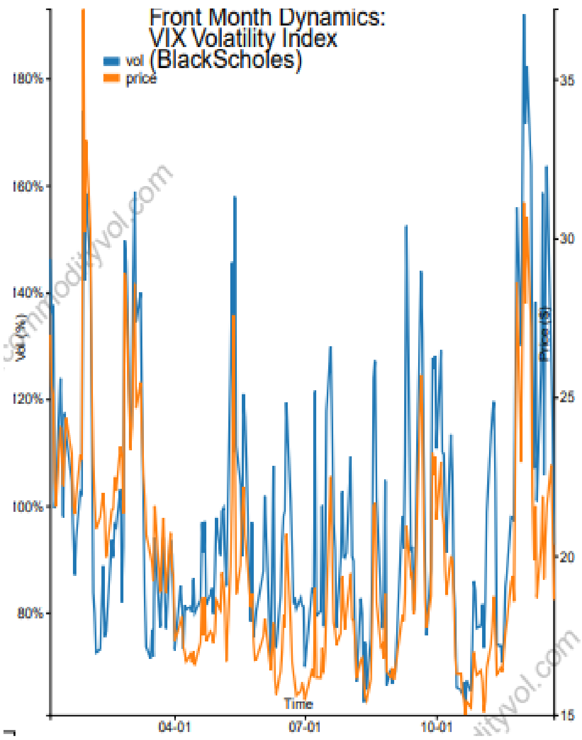
The document is composed of two parts. There is a tabular portion which summarizes the changes in front month futures prices and the changes in the at the money front month implied volatility. The results are presented as raw differences and percentage changes. The plots in this document try to give 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 Volatilty 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.

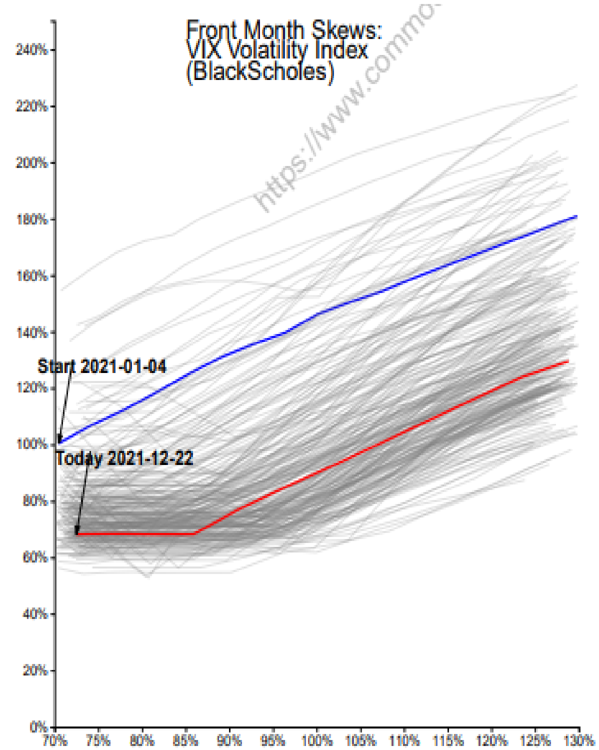
Front Month At the Money Volatilty and Front Month Price Over the Year:
On the right hand panel we have the price and implied volatility of the front month contract.



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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