Welcome to our July 2022 Recap:

We are pleased to welcome you to our July 2022 month end report.

Are we witnessing the calm before the storm, or a return of some stability? Aside from a handful of commodities, the moves seem to have gotten less violent this past month. The end of this prior week was greeted with threats and counter threats over the planned visit of Speaker Pelosi to Taiwan. The upcoming week looks like it will be one of extremes. If the visit carries forward, we might see violent moves in Ags and Equity Indexes. This past week was also notable because of the Fed decision to further hike interest rates. The effects of these hikes will probably be felt in the upcoming months. The European energy debacle has gotten worse. The Europeans had been optimistic about filling up storage headed into winter, but that looks like a pipe dream as flow from Russia has dwindled. Winter in contintental Europe starts earlier than in the US, so the coming months will be critical.

Foreign exchange markets were mostly muted with a couple of exceptions. The Bitcoin future rebounded from its massive slide, rising 24% with vol receeding by 9.5 vol points or 12.1%. The Brazilian Real rose 2.5% with a large spike in vol. In terms of implied vol, the Yen showed a 25% increase in vol, corresponding to a 2.8 vol point increase. The Euro suffered a fall of 2.2%, with vol also spiking 10% or 0.9 vol points.
Foreign Exchange ATM
Bitcoin Detail
Yen Detail
Euro Detail

The interest rate picture got an update this week. The Fed moved to increase rates again. The Eurodollar contract fell as we would expect. The longer term treasury contracts all seemed to rally. At the money implied volatility in all the products declined.
Interest Rates ATM

Indexes were all up with the exception of the VIX. The equity markets shrugged off recession risk, increased discount rates and a potential war with China. It will be interesting to see if the momentum can carry forward to the next week. The most interesting move in the equity indexes was the way in which the SP500 volatlity skew rotated down in a methodical/mechanical fashion.
EquityIndex ATM
SP500 Detail

Metals seem to marching to a discordant beat. Copper was down slighlty with vol also coming off. Gold showed a tumble in price and vol perhaps reflecting a tightening bias that might actually accomplish something. Silver was up 2.7% with vol coming off. Finally, Palladium showed a strong rally. The vol market for palladium has evaporated. This might, itself, be the most important bit of information.
Metals ATM

Lumber's bounce from last month has been short lived. The rates coupled with recession fears caused futures to tumble 21% and vols to spike 8%. Hog prices and vol spiked 10% and 12.2%, respectively. Soybeans were down slightly, but the vol of the whole complex was higher. Wheat's price fell and vol increased. Oats tumbled significantly with its vol spiking.
Ags ATM
Lumber Detail
Ags Details

As we hinted, Natural Gas gets the award for most volatile and violent, both domestically and in Europe. The TTF contract at the CME exhibited a 29% increase in the futures price. Vol was unchanged, but at the nosebleed levels we see, that isn't surprising. This is coming on the backdrop of an extreme move last month. In the US, the Natty Gas complex rallied about 2.5 dollars which was a 43% change. Vol was massively bid up but off of intra month highs. The skew of the product diminished with call skew evaporating. WTI and Brent both fell for the month, by 7% and 9%, respectively. Diesel and Refined also declined. Vol moves were not enormous, coming off for most of the product.
Energy ATM
US Natty Gas Detail
Details Energy

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

Energy

exch/prod	desc	futures chng [%]	vol chng [%]
NYMEX/BZO	Brent Crude Oil Margin	-7.660 [-6.9%]	-0.039 [-8.3%]
NYMEX/BE	Brent Euro Style	-7.660 [-6.9%]	-0.028 [-6.0%]
NYMEX/CVR	Chicago Ethanol(platts) Average Price	+0.080 [+3.1%]	+0.041 [+22.2%]
NYMEX/LO	Crude Oil	-9.810 [-9.0%]	-0.045 [-9.3%]
NYMEX/TFO	Dutch TTF Natural Gas	+43.131 [+29.2%]	-0.029 [-1.7%]
NYMEX/LN	European Natural Gas	+2.499 [+43.6%]	+0.193 [+28.8%]
NYMEX/E7	Henry Hub Financial Last Day	+2.499 [+43.6%]	+0.189 [+27.9%]
NYMEX/ON	Natural Gas	+2.499 [+43.6%]	+0.192 [+28.7%]
NYMEX/OH	NY Harbor ULSD	-0.390 [-9.9%]	-0.006 [-1.2%]
NYMEX/OB	RBOB	-0.575 [-15.6%]	-0.049 [-8.7%]

Ags

exch/prod	desc	futures chng [%]	vol chng [%]
CME/DK	Class IV Milk	+0.130 [+0.5%]	-0.053 [-59.2%]
CBT/C	Corn	-0.035 [-0.6%]	-0.004 [-0.9%]
CME/62	Feeder Cattle	+4.075 [+2.3%]	-0.028 [-17.6%]
CBT/KW	KC HRW Wheat	-0.390 [-4.3%]	+0.025 [+5.9%]
CME/LN	Lean Hog	+11.050 [+10.1%]	+0.015 [+12.2%]
CME/48	Live Cattle	+1.850 [+1.4%]	-0.030 [-22.4%]
CME/LB	Lumber110	-142.600 [-21.3%]	+0.052 [+8.8%]
CME/NF	Nonfat Dry Milk	+1.050 [+0.6%]	-0.015 [-35.7%]
CBT/O	Oats	-0.570 [-11.3%]	+0.032 [+6.2%]
CBT/14	Rough Rice	+0.465 [+2.8%]	+0.030 [+22.6%]
CBT/S	Soybean	-0.225 [-1.5%]	+0.063 [+23.0%]
CBT/06	Soybean Meal	+20.300 [+4.8%]	+0.052 [+17.2%]
CBT/07	Soybean Oil	+2.070 [+3.2%]	+0.084 [+24.0%]
CBT/W	Wheat	-0.383 [-4.5%]	+0.026 [+5.8%]

EquityIndex

exch/prod	desc	futures chng [%]	vol chng [%]
CBT/YM	E-Mini Dow	+1764.000 [+5.7%]	-0.052 [-24.1%]
CME/NQ	E-Mini Nasdaq	+1360.250 [+11.7%]	-0.061 [-19.7%]
CME/RTO	E-Mini Russell 2000	+156.800 [+9.1%]	-0.052 [-17.8%]
CME/RTM	E-Mini Russell EOM	+156.800 [+9.1%]	-0.061 [-20.3%]
CME/ES	E-Mini S&P 500	+306.250 [+8.0%]	-0.051 [-20.8%]
CBOE/VIX	VIX Volatility Index	-5.370 [-20.1%]	-0.156 [-19.6%]

Metals

exch/prod	desc	futures chng [%]	vol chng [%]
COMEX/HX	Copper	-0.030 [-0.8%]	-0.024 [-7.5%]
COMEX/OG	Gold	-30.000 [-1.7%]	-0.017 [-10.8%]
NYMEX/PAO	Palladium	+191.600 [+9.9%]	+0.001 [+0.1%]
NYMEX/PO	Platinum	+18.500 [+2.1%]	-0.005 [-1.6%]
COMEX/SO	Silver	+0.530 [+2.7%]	-0.033 [-10.9%]

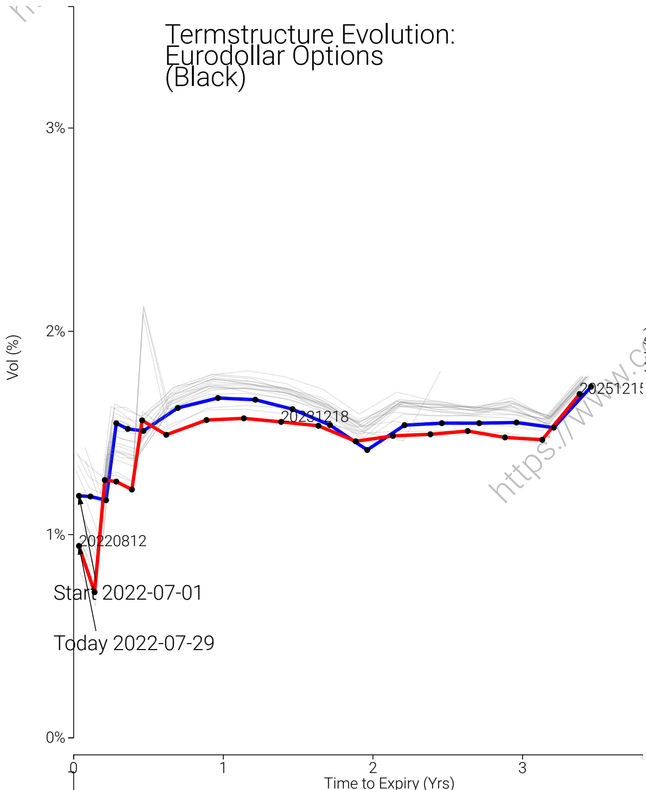
exch/prod	desc	futures chng [%]	vol chng [%]
CBT/26	2 YR US Treasury Note	+0.043 [+0.0%]	-0.007 [-23.9%]
CBT/25	5 YR US Treasury Note	+0.891 [+0.8%]	-0.016 [-23.1%]
CBT/21	10 YR US Treasury Note	+1.875 [+1.6%]	-0.021 [-22.1%]
CBT/17	30 YR US Treasury Bond	+4.656 [+3.3%]	-0.021 [-14.1%]
CME/ED	Eurodollar	-0.065 [-0.1%]	-0.002 [-20.7%]
CBT/UBE	Long Term US Treasury Bond	+4.313 [+2.8%]	-0.036 [-17.4%]

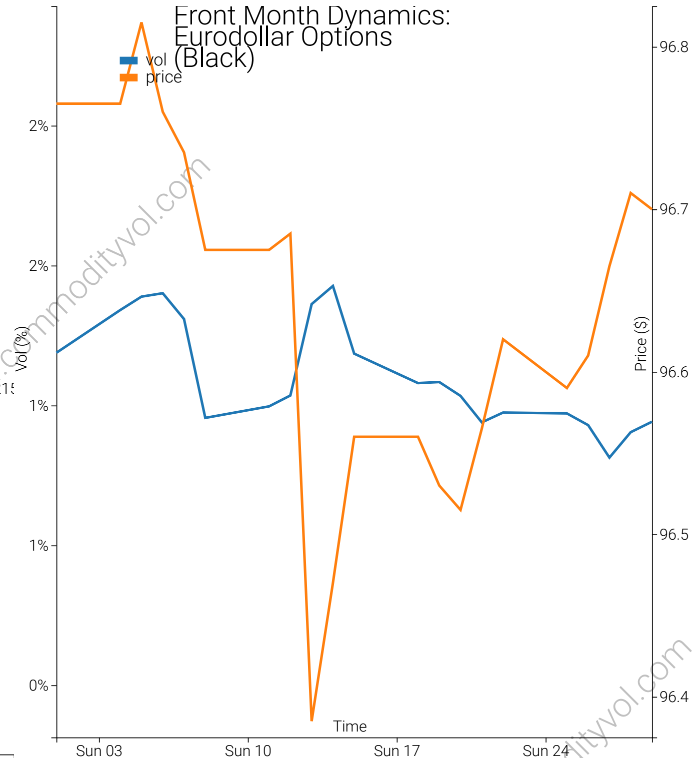
Forex

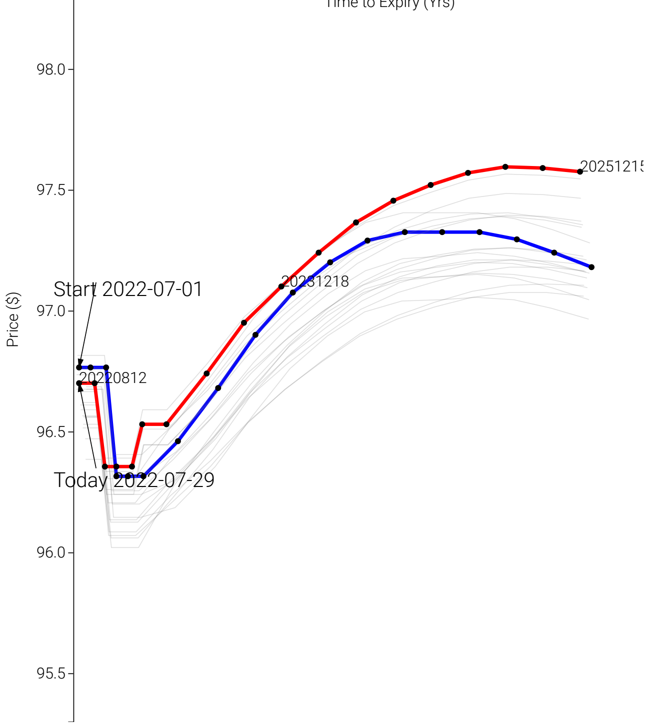
exch/prod	desc	futures chng [%]	vol chng [%]
CME/ADU	AUDUSD 2pmfix	+0.018 [+2.6%]	-0.008 [-6.5%]
CME/BTC	Bitcoin	+4675.000 [+24.2%]	-0.095 [-12.1%]
CME/BR	BRLUSD Monthly	+0.005 [+2.5%]	+0.014 [+7.5%]
CME/CAU	CADUSD 2pmfix	+0.004 [+0.6%]	+0.003 [+3.6%]
CME/CHU	CHFUSD 2pmfix	+0.007 [+0.7%]	-0.003 [-3.5%]
CME/EUU	EURUSD 2pmfix	-0.023 [-2.2%]	+0.009 [+10.3%]
CME/GBU	GBPUSD 2pmfix	+0.008 [+0.6%]	-0.002 [-2.0%]
CME/JPU	JPYUSD 2pmfix	+0.000 [+1.3%]	+0.028 [+25.0%]
CME/MP	Mexican Peso	-0.000 [-0.1%]	+0.000 [+0.0%]
CME/NE	New Zealand	+0.009 [+1.4%]	+0.009 [+7.1%]

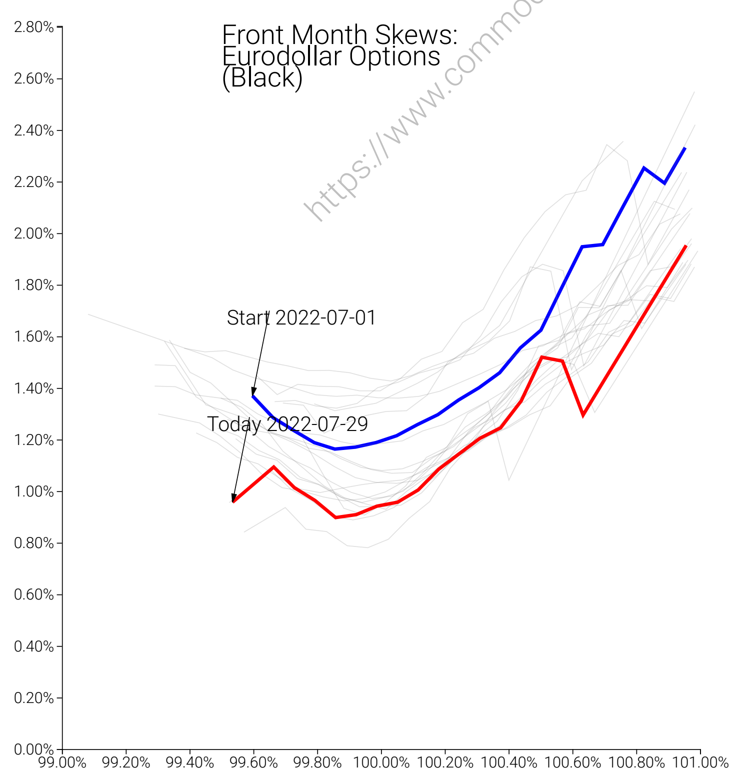
Skews, Termstructures and more

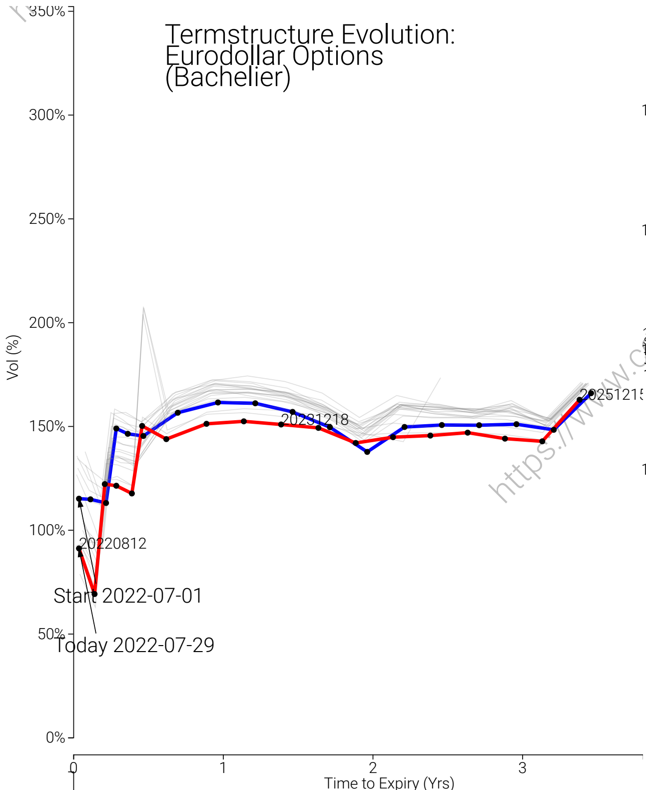
InterestRates: Fixed Income and STIRS

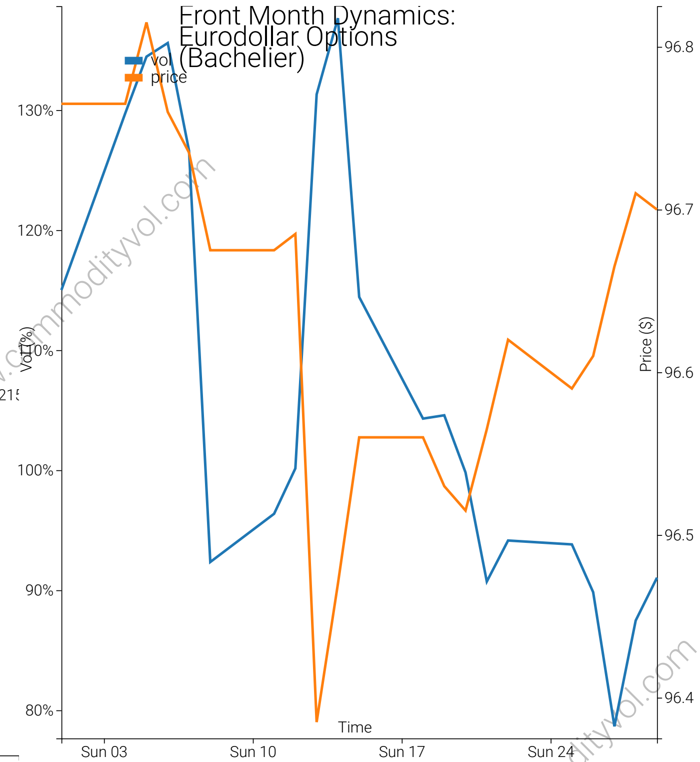

Termstructure Evolution:
Eurodollar Options
(Black)
Vol (%)
3%
2%
1%
0%
20220812
20231218
20251215
Start 2022-07-01
Today 2022-07-29
0
1
2
3
Time to Expiry (Yrs)

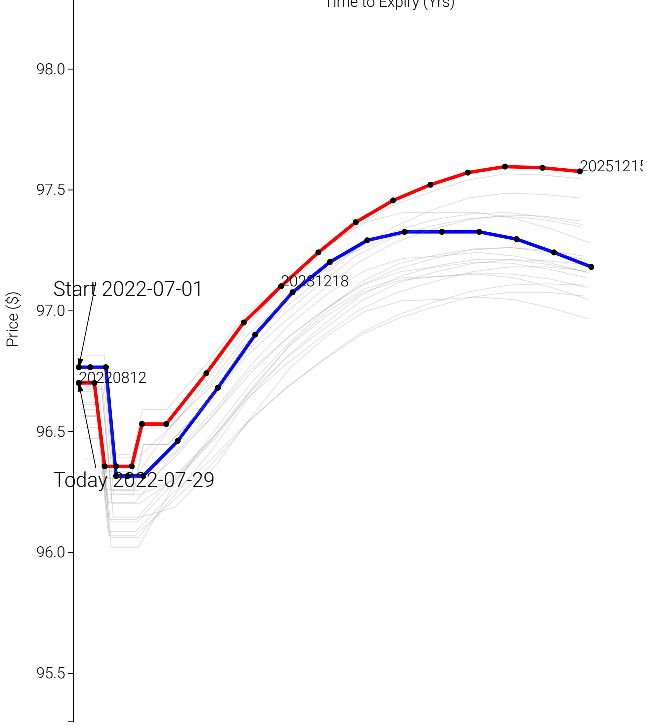

Front Month Dynamics:
Eurodollar Options
(Black)
vol
price
Vol (%)
Price ($)
2%
1%
0%
96.8
96.7
96.6
96.5
96.4
Time
Sun 03
Sun 10
Sun 17
Sun 24

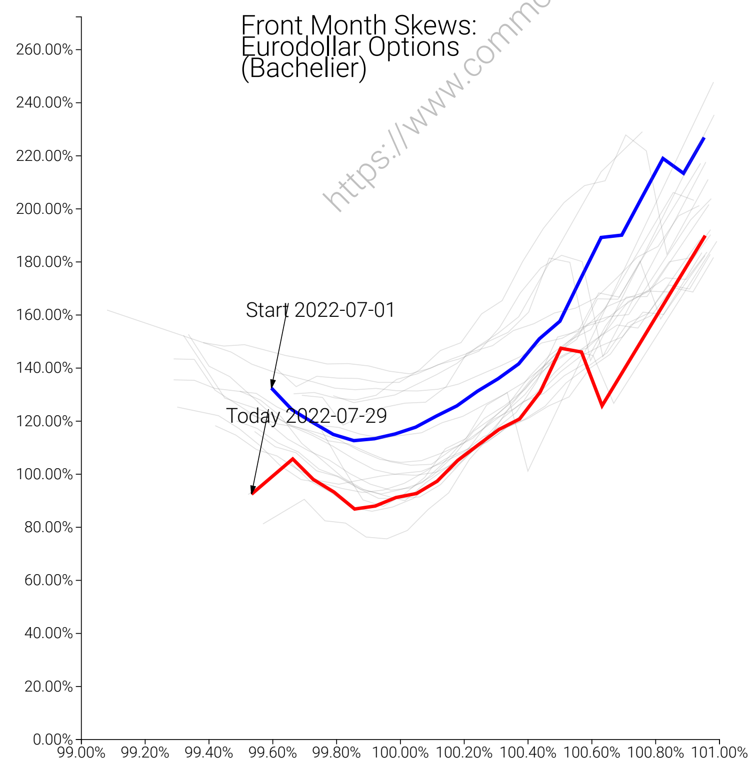

Price ($)
98.0
97.5
97.0
96.5
96.0
95.5
20251215
20231218
20220812
Start 2022-07-01
Today 2022-07-29

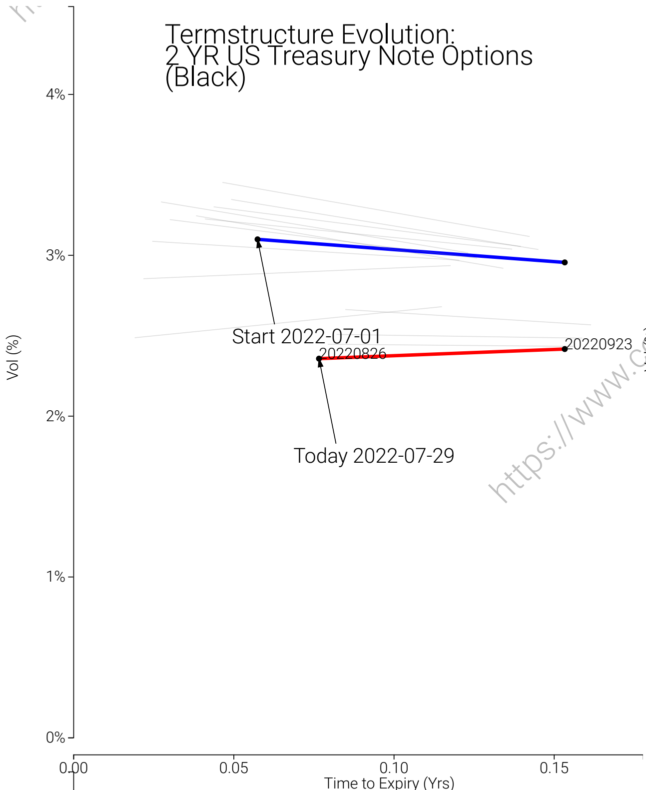

Front Month Skews:
Eurodollar Options
(Black)
2.80%
2.60%
2.40%
2.20%
2.00%
1.80%
1.60%
1.40%
1.20%
1.00%
0.80%
0.60%
0.40%
0.20%
0.00%
Start 2022-07-01
Today 2022-07-29
99.00%
99.20%
99.40%
99.60%
99.80%
100.00%
100.20%
100.40%
100.60%
100.80%
101.00%

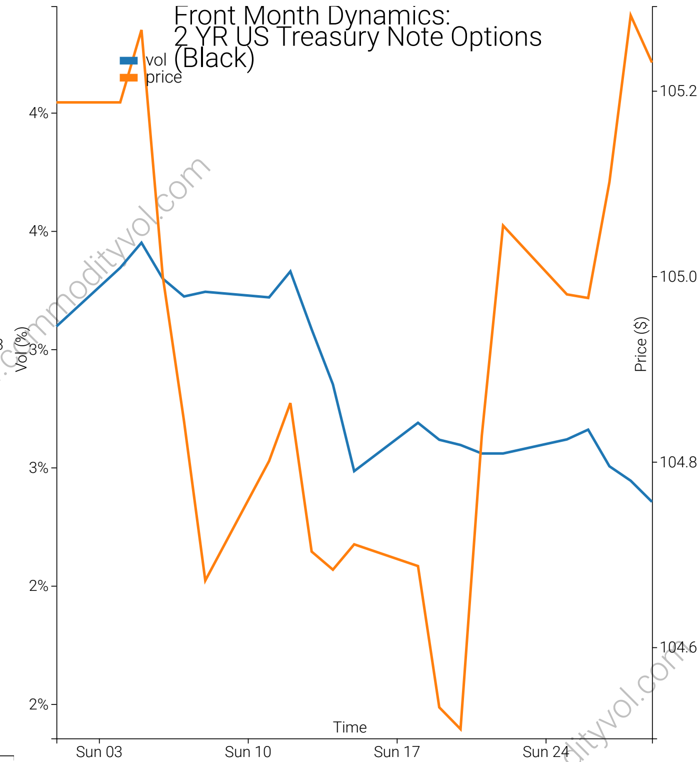

Termstructure Evolution:
Eurodollar Options
(Bachelier)
Vol (%)
Time to Expiry (Yrs)
20220812
20231218
20251215
Start 2022-07-01
Today 2022-07-29

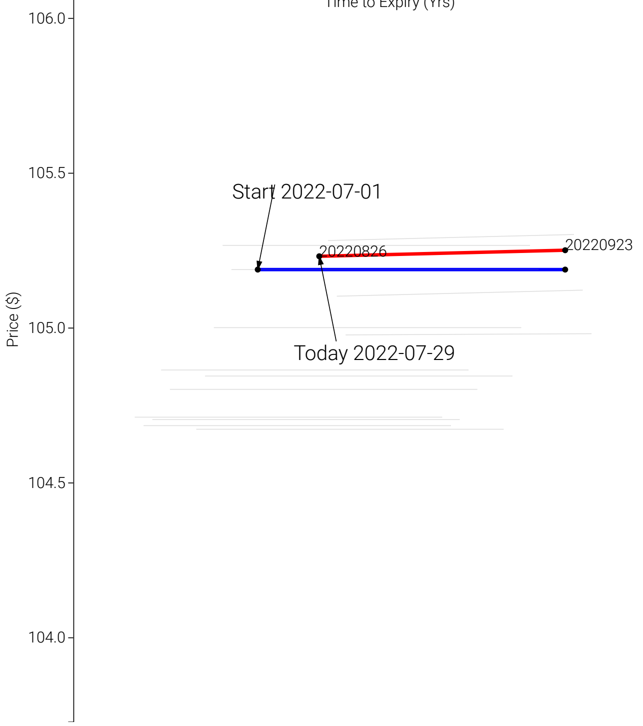

Front Month Dynamics:
Eurodollar Options
(Bachelier)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

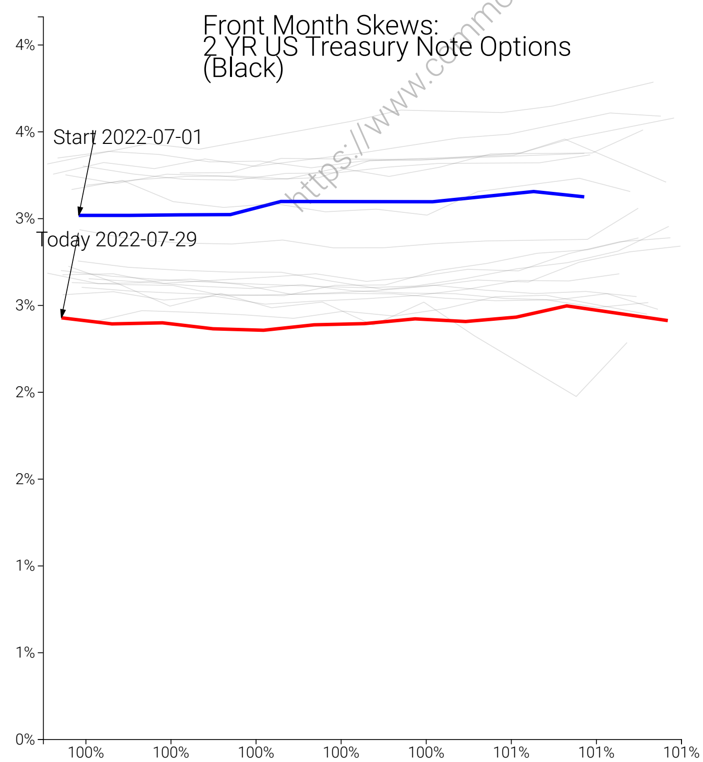

Price ($)
20220812
20231218
20251215
Start 2022-07-01
Today 2022-07-29

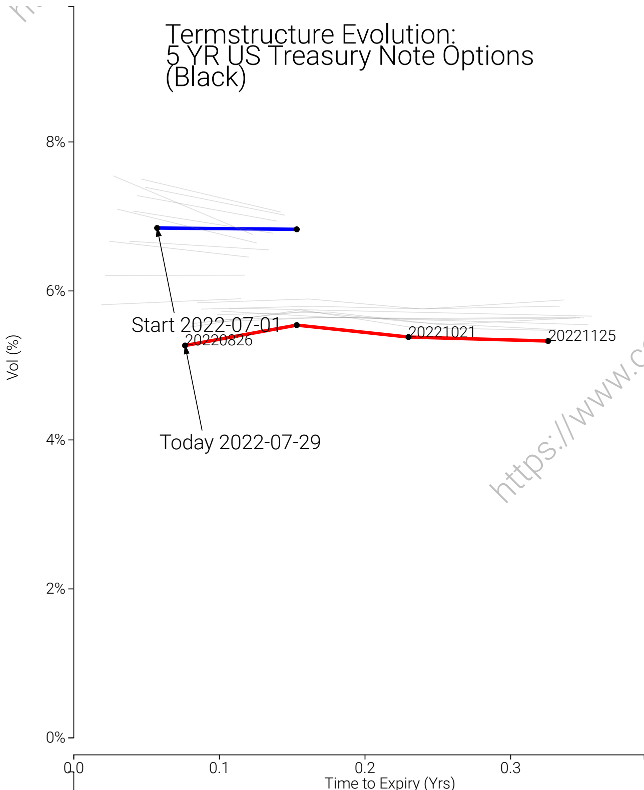

Front Month Skews:
Eurodollar Options
(Bachelier)
Start 2022-07-01
Today 2022-07-29

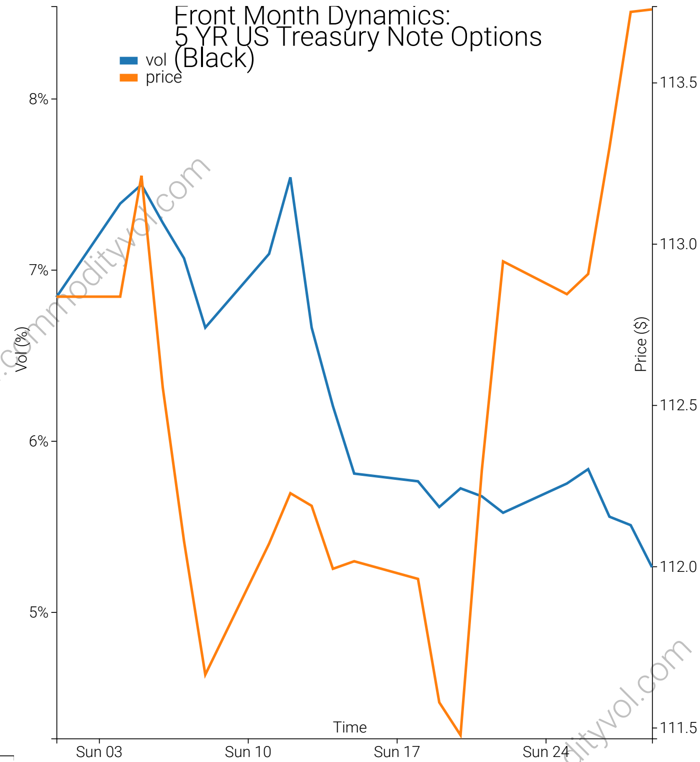

Termstructure Evolution:
2 YR US Treasury Note Options
(Black)
Start 2022-07-01
Today 2022-07-29
20220826
20220923
Vol (%)
Time to Expiry (Yrs)
0%
1%
2%
3%
4%
0.00
0.05
0.10
0.15

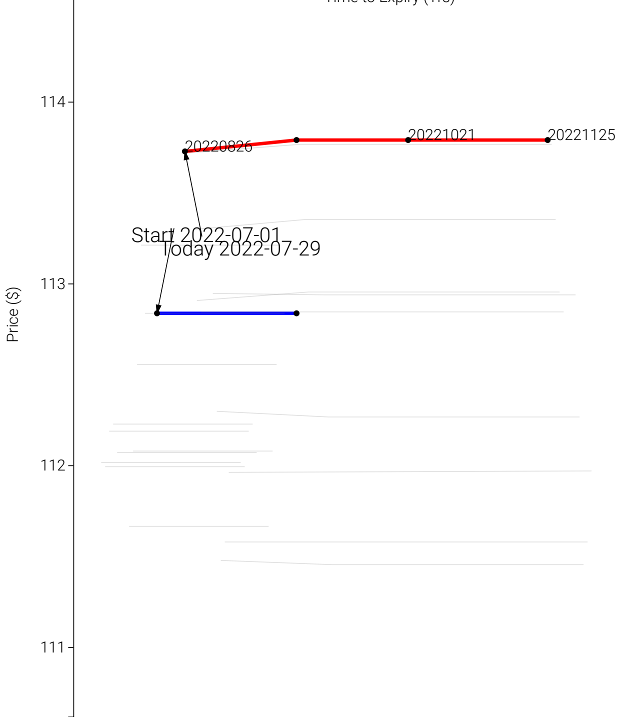

Front Month Dynamics:
2 YR US Treasury Note Options
(Black)
vol
price
Vol (%)
Price ($)
Time
2%
2%
3%
3%
4%
4%
104.6
104.8
105.0
105.2
Sun 03
Sun 10
Sun 17
Sun 24

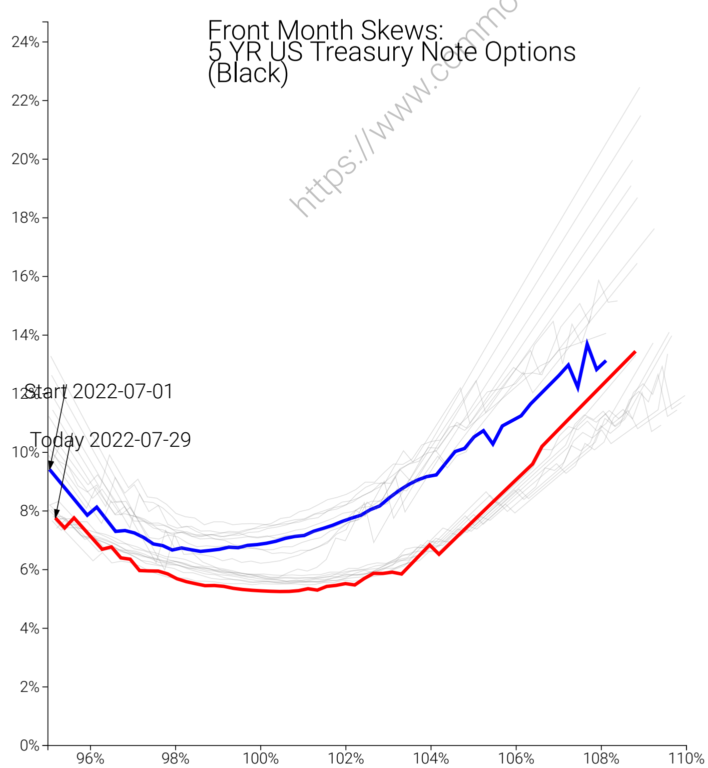

Start 2022-07-01
Today 2022-07-29
20220826
20220923
Price ($)
104.0
104.5
105.0
105.5
106.0

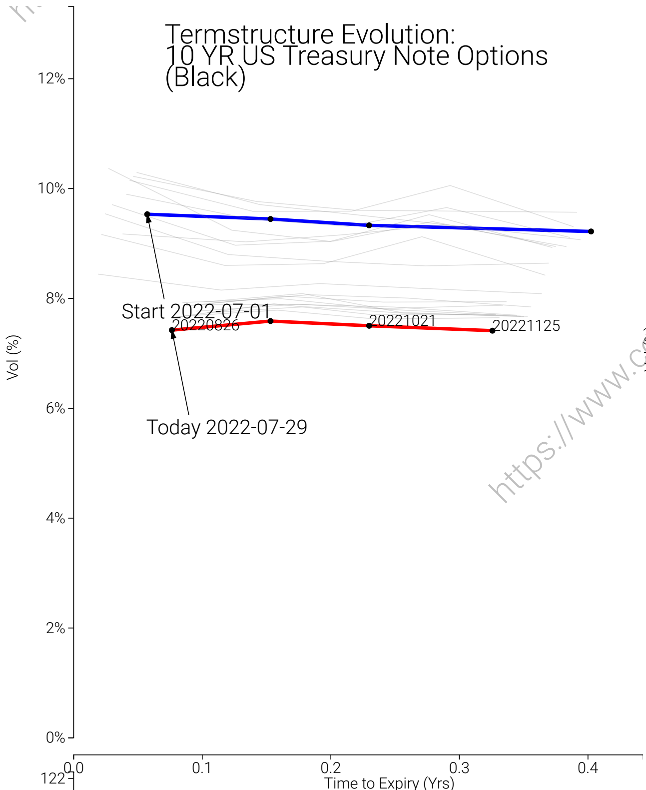

Front Month Skews:
2 YR US Treasury Note Options
(Black)
Start 2022-07-01
Today 2022-07-29
0%
1%
1%
2%
2%
3%
3%
4%
4%
100%
100%
100%
100%
100%
101%
101%
101%

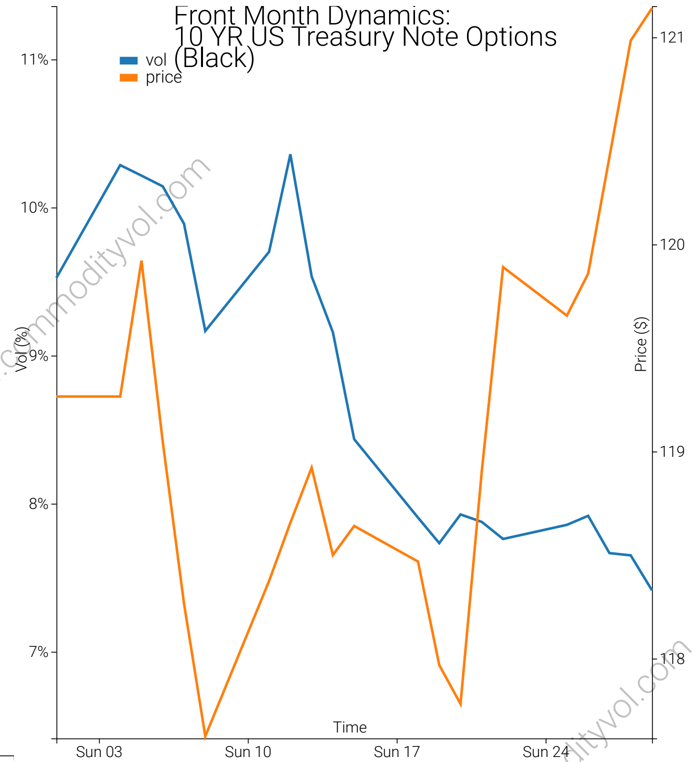

Termstructure Evolution:
5 YR US Treasury Note Options
(Black)
Vol (%)
8%
6%
4%
2%
0%
Start 2022-07-01
20220826
20221021
20221125
Today 2022-07-29
0.0
0.1
0.2
0.3
Time to Expiry (Yrs)

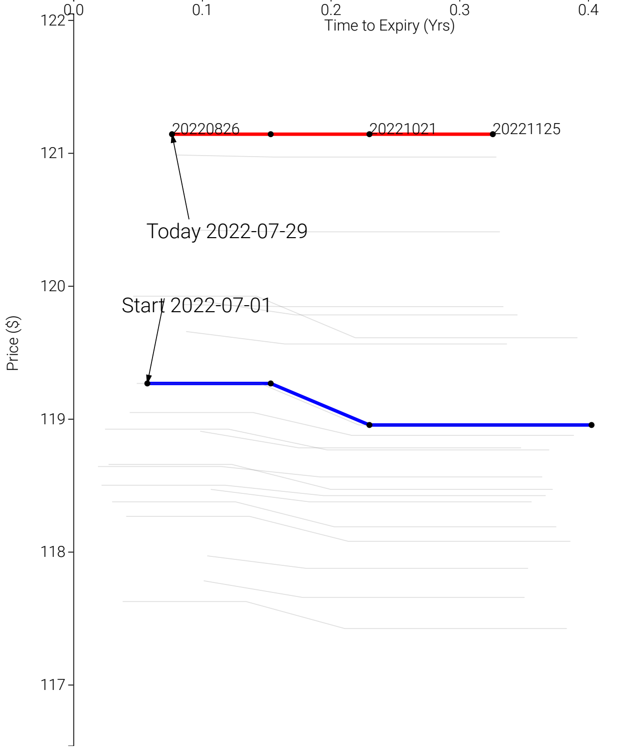

Front Month Dynamics:
5 YR US Treasury Note Options
(Black)
vol
price
Vol (%)
8%
7%
6%
5%
Price ($)
113.5
113.0
112.5
112.0
111.5
Time
Sun 03
Sun 10
Sun 17
Sun 24

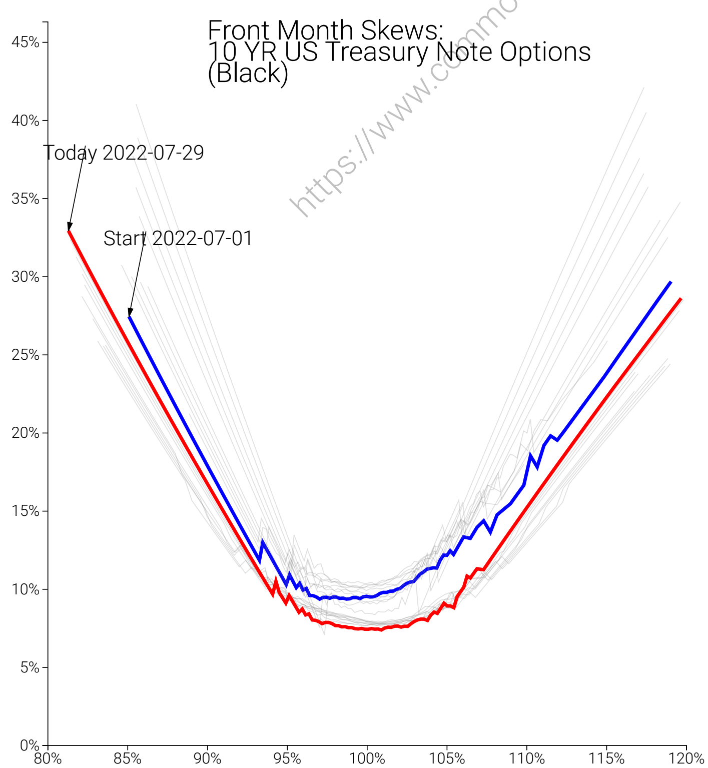

Price ($)
114
113
112
111
20220826
20221021
20221125
Start 2022-07-01
Today 2022-07-29

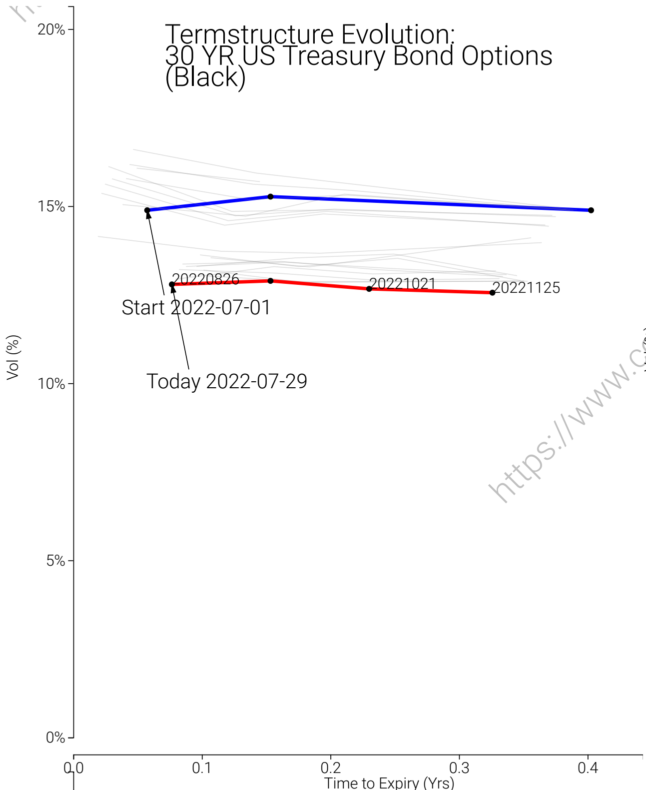

Front Month Skews:
5 YR US Treasury Note Options
(Black)
24%
22%
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
Start 2022-07-01
Today 2022-07-29
96%
98%
100%
102%
104%
106%
108%
110%

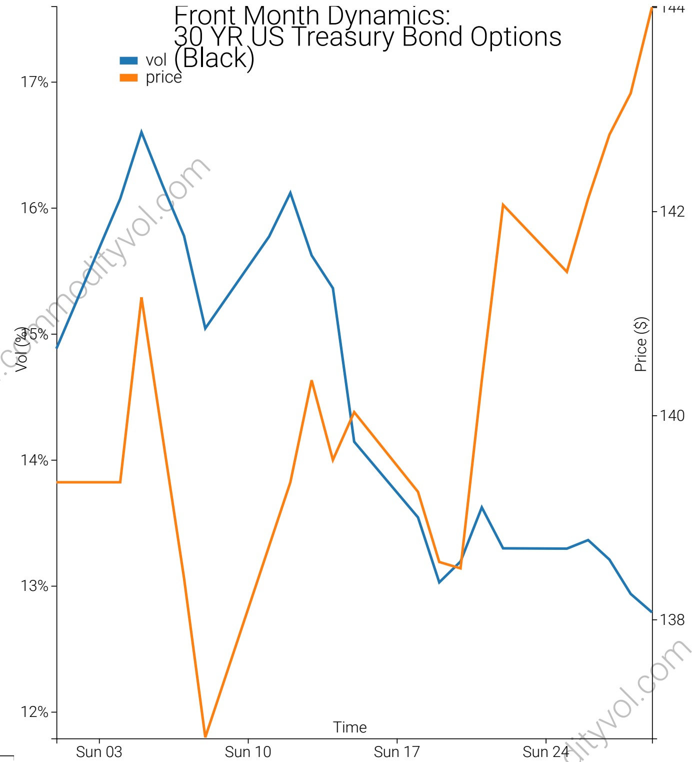

Termstructure Evolution:
10 YR US Treasury Note Options
(Black)
Vol (%)
Time to Expiry (Yrs)
Start 2022-07-01
Today 2022-07-29
20220826
20221021
20221125

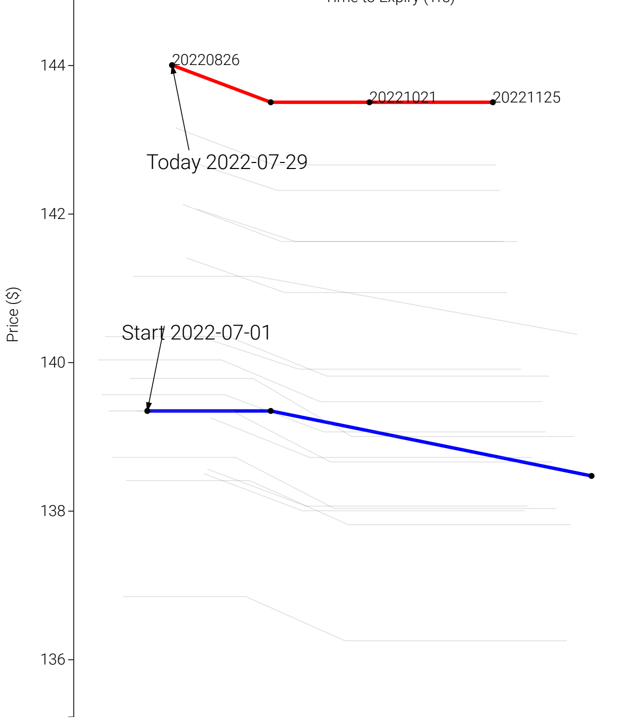

Front Month Dynamics:
10 YR US Treasury Note Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

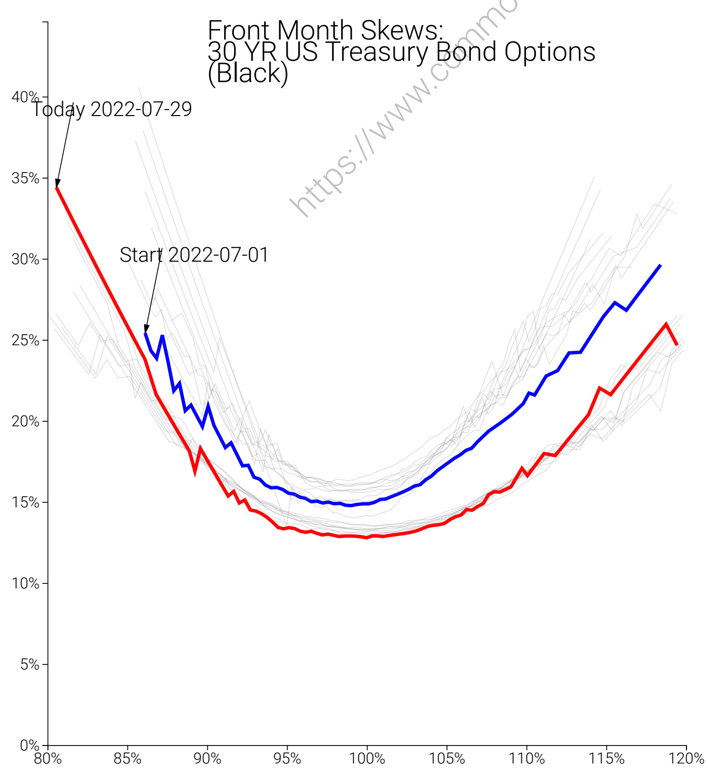

Price ($)
20220826
20221021
20221125
Today 2022-07-29
Start 2022-07-01

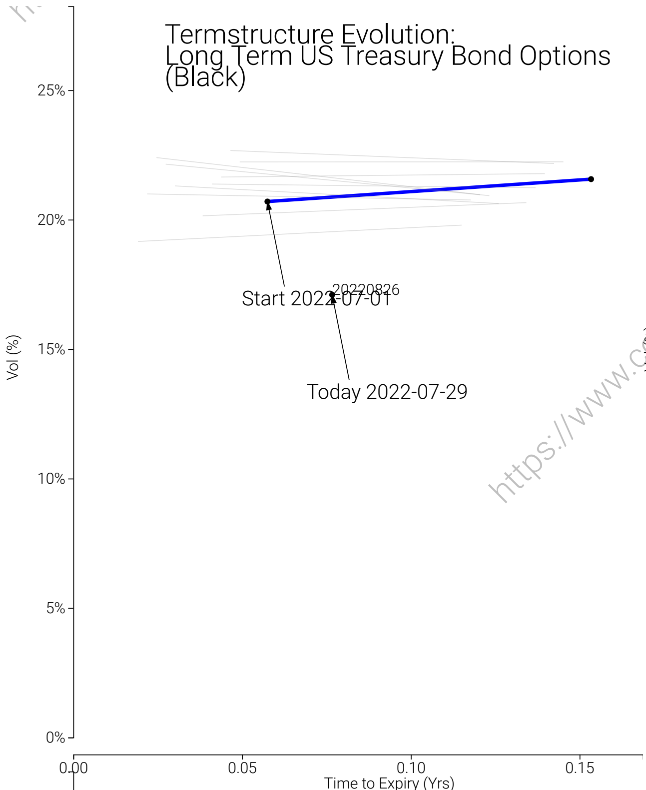

Front Month Skews:
10 YR US Treasury Note Options
(Black)
Today 2022-07-29
Start 2022-07-01

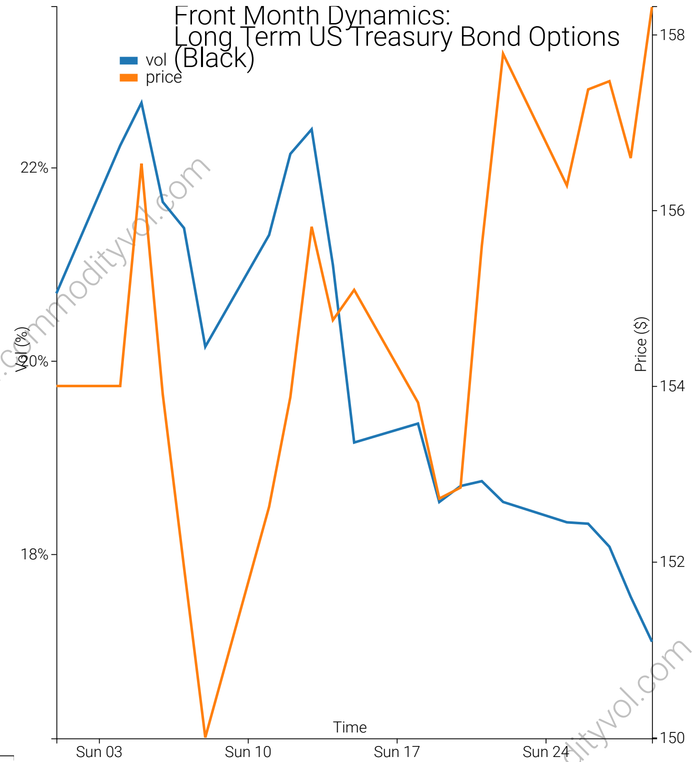

Termstructure Evolution:
30 YR US Treasury Bond Options
(Black)
Vol (%)
20%
15%
10%
5%
0%
20220826
20221021
20221125
Start 2022-07-01
Today 2022-07-29
Time to Expiry (Yrs)
0.0
0.1
0.2
0.3
0.4

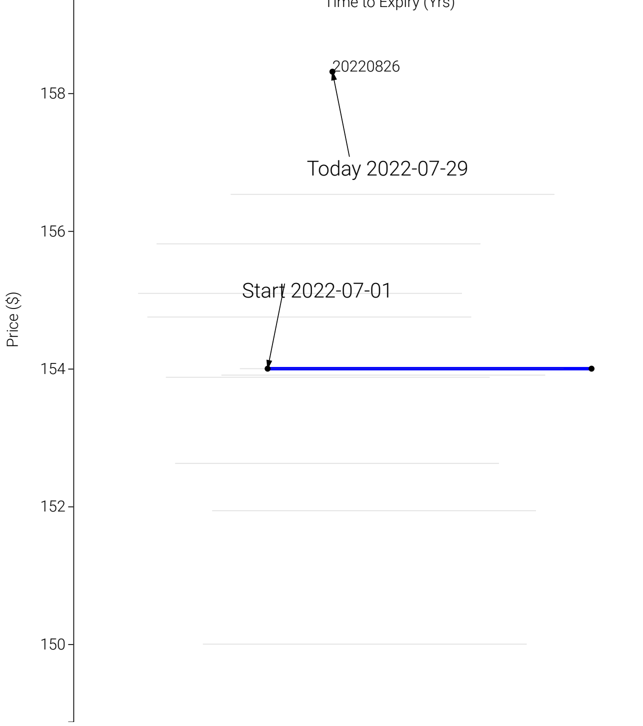

Front Month Dynamics:
30 YR US Treasury Bond Options
(Black)
vol
price
Vol (%)
Price ($)
17%
16%
15%
14%
13%
12%
144
142
140
138
Time
Sun 03
Sun 10
Sun 17
Sun 24

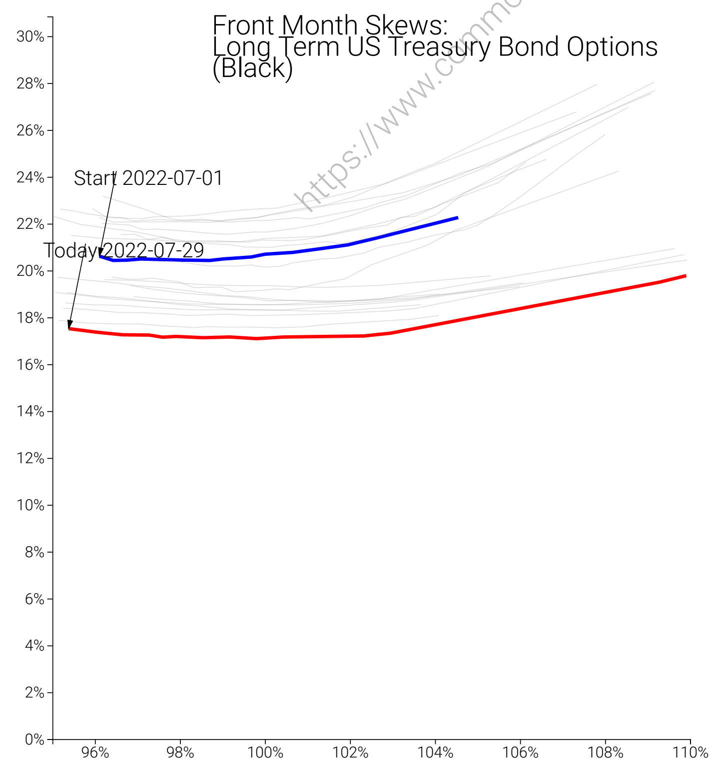

Price ($)
144
142
140
138
136
20220826
20221021
20221125
Today 2022-07-29
Start 2022-07-01


Front Month Skews:
30 YR US Treasury Bond Options
(Black)
Today 2022-07-29
Start 2022-07-01
40%
35%
30%
25%
20%
15%
10%
5%
0%
80%
85%
90%
95%
100%
105%
110%
115%
120%

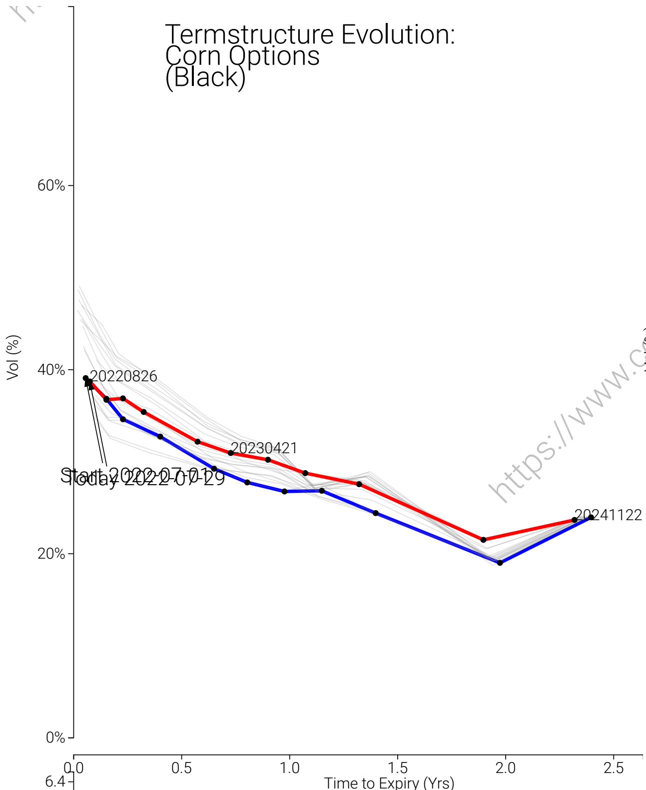

Termstructure Evolution:
Long Term US Treasury Bond Options
(Black)
Vol (%)
25%
20%
15%
10%
5%
0%
Start 2022-07-01
20220826
Today 2022-07-29
0.00
0.05
0.10
0.15
Time to Expiry (Yrs)

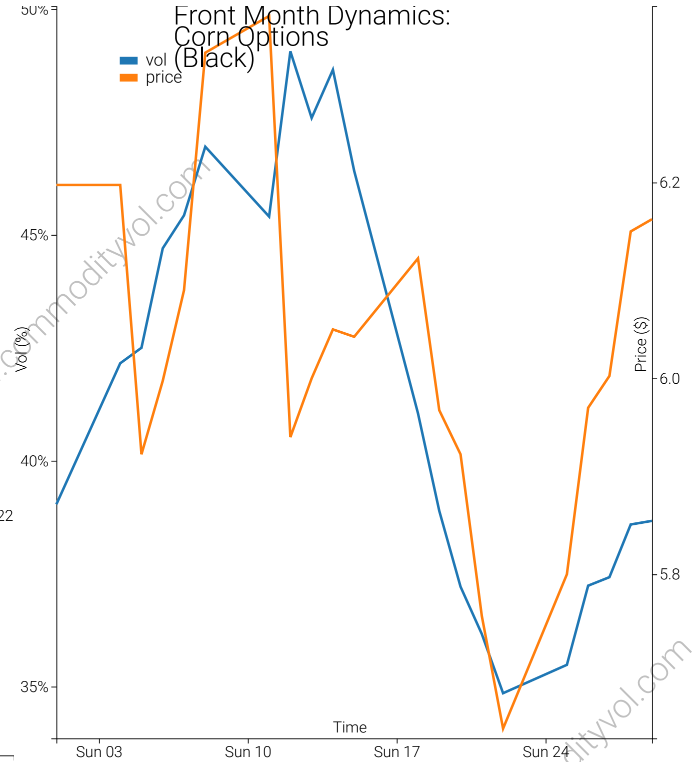

Front Month Dynamics:
Long Term US Treasury Bond Options
(Black)
vol
price
Vol (%)
22%
20%
18%
Price ($)
158
156
154
152
150
Time
Sun 03
Sun 10
Sun 17
Sun 24

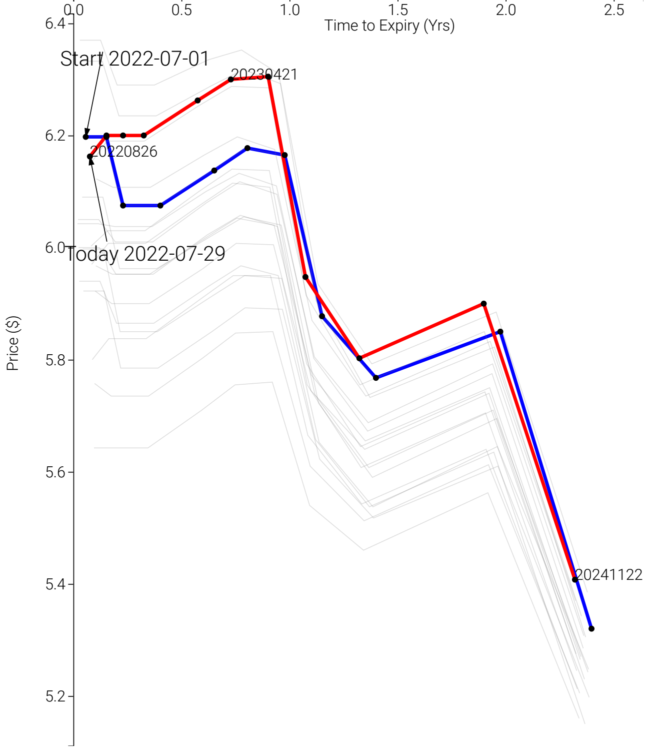

Price ($)
158
156
154
152
150
20220826
Today 2022-07-29
Start 2022-07-01

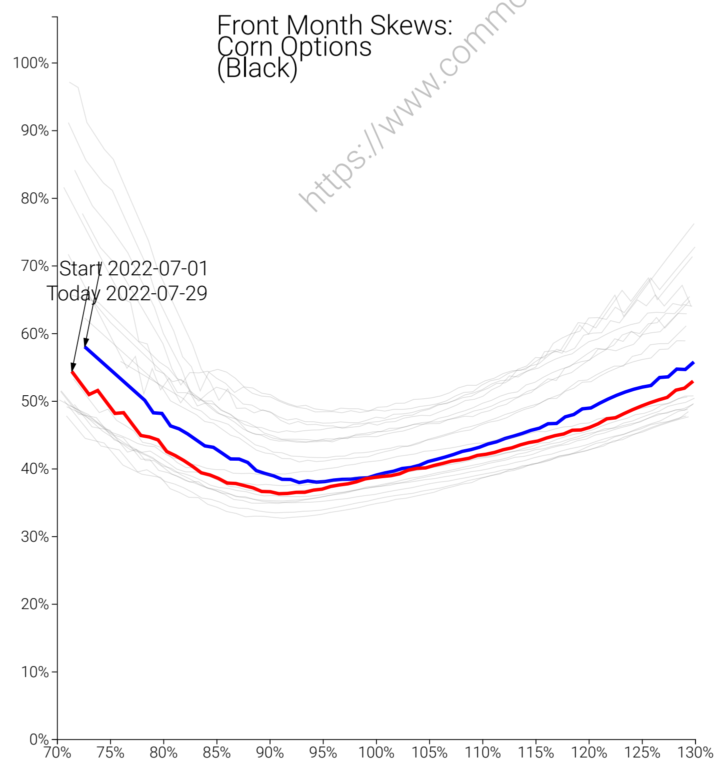

Front Month Skews:
Long Term US Treasury Bond Options
(Black)
30%
28%
26%
24%
22%
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
Start 2022-07-01
Today 2022-07-29
96%
98%
100%
102%
104%
106%
108%
110%

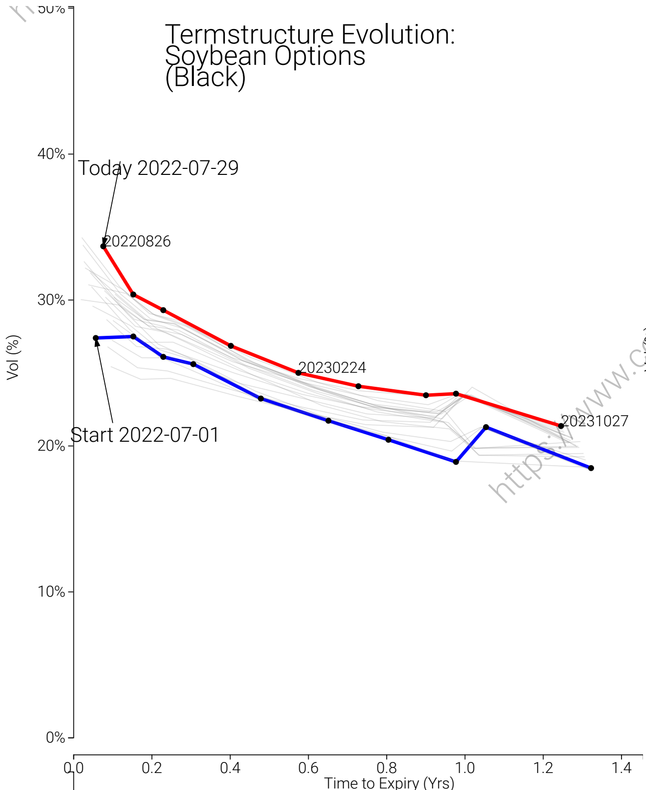
Ags: Grains, Oilseeds, and so forth

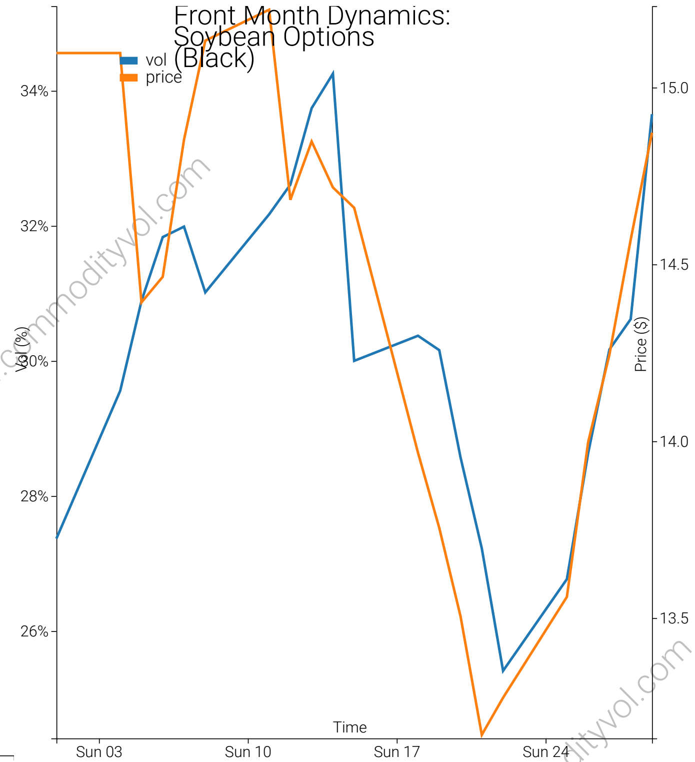

Termstructure Evolution:
Corn Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20220826
20230421
20241122
Start 2022-07-01
Today 2022-07-29

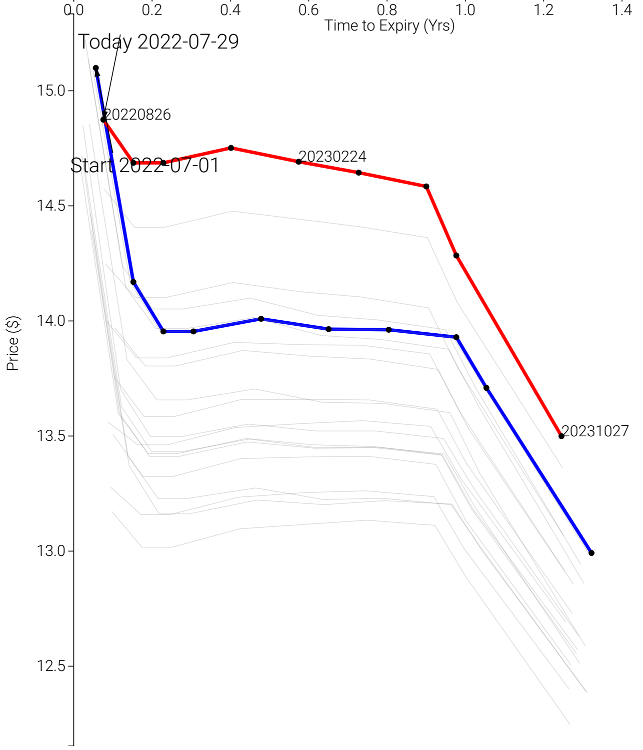

Front Month Dynamics:
Corn Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

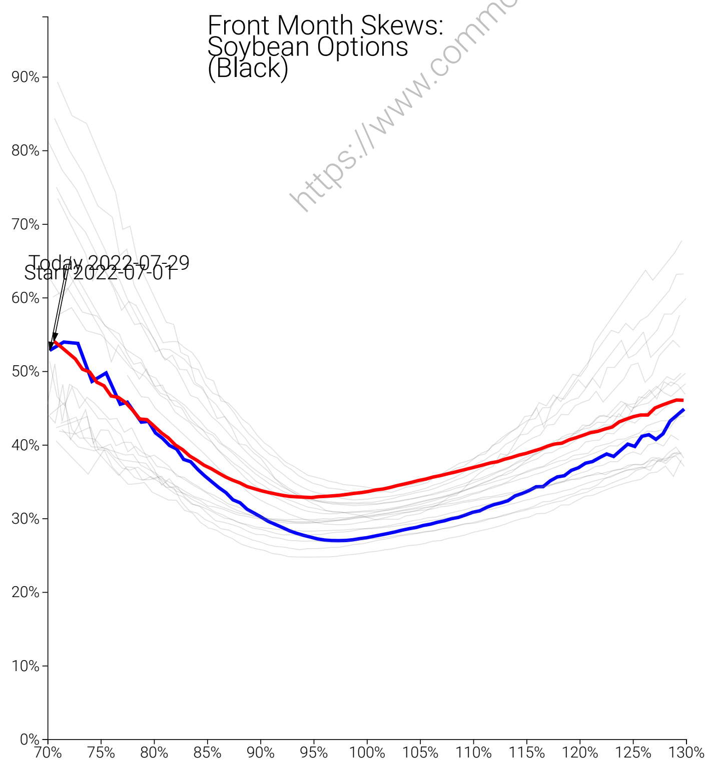

Price ($)
Start 2022-07-01
20230421
20220826
Today 2022-07-29
20241122

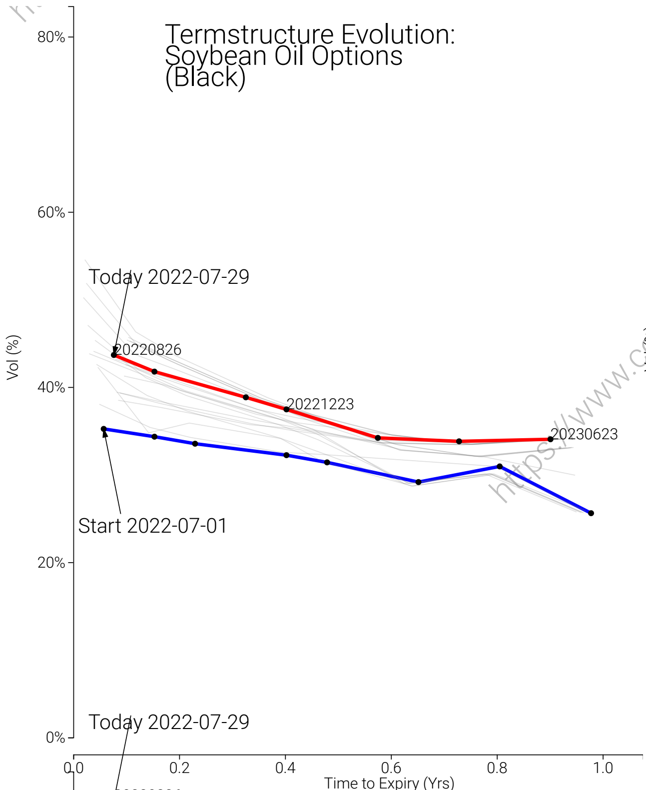

Front Month Skews:
Corn Options
(Black)
Start 2022-07-01
Today 2022-07-29

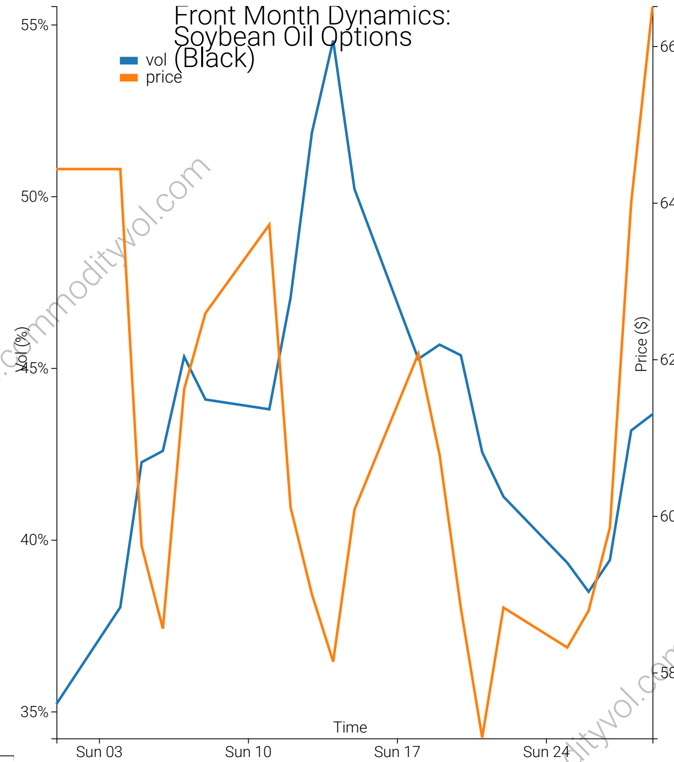

Termstructure Evolution:
Soybean Options
(Black)
Today 2022-07-29
20220826
20230224
20231027
Start 2022-07-01
Vol (%)
Time to Expiry (Yrs)

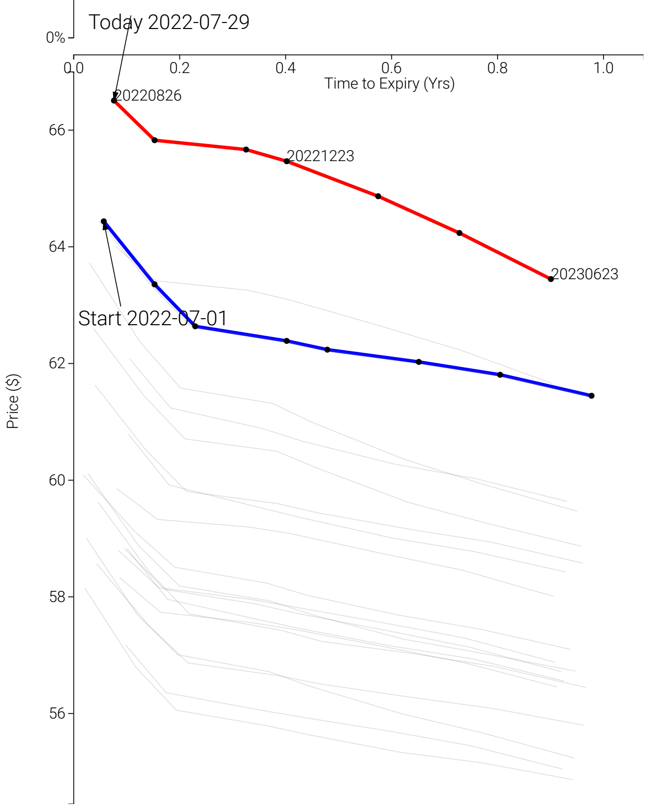

Front Month Dynamics:
Soybean Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

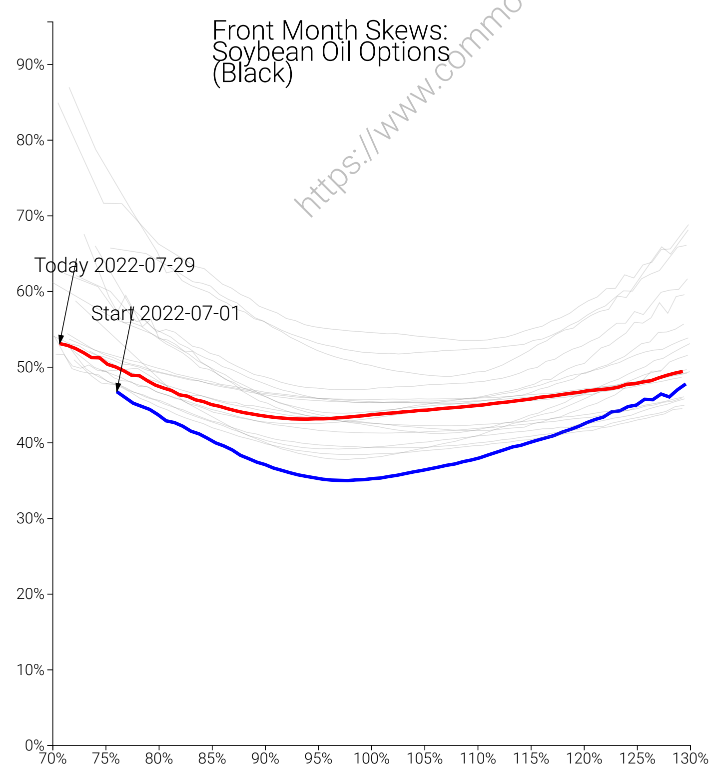

Today 2022-07-29
20220826
Start 2022-07-01
20230224
20231027
Price ($)

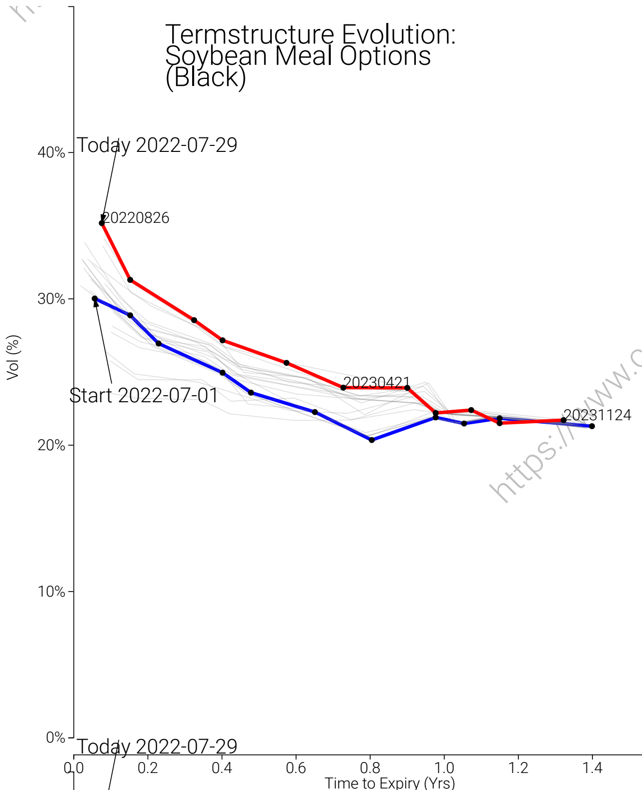

Front Month Skews:
Soybean Options
(Black)
Today 2022-07-29
Start 2022-07-01


Termstructure Evolution:
Soybean Oil Options
(Black)
Vol (%)
Today 2022-07-29
20220826
20221223
20230623
Start 2022-07-01
Time to Expiry (Yrs)

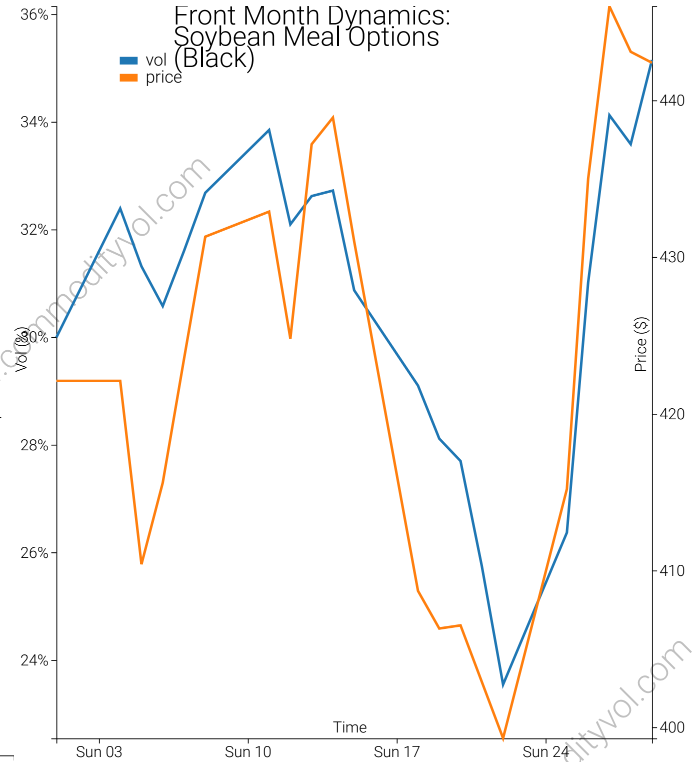

Front Month Dynamics:
Soybean Oil Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24


Today 2022-07-29
20220826
20221223
20230623
Start 2022-07-01
Price ($)

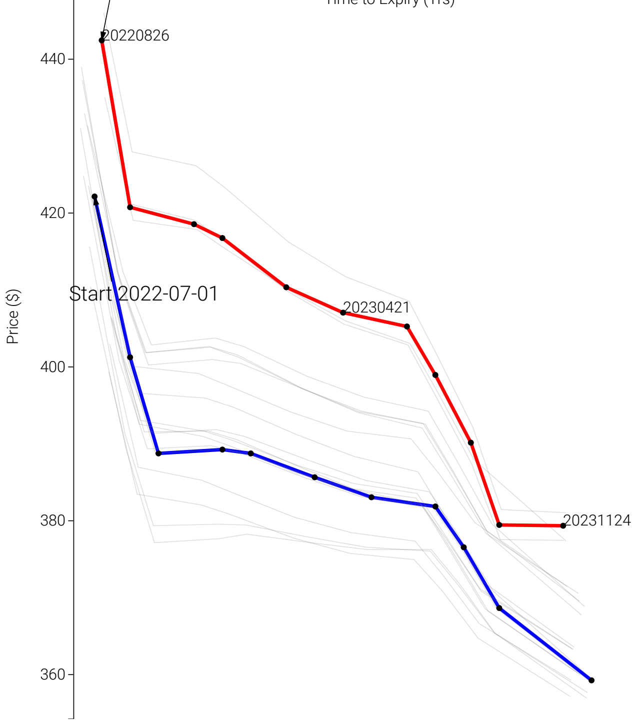

Front Month Skews:
Soybean Oil Options
(Black)
Today 2022-07-29
Start 2022-07-01



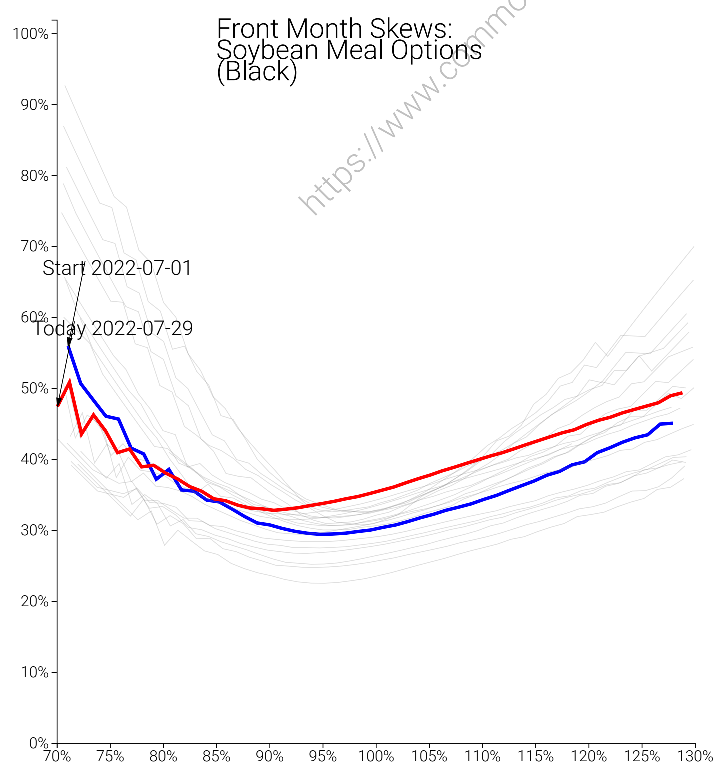
Termstructure Evolution:
Soybean Meal Options
(Black)
Today 2022-07-29
20220826
Start 2022-07-01
20230421
20231124
Vol (%)
Time to Expiry (Yrs)



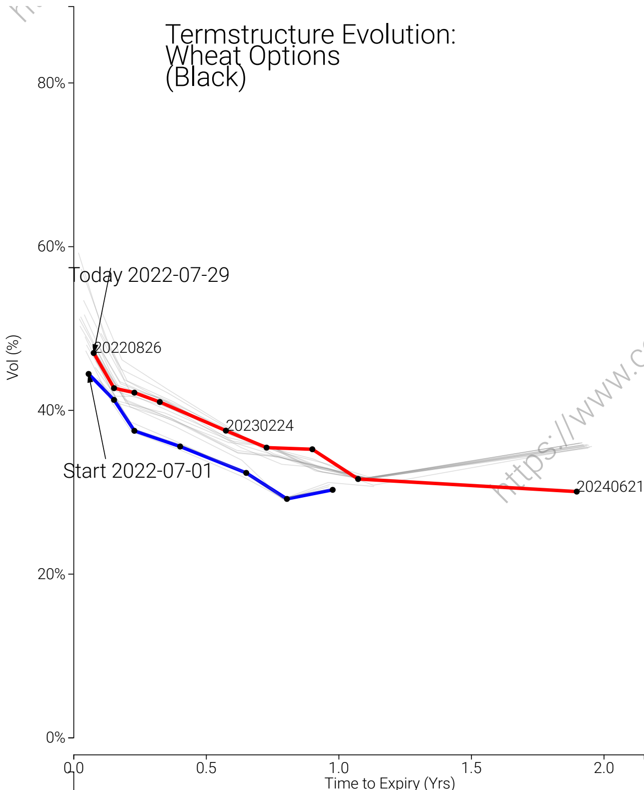
Front Month Dynamics:
Soybean Meal Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

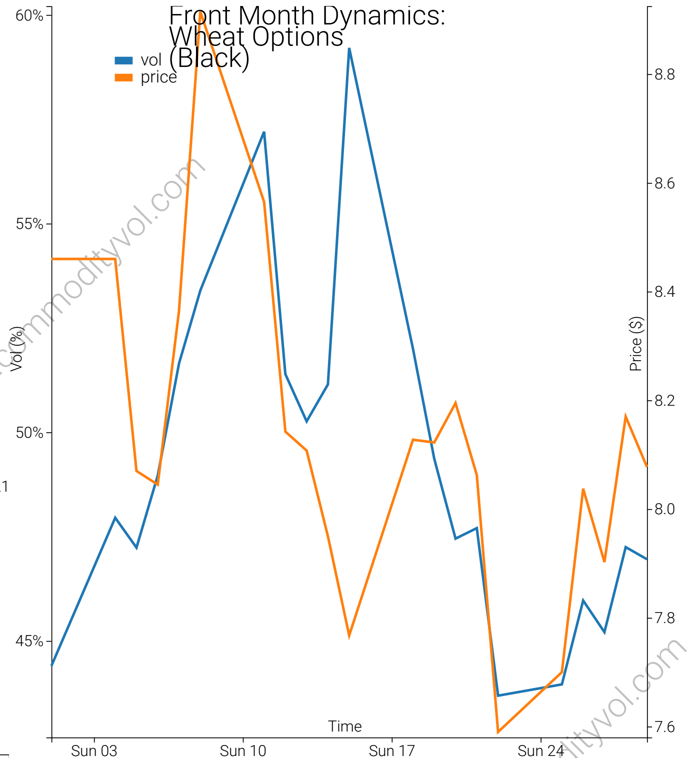


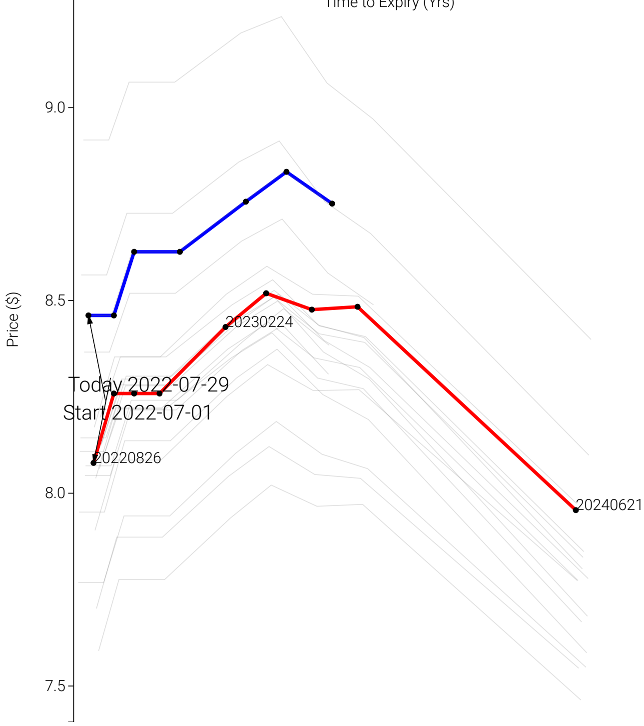
Today 2022-07-29
20220826
Start 2022-07-01
20230421
20231124
Price ($)

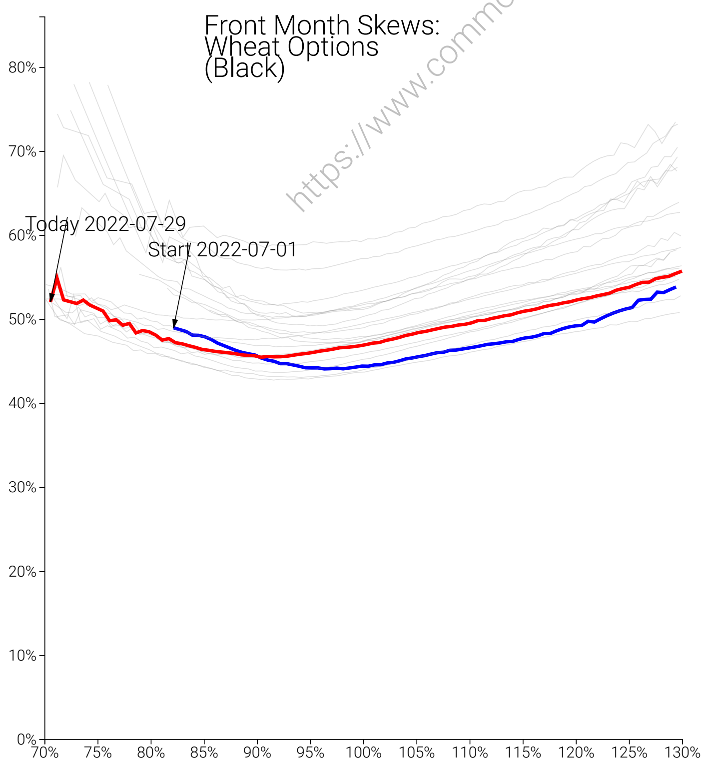


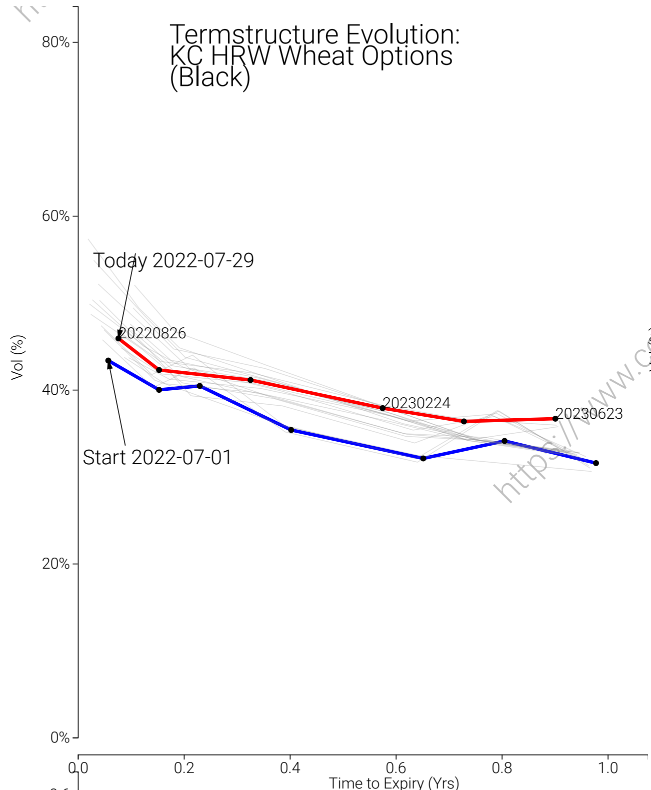
Front Month Skews:
Soybean Meal Options
(Black)
Start 2022-07-01
Today 2022-07-29

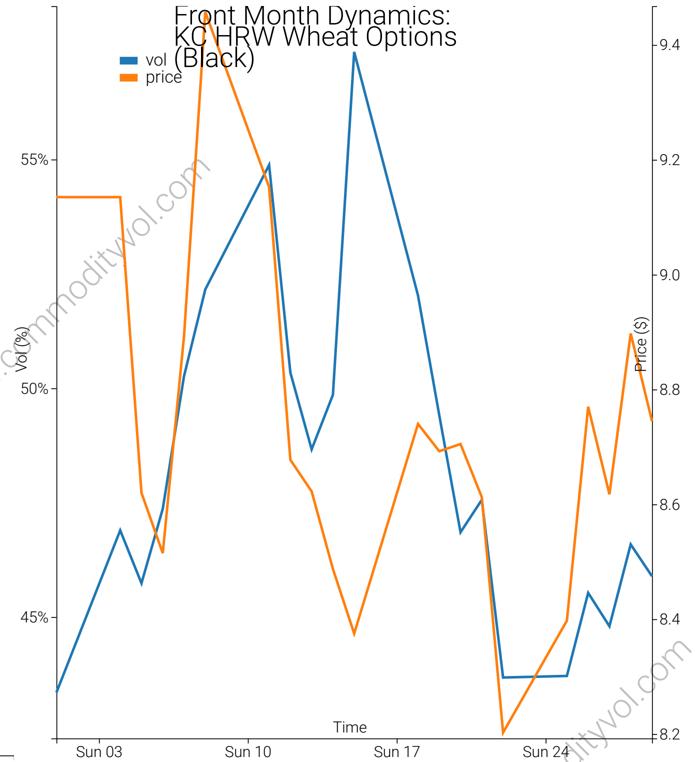

Termstructure Evolution:
Wheat Options
(Black)
Vol (%)
Time to Expiry (Yrs)
Today 2022-07-29
Start 2022-07-01
20220826
20230224
20240621
80%
60%
40%
20%
0%
0.0
0.5
1.0
1.5
2.0

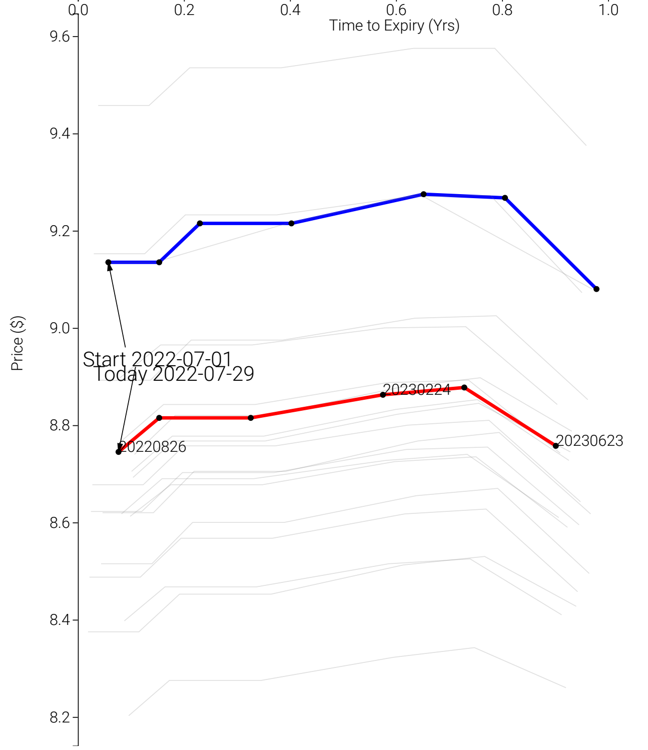

Front Month Dynamics:
Wheat Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24
60%
55%
50%
45%
8.8
8.6
8.4
8.2
8.0
7.8
7.6

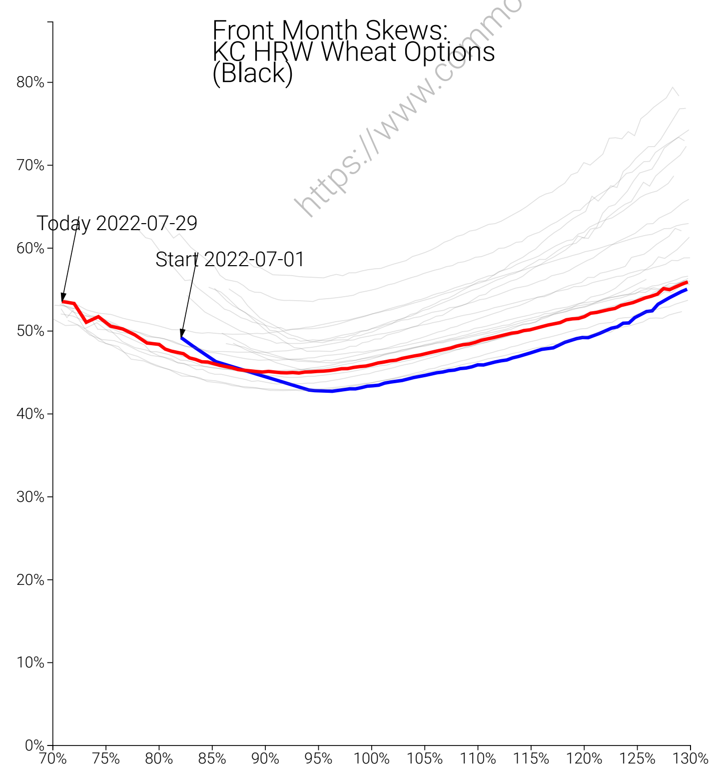

Price ($)
Today 2022-07-29
Start 2022-07-01
20220826
20230224
20240621
9.0
8.5
8.0
7.5

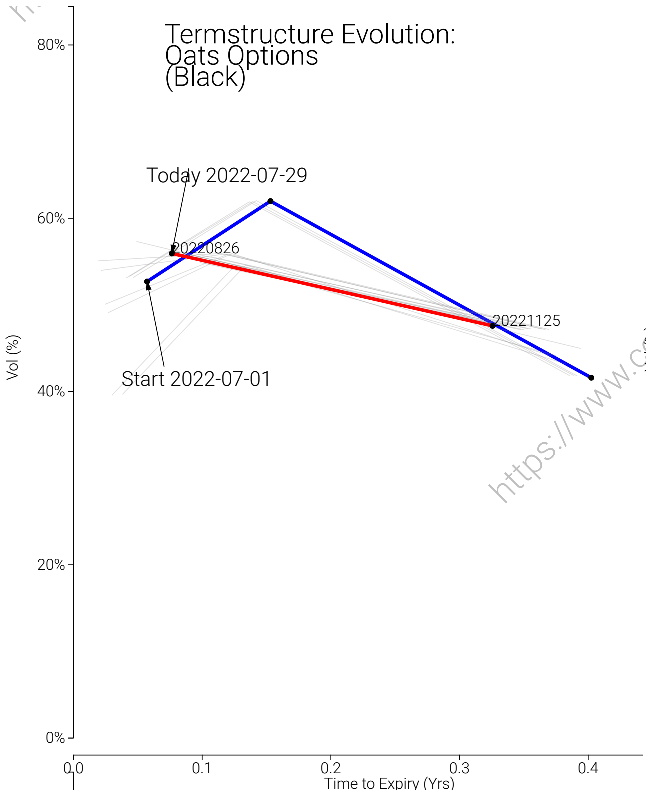

Front Month Skews:
Wheat Options
(Black)
Today 2022-07-29
Start 2022-07-01
80%
70%
60%
50%
40%
30%
20%
10%
0%
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

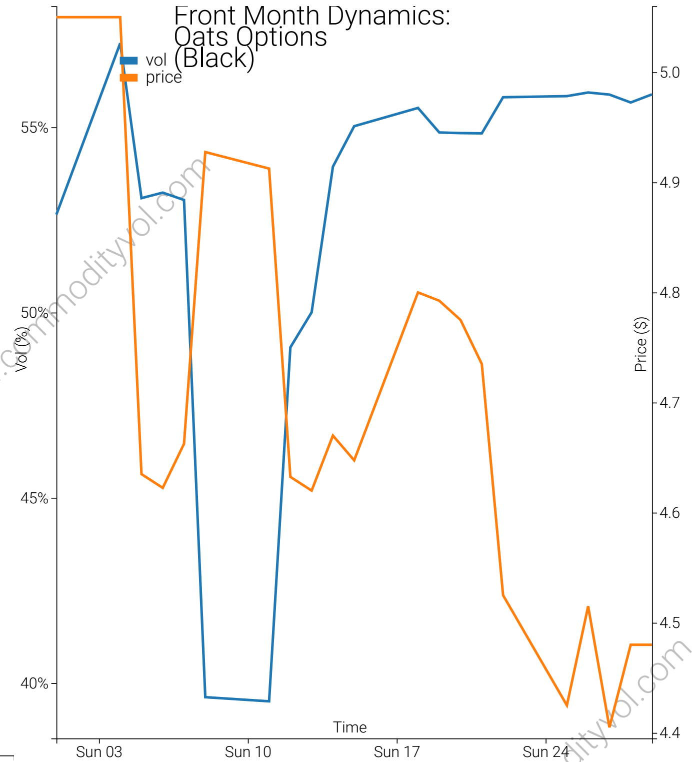

Termstructure Evolution:
KC HRW Wheat Options
(Black)
Vol (%)
80%
60%
40%
20%
0%
Today 2022-07-29
20220826
20230224
20230623
Start 2022-07-01
0.0
0.2
0.4
0.6
0.8
1.0
Time to Expiry (Yrs)

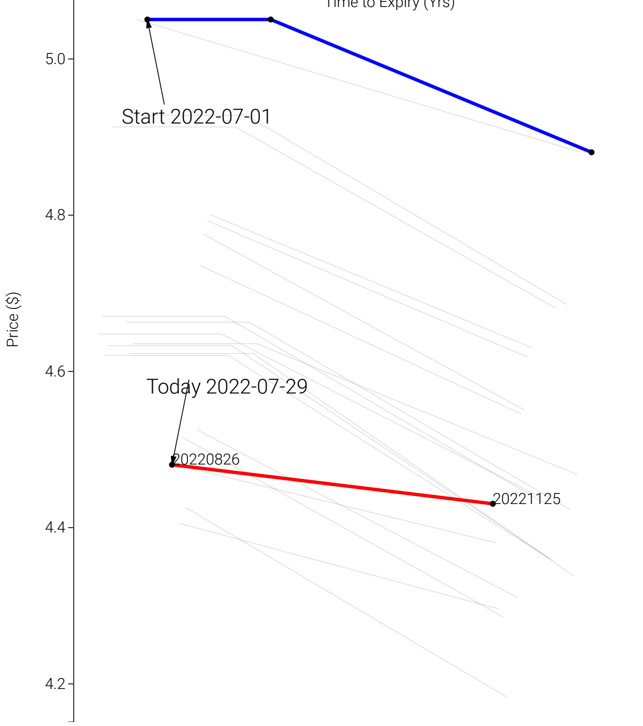

Front Month Dynamics:
KC HRW Wheat Options
(Black)
vol
price
Vol (%)
55%
50%
45%
Price ($)
9.4
9.2
9.0
8.8
8.6
8.4
8.2
Time
Sun 03
Sun 10
Sun 17
Sun 24

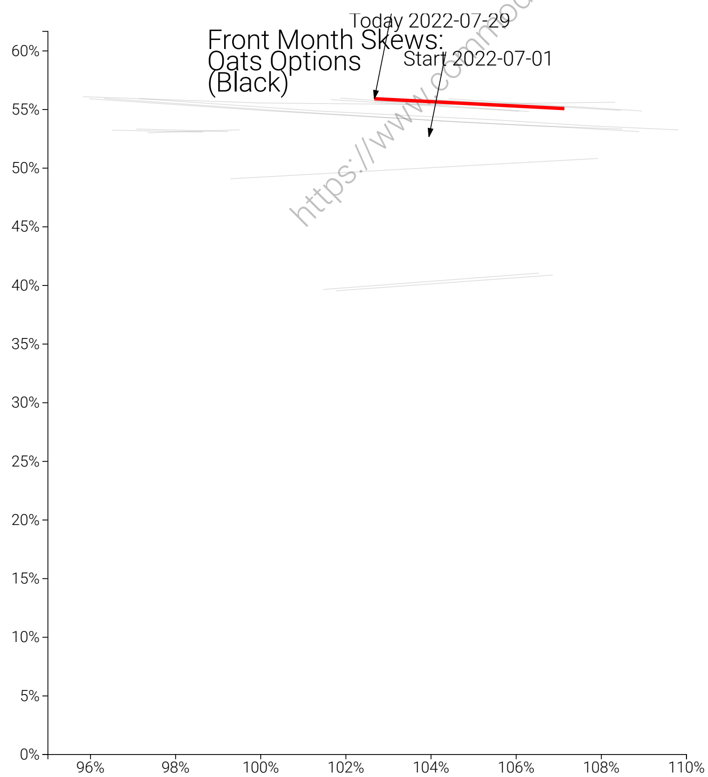

Price ($)
9.6
9.4
9.2
9.0
8.8
8.6
8.4
8.2
Start 2022-07-01
Today 2022-07-29
20220826
20230224
20230623

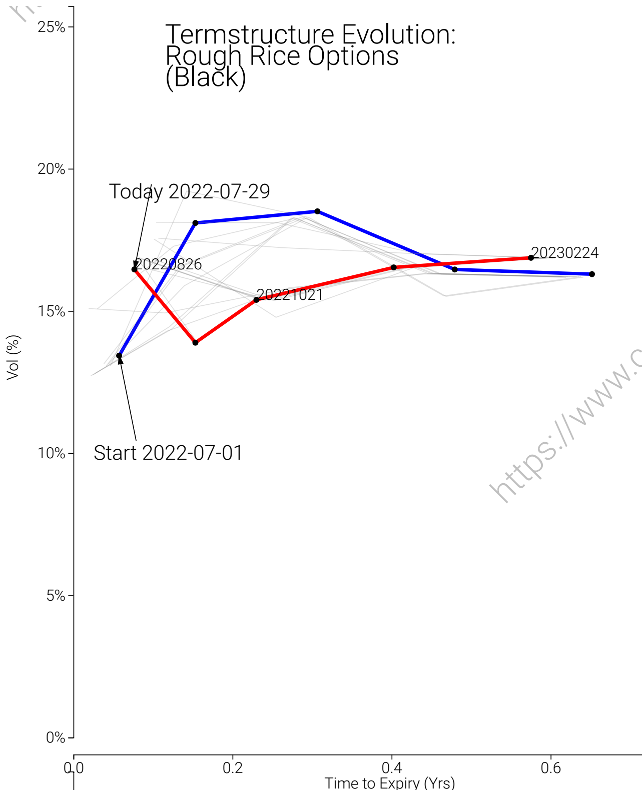

Front Month Skews:
KC HRW Wheat Options
(Black)
80%
70%
60%
50%
40%
30%
20%
10%
0%
Today 2022-07-29
Start 2022-07-01
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

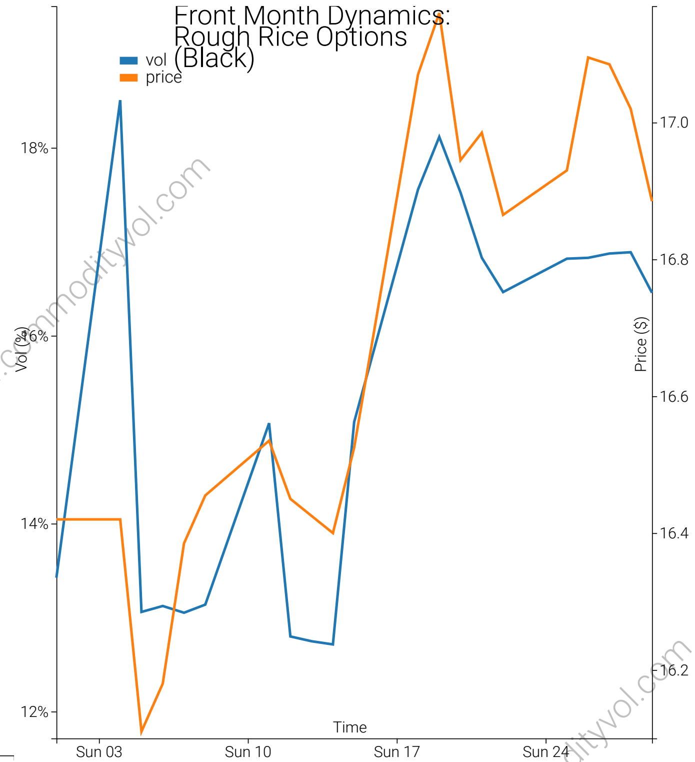

Termstructure Evolution:
Oats Options
(Black)
Today 2022-07-29
20220826
20221125
Start 2022-07-01
Vol (%)
80%
60%
40%
20%
0%
0.0
0.1
0.2
0.3
0.4
Time to Expiry (Yrs)

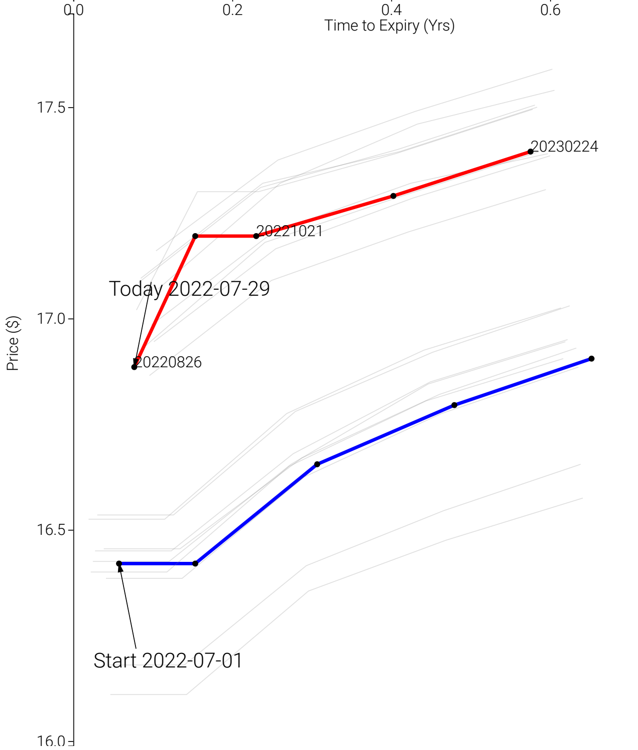

Front Month Dynamics:
Oats Options
(Black)
vol
price
Vol (%)
Price ($)
55%
50%
45%
40%
5.0
4.9
4.8
4.7
4.6
4.5
4.4
Time
Sun 03
Sun 10
Sun 17
Sun 24

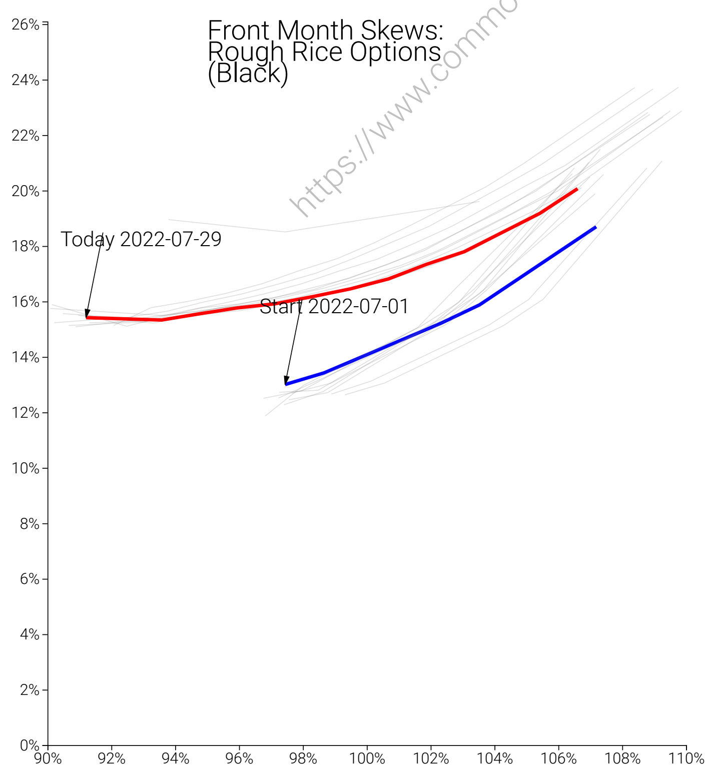

Start 2022-07-01
Today 2022-07-29
20220826
20221125
Price ($)
5.0
4.8
4.6
4.4
4.2

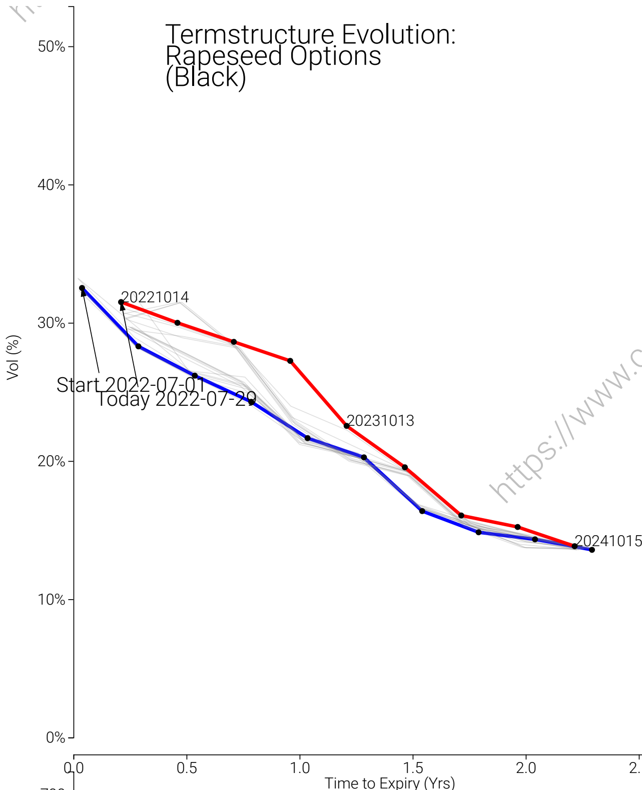

Front Month Skews:
Oats Options
(Black)
Today 2022-07-29
Start 2022-07-01
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
96%
98%
100%
102%
104%
106%
108%
110%

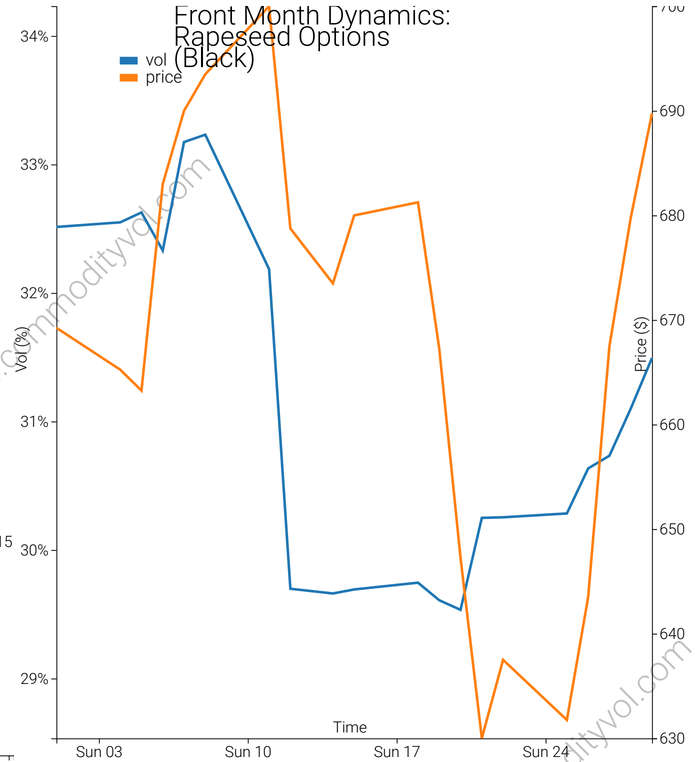

Termstructure Evolution:
Rough Rice Options
(Black)
Today 2022-07-29
Start 2022-07-01
20220826
20221021
20230224
Vol (%)
Time to Expiry (Yrs)
0%
5%
10%
15%
20%
25%
0.0
0.2
0.4
0.6

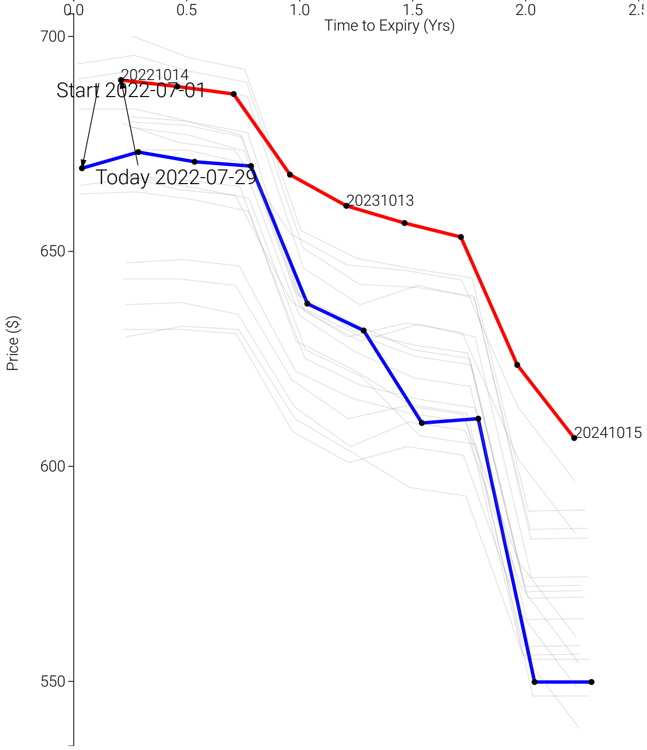

Front Month Dynamics:
Rough Rice Options
(Black)
vol
price
Vol (%)
Price ($)
Time
12%
14%
16%
18%
16.2
16.4
16.6
16.8
17.0
Sun 03
Sun 10
Sun 17
Sun 24

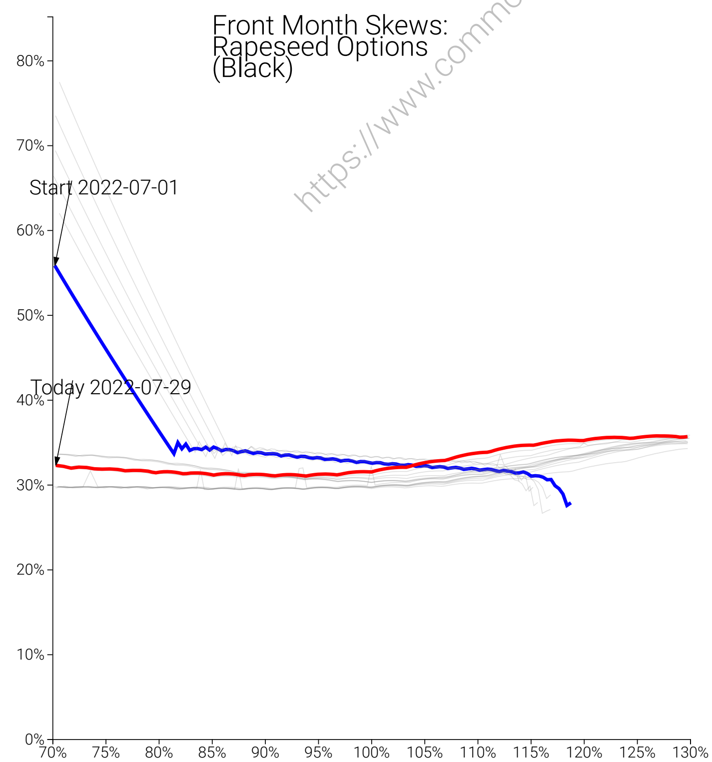

Today 2022-07-29
Start 2022-07-01
20220826
20221021
20230224
Price ($)
16.0
16.5
17.0
17.5

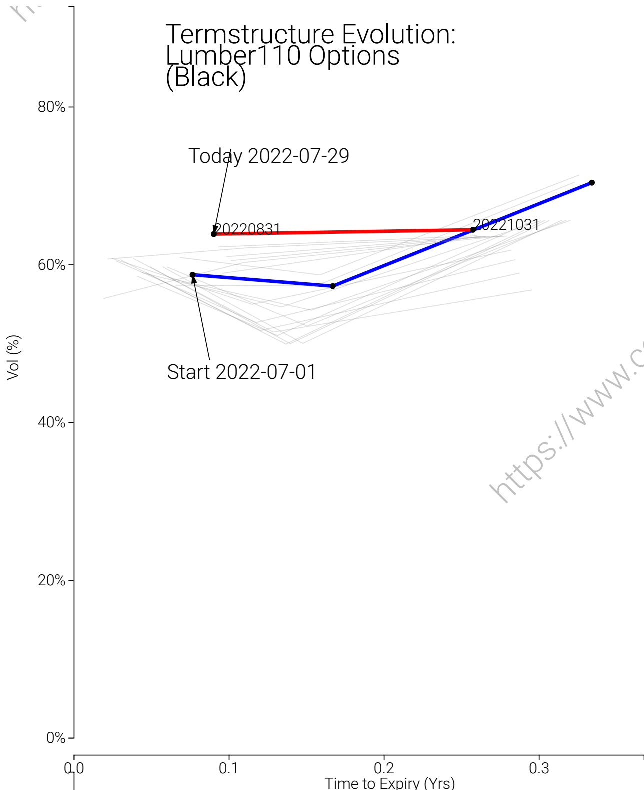

Front Month Skews:
Rough Rice Options
(Black)
Today 2022-07-29
Start 2022-07-01
0%
2%
4%
6%
8%
10%
12%
14%
16%
18%
20%
22%
24%
26%
90%
92%
94%
96%
98%
100%
102%
104%
106%
108%
110%

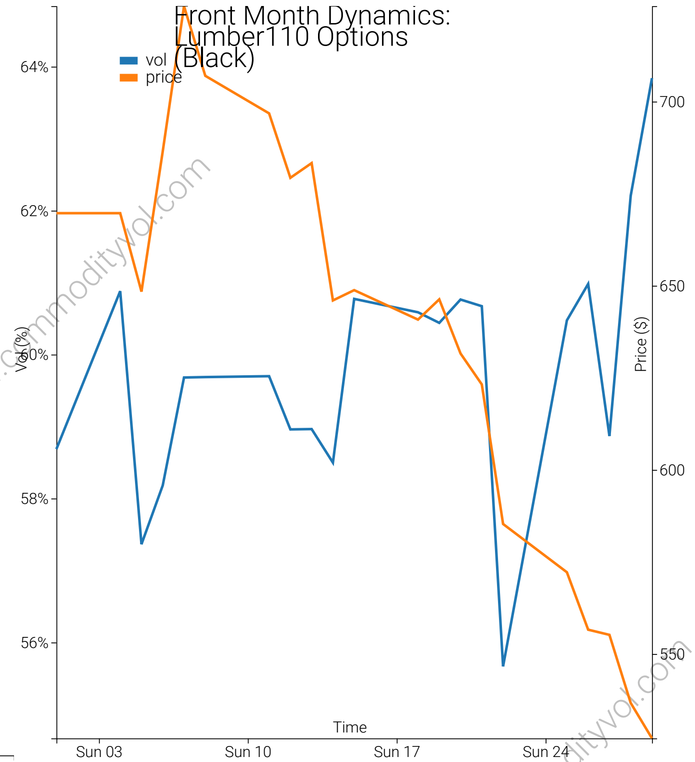

Termstructure Evolution:
Rapeseed Options
(Black)
Vol (%)
50%
40%
30%
20%
10%
0%
20221014
20231013
20241015
Start 2022-07-01
Today 2022-07-29
0.0
0.5
1.0
1.5
2.0
Time to Expiry (Yrs)

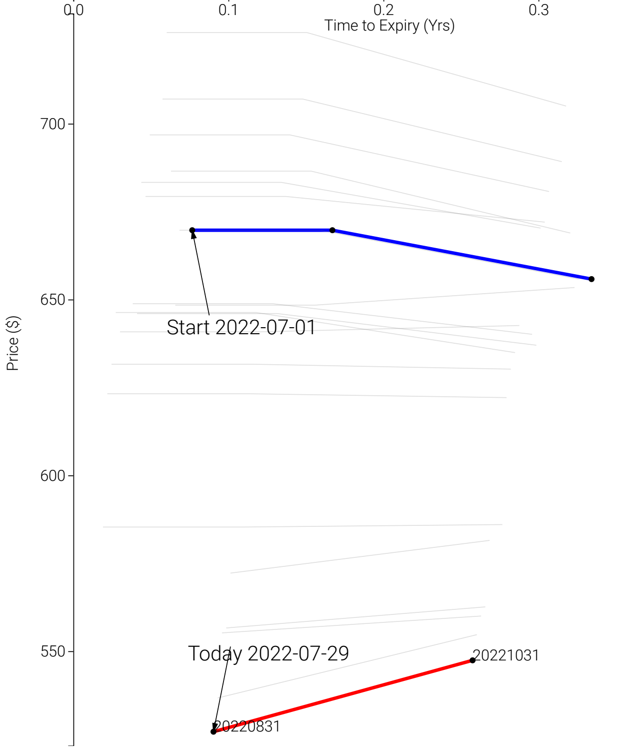

Front Month Dynamics:
Rapeseed Options
(Black)
vol
price
34%
33%
32%
31%
30%
29%
Vol (%)
Price ($)
690
680
670
660
650
640
630
Sun 03
Sun 10
Sun 17
Sun 24
Time

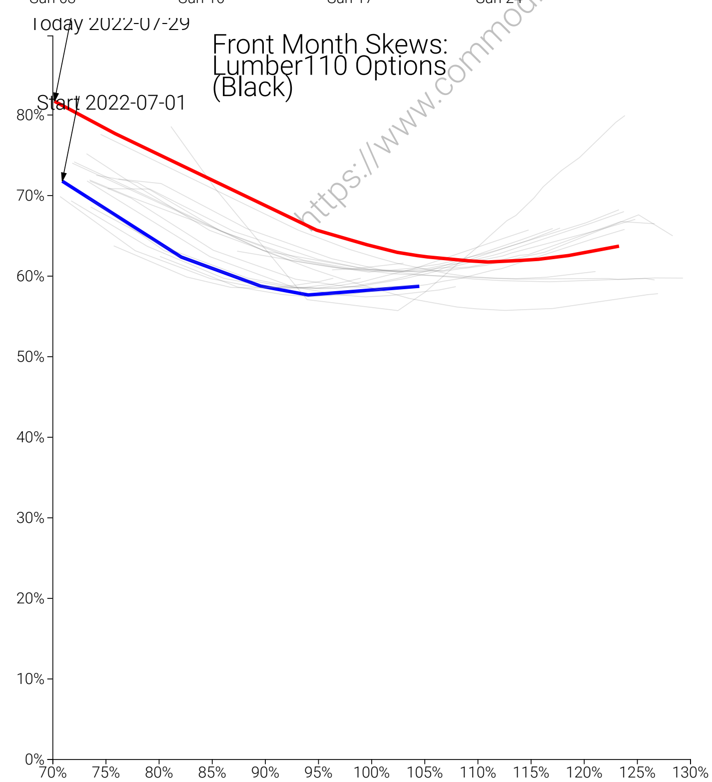

700
650
600
550
Price ($)
20221014
Start 2022-07-01
Today 2022-07-29
20231013
20241015


Front Month Skews:
Rapeseed Options
(Black)
80%
70%
60%
50%
40%
30%
20%
10%
0%
Start 2022-07-01
Today 2022-07-29
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

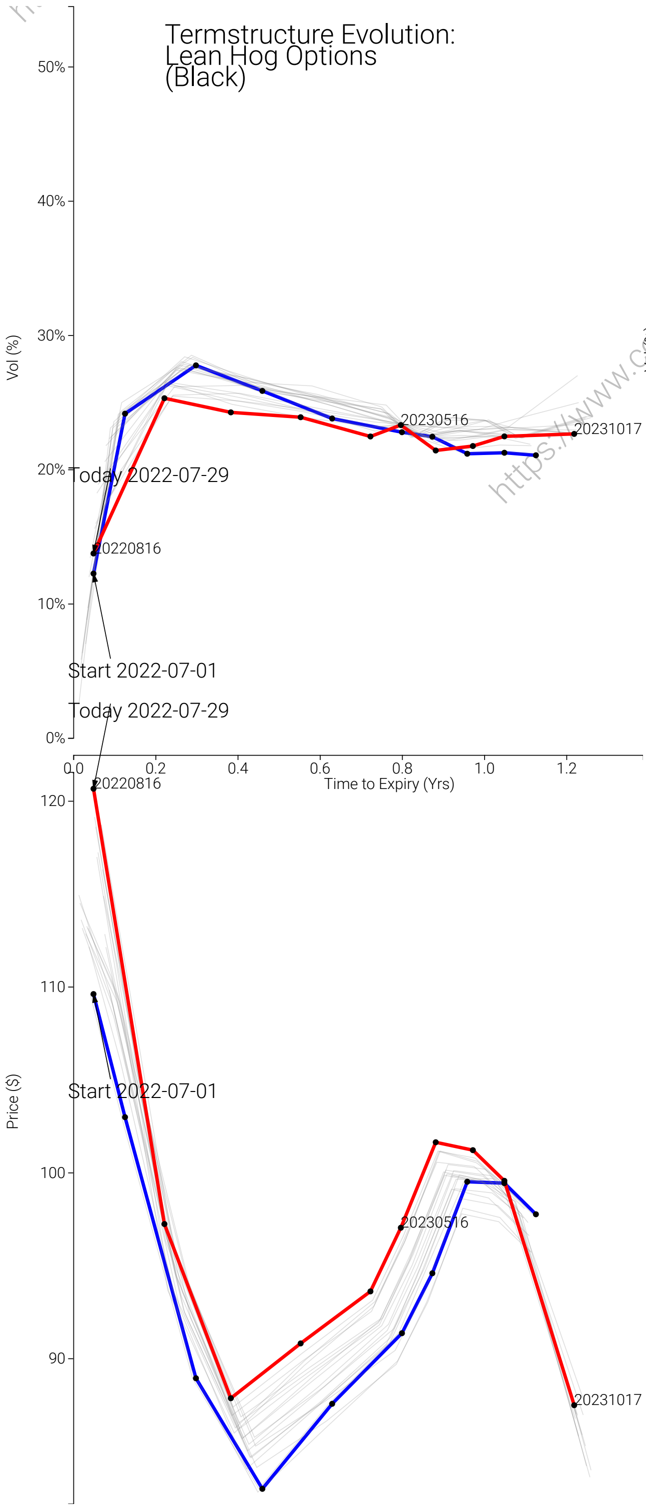

Termstructure Evolution:
Lumber110 Options
(Black)
Today 2022-07-29
20220831
20221031
Start 2022-07-01
Vol (%)
Time to Expiry (Yrs)

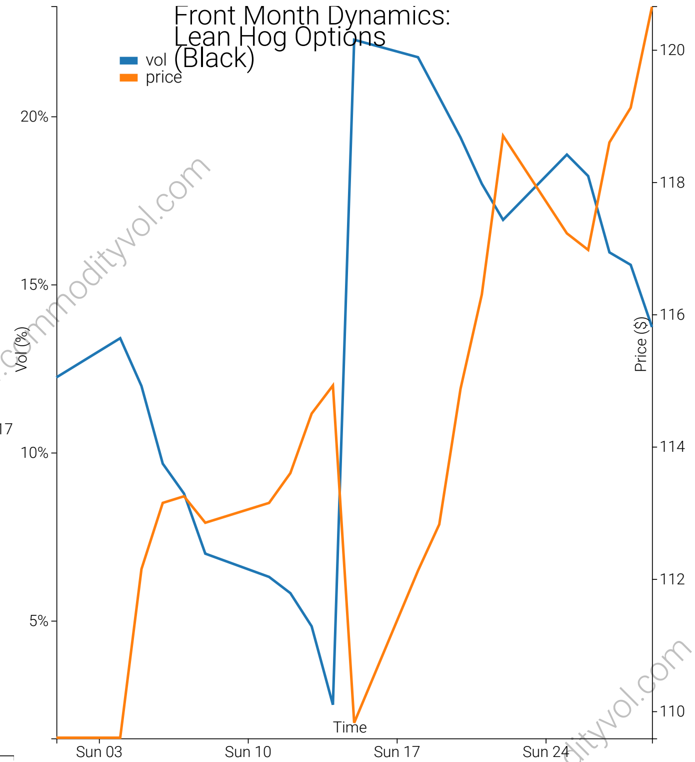

Front Month Dynamics:
Lumber110 Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

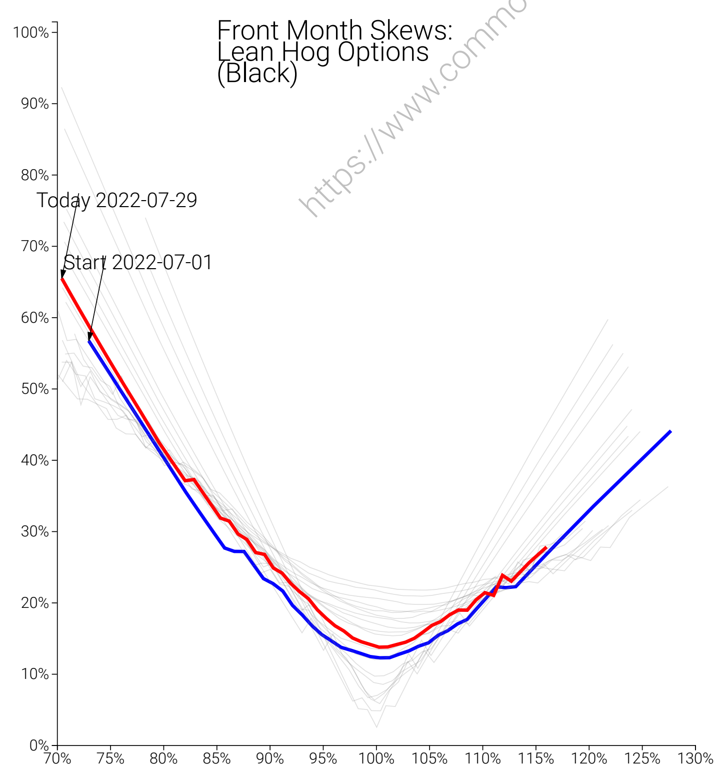

Start 2022-07-01
Today 2022-07-29
20220831
20221031
Price ($)

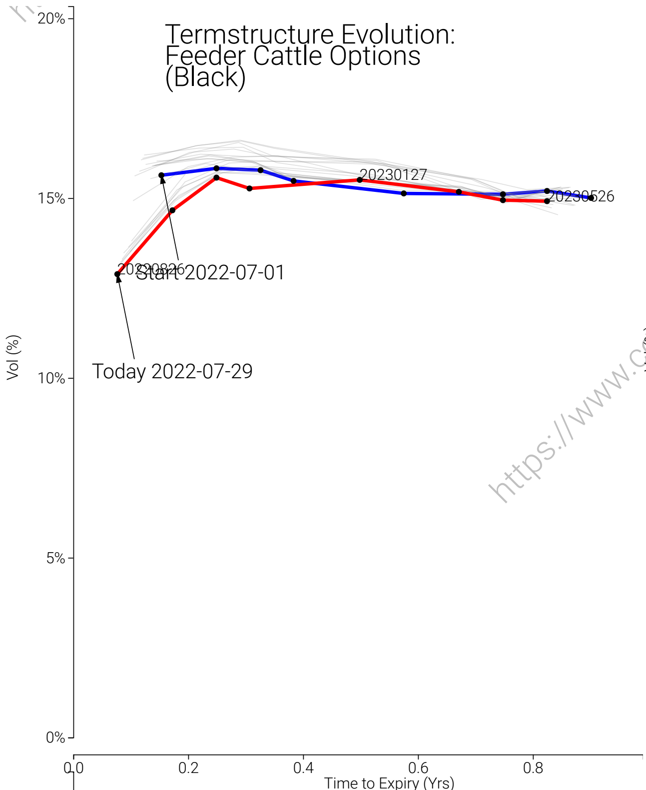

Today 2022-07-29
Start 2022-07-01
Front Month Skews:
Lumber110 Options
(Black)

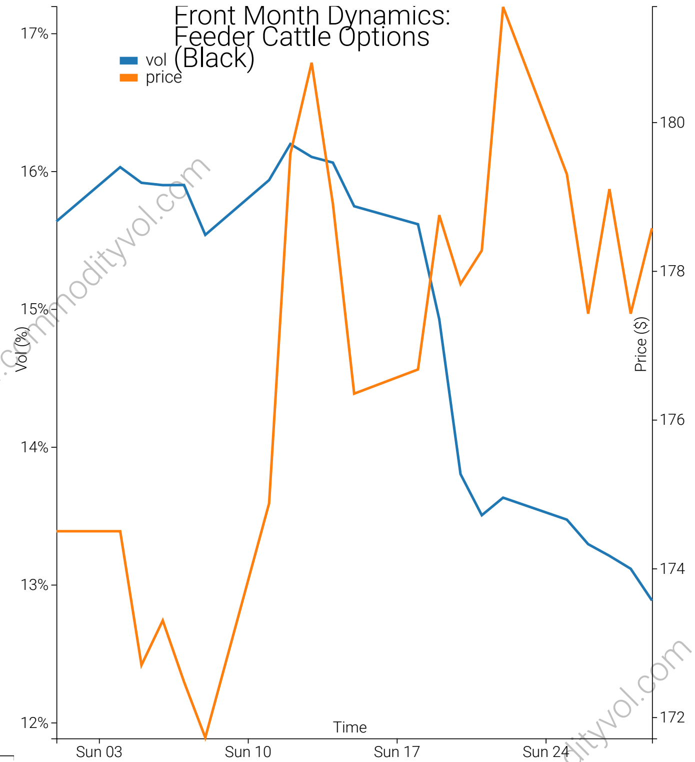
Ags: Proteins, Meats and so forth

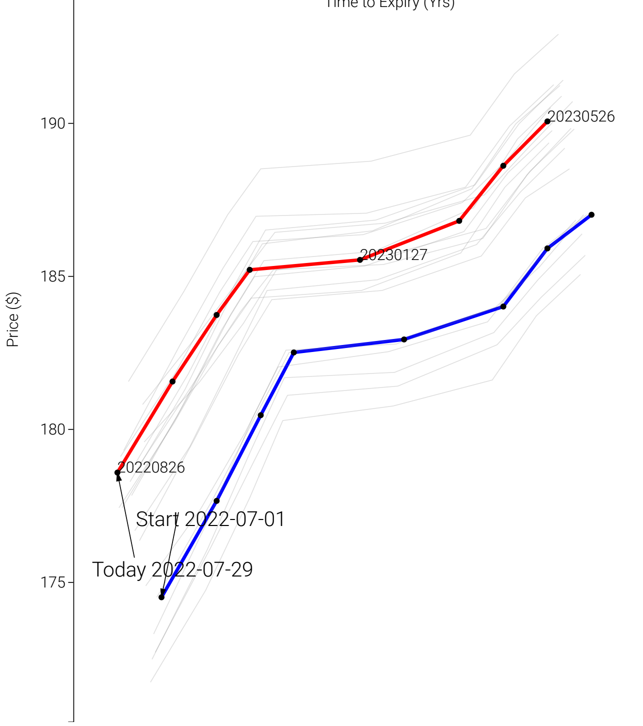

Termstructure Evolution:
Lean Hog Options
(Black)
Vol (%)
Today 2022-07-29
Start 2022-07-01
20220816
20230516
20231017
Time to Expiry (Yrs)
Price ($)

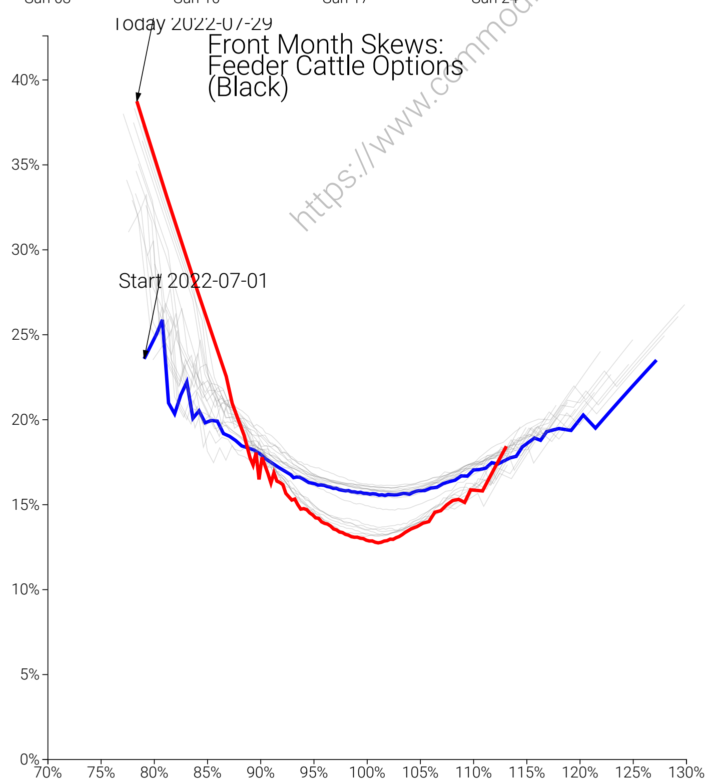

Front Month Dynamics:
Lean Hog Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

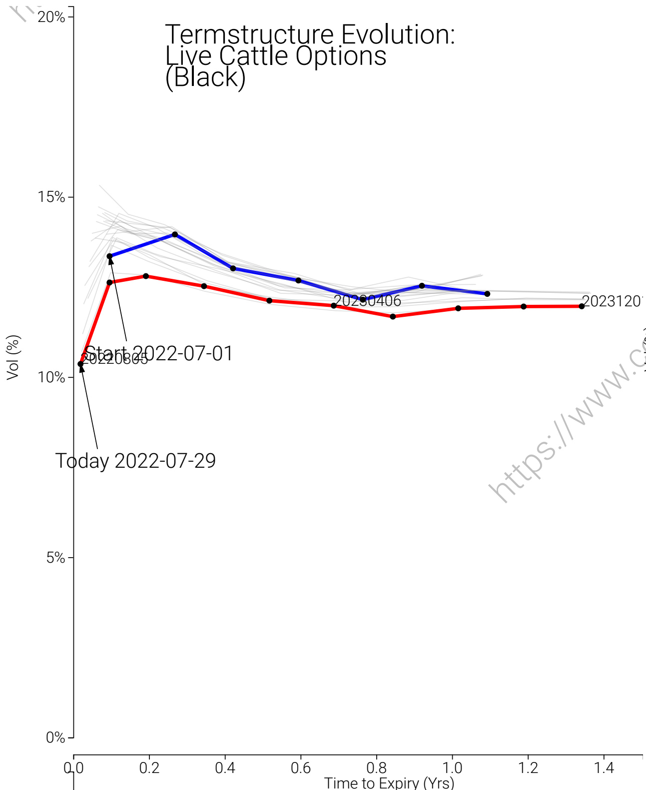

Front Month Skews:
Lean Hog Options
(Black)
Today 2022-07-29
Start 2022-07-01

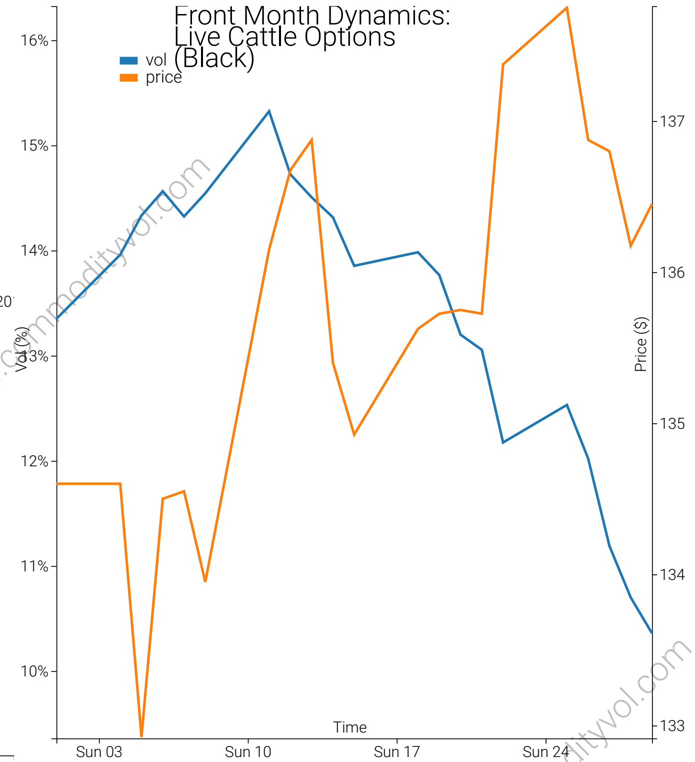

Termstructure Evolution:
Feeder Cattle Options
(Black)
20230127
20230526
20220826
Start 2022-07-01
Today 2022-07-29
Vol (%)
20%
15%
10%
5%
0%
0.0
0.2
0.4
0.6
0.8
Time to Expiry (Yrs)

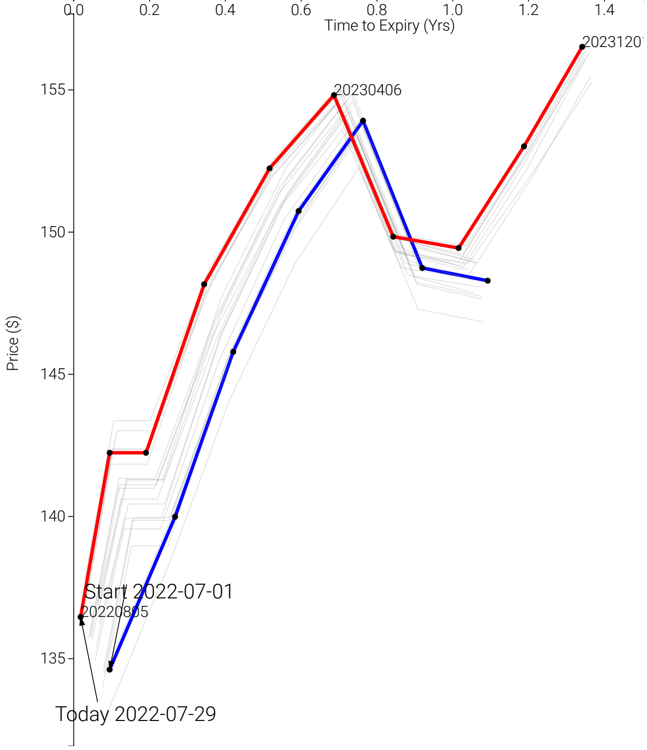

Front Month Dynamics:
Feeder Cattle Options
(Black)
vol
price
Vol (%)
Price ($)
17%
16%
15%
14%
13%
12%
180
178
176
174
172
Time
Sun 03
Sun 10
Sun 17
Sun 24
https://www.commodityvol.com

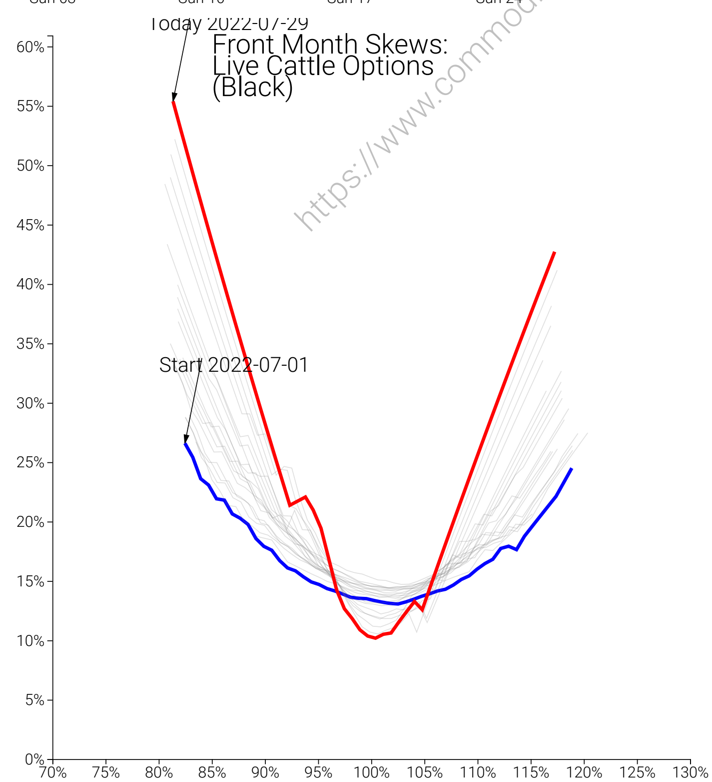

20230526
20230127
20220826
Start 2022-07-01
Today 2022-07-29
Price ($)
190
185
180
175

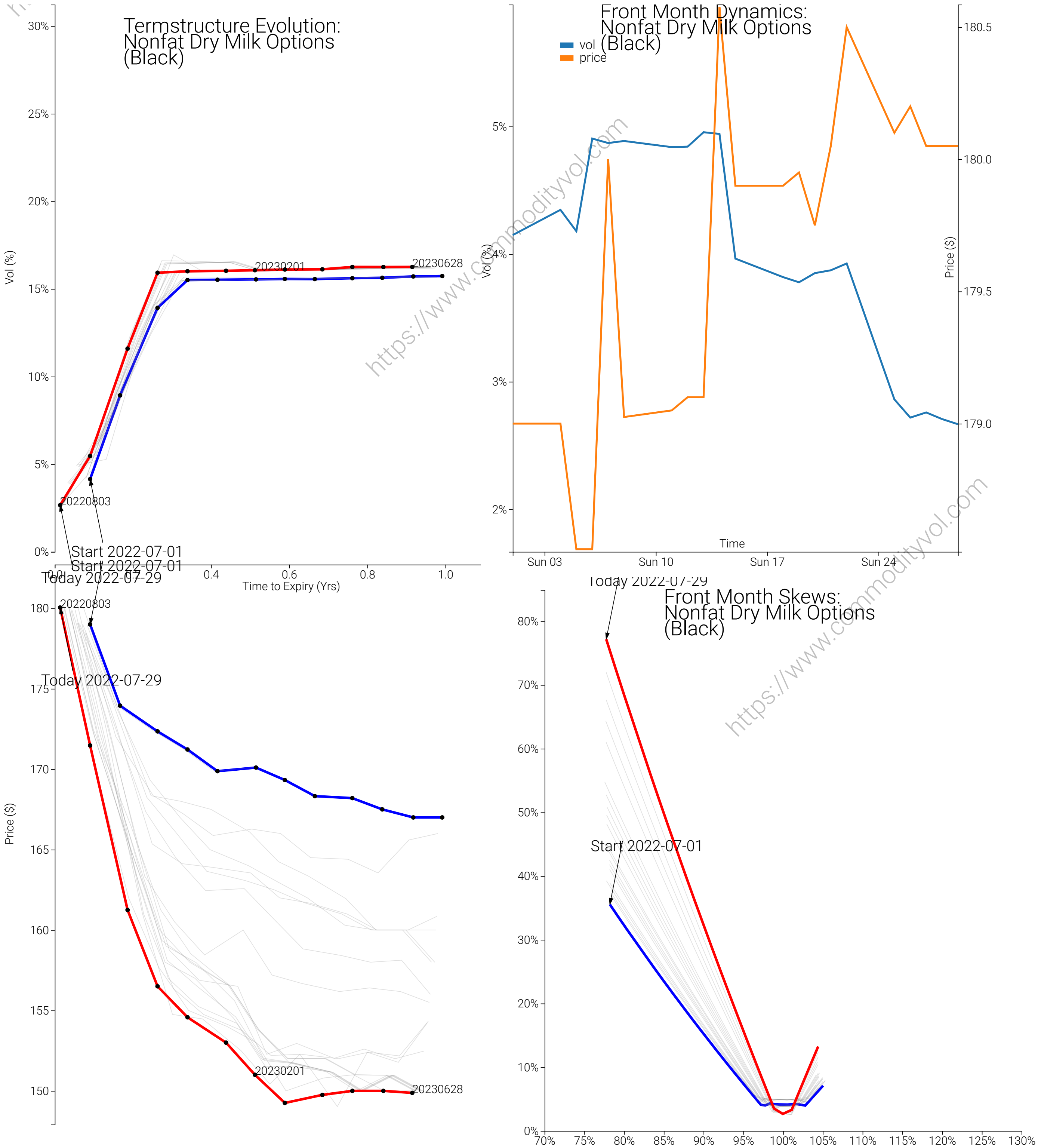

Today 2022-07-29
Front Month Skews:
Feeder Cattle Options
(Black)
Start 2022-07-01
https://www.commodityvol.com
40%
35%
30%
25%
20%
15%
10%
5%
0%
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

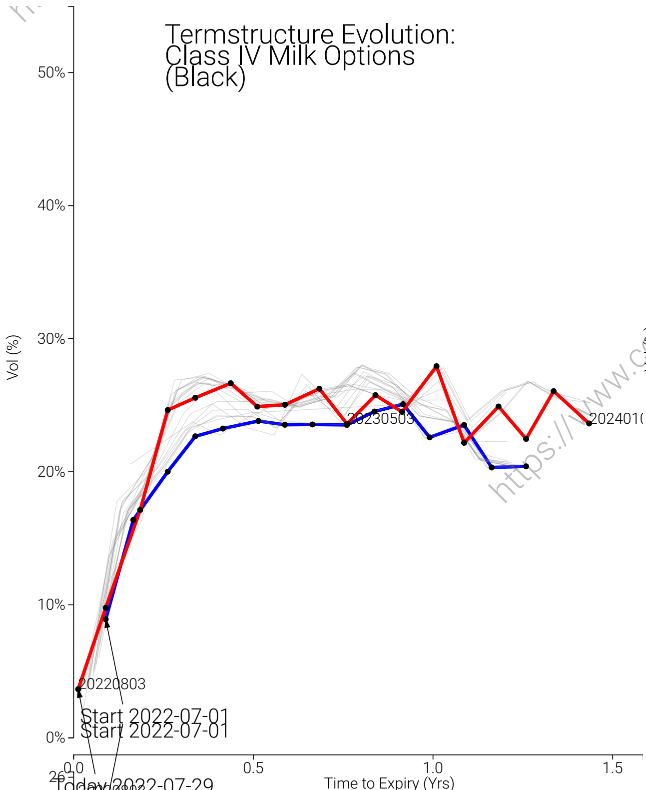

Termstructure Evolution:
Live Cattle Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20220805
20230406
2023120
Start 2022-07-01
Today 2022-07-29

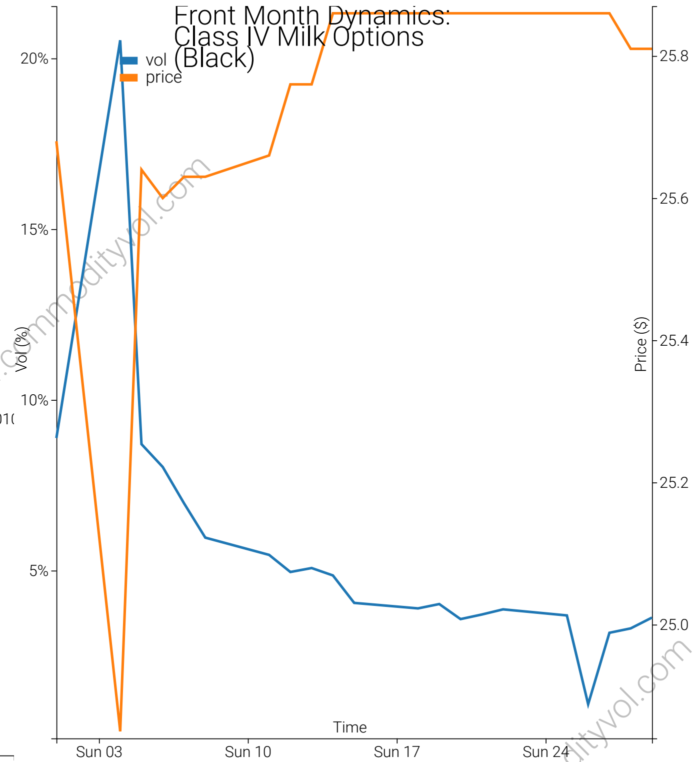

Front Month Dynamics:
Live Cattle Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

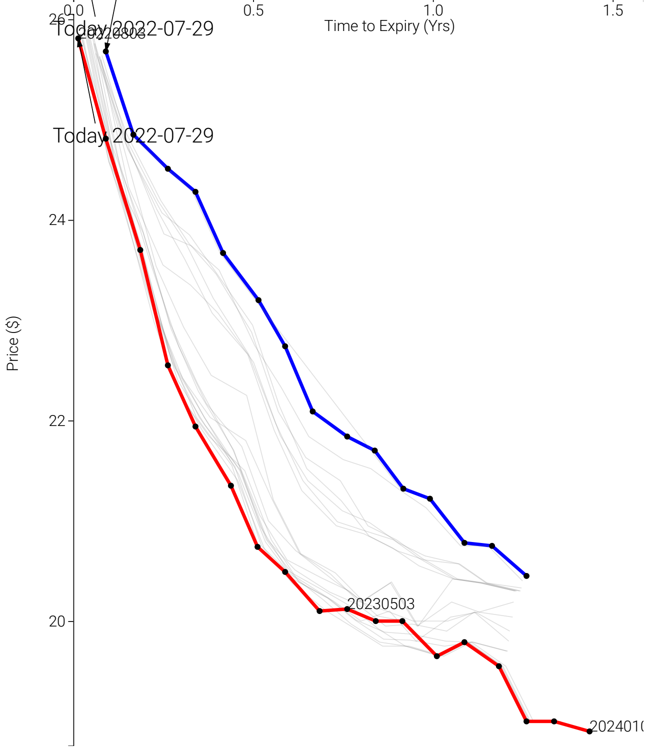

Price ($)
20220805
20230406
2023120
Start 2022-07-01
Today 2022-07-29

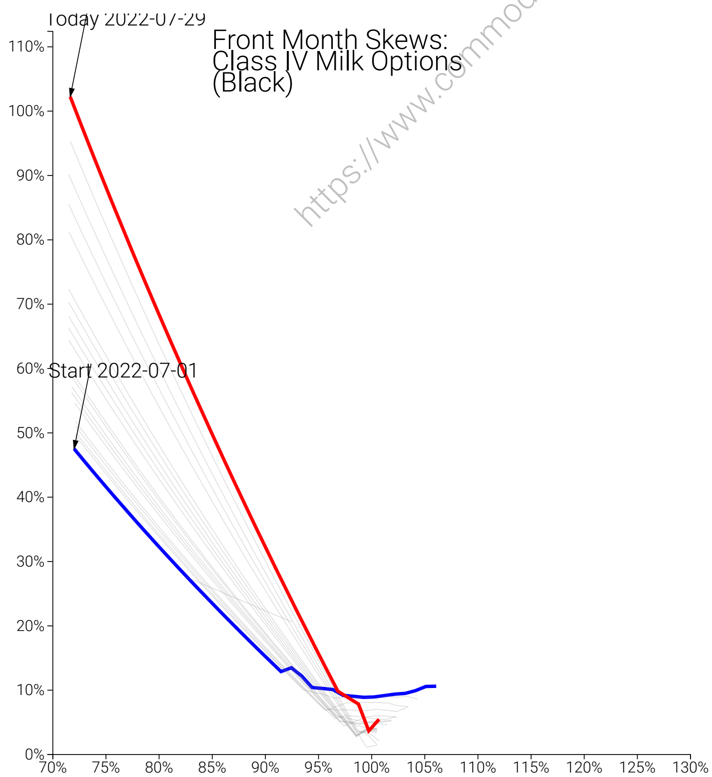

Front Month Skews:
Live Cattle Options
(Black)
Today 2022-07-29
Start 2022-07-01


Termstructure Evolution:
Nonfat Dry Milk Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20230201
20230628
20220803
Start 2022-07-01
Today 2022-07-29
Front Month Dynamics:
Nonfat Dry Milk Options
(Black)
vol
price
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24
Price ($)
Front Month Skews:
Nonfat Dry Milk Options
(Black)

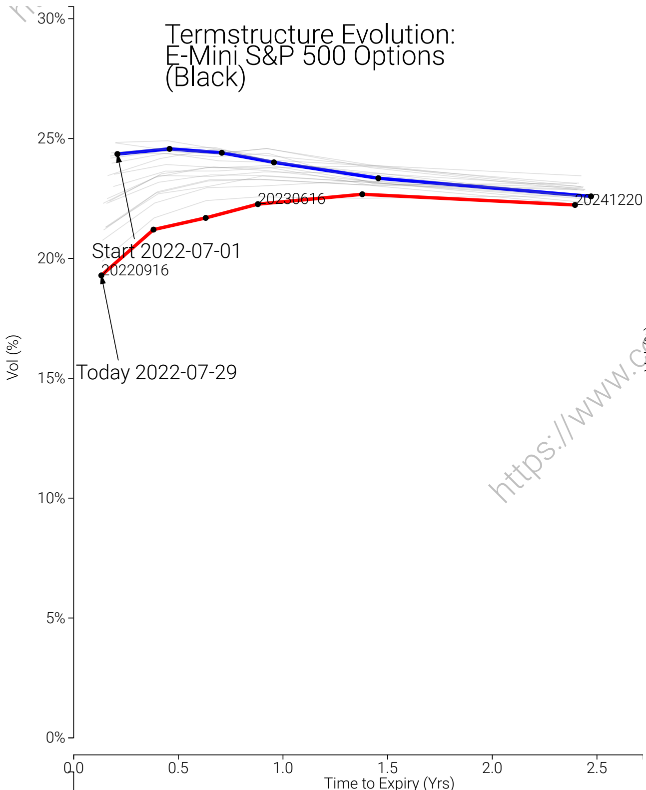

Termstructure Evolution:
Class IV Milk Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20220803
20230503
Start 2022-07-01
Today 2022-07-29

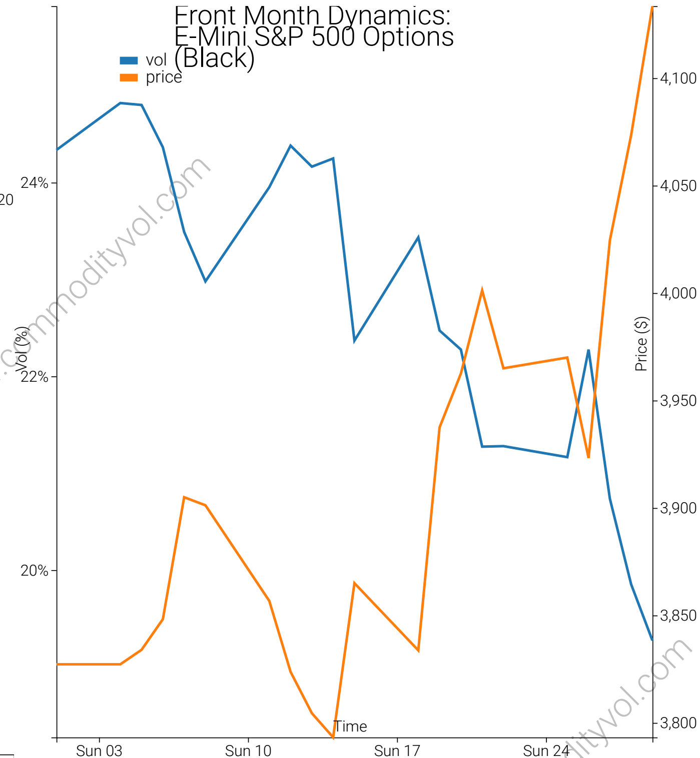

Front Month Dynamics:
Class IV Milk Options
(Black)
vol
price
Vol (%)
Price ($)
Time

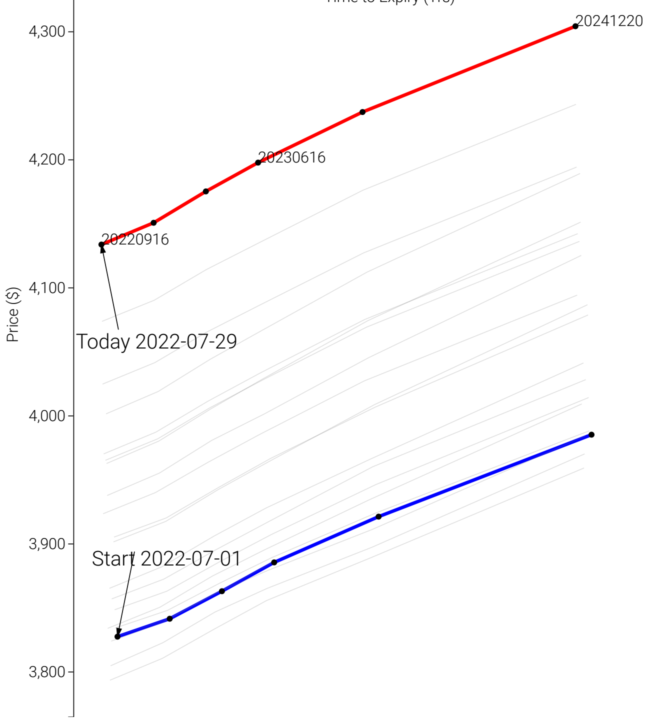

Price ($)
20230503
Today 2022-07-29

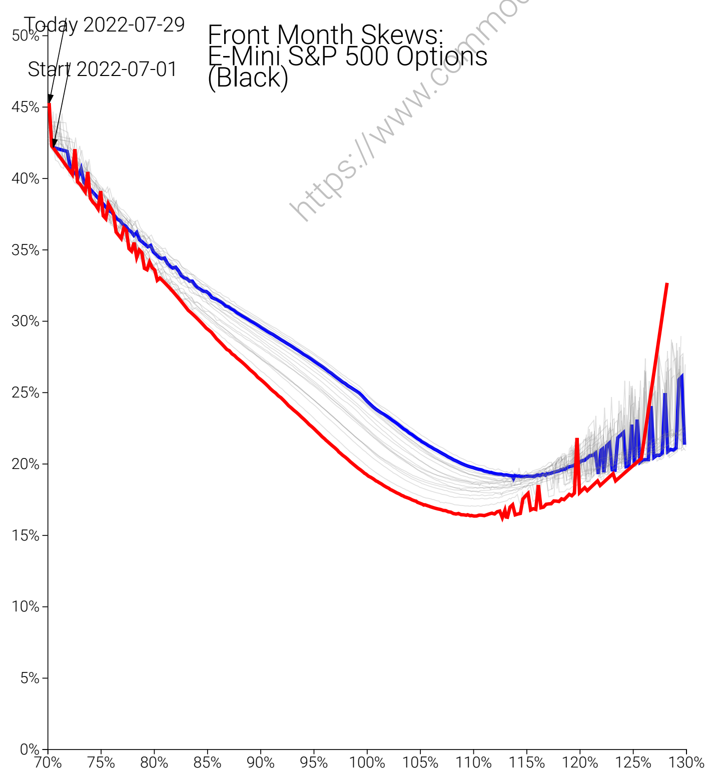

Front Month Skews:
Class IV Milk Options
(Black)
Today 2022-07-29
Start 2022-07-01

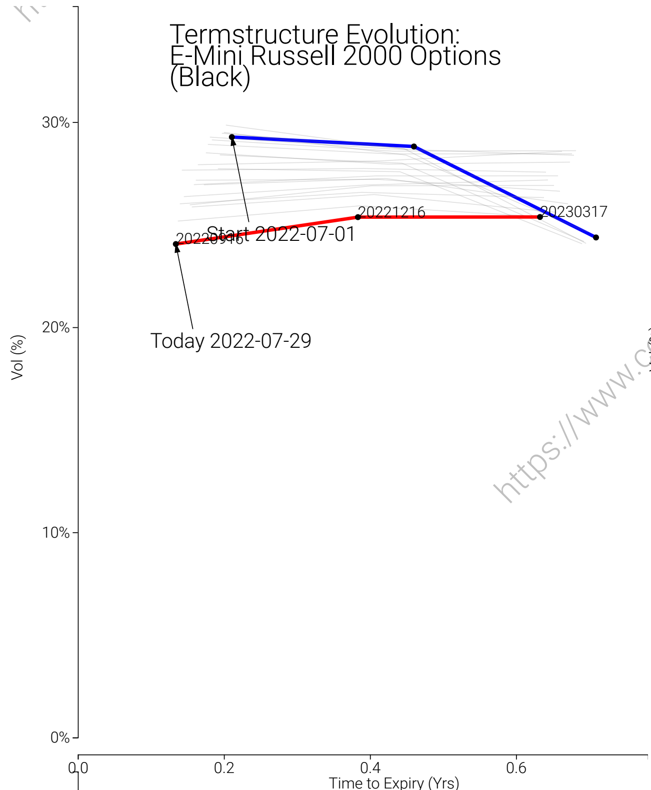
EquityIndex

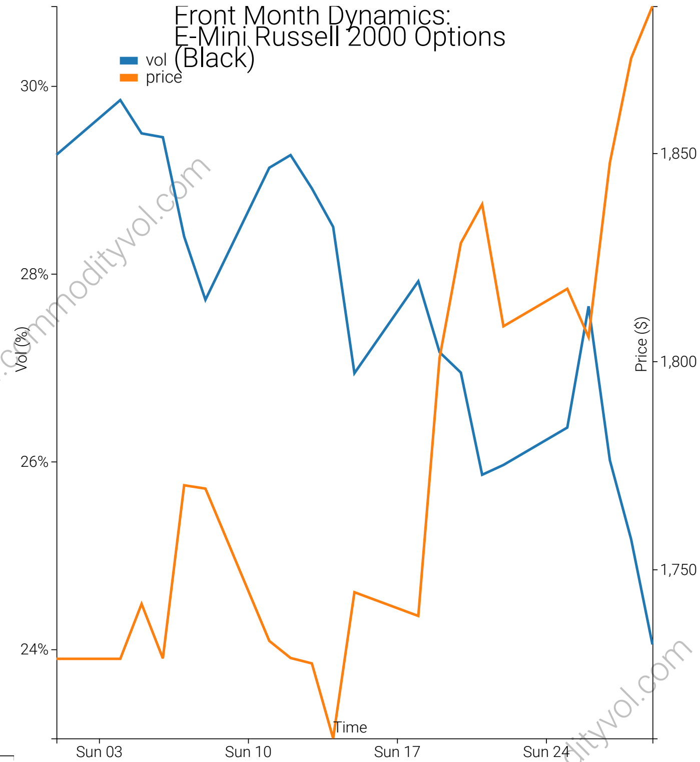

Termstructure Evolution:
E-Mini S&P 500 Options
(Black)
30%
25%
20%
15%
10%
5%
0%
Vol (%)
Start 2022-07-01
20220916
20230616
20241220
Today 2022-07-29
0.0
0.5
1.0
1.5
2.0
2.5
Time to Expiry (Yrs)

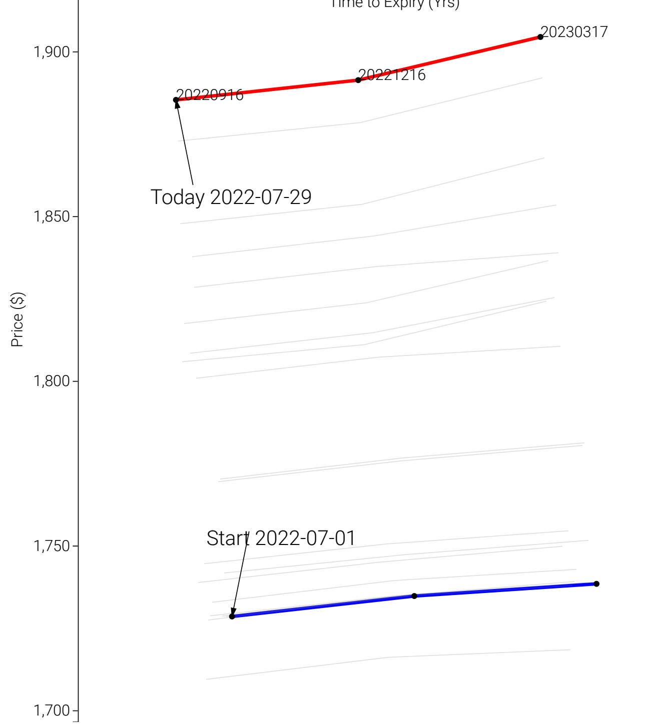

Front Month Dynamics:
E-Mini S&P 500 Options
(Black)
vol
price
24%
22%
20%
Vol (%)
4,100
4,050
4,000
3,950
3,900
3,850
3,800
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

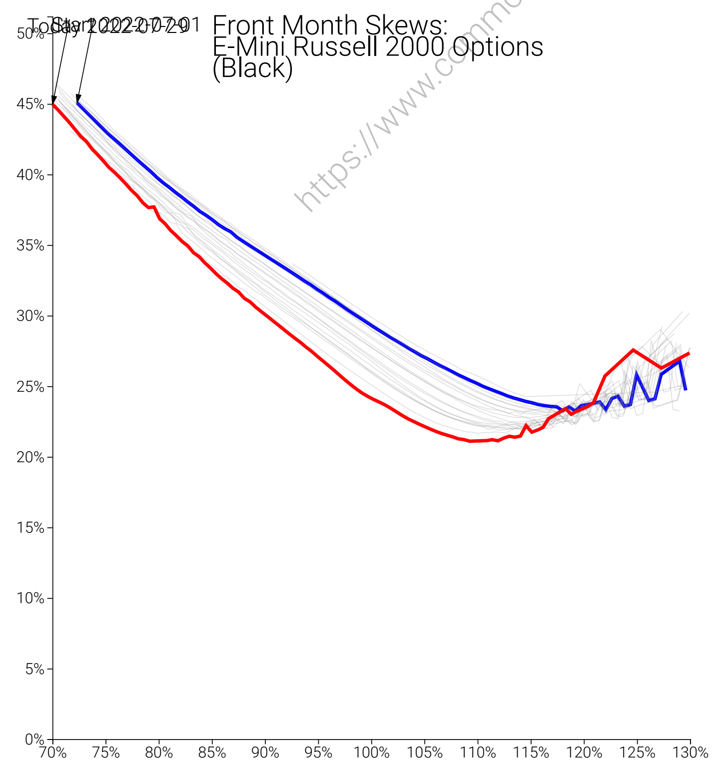

4,300
4,200
4,100
4,000
3,900
3,800
Price ($)
20241220
20230616
20220916
Today 2022-07-29
Start 2022-07-01

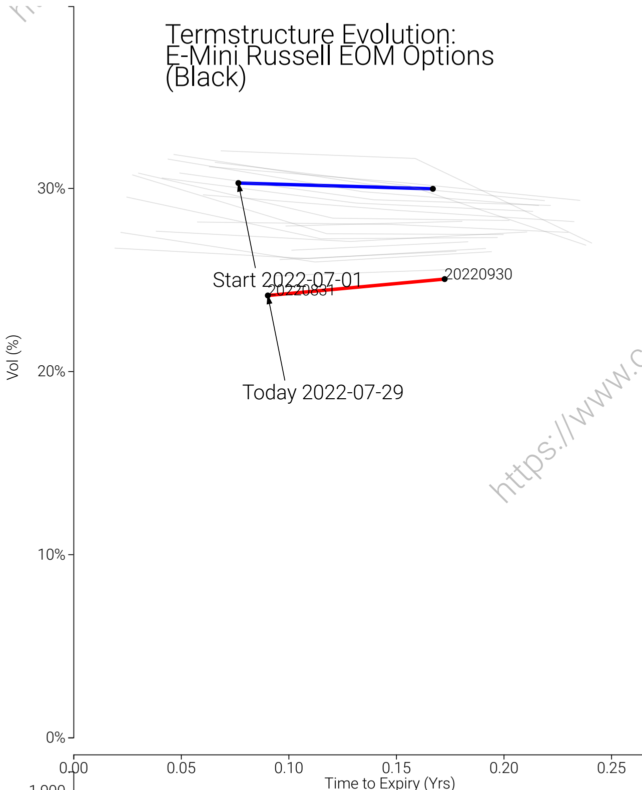

Today 2022-07-29
Start 2022-07-01
Front Month Skews:
E-Mini S&P 500 Options
(Black)
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

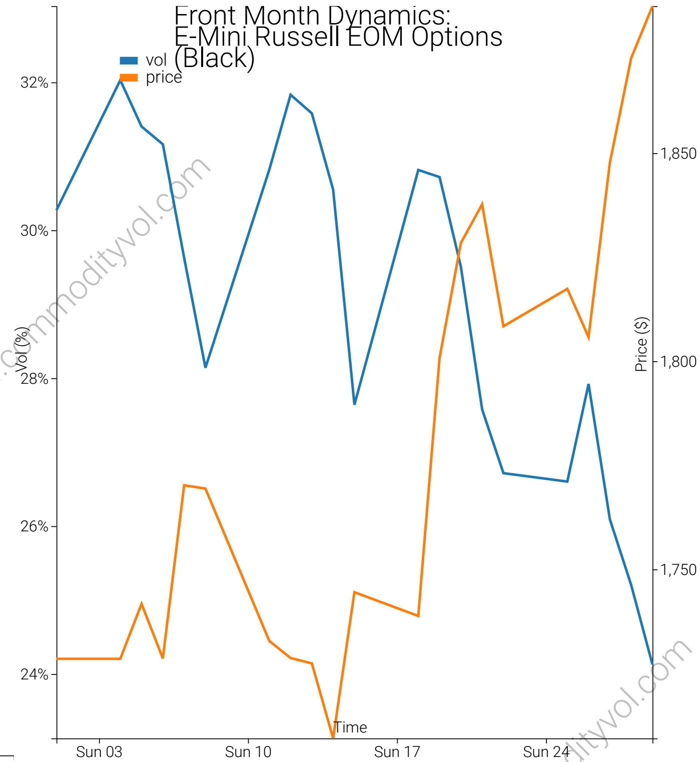

Termstructure Evolution:
E-Mini Russell 2000 Options
(Black)
Vol (%)
Time to Expiry (Yrs)
Start 2022-07-01
Today 2022-07-29
20220916
20221216
20230317

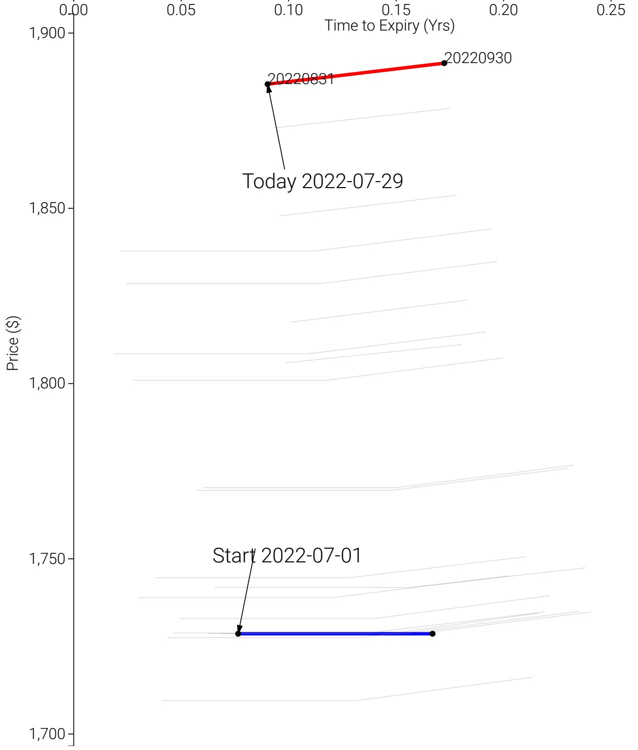

Front Month Dynamics:
E-Mini Russell 2000 Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

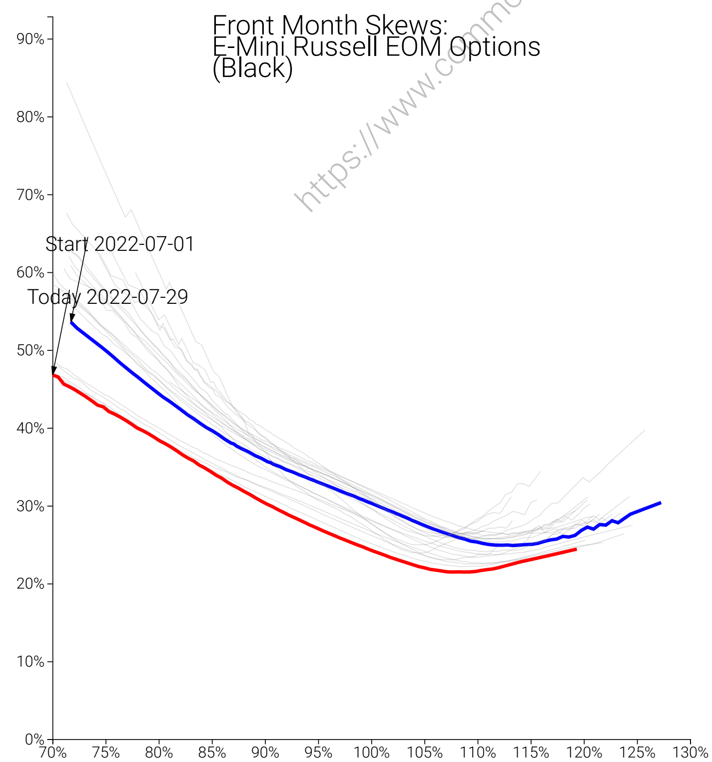

Price ($)
20220916
20221216
20230317
Today 2022-07-29
Start 2022-07-01

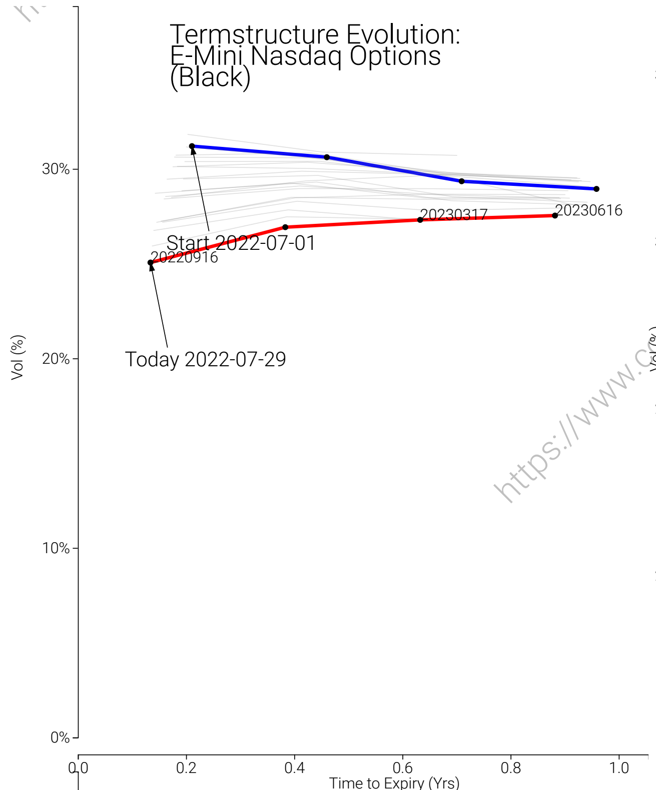

Front Month Skews:
E-Mini Russell 2000 Options
(Black)
Today 2022-07-29
Start 2022-07-01

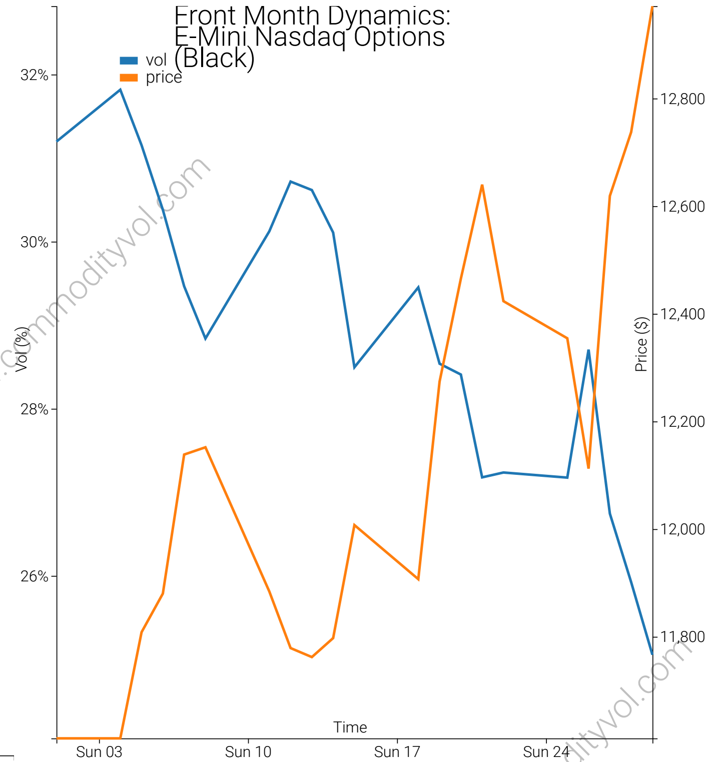

Termstructure Evolution:
E-Mini Russell EOM Options
(Black)
Start 2022-07-01
20220831
20220930
Today 2022-07-29
Vol (%)
Time to Expiry (Yrs)

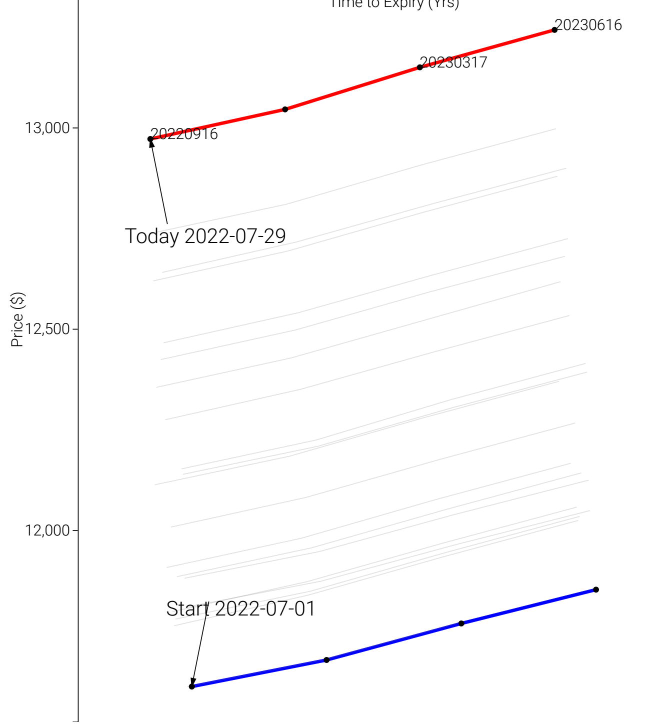

Front Month Dynamics:
E-Mini Russell EOM Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

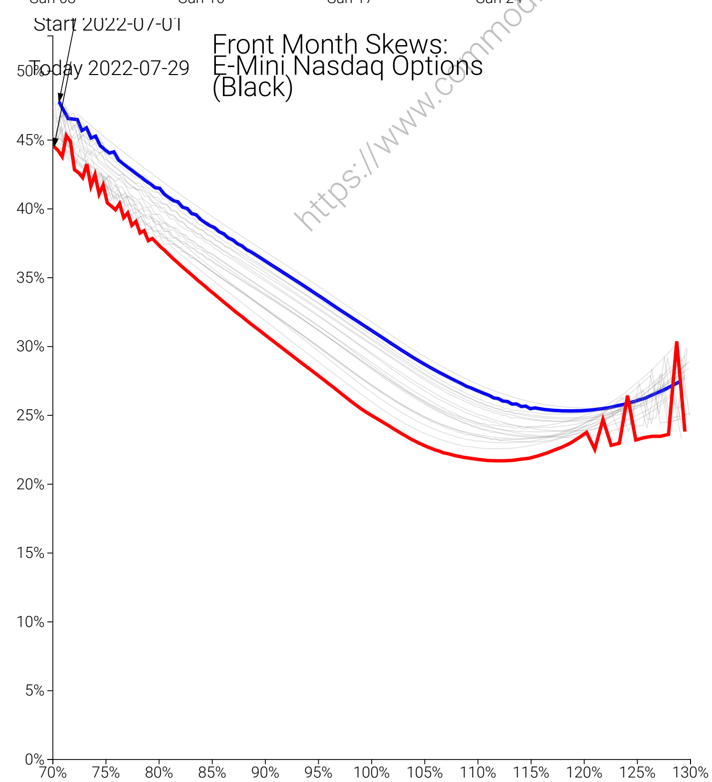

20220831
20220930
Today 2022-07-29
Start 2022-07-01
Price ($)

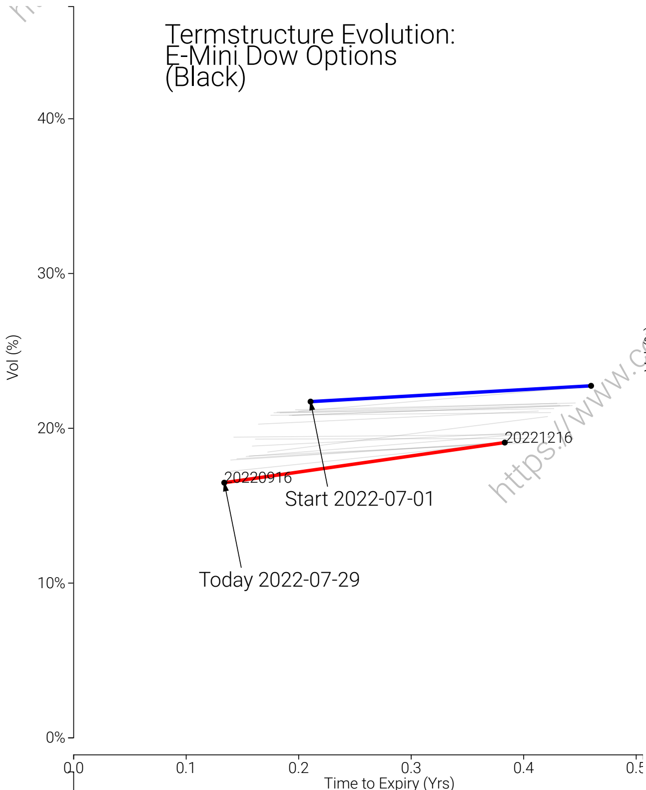

Front Month Skews:
E-Mini Russell EOM Options
(Black)
Start 2022-07-01
Today 2022-07-29

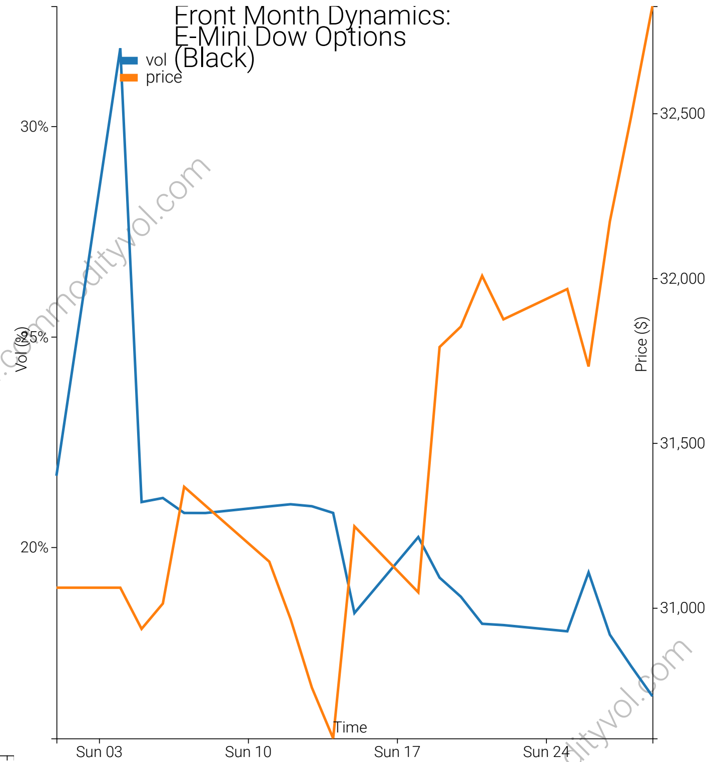

Termstructure Evolution:
E-Mini Nasdaq Options
(Black)
Vol (%)
Time to Expiry (Yrs)
Start 2022-07-01
Today 2022-07-29
20220916
20230317
20230616

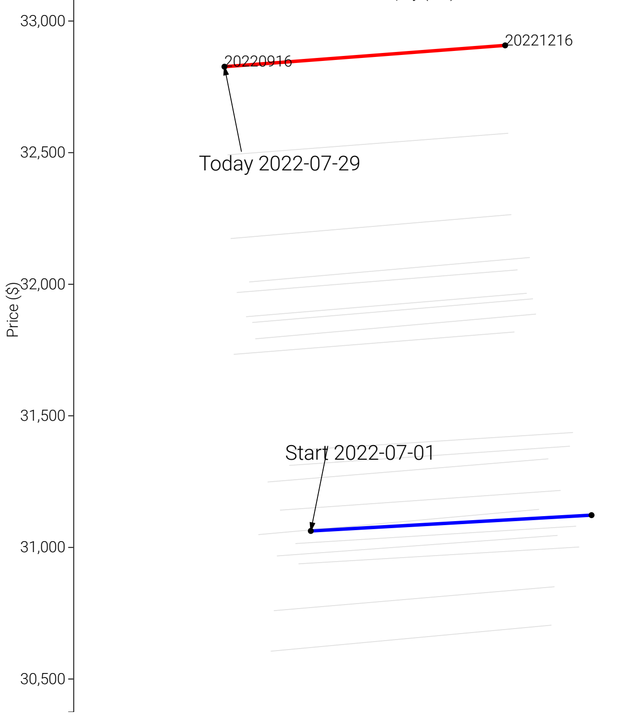

Front Month Dynamics:
E-Mini Nasdaq Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

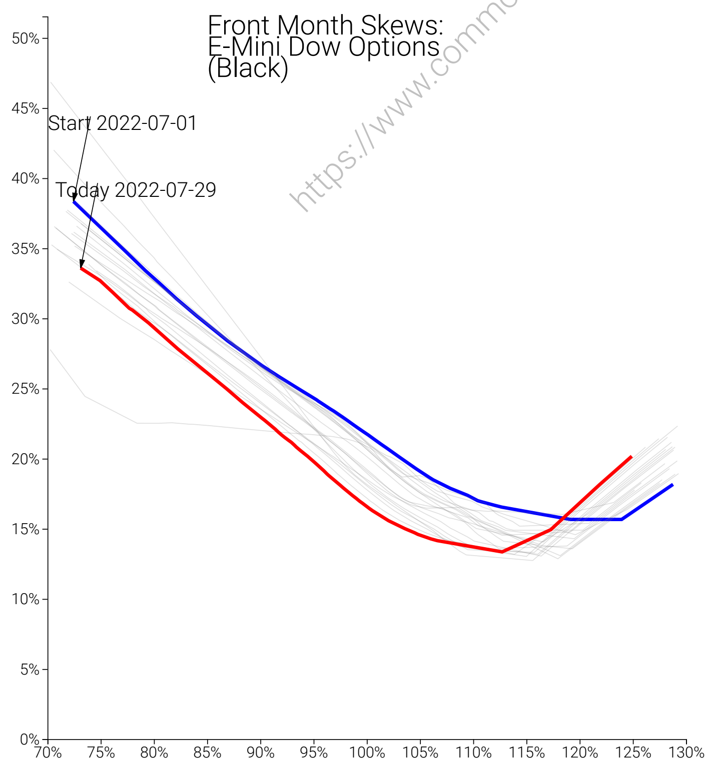

Price ($)
Start 2022-07-01
Today 2022-07-29
20220916
20230317
20230616

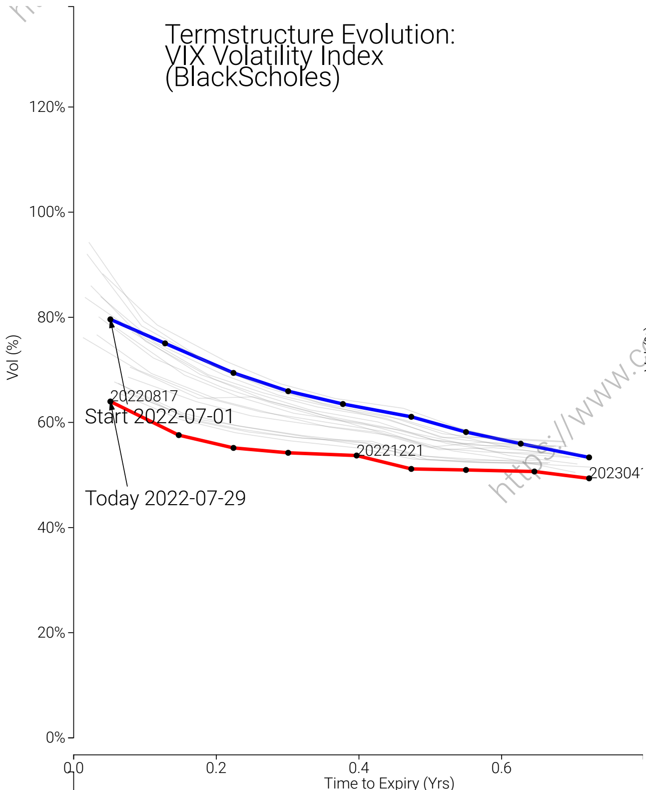

Front Month Skews:
E-Mini Nasdaq Options
(Black)
Start 2022-07-01
Today 2022-07-29

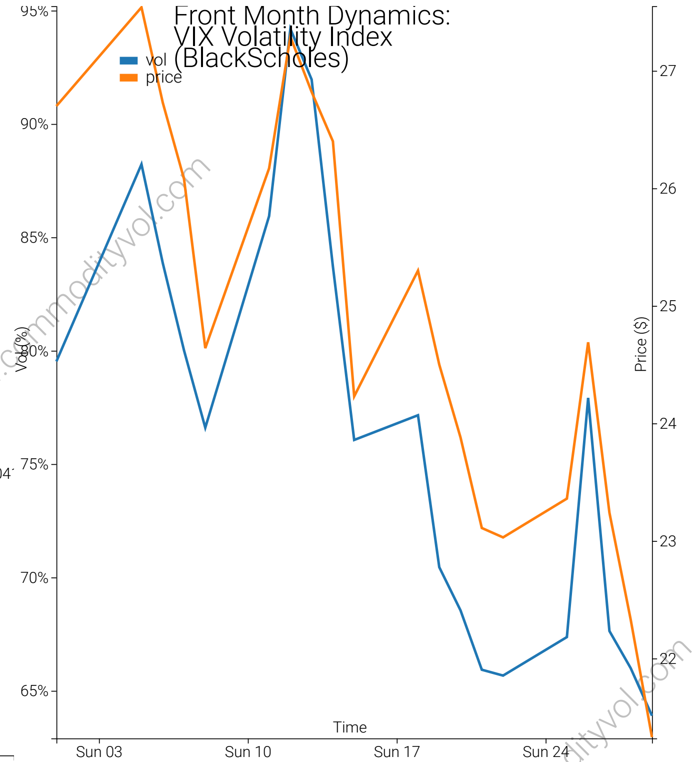

Termstructure Evolution:
E-Mini Dow Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20220916
20221216
Start 2022-07-01
Today 2022-07-29

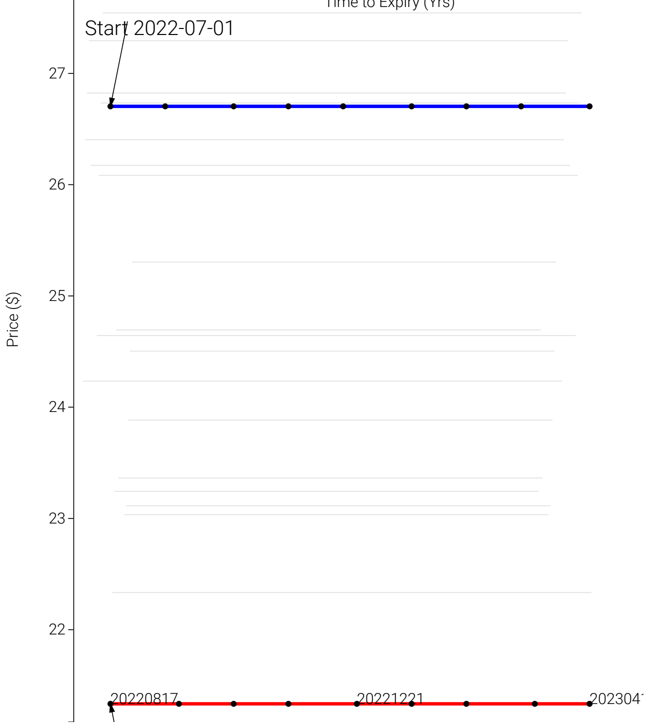

Front Month Dynamics:
E-Mini Dow Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

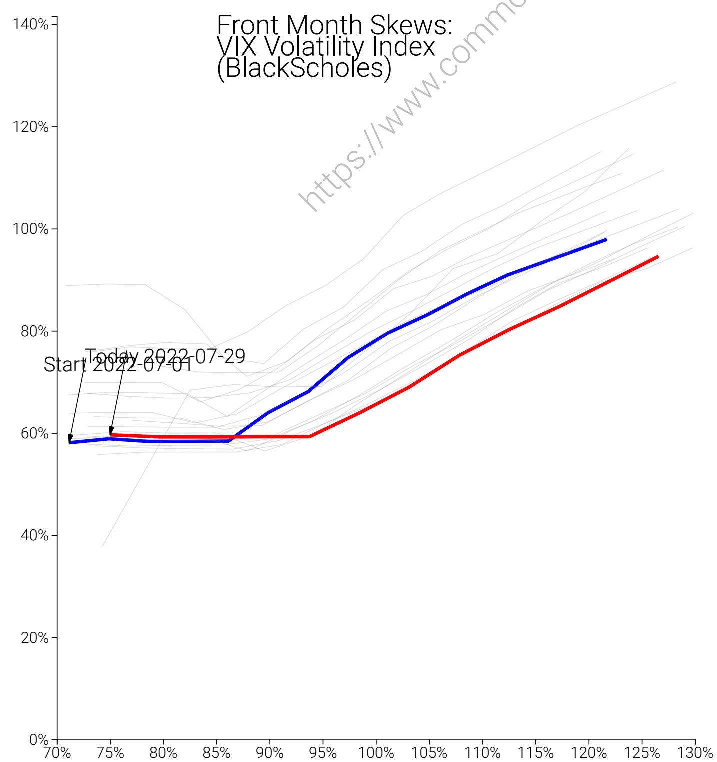

Price ($)
20220916
20221216
Today 2022-07-29
Start 2022-07-01


Front Month Skews:
E-Mini Dow Options
(Black)
Start 2022-07-01
Today 2022-07-29

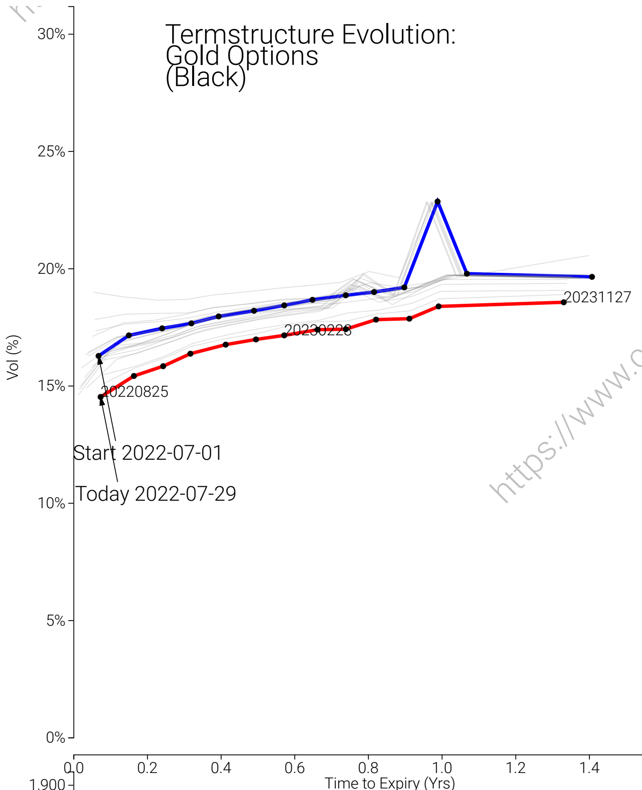

Termstructure Evolution:
VIX Volatility Index
(BlackScholes)
Vol (%)
Time to Expiry (Yrs)
20220817
20221221
202304
Start 2022-07-01
Today 2022-07-29

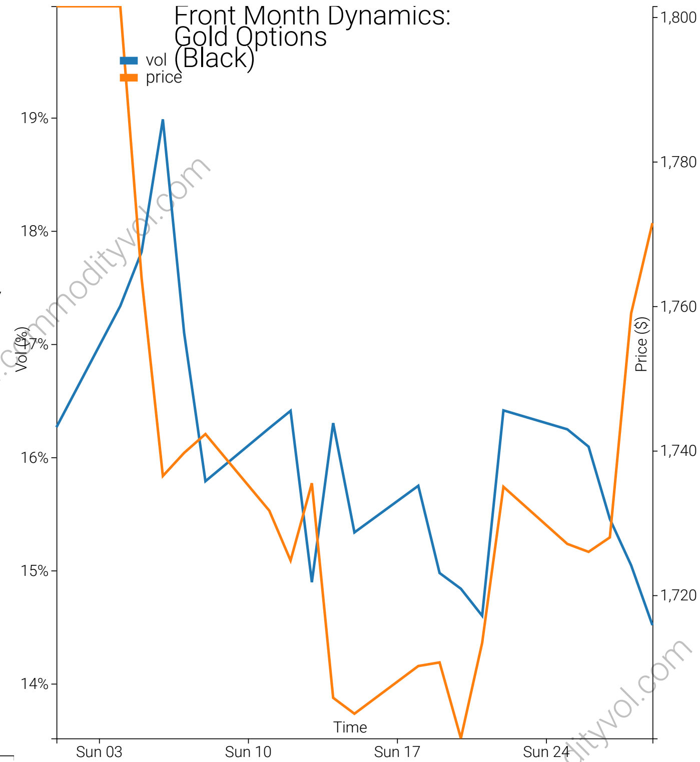

Front Month Dynamics:
VIX Volatility Index
(BlackScholes)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

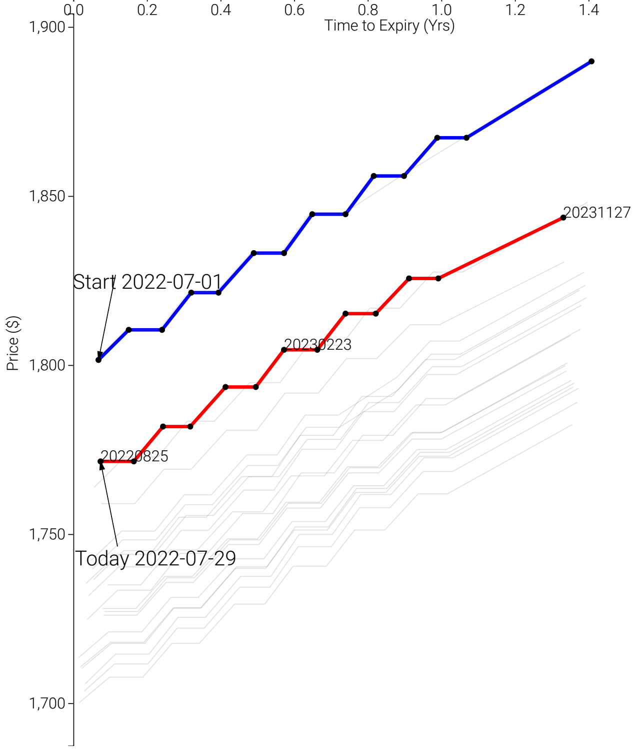

Start 2022-07-01
Price ($)
20220817
20221221
202304

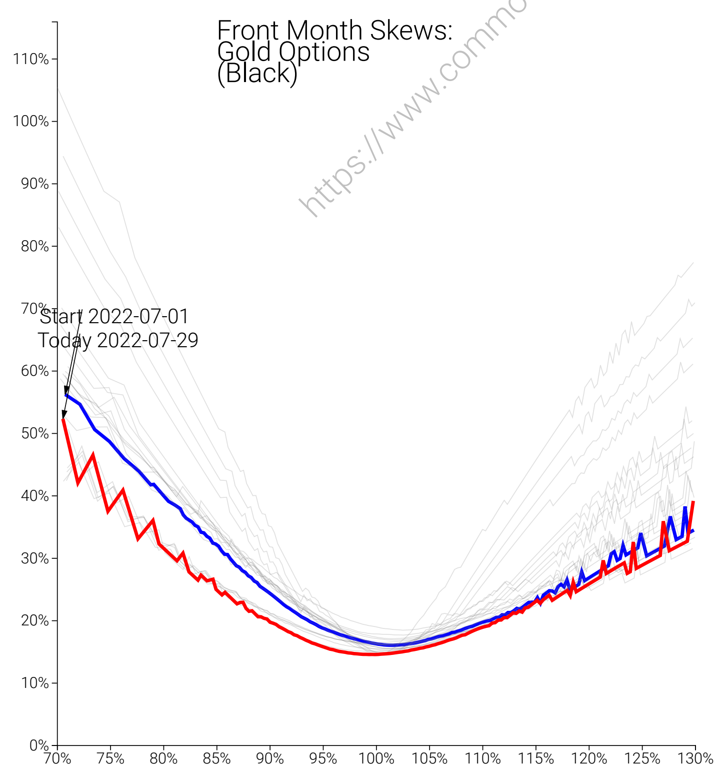

Front Month Skews:
VIX Volatility Index
(BlackScholes)
Start 2022-07-01
Today 2022-07-29

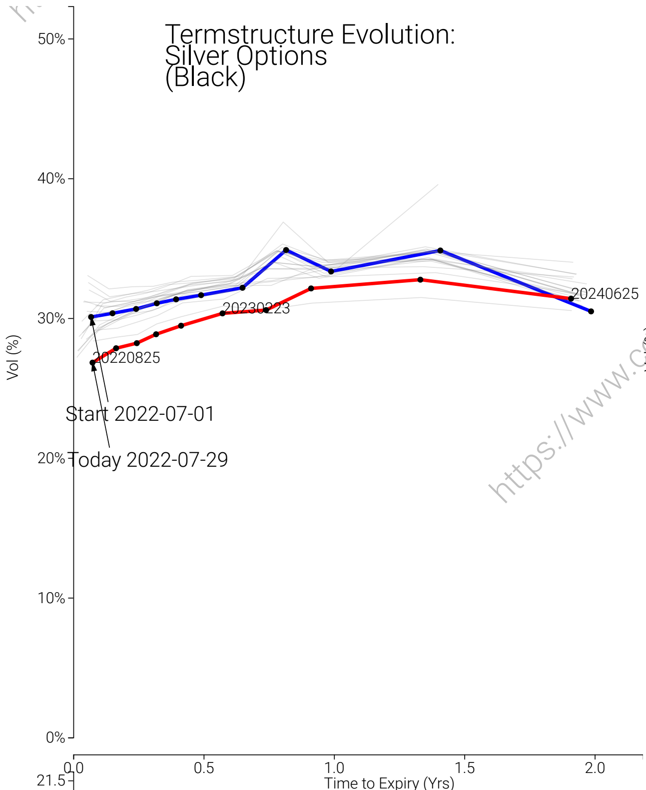
Metals

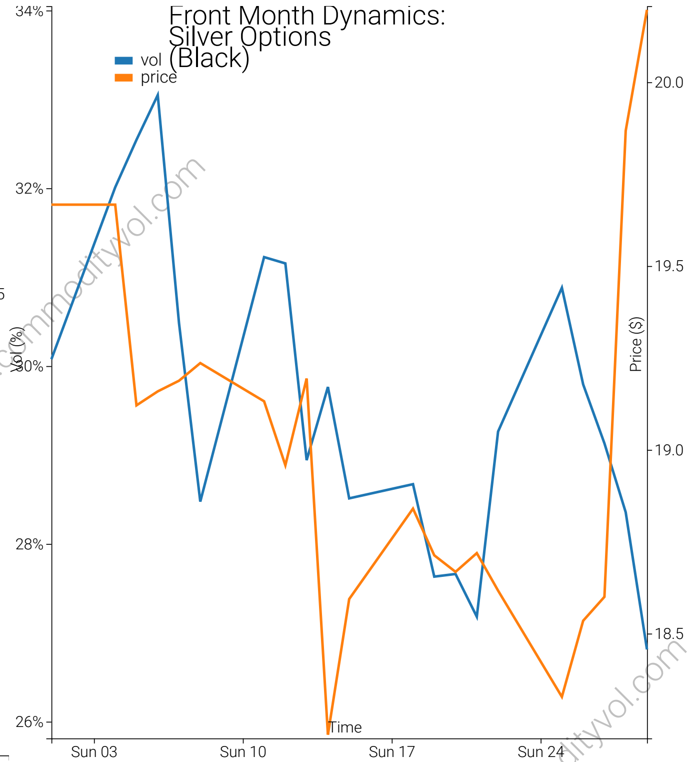

Termstructure Evolution:
Gold Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20231127
20230228
20220825
Start 2022-07-01
Today 2022-07-29

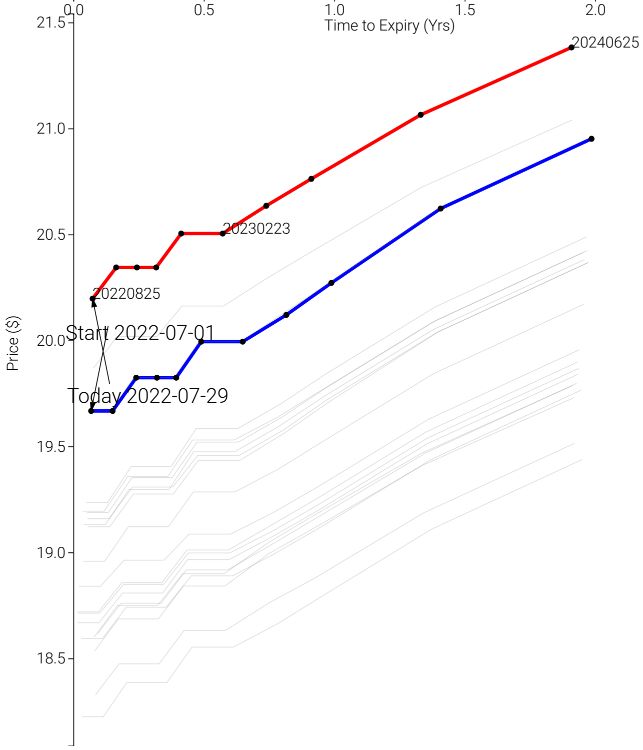

Front Month Dynamics:
Gold Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

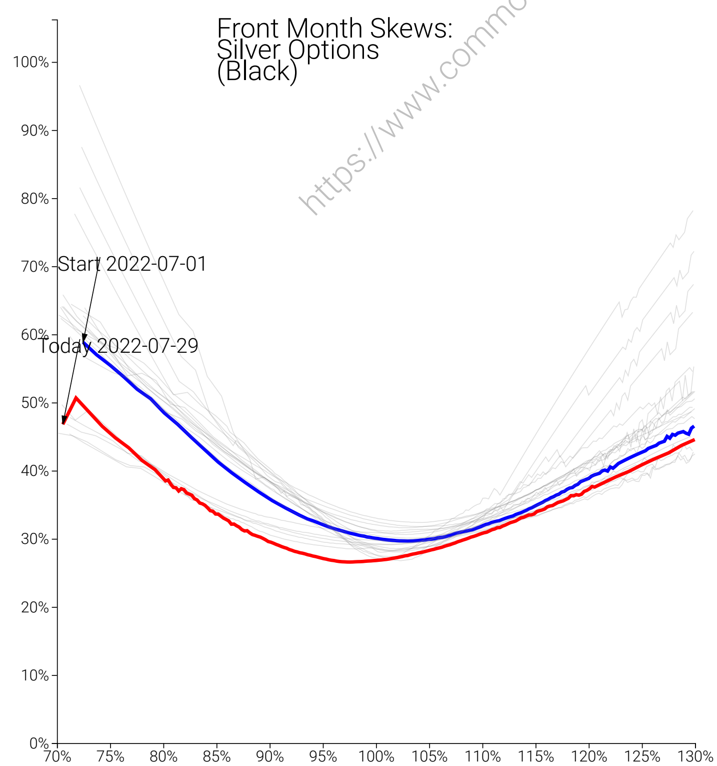

Price ($)
20231127
Start 2022-07-01
20230223
20220825
Today 2022-07-29

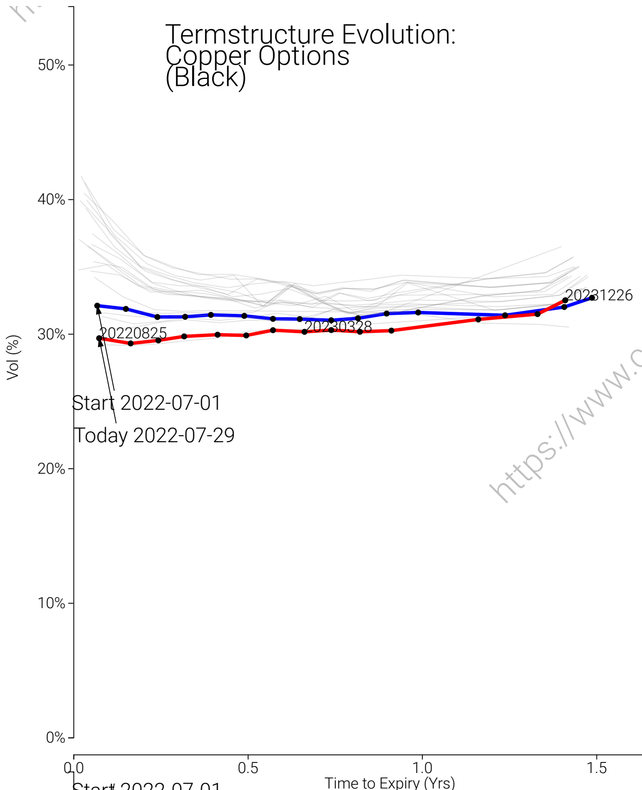

Front Month Skews:
Gold Options
(Black)
Start 2022-07-01
Today 2022-07-29


Termstructure Evolution:
Silver Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20220825
20230223
20240625
Start 2022-07-01
Today 2022-07-29

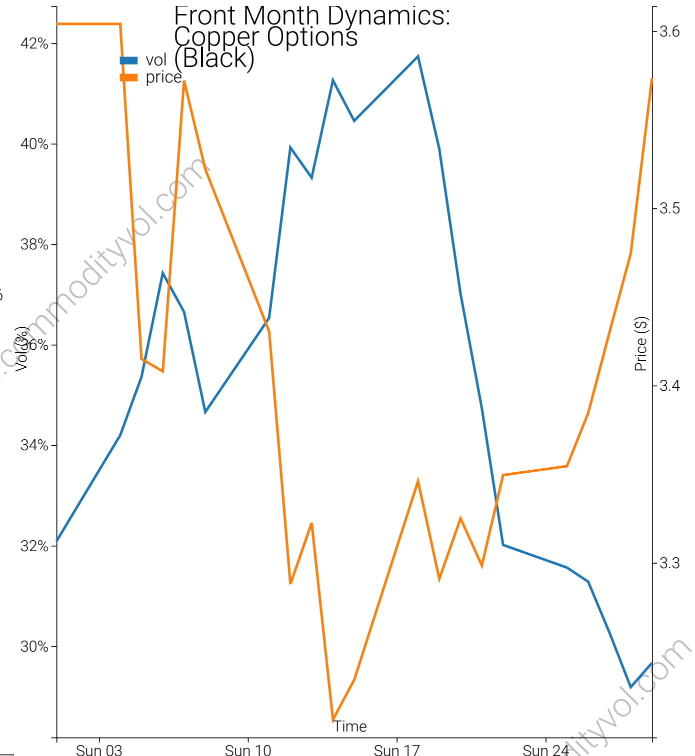

Front Month Dynamics:
Silver Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24


Price ($)
20220825
20230223
20240625
Start 2022-07-01
Today 2022-07-29

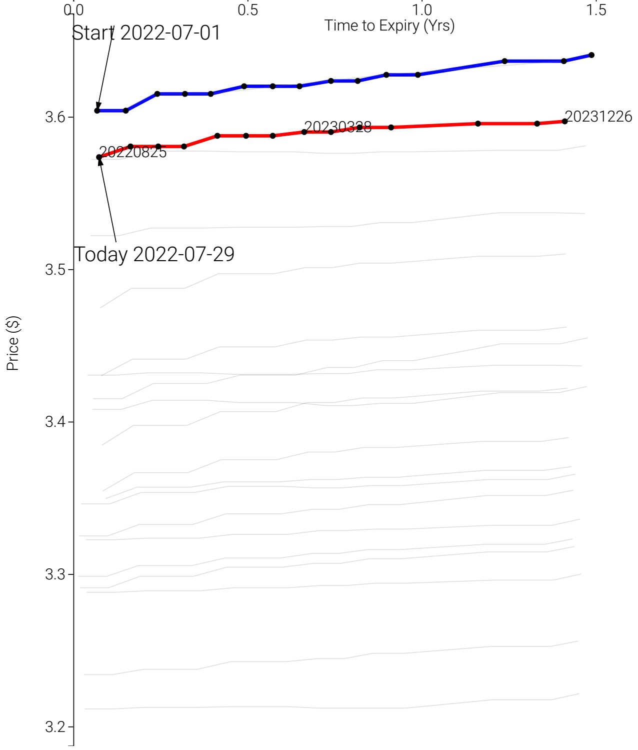

Front Month Skews:
Silver Options
(Black)
Start 2022-07-01
Today 2022-07-29



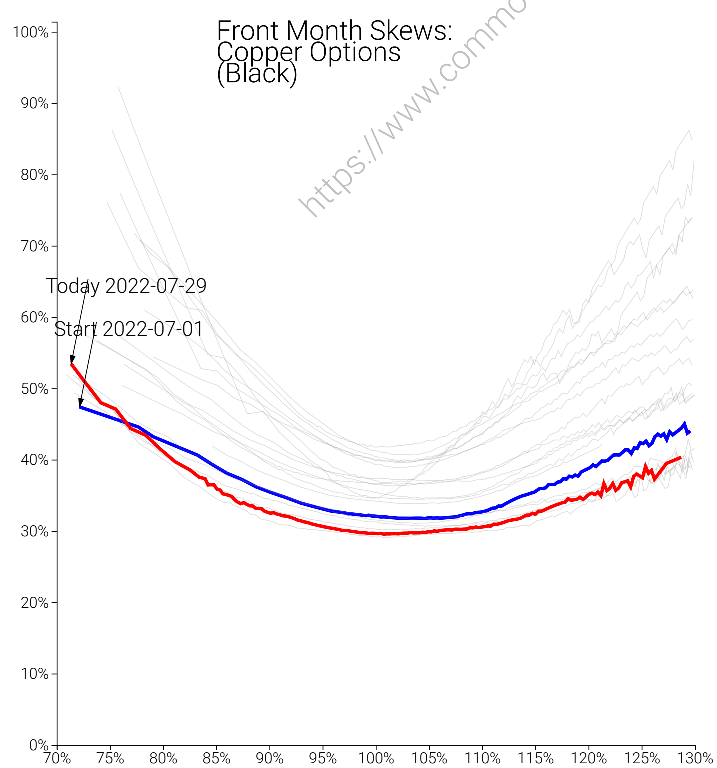
Termstructure Evolution:
Copper Options
(Black)
Vol (%)
50%
40%
30%
20%
10%
0%
20220825
20230328
20231226
Start 2022-07-01
Today 2022-07-29
0.0
0.5
1.0
1.5
Time to Expiry (Yrs)



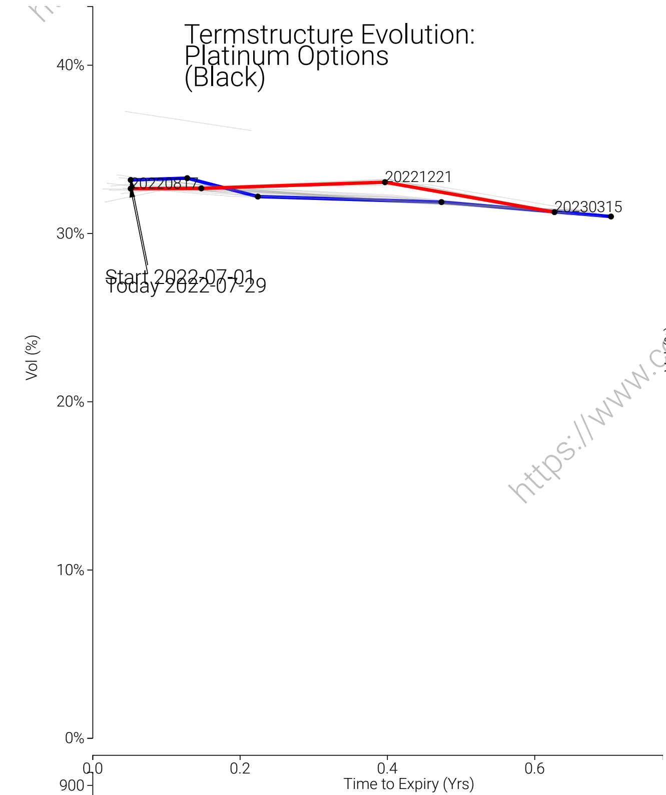
Front Month Dynamics:
Copper Options
(Black)
vol
price
Vol (%)
42%
40%
38%
36%
34%
32%
30%
Price ($)
3.6
3.5
3.4
3.3
Time
Sun 03
Sun 10
Sun 17
Sun 24

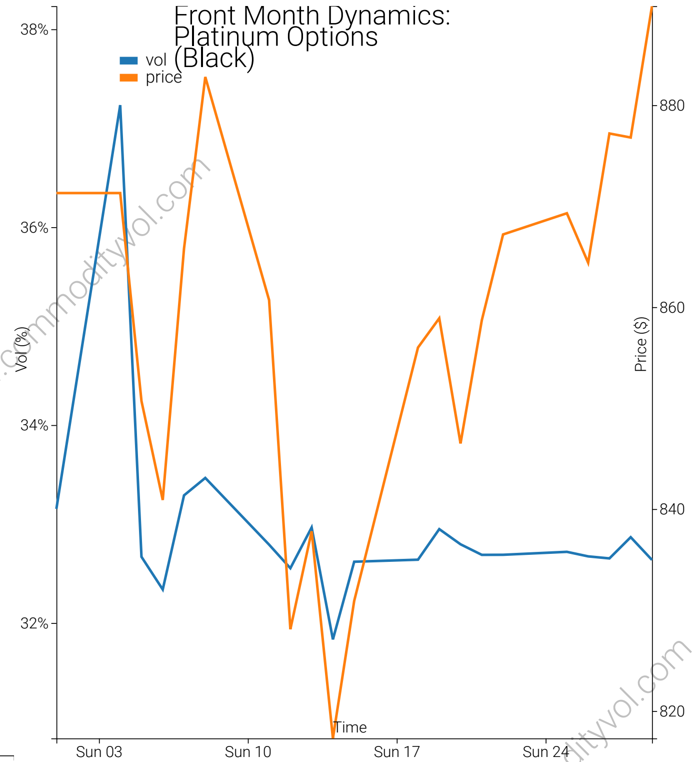


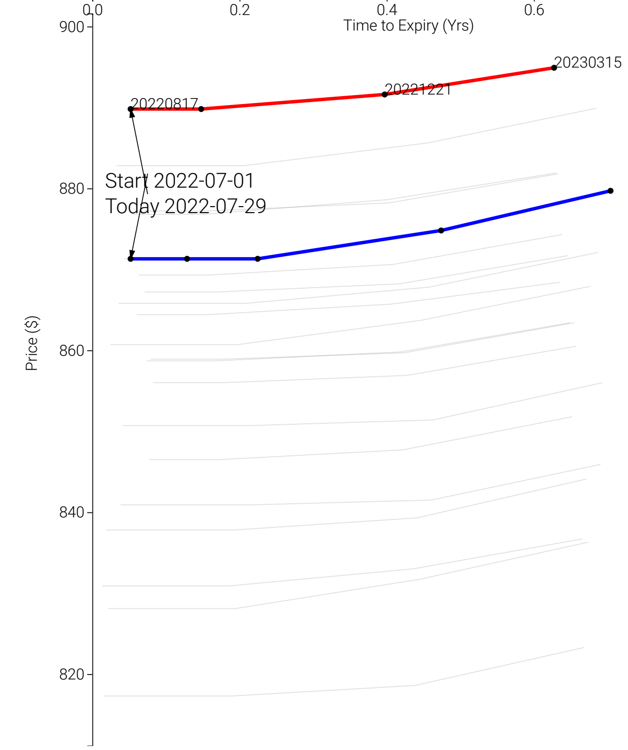
Start 2022-07-01
Today 2022-07-29
20220825
20230328
20231226
Price ($)
3.6
3.5
3.4
3.3
3.2

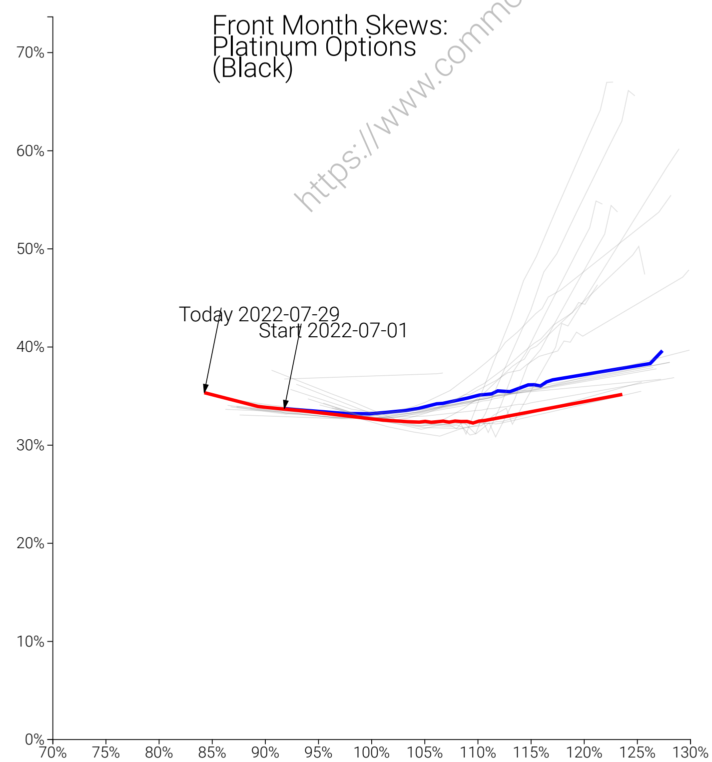


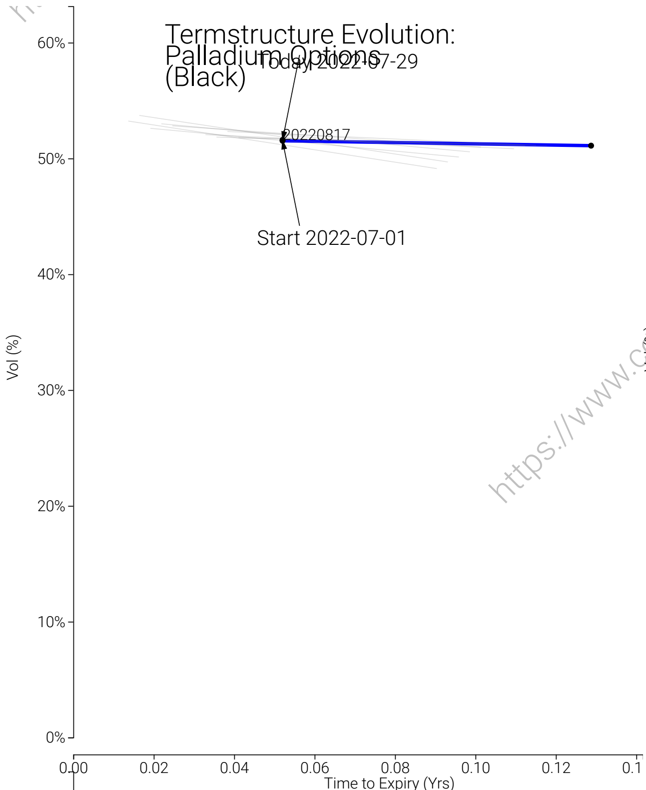
Front Month Skews:
Copper Options
(Black)
Today 2022-07-29
Start 2022-07-01
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

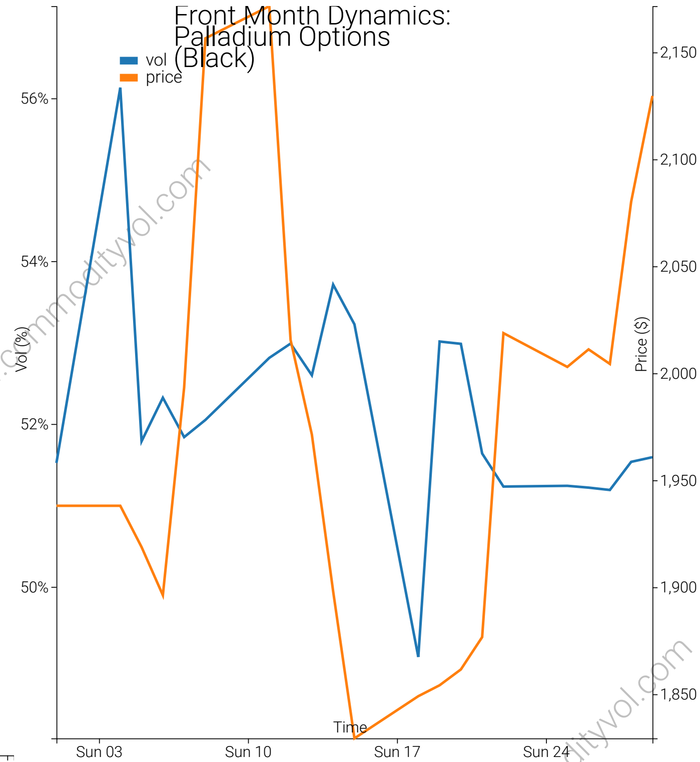

Termstructure Evolution:
Platinum Options
(Black)
20220817
20221221
20230315
Start 2022-07-01
Today 2022-07-29
Vol (%)
Time to Expiry (Yrs)

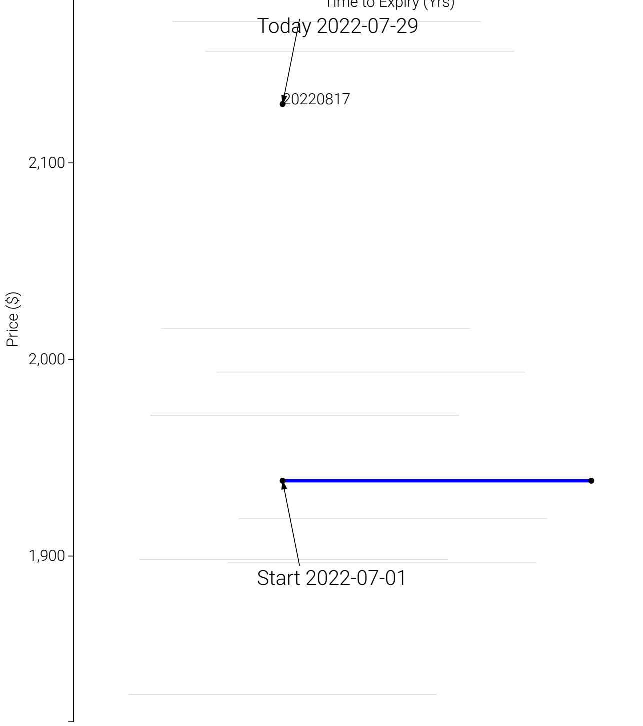

Front Month Dynamics:
Platinum Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

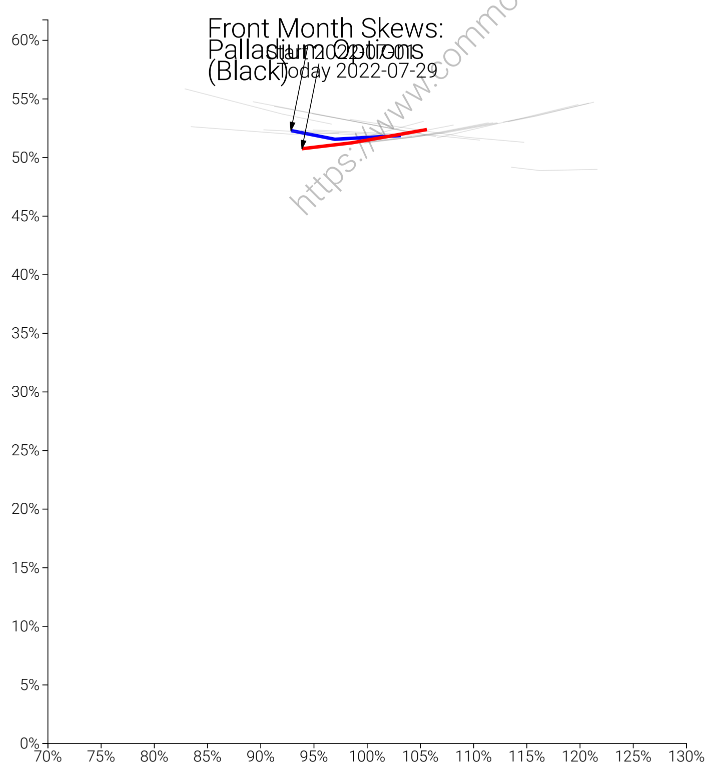

20220817
20221221
20230315
Start 2022-07-01
Today 2022-07-29
Price ($)


Front Month Skews:
Platinum Options
(Black)
Today 2022-07-29
Start 2022-07-01

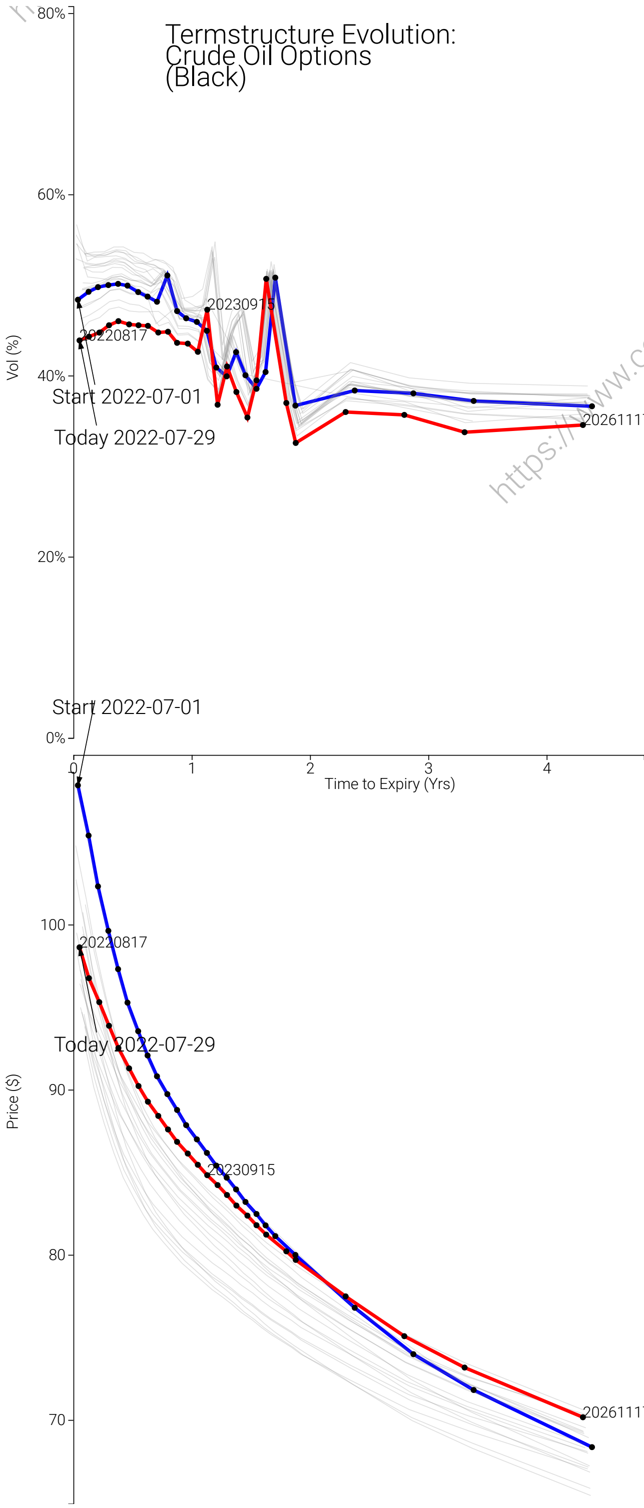

Termstructure Evolution:
Palladium Options
(Black)
Today 2022-07-29
20220817
Start 2022-07-01
Vol (%)
60%
50%
40%
30%
20%
10%
0%
Time to Expiry (Yrs)
0.00
0.02
0.04
0.06
0.08
0.10
0.12

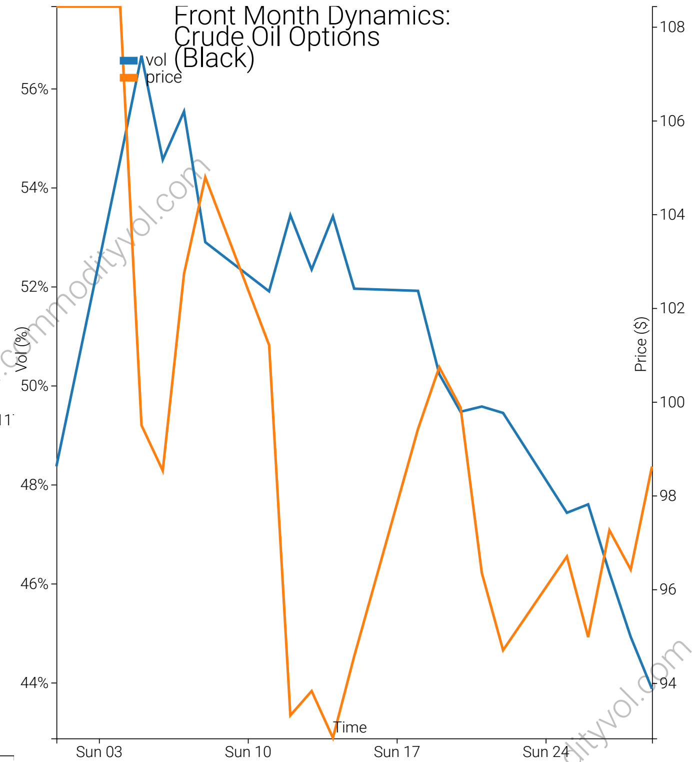

Front Month Dynamics:
Palladium Options
(Black)
vol
price
Vol (%)
56%
54%
52%
50%
Price ($)
2,150
2,100
2,050
2,000
1,950
1,900
1,850
Time
Sun 03
Sun 10
Sun 17
Sun 24
https://www.commodityvol.com

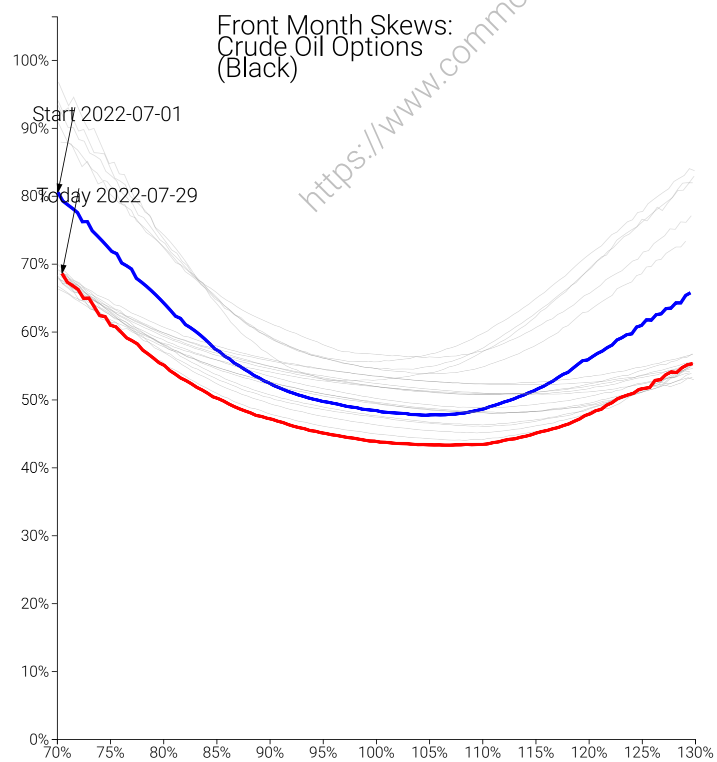

Today 2022-07-29
20220817
Start 2022-07-01
Price ($)
2,100
2,000
1,900

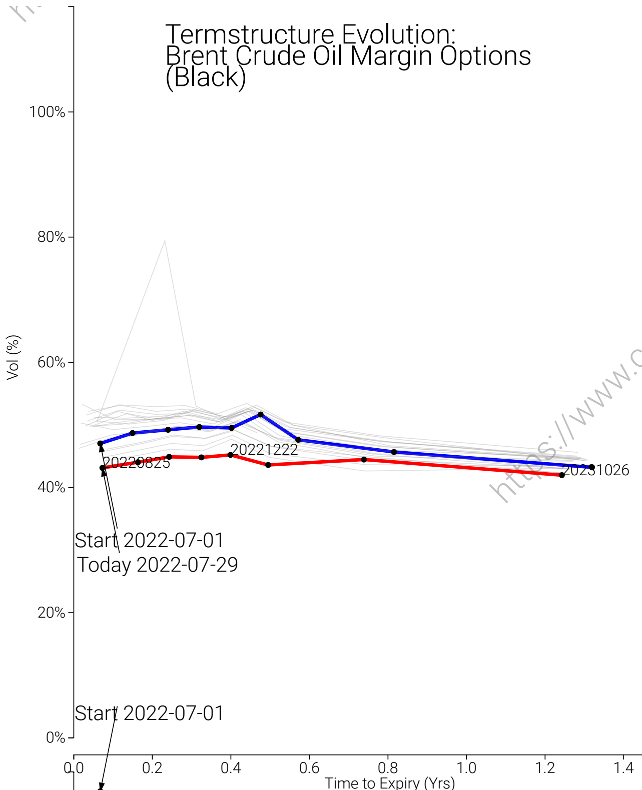

Front Month Skews:
Palladium Options
(Black)
Start 2022-07-01
Today 2022-07-29
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%
https://www.commodityvol.com

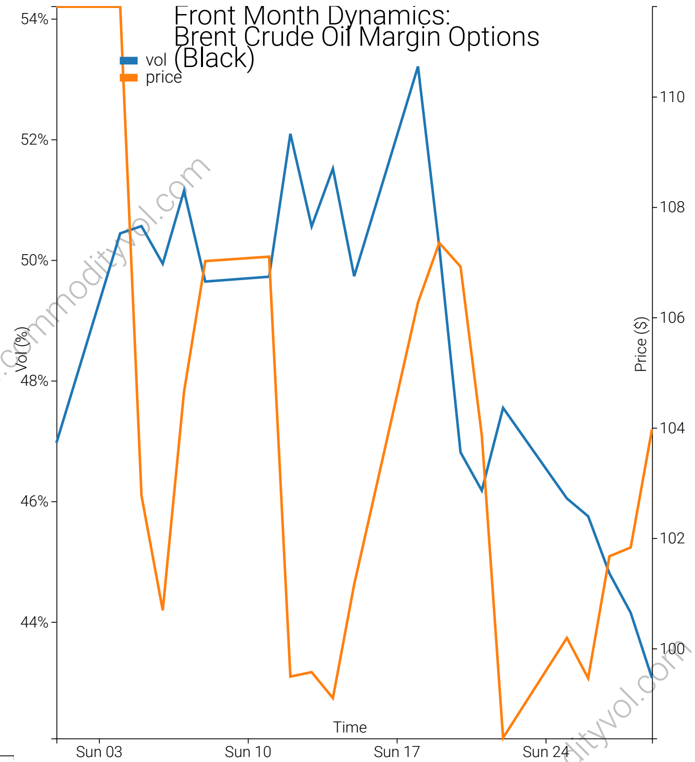
Energy: Crude and Derivatives

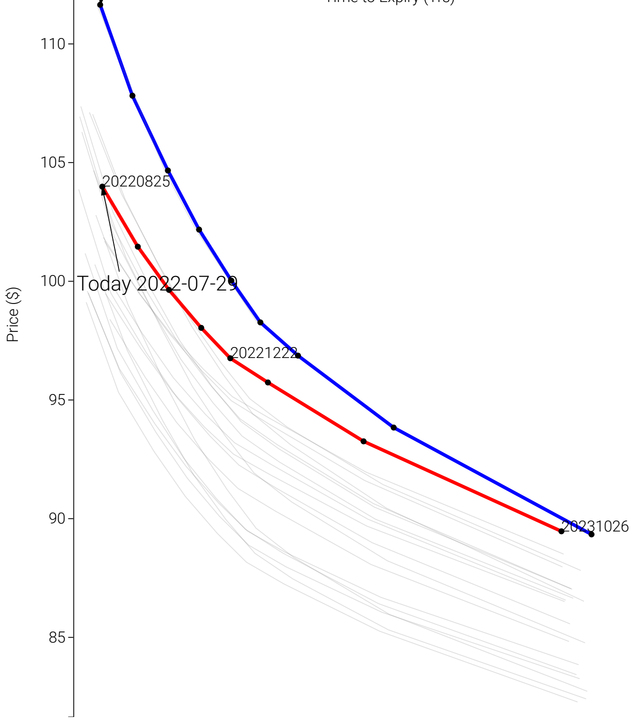

Termstructure Evolution:
Crude Oil Options
(Black)
Vol (%)
80%
60%
40%
20%
0%
20220817
20230915
20261117
Start 2022-07-01
Today 2022-07-29
Time to Expiry (Yrs)
0
1
2
3
4
Price ($)
100
90
80
70

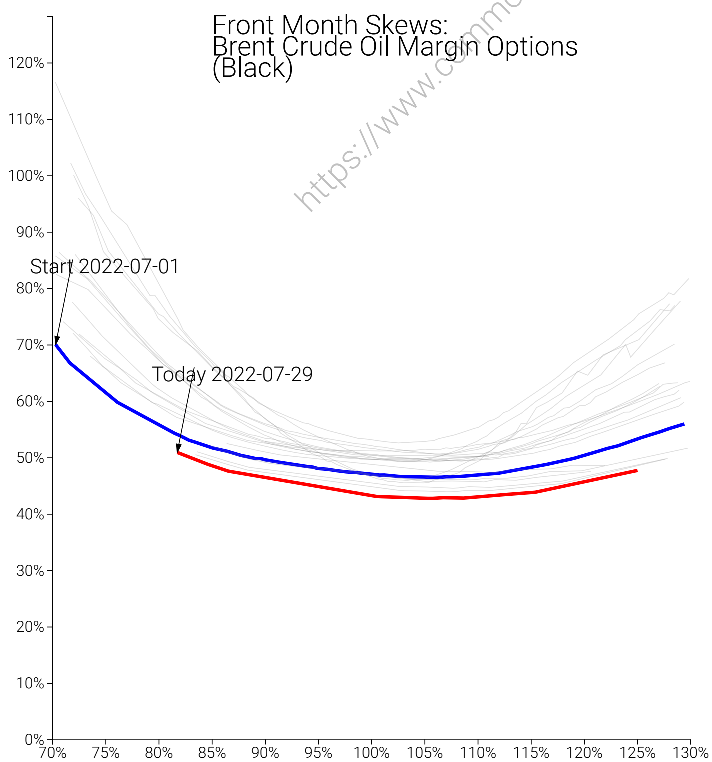

Front Month Dynamics:
Crude Oil Options
(Black)
vol
price
Vol (%)
Price ($)
56%
54%
52%
50%
48%
46%
44%
108
106
104
102
100
98
96
94
Time
Sun 03
Sun 10
Sun 17
Sun 24

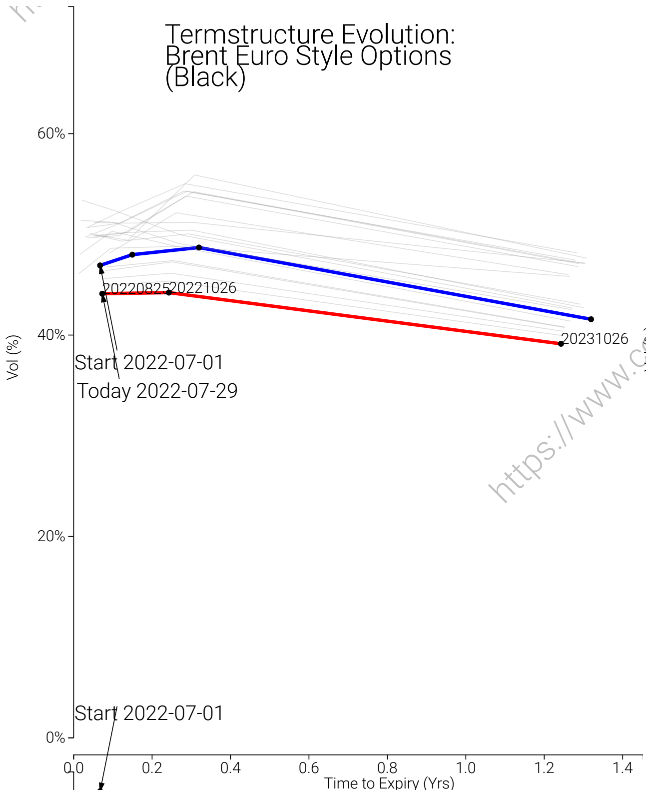

Front Month Skews:
Crude Oil Options
(Black)
Start 2022-07-01
Today 2022-07-29
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

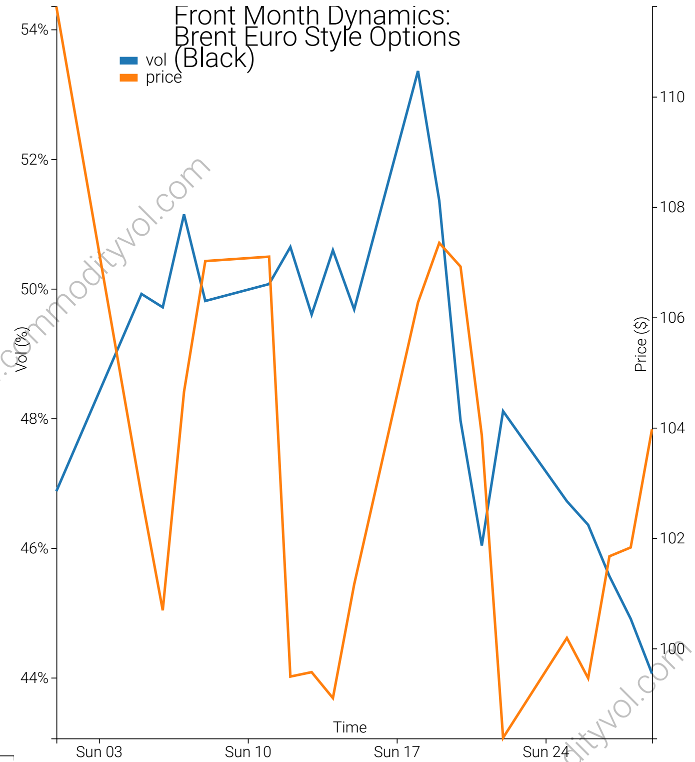

Termstructure Evolution:
Brent Crude Oil Margin Options
(Black)
Vol (%)
100%
80%
60%
40%
20%
0%
20220825
20221222
20231026
Start 2022-07-01
Today 2022-07-29
Start 2022-07-01
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
Time to Expiry (Yrs)

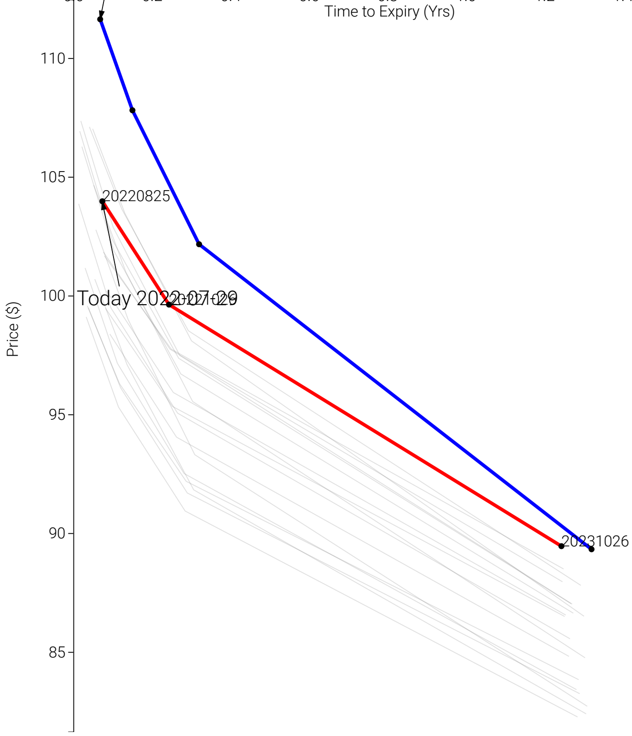

Front Month Dynamics:
Brent Crude Oil Margin Options
(Black)
vol
price
54%
52%
50%
48%
46%
44%
Vol (%)
Price ($)
110
108
106
104
102
100
Time
Sun 03
Sun 10
Sun 17
Sun 24

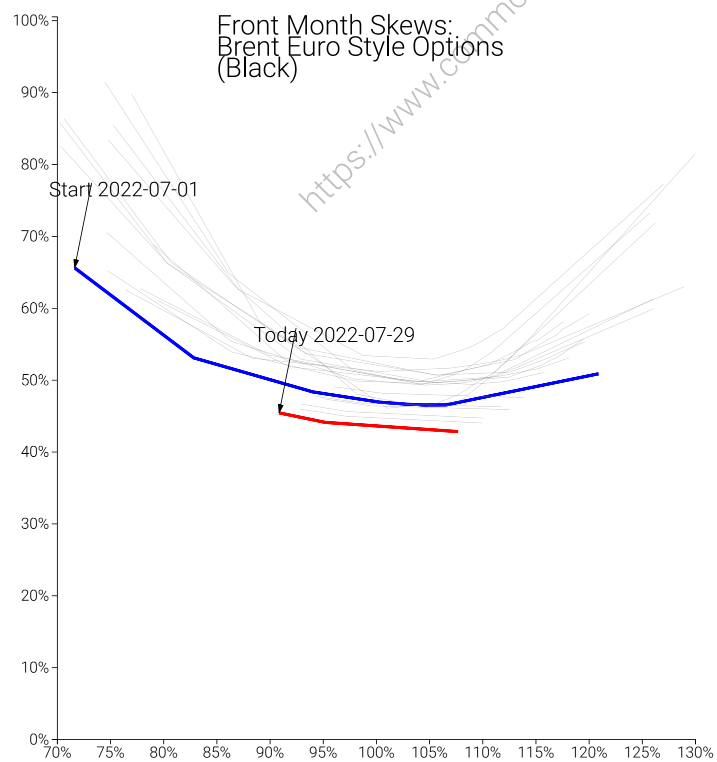

Price ($)
110
105
100
95
90
85
20220825
Today 2022-07-29
20221222
20231026

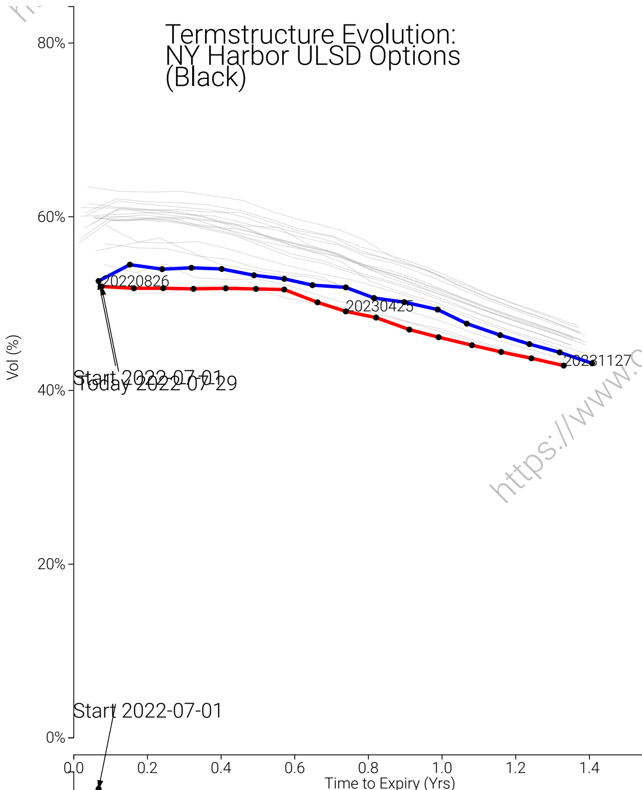

Front Month Skews:
Brent Crude Oil Margin Options
(Black)
120%
110%
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Start 2022-07-01
Today 2022-07-29
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

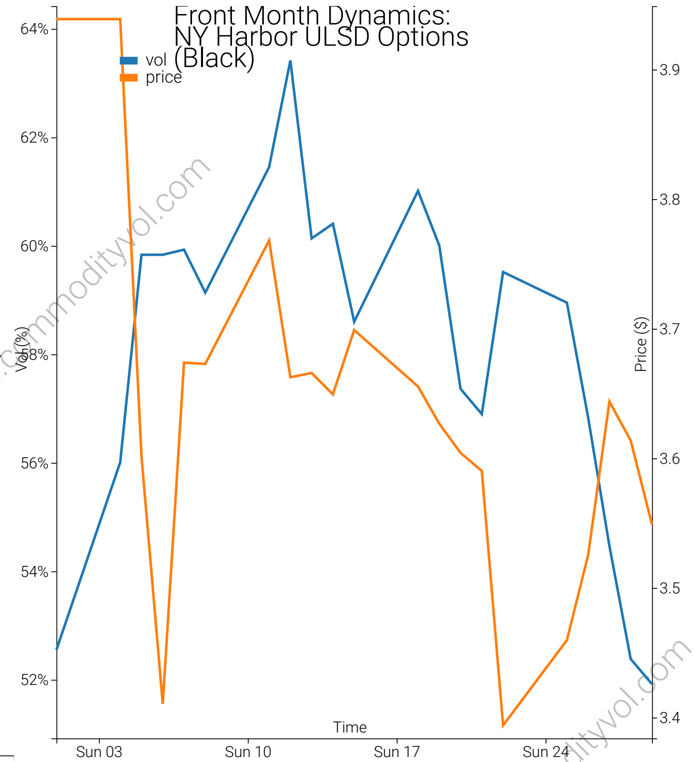

Termstructure Evolution:
Brent Euro Style Options
(Black)
Vol (%)
60%
40%
20%
0%
20220825
20221026
20231026
Start 2022-07-01
Today 2022-07-29
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
Time to Expiry (Yrs)

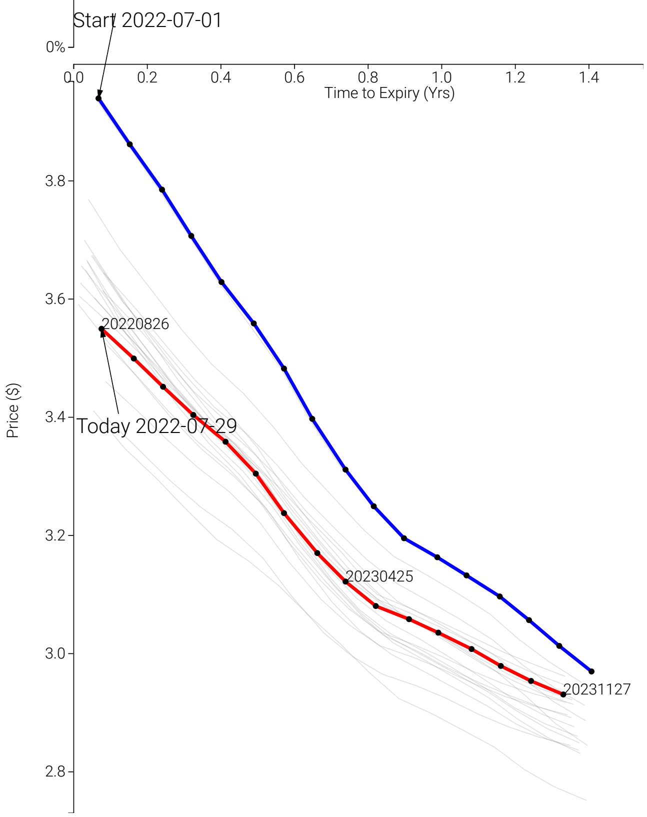

Front Month Dynamics:
Brent Euro Style Options
(Black)
vol
price
Vol (%)
Price ($)
54%
52%
50%
48%
46%
44%
110
108
106
104
102
100
Time
Sun 03
Sun 10
Sun 17
Sun 24

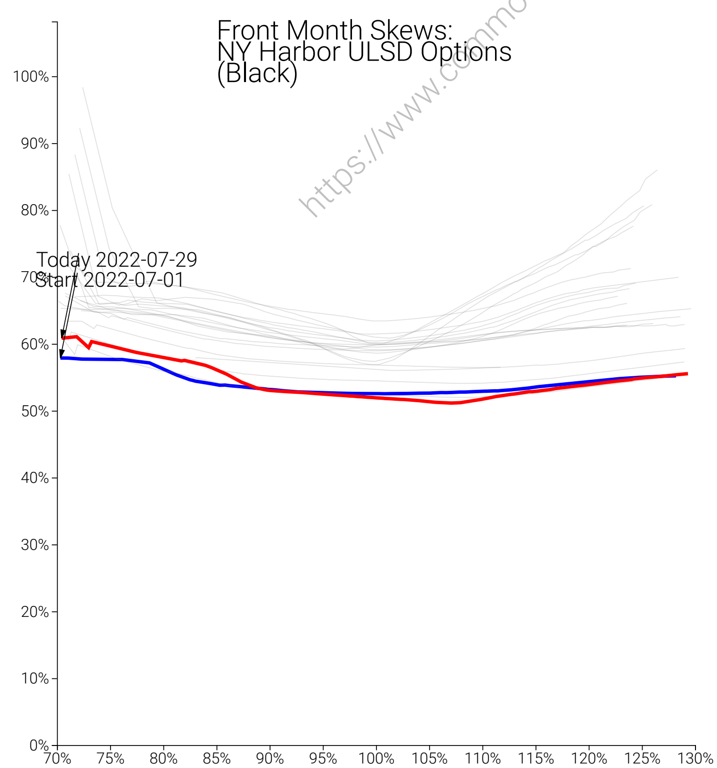

Start 2022-07-01
Price ($)
110
105
100
95
90
85
20220825
Today 2022-07-29
20231026

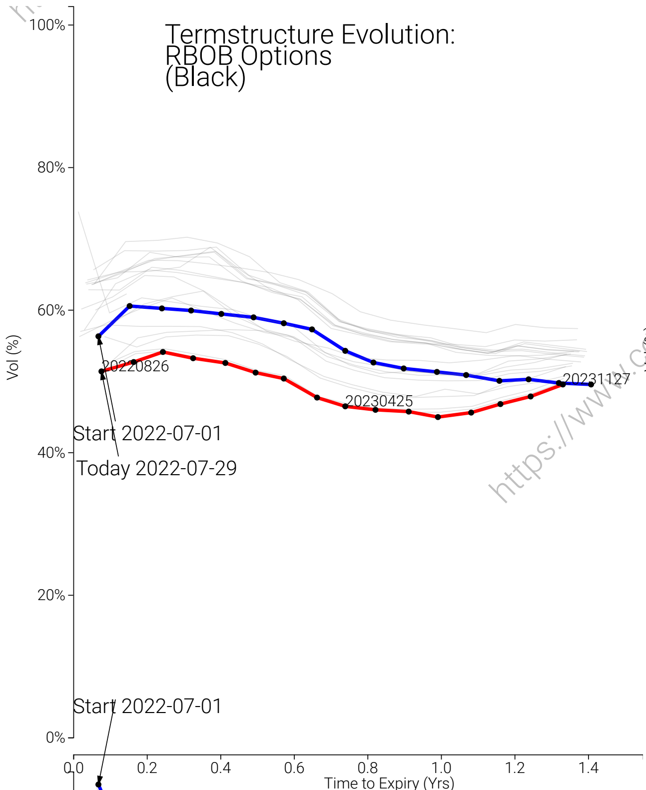

Front Month Skews:
Brent Euro Style Options
(Black)
Start 2022-07-01
Today 2022-07-29
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

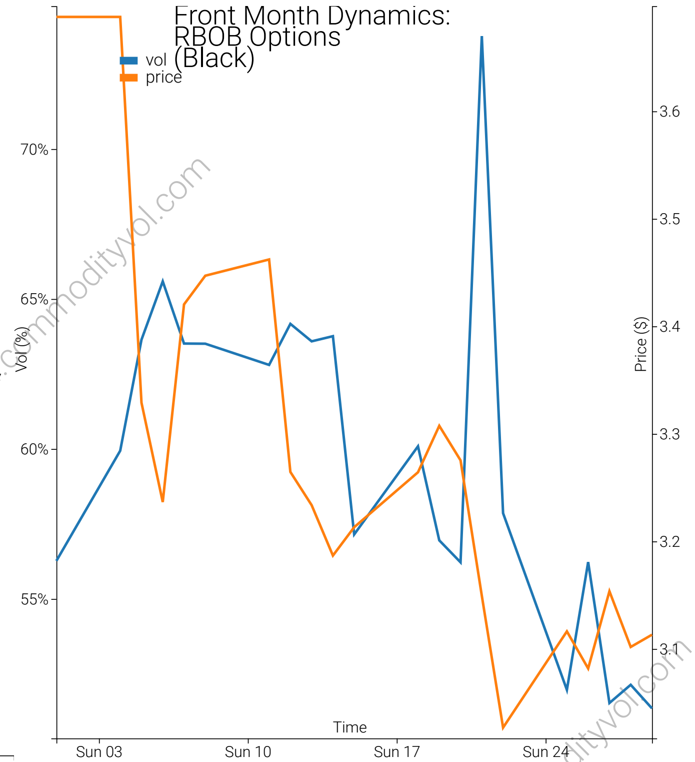

Termstructure Evolution:
NY Harbor ULSD Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20220826
20230425
20231127
Start 2022-07-01
Today 2022-07-29

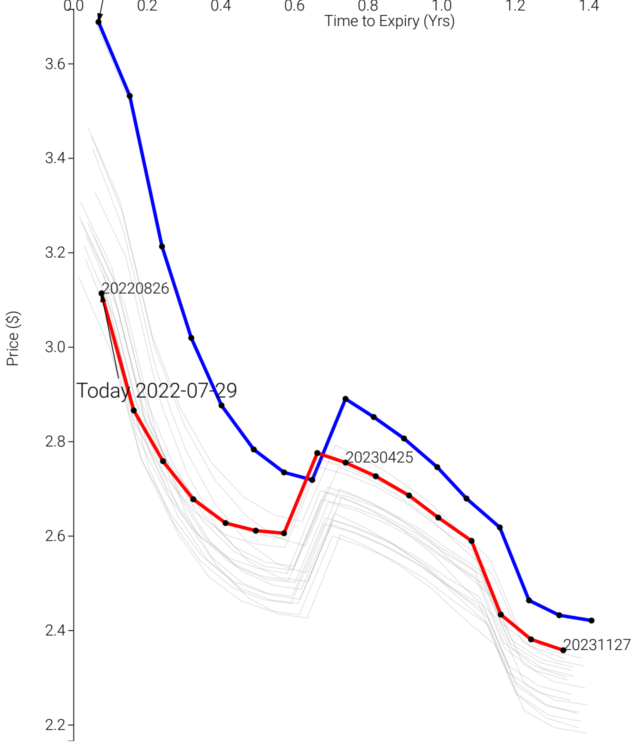

Front Month Dynamics:
NY Harbor ULSD Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

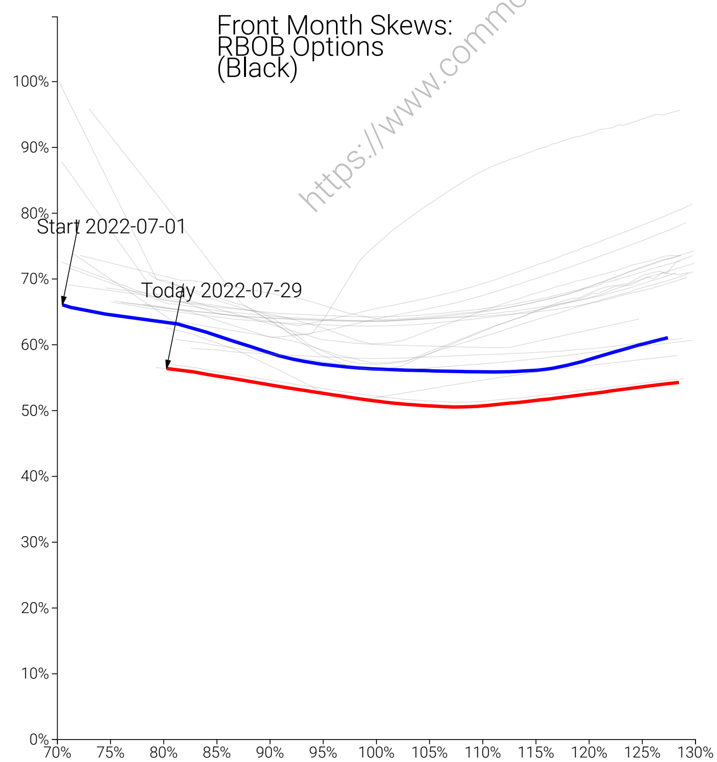

Price ($)
20220826
20230425
20231127
Start 2022-07-01
Today 2022-07-29

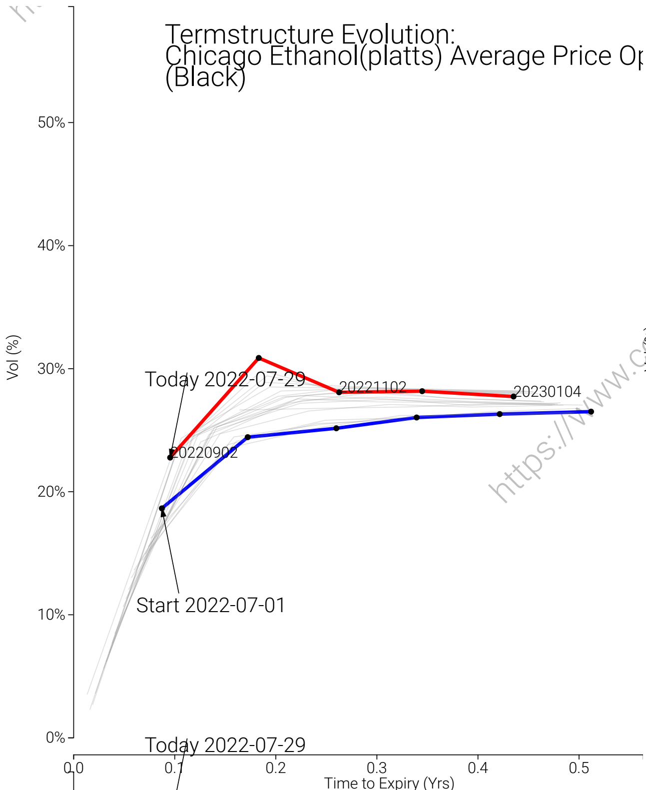

Front Month Skews:
NY Harbor ULSD Options
(Black)
Today 2022-07-29
Start 2022-07-01

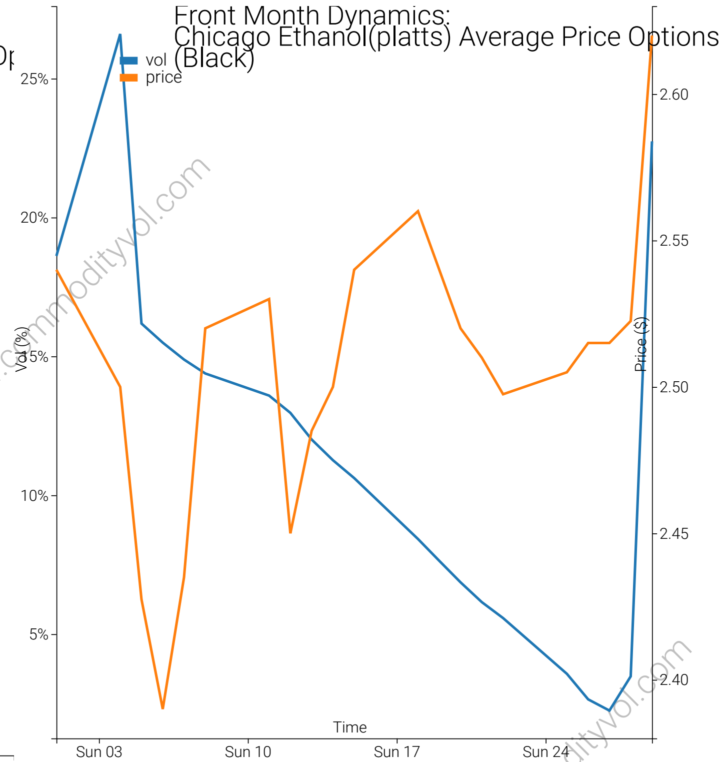

Termstructure Evolution:
RBOB Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20220826
20230425
20231127
Start 2022-07-01
Today 2022-07-29

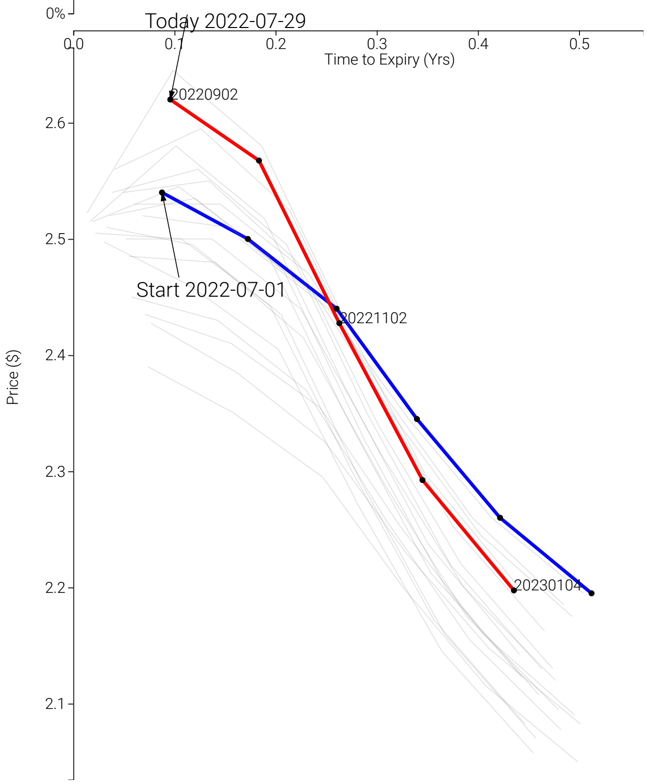

Front Month Dynamics:
RBOB Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

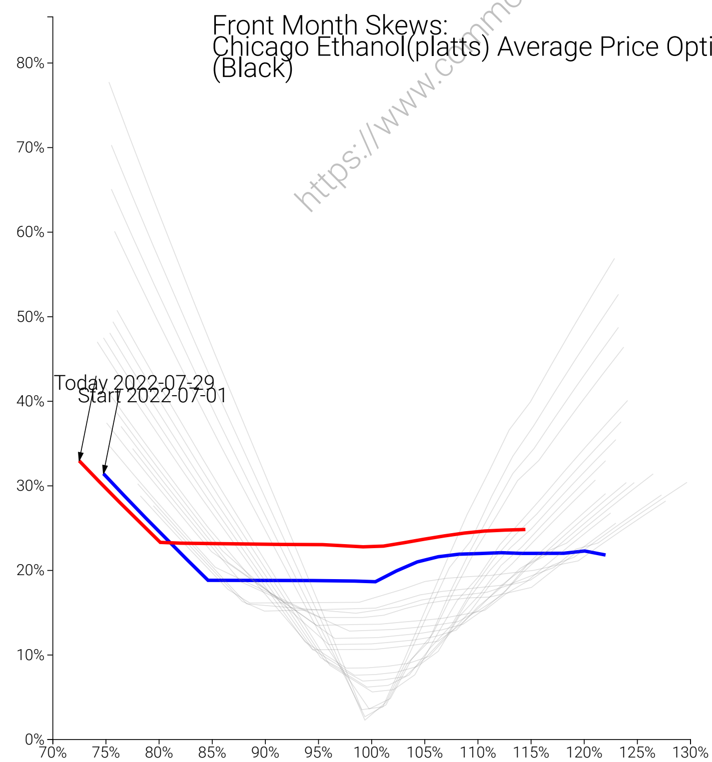

Price ($)
20220826
20230425
20231127
Start 2022-07-01
Today 2022-07-29


Front Month Skews:
RBOB Options
(Black)
Start 2022-07-01
Today 2022-07-29

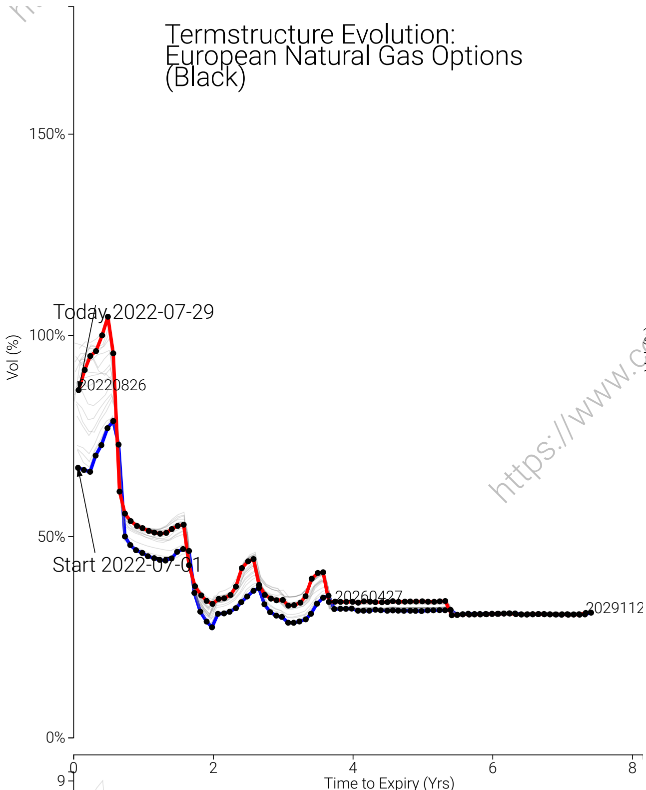

Termstructure Evolution:
Chicago Ethanol(platts) Average Price Op
(Black)
Vol (%)
Today 2022-07-29
Start 2022-07-01
20220902
20221102
20230104
Time to Expiry (Yrs)

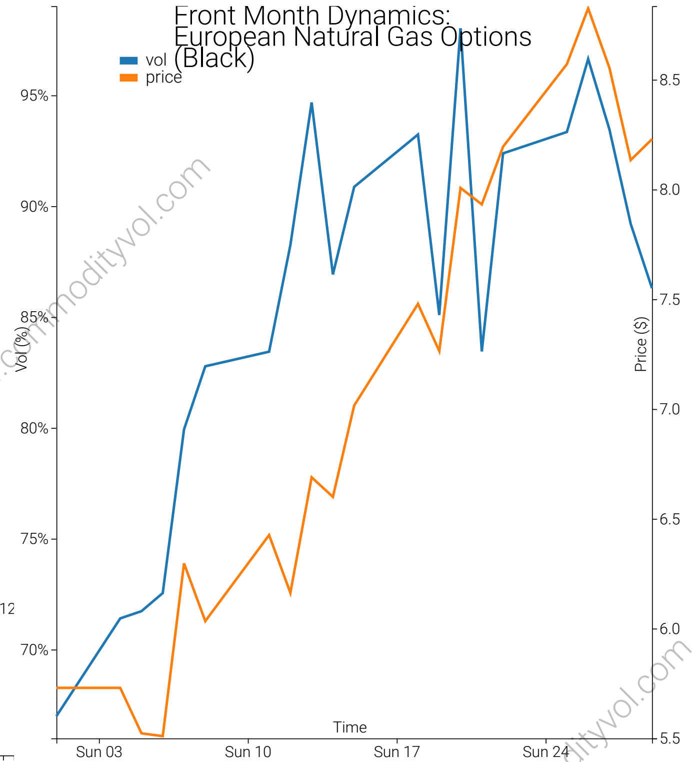

Front Month Dynamics:
Chicago Ethanol(platts) Average Price Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

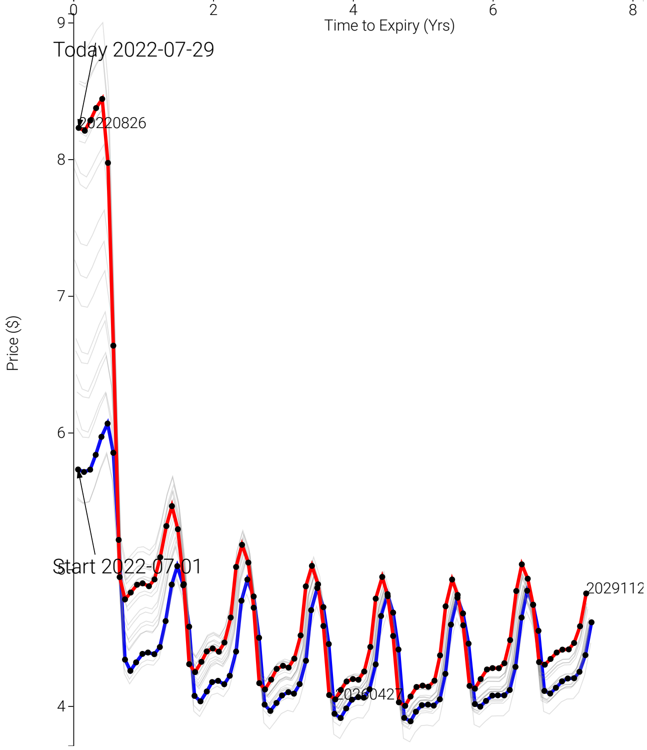

Today 2022-07-29
Start 2022-07-01
20220902
20221102
20230104
Price ($)

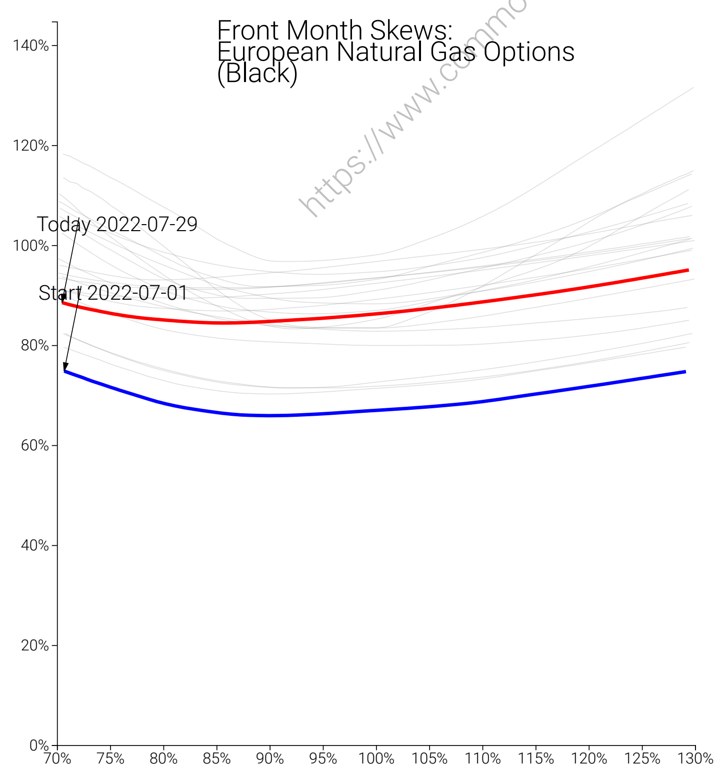

Front Month Skews:
Chicago Ethanol(platts) Average Price Optio
(Black)
Today 2022-07-29
Start 2022-07-01

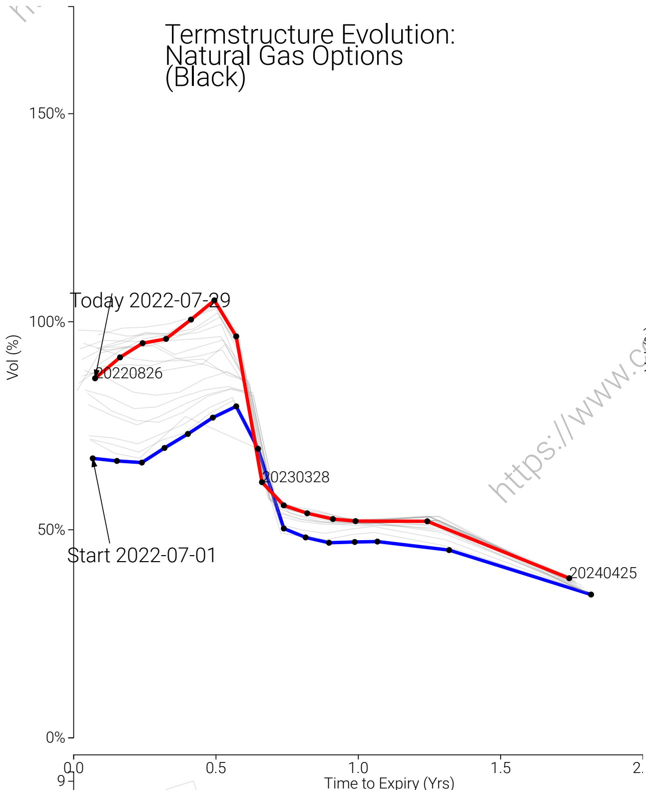
Energy: Natural Gas

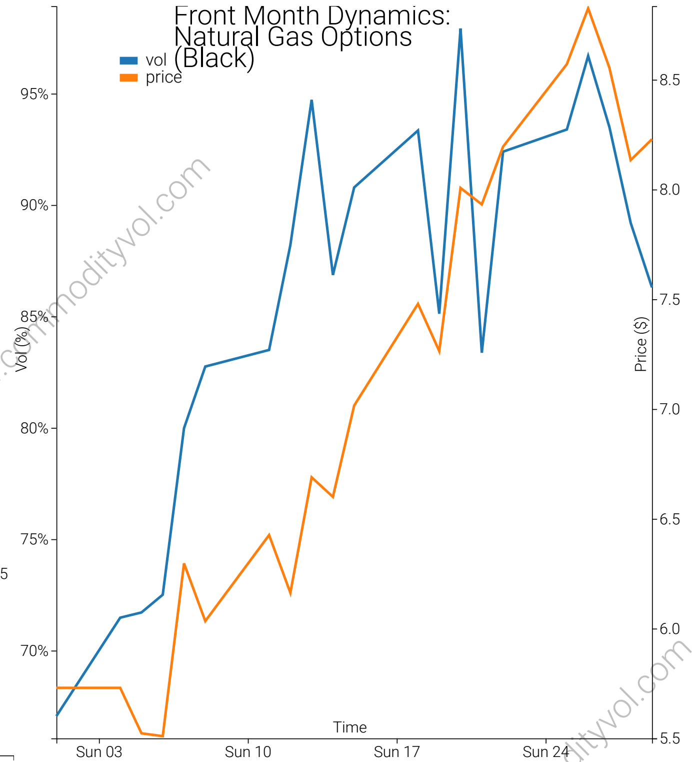

Termstructure Evolution:
European Natural Gas Options
(Black)
Vol (%)
Time to Expiry (Yrs)
Today 2022-07-29
Start 2022-07-01
20220826
20260427
2029112

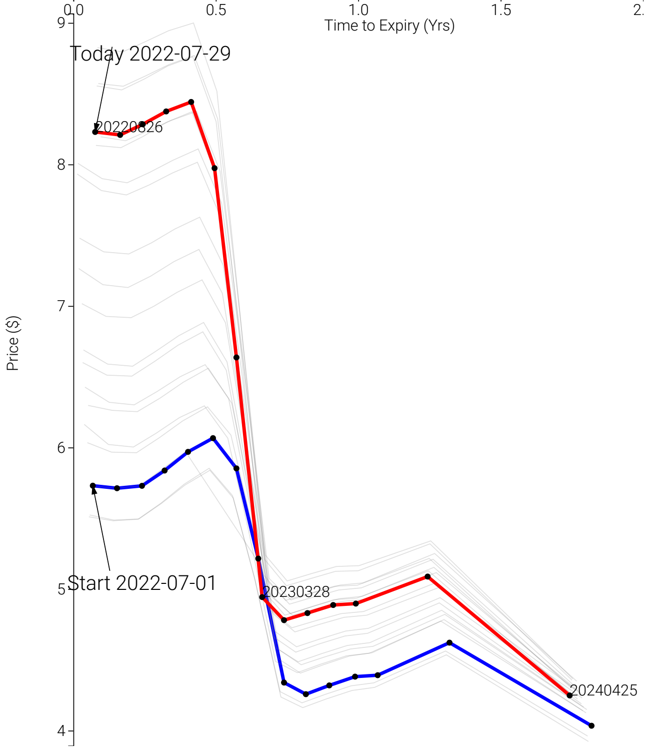

Front Month Dynamics:
European Natural Gas Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

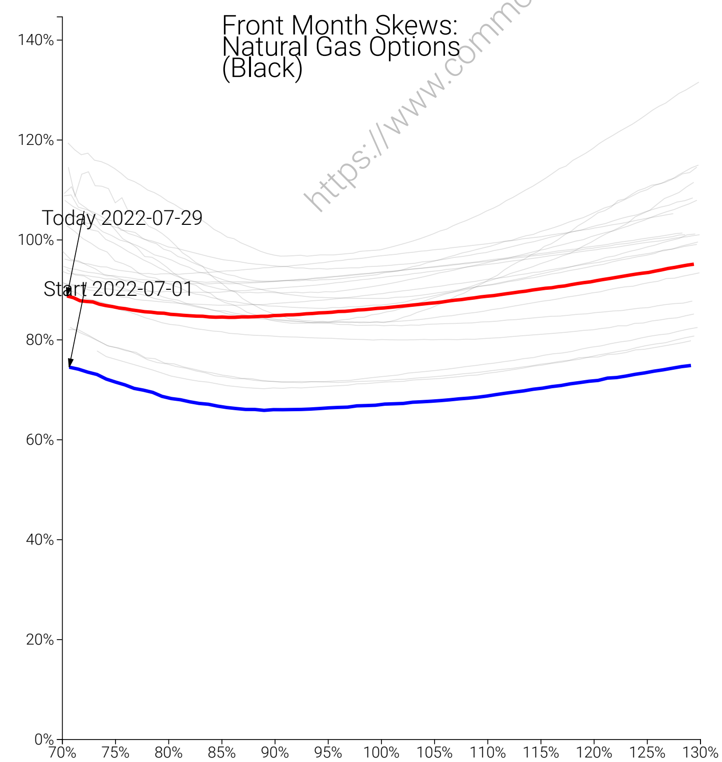

Price ($)
Today 2022-07-29
Start 2022-07-01
20220826
20260427
2029112

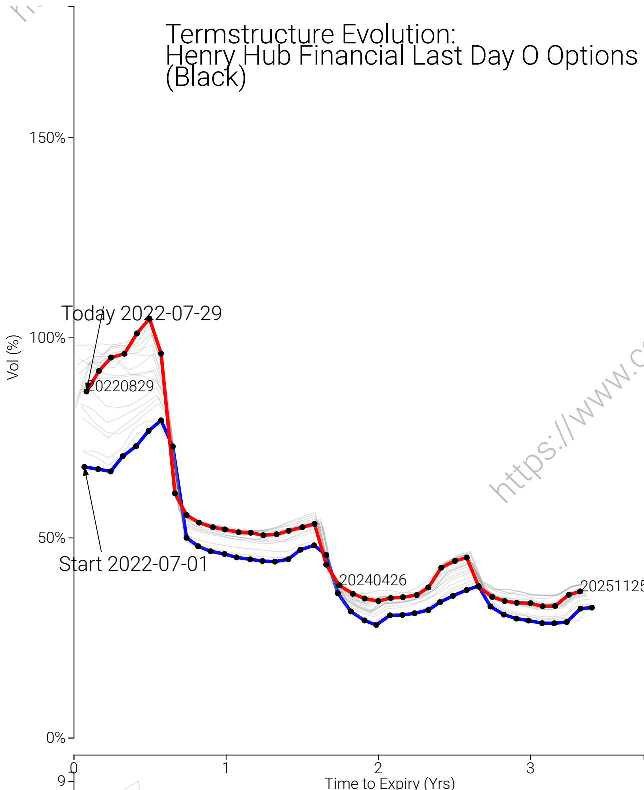

Front Month Skews:
European Natural Gas Options
(Black)
Today 2022-07-29
Start 2022-07-01


Termstructure Evolution:
Natural Gas Options
(Black)
Vol (%)
150%
100%
50%
0%
Today 2022-07-29
20220826
20230328
20240425
Start 2022-07-01
0.0
0.5
1.0
1.5
Time to Expiry (Yrs)
https://www.commodityvol.com

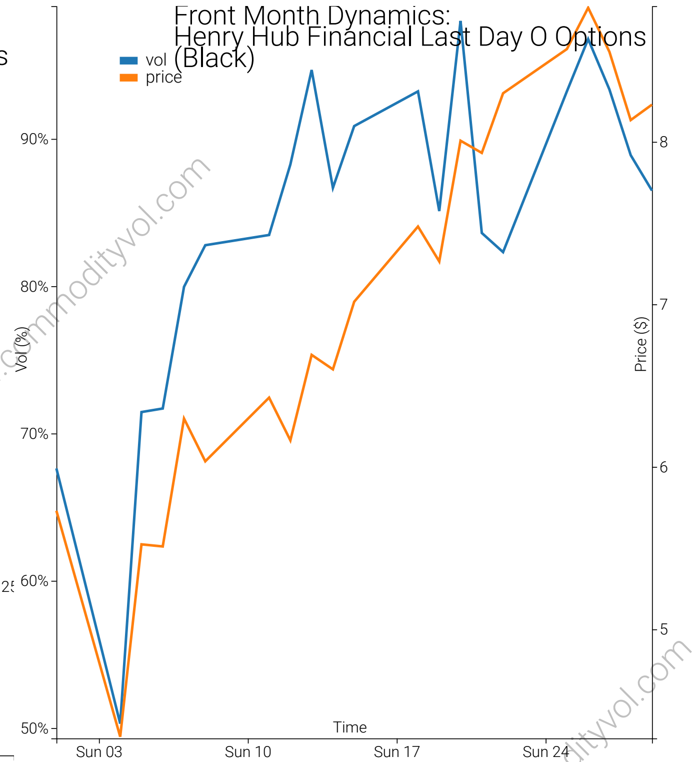

Front Month Dynamics:
Natural Gas Options
(Black)
vol
price
Vol (%)
Price ($)
95%
90%
85%
80%
75%
70%
8.5
8.0
7.5
7.0
6.5
6.0
5.5
Time
Sun 03
Sun 10
Sun 17
Sun 24


Price ($)
9
8
7
6
5
4
Today 2022-07-29
20220826
20230328
20240425
Start 2022-07-01

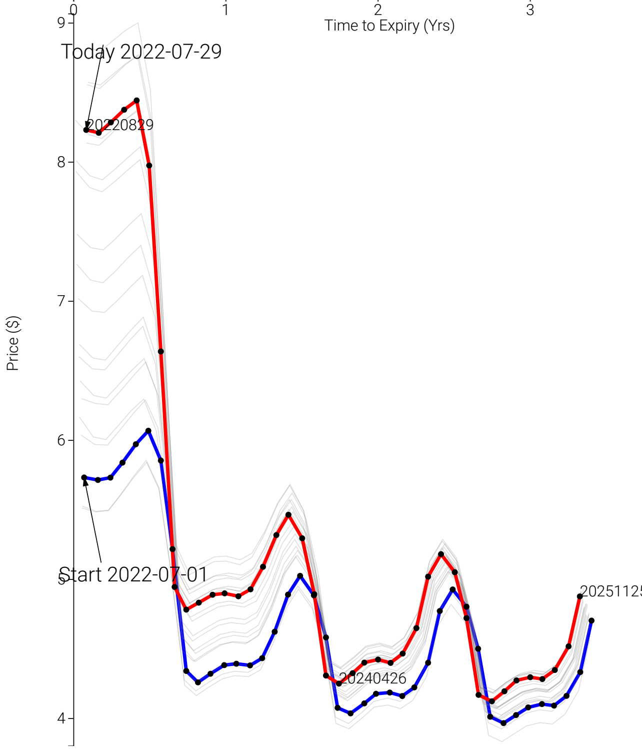

Front Month Skews:
Natural Gas Options
(Black)
140%
120%
100%
80%
60%
40%
20%
0%
Today 2022-07-29
Start 2022-07-01
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%
https://www.commodityvol.com



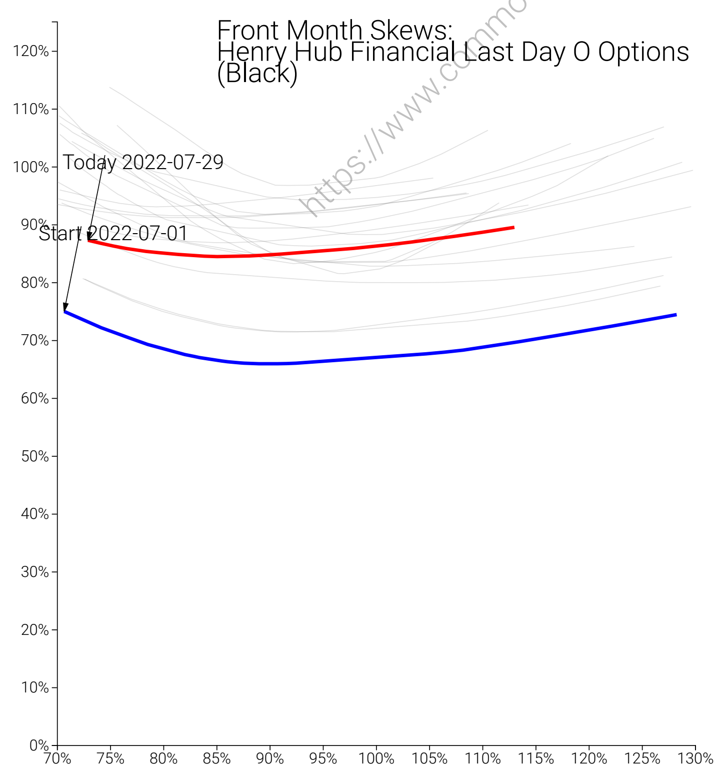
Termstructure Evolution:
Henry Hub Financial Last Day O Options
(Black)
150%
100%
50%
0%
Vol (%)
Today 2022-07-29
20220829
Start 2022-07-01
20240426
20251125
0
1
2
3
Time to Expiry (Yrs)



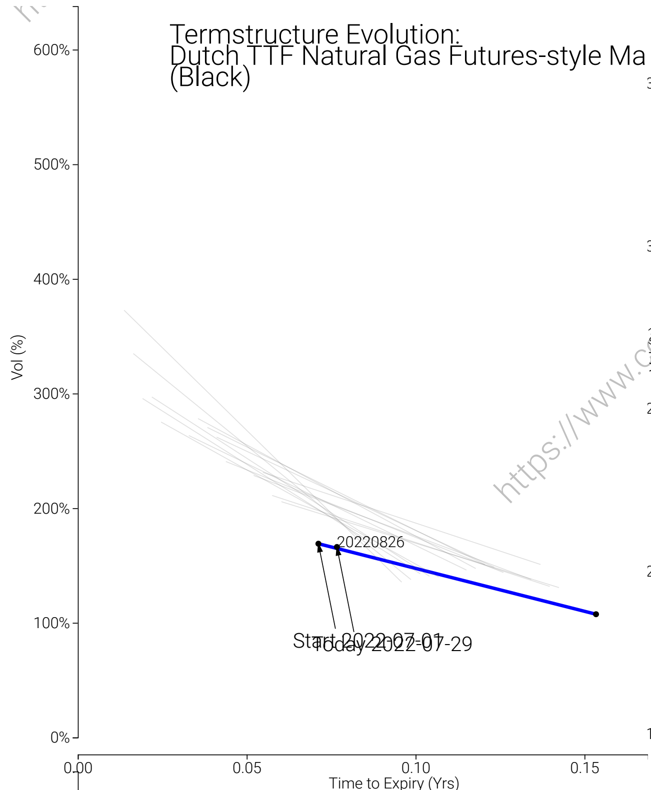
Front Month Dynamics:
Henry Hub Financial Last Day O Options
(Black)
vol
price
90%
80%
70%
60%
50%
Vol (%)
Price ($)
8
7
6
5
Time
Sun 03
Sun 10
Sun 17
Sun 24

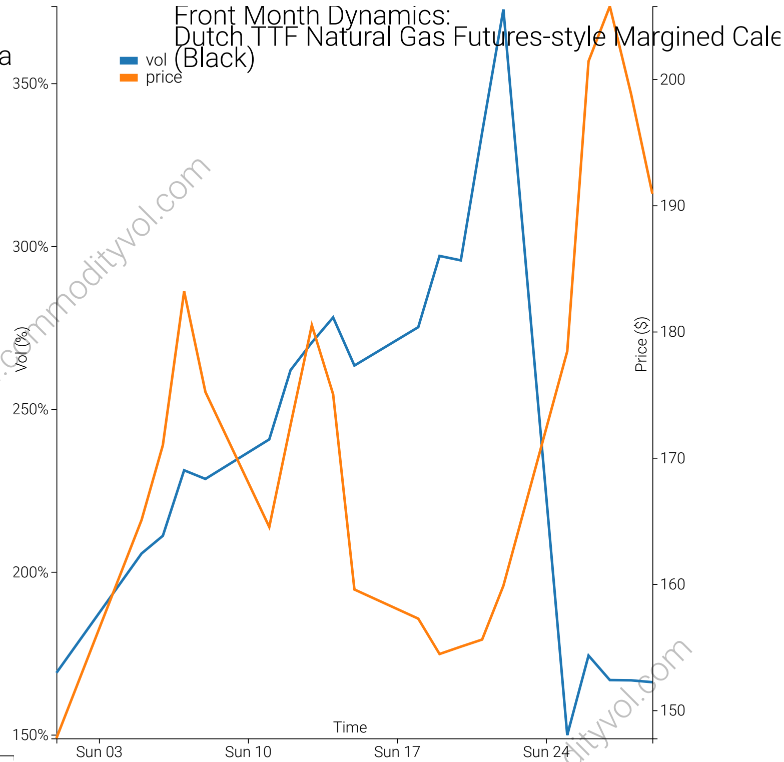


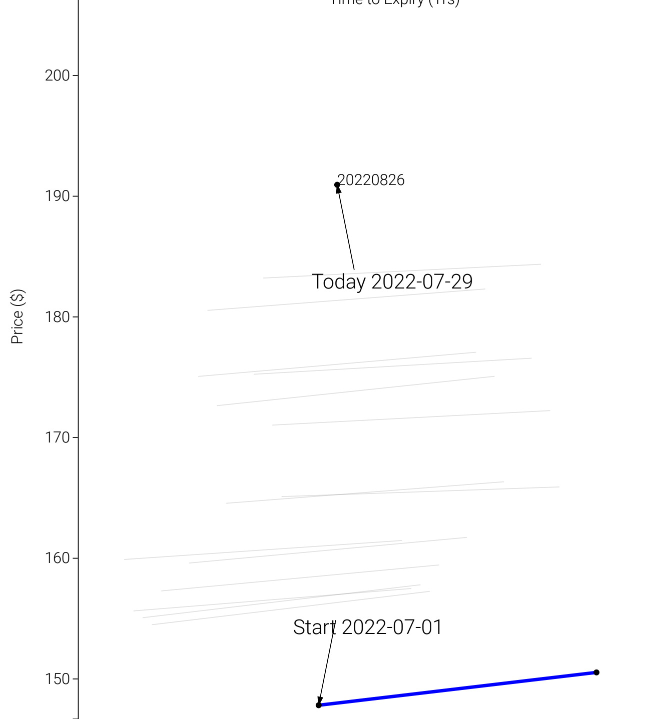
9
8
7
6
5
4
Price ($)
Today 2022-07-29
20220829
Start 2022-07-01
20240426
20251125

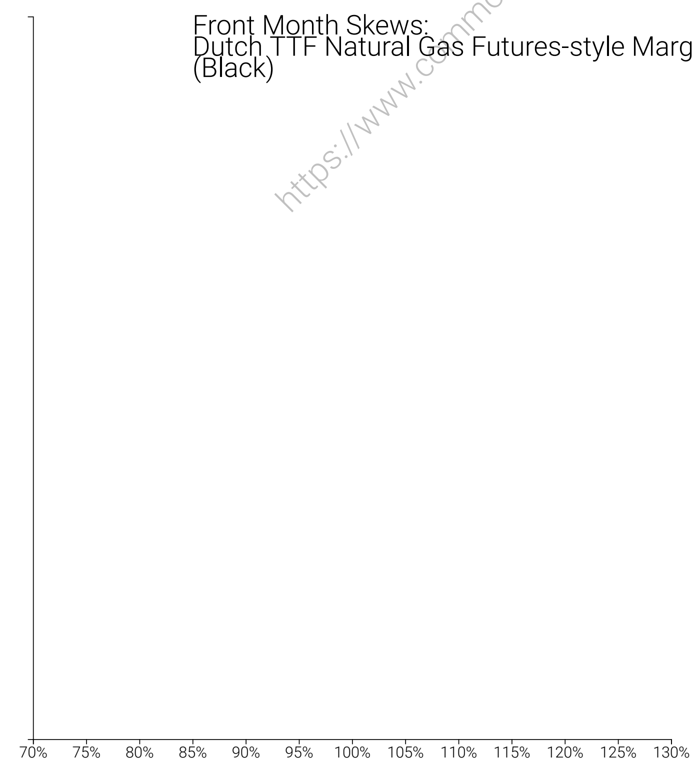


Front Month Skews:
Henry Hub Financial Last Day O Options
(Black)
120%
110%
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Today 2022-07-29
Start 2022-07-01
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

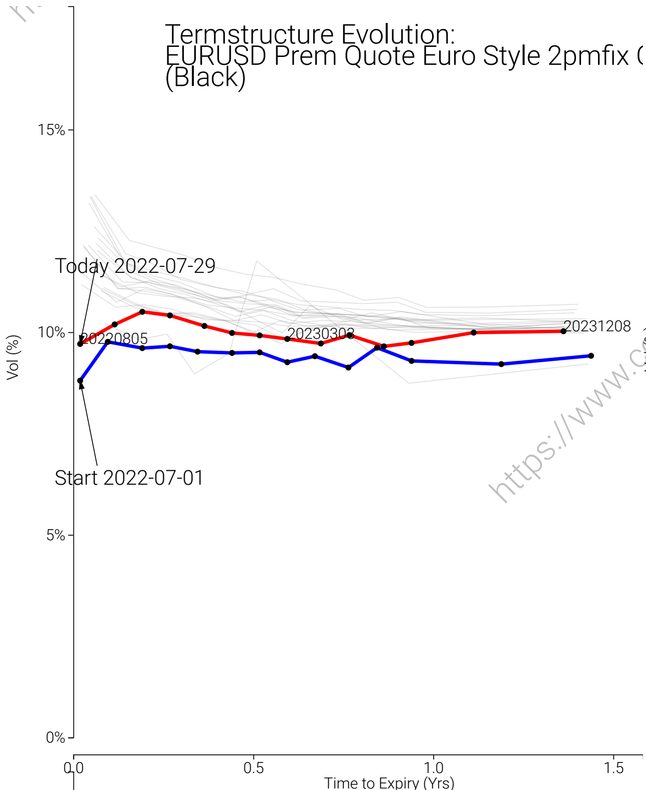

Termstructure Evolution:
Dutch TTF Natural Gas Futures-style Ma
(Black)
Vol (%)
600%
500%
400%
300%
200%
100%
0%
20220826
Start 2022-07-01
Today 2022-07-29
0.00
0.05
0.10
0.15
Time to Expiry (Yrs)

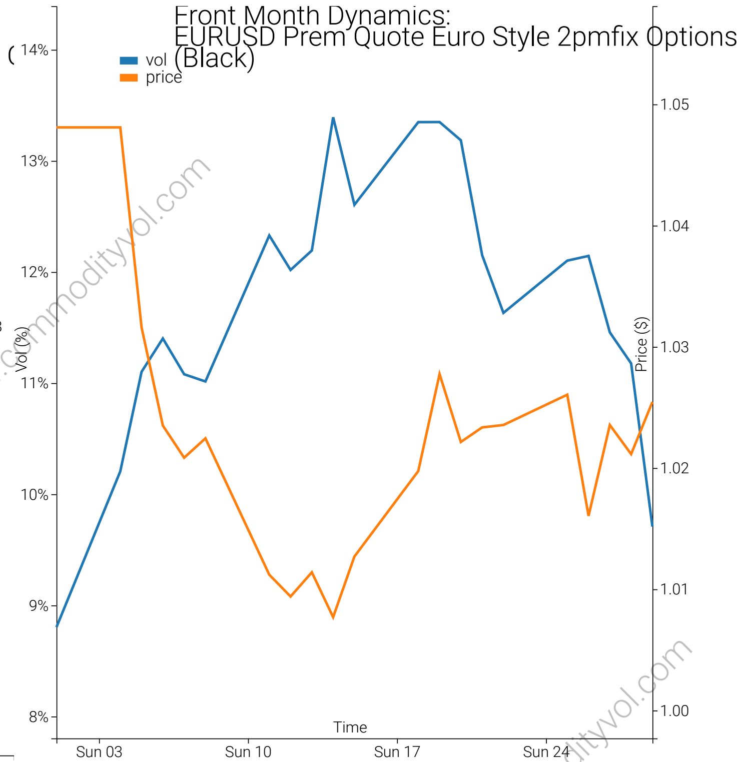

Front Month Dynamics:
Dutch TTF Natural Gas Futures-style Margined Cale
(Black)
vol
price
Vol (%)
350%
300%
250%
200%
150%
Price ($)
200
190
180
170
160
150
Time
Sun 03
Sun 10
Sun 17
Sun 24

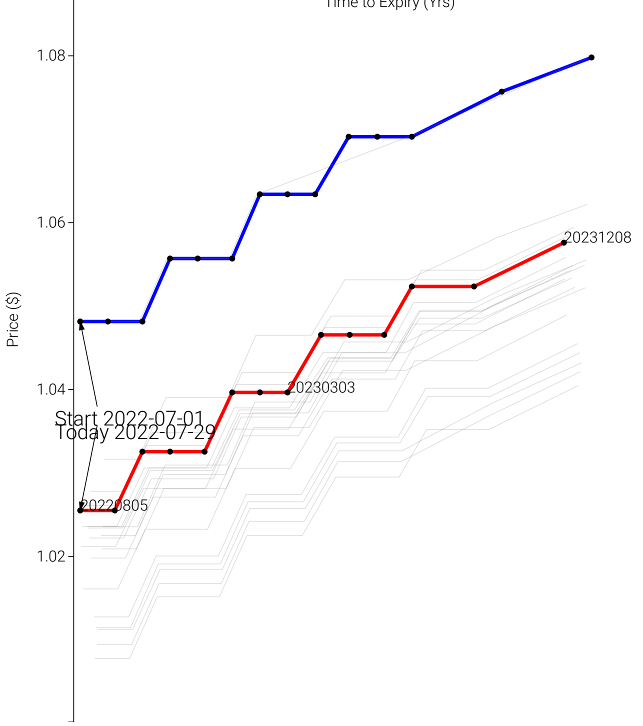

Price ($)
200
190
180
170
160
150
20220826
Today 2022-07-29
Start 2022-07-01

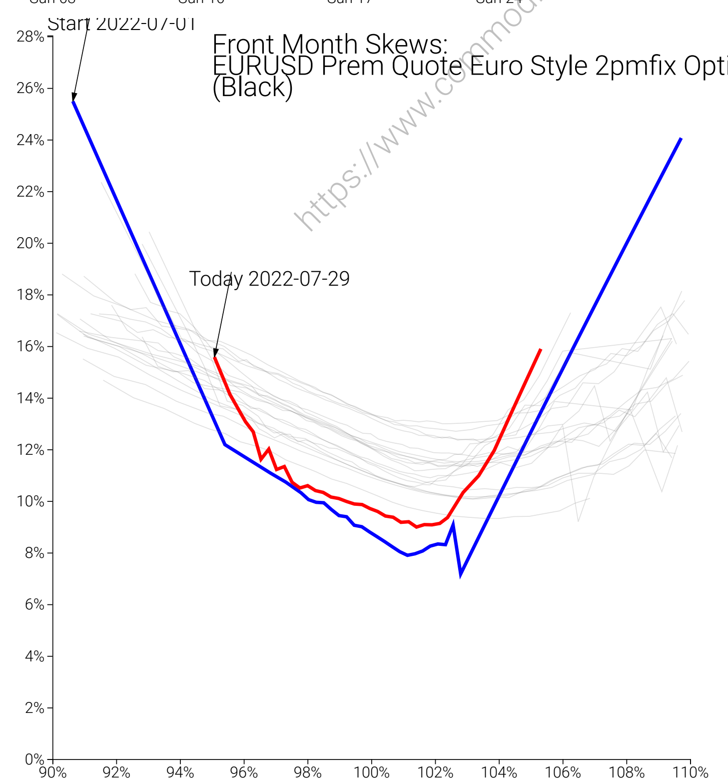

Front Month Skews:
Dutch TTF Natural Gas Futures-style Margin
(Black)
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

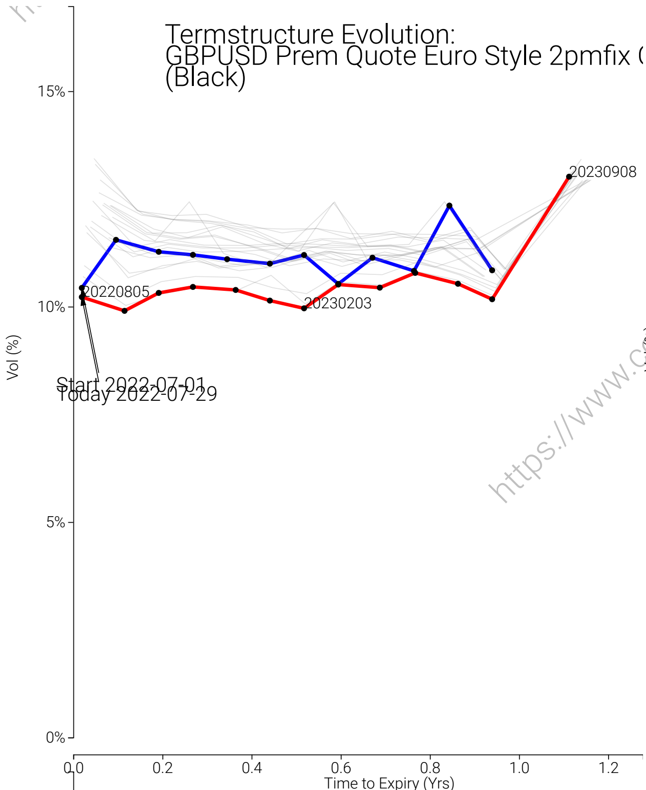
Forex

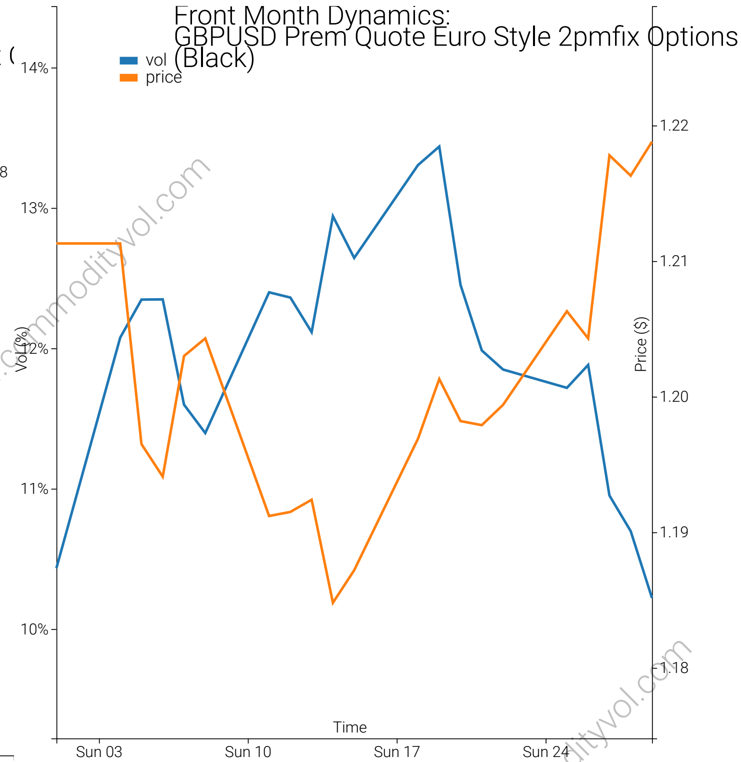

Termstructure Evolution:
EURUSD Prem Quote Euro Style 2pmfix (
(Black)
Today 2022-07-29
Start 2022-07-01
20220805
20230303
20231208
Vol (%)
Time to Expiry (Yrs)
0%
5%
10%
15%
0.0
0.5
1.0
1.5

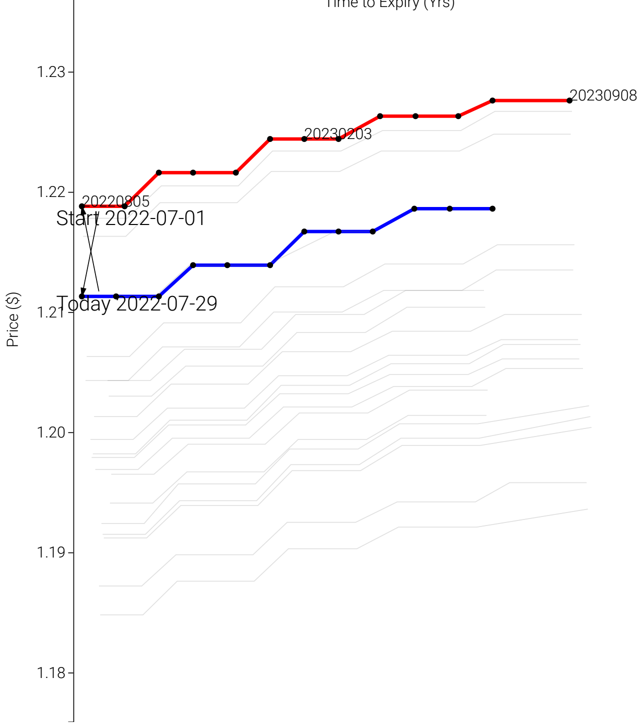

Front Month Dynamics:
EURUSD Prem Quote Euro Style 2pmfix Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

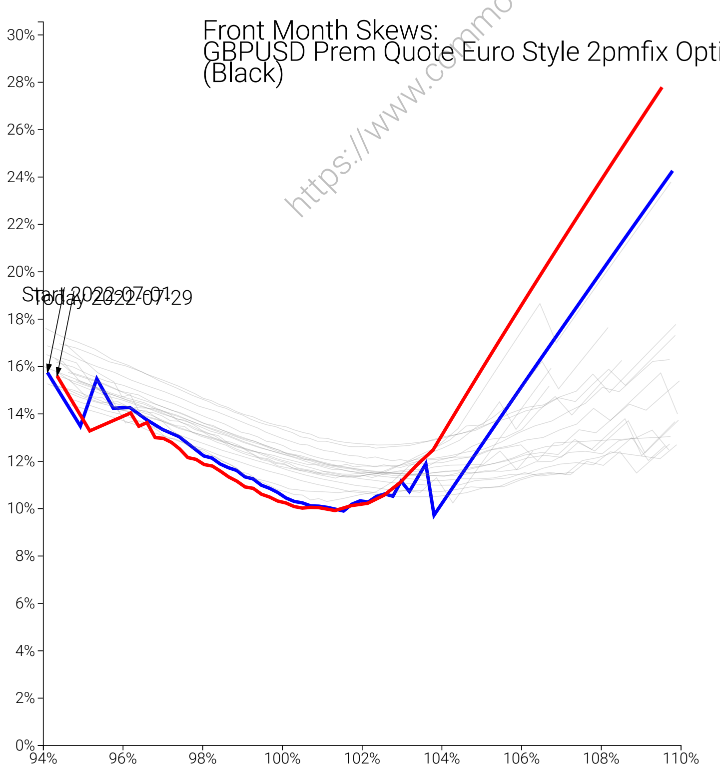

Price ($)
Start 2022-07-01
Today 2022-07-29
20220805
20230303
20231208
1.02
1.04
1.06
1.08

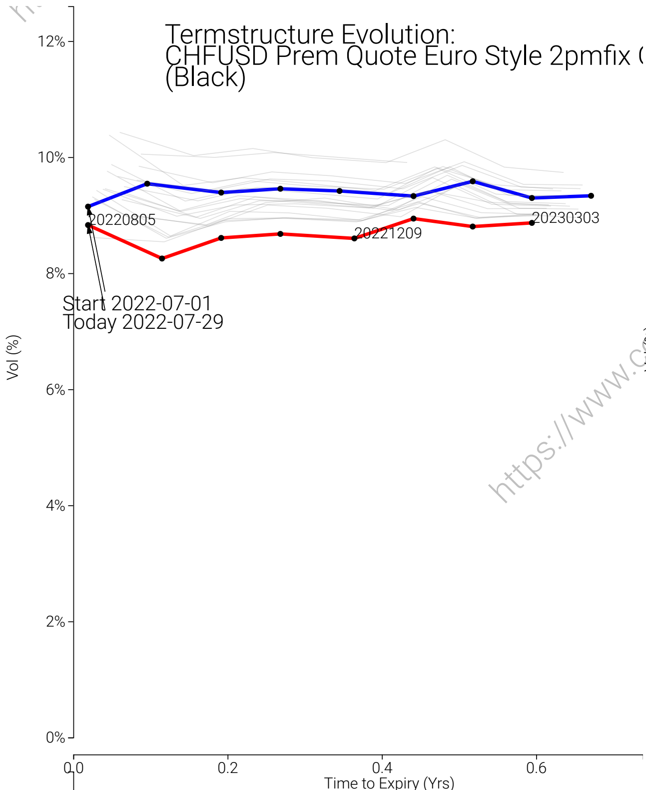

Front Month Skews:
EURUSD Prem Quote Euro Style 2pmfix Opti
(Black)
Start 2022-07-01
Today 2022-07-29
90%
92%
94%
96%
98%
100%
102%
104%
106%
108%
110%

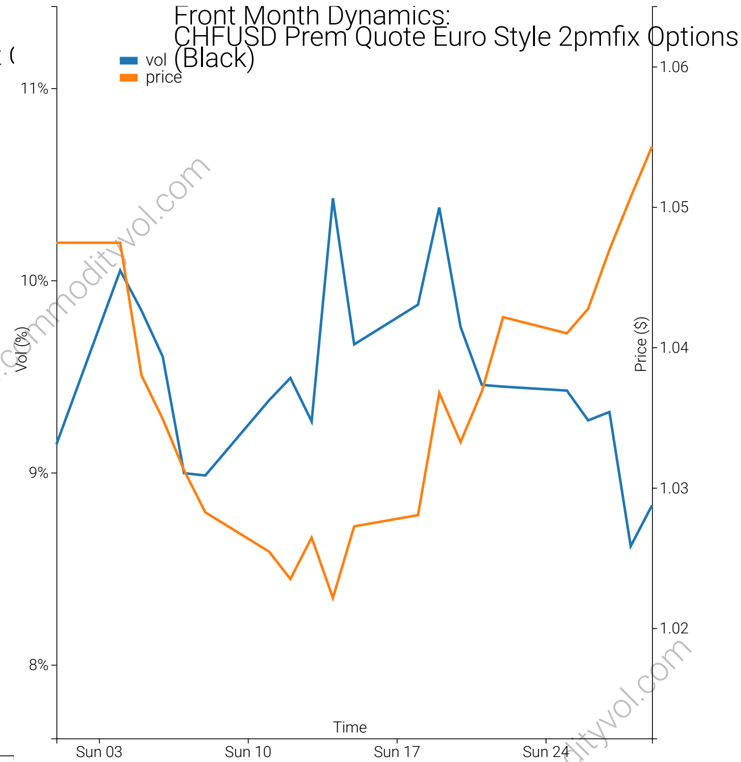

Termstructure Evolution:
GBPUSD Prem Quote Euro Style 2pmfix (
(Black)
Vol (%)
Time to Expiry (Yrs)
20230908
20220805
20230203
Start 2022-07-01
Today 2022-07-29

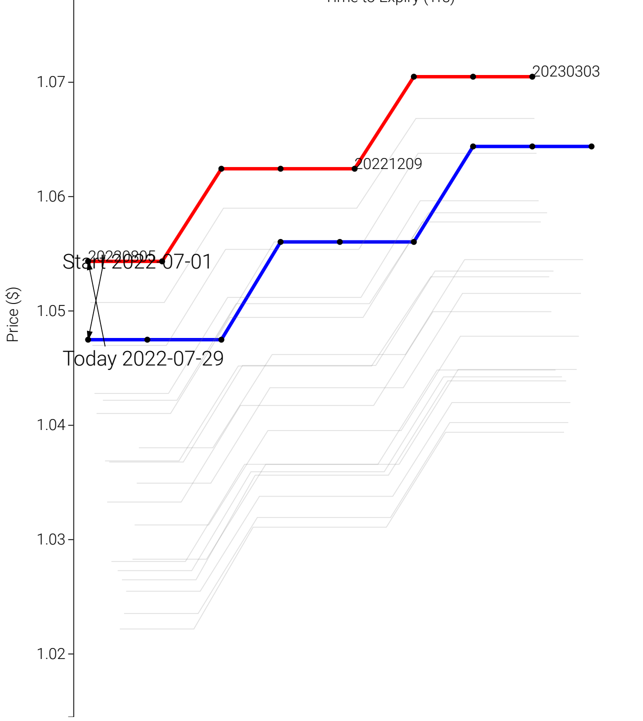

Front Month Dynamics:
GBPUSD Prem Quote Euro Style 2pmfix Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

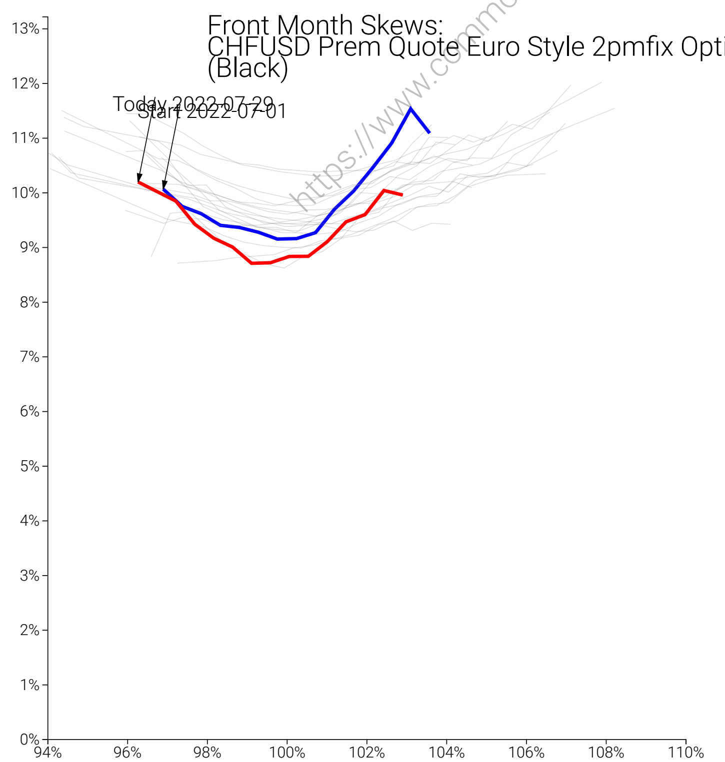

Price ($)
20230908
20230203
20220805
Start 2022-07-01
Today 2022-07-29

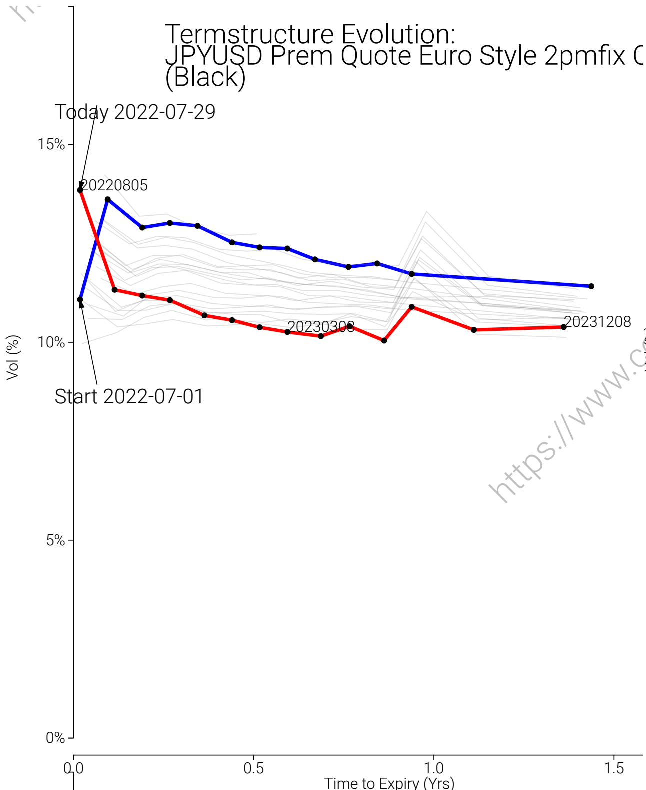

Front Month Skews:
GBPUSD Prem Quote Euro Style 2pmfix Opti
(Black)
Start 2022-07-01
Today 2022-07-29

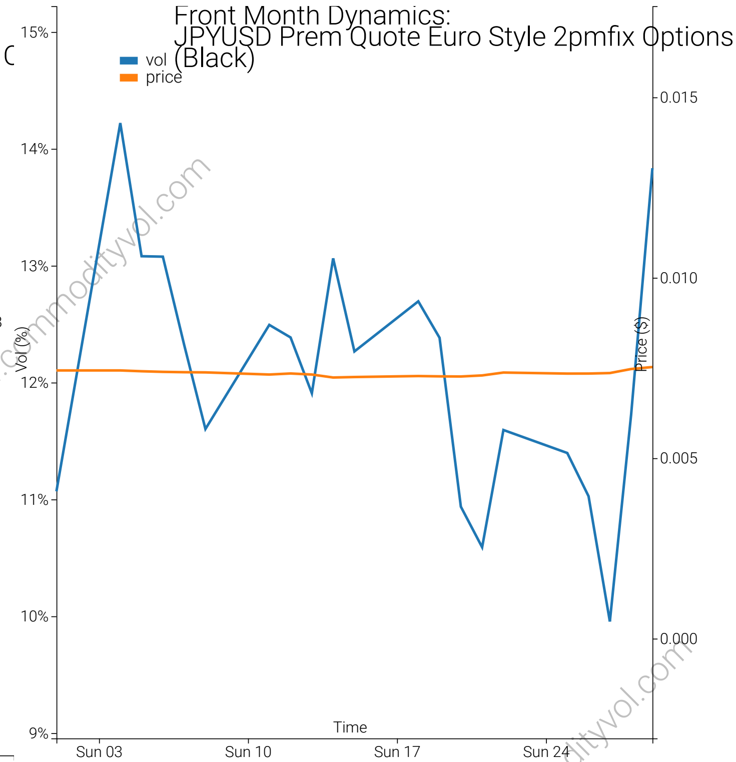

Termstructure Evolution:
CHFUSD Prem Quote Euro Style 2pmfix (
(Black)
12%
10%
8%
6%
4%
2%
0%
Vol (%)
20220805
20221209
20230303
Start 2022-07-01
Today 2022-07-29
0.0
0.2
0.4
0.6
Time to Expiry (Yrs)

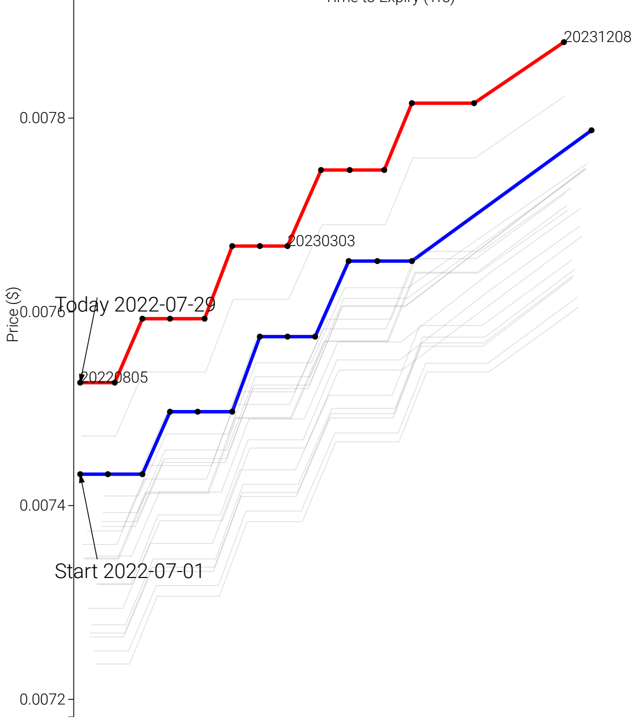

Front Month Dynamics:
CHFUSD Prem Quote Euro Style 2pmfix Options
(Black)
vol
price
11%
10%
9%
8%
Vol (%)
1.06
1.05
1.04
1.03
1.02
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

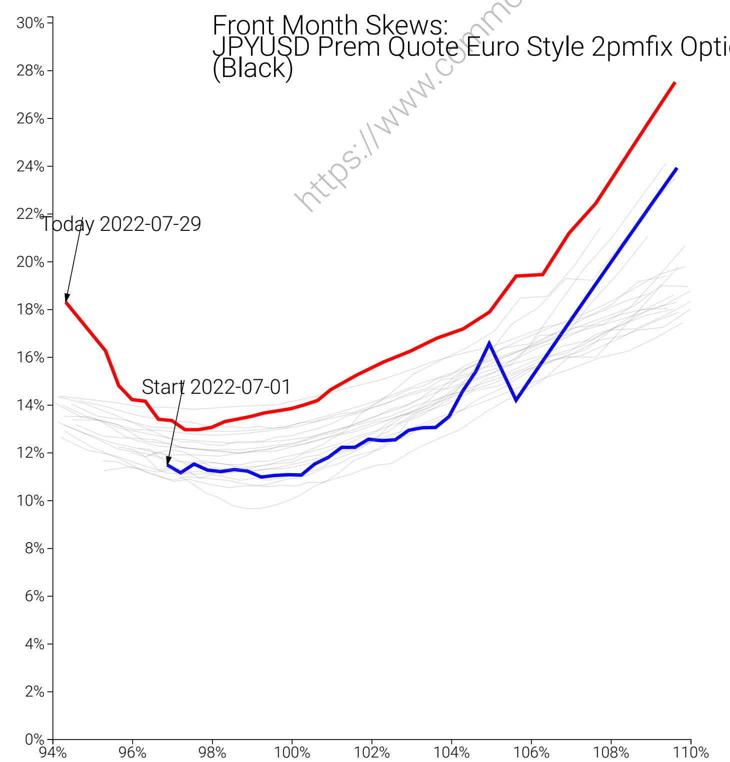

1.07
1.06
1.05
1.04
1.03
1.02
Price ($)
20230303
20221209
20220805
Start 2022-07-01
Today 2022-07-29

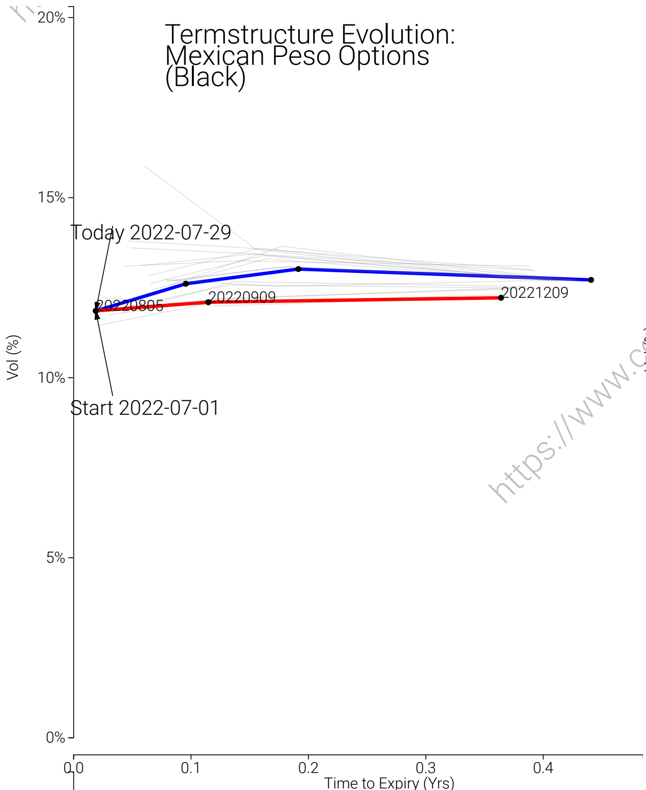

Front Month Skews:
CHFUSD Prem Quote Euro Style 2pmfix Opti
(Black)
Today 2022-07-29
Start 2022-07-01
13%
12%
11%
10%
9%
8%
7%
6%
5%
4%
3%
2%
1%
0%
94%
96%
98%
100%
102%
104%
106%
108%
110%

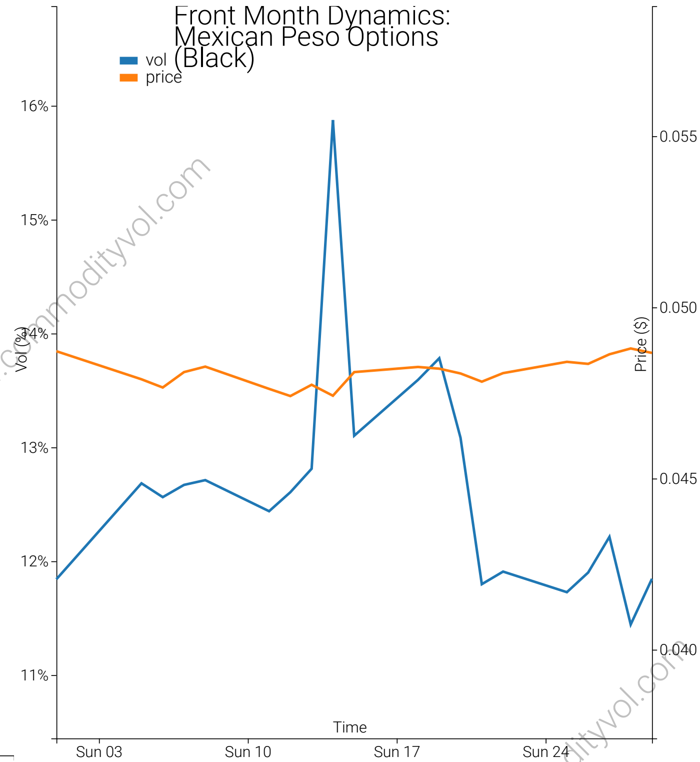

Termstructure Evolution:
JPYUSD Prem Quote Euro Style 2pmfix C
(Black)
Today 2022-07-29
20220805
20230303
20231208
Start 2022-07-01
Vol (%)
15%
10%
5%
0%
0.0
0.5
1.0
1.5
Time to Expiry (Yrs)

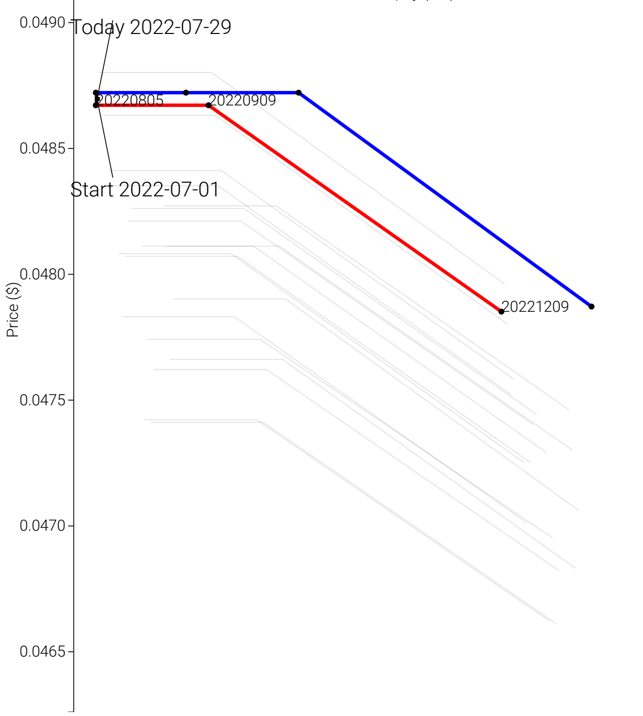

Front Month Dynamics:
JPYUSD Prem Quote Euro Style 2pmfix Options
(Black)
vol
price
Vol (%)
Price ($)
15%
14%
13%
12%
11%
10%
9%
0.015
0.010
0.005
0.000
Sun 03
Sun 10
Sun 17
Sun 24
Time

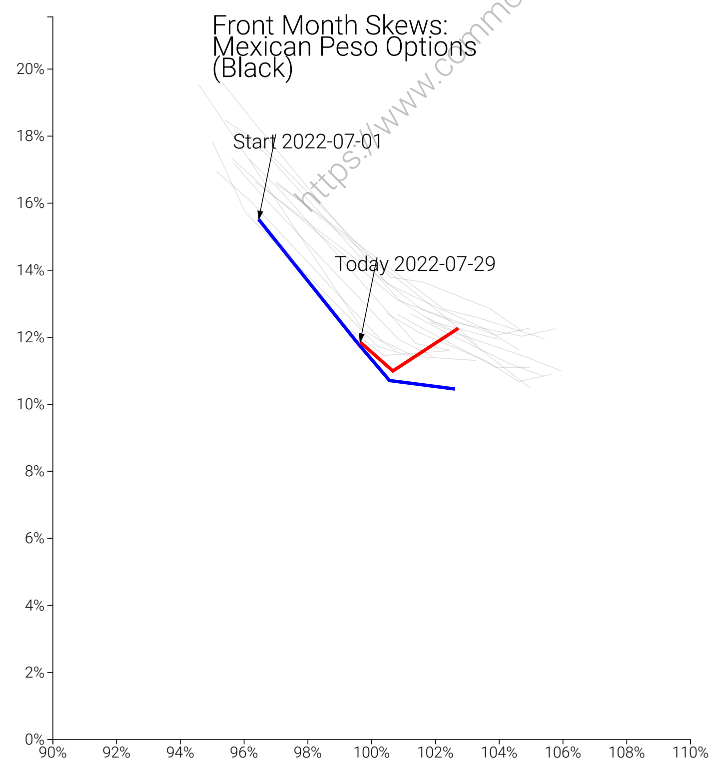

20231208
20230303
Today 2022-07-29
20220805
Start 2022-07-01
Price ($)
0.0078
0.0076
0.0074
0.0072

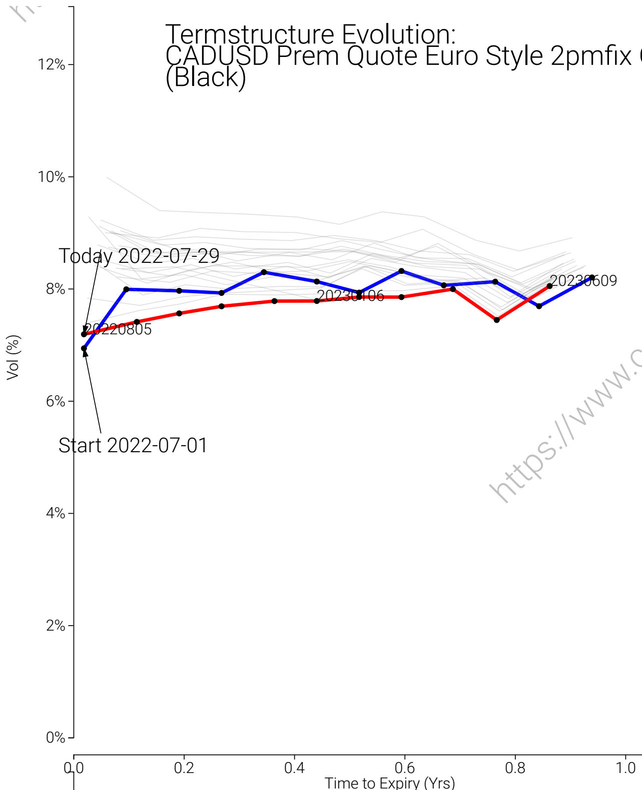

Front Month Skews:
JPYUSD Prem Quote Euro Style 2pmfix Optic
(Black)
Today 2022-07-29
Start 2022-07-01
30%
28%
26%
24%
22%
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
94%
96%
98%
100%
102%
104%
106%
108%
110%

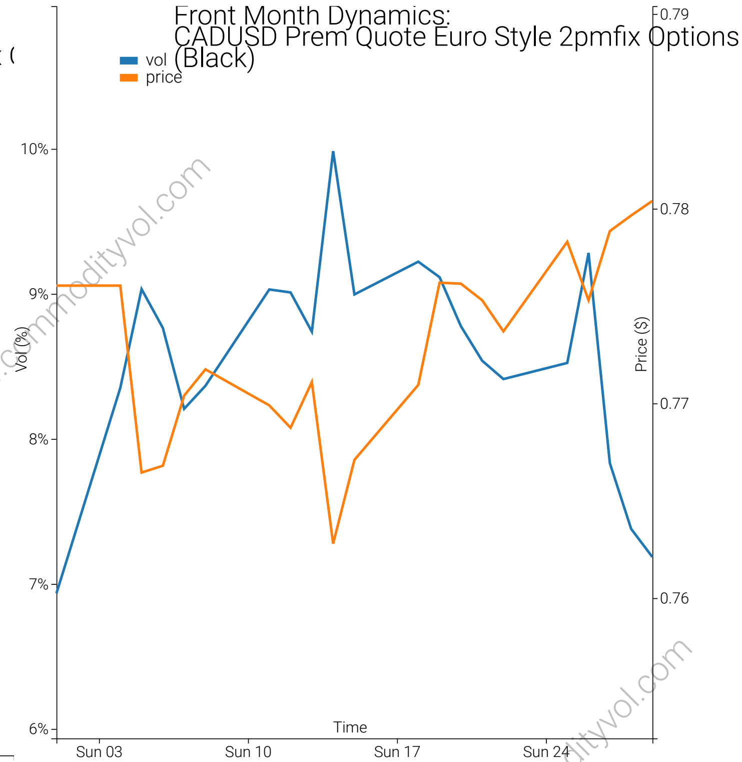

Termstructure Evolution:
Mexican Peso Options
(Black)
Vol (%)
20%
15%
10%
5%
0%
Today 2022-07-29
Start 2022-07-01
20220805
20220909
20221209
0.0
0.1
0.2
0.3
0.4
Time to Expiry (Yrs)

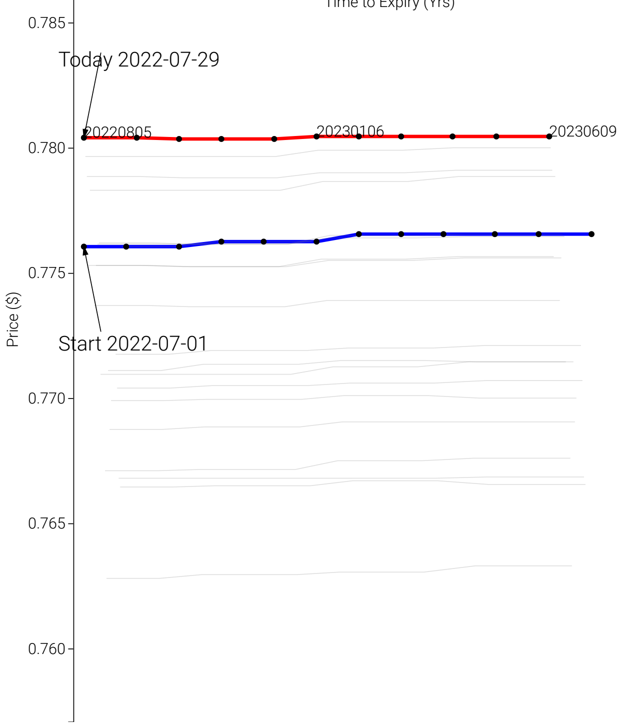

Front Month Dynamics:
Mexican Peso Options
(Black)
vol
price
Vol (%)
Price ($)
16%
15%
14%
13%
12%
11%
0.055
0.050
0.045
0.040
Time
Sun 03
Sun 10
Sun 17
Sun 24

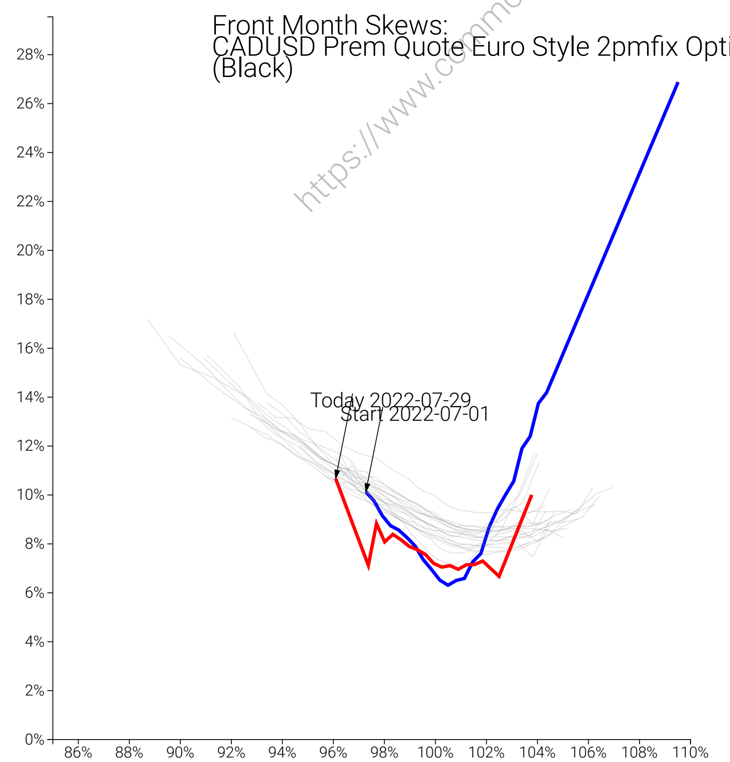

Price ($)
0.0490
0.0485
0.0480
0.0475
0.0470
0.0465
Today 2022-07-29
Start 2022-07-01
20220805
20220909
20221209

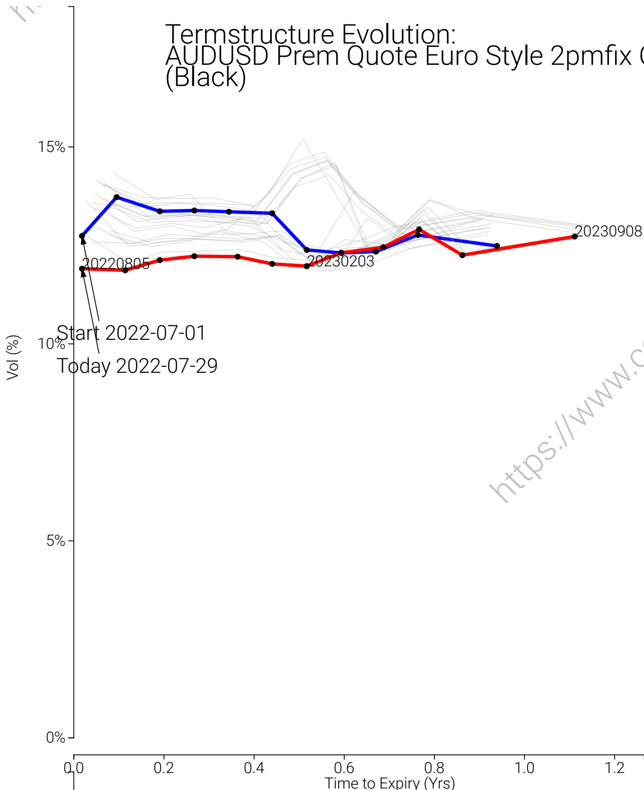

Front Month Skews:
Mexican Peso Options
(Black)
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
Start 2022-07-01
Today 2022-07-29
90%
92%
94%
96%
98%
100%
102%
104%
106%
108%
110%

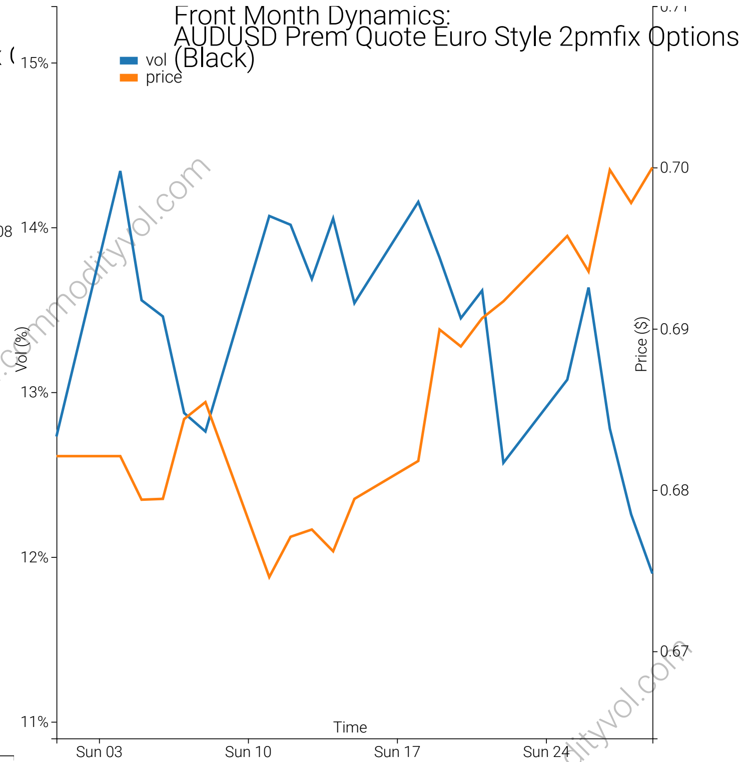

Termstructure Evolution:
CADUSD Prem Quote Euro Style 2pmfix (
(Black)
Today 2022-07-29
Start 2022-07-01
20220805
20230106
20230609
Vol (%)
Time to Expiry (Yrs)

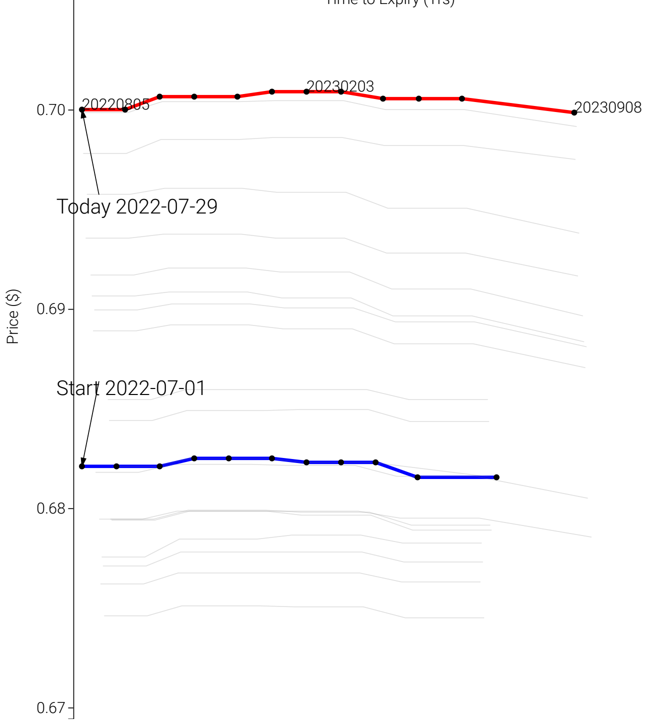

Front Month Dynamics:
CADUSD Prem Quote Euro Style 2pmfix Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

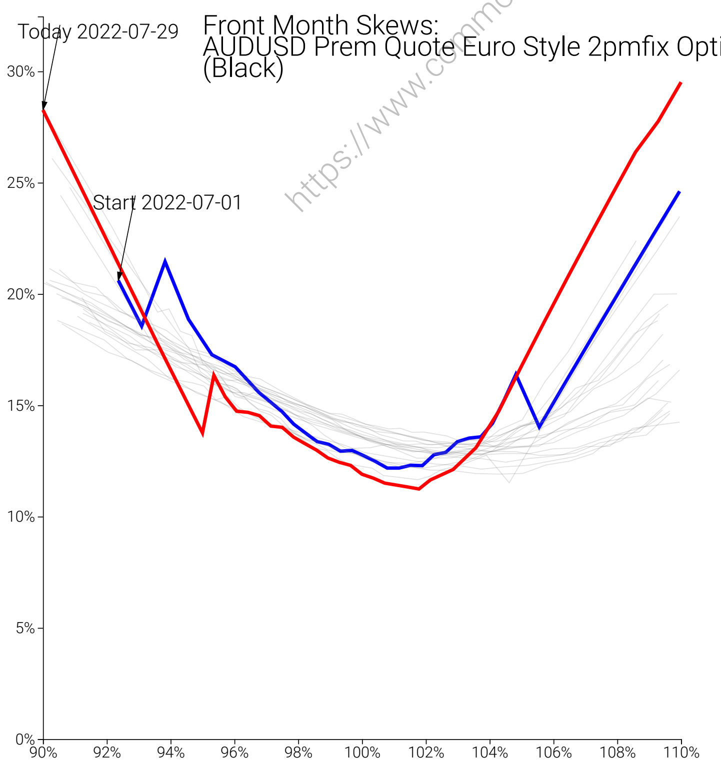

Today 2022-07-29
Start 2022-07-01
20220805
20230106
20230609
Price ($)

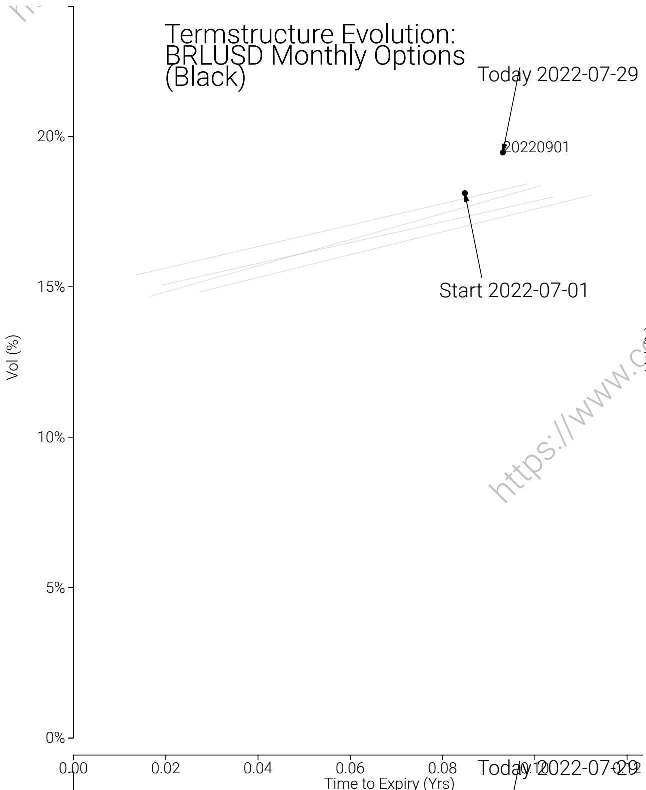

Front Month Skews:
CADUSD Prem Quote Euro Style 2pmfix Opti
(Black)
Today 2022-07-29
Start 2022-07-01

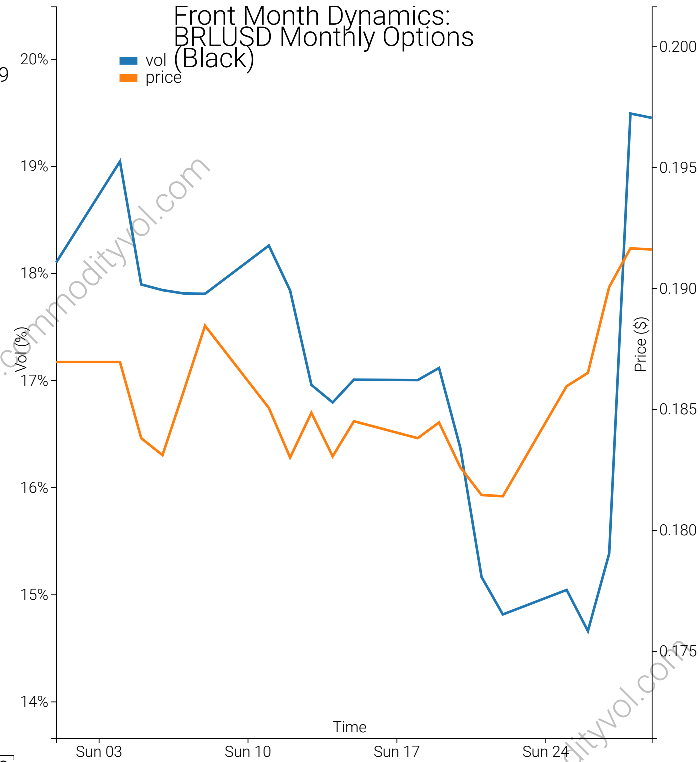

Termstructure Evolution:
AUDUSD Prem Quote Euro Style 2pmfix (
(Black)
15%
10%
5%
0%
Vol (%)
20220805
20230203
20230908
Start 2022-07-01
Today 2022-07-29
0.0
0.2
0.4
0.6
0.8
1.0
1.2
Time to Expiry (Yrs)

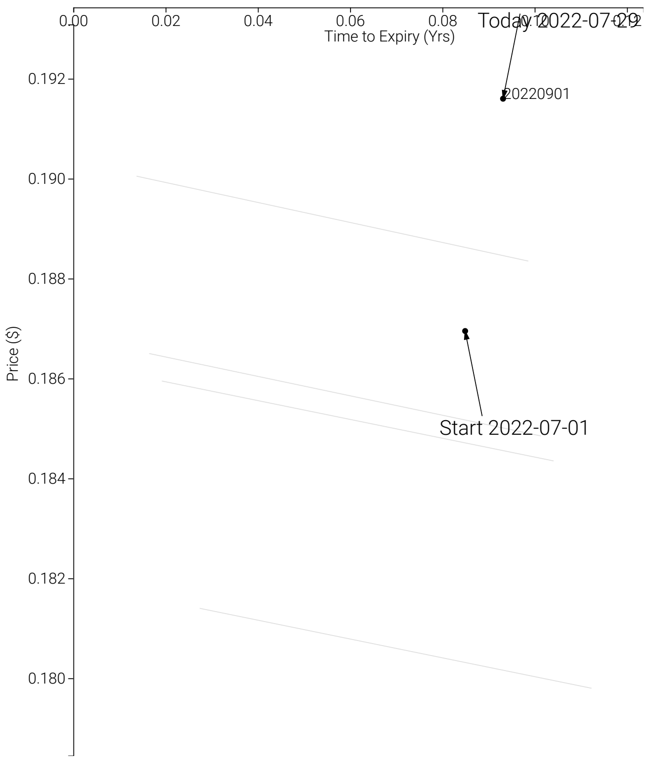

Front Month Dynamics:
AUDUSD Prem Quote Euro Style 2pmfix Options
(Black)
vol
price
15%
14%
13%
12%
11%
Vol (%)
0.70
0.69
0.68
0.67
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

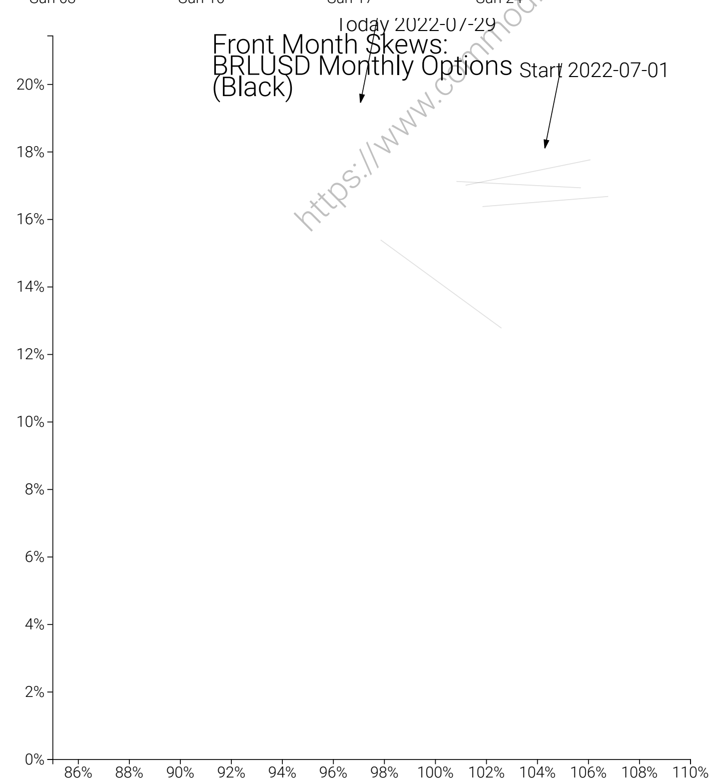

0.70
0.69
0.68
0.67
Price ($)
20220805
20230203
20230908
Today 2022-07-29
Start 2022-07-01

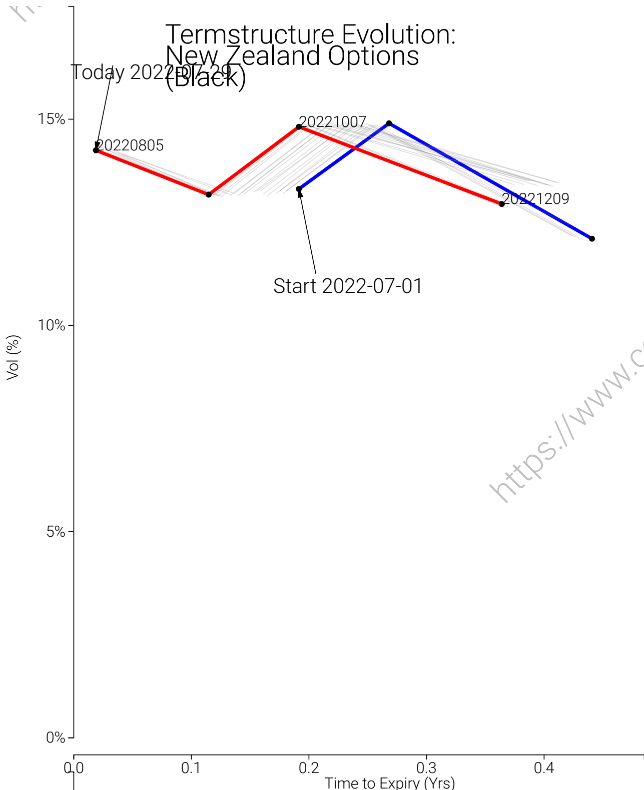

Today 2022-07-29
Front Month Skews:
AUDUSD Prem Quote Euro Style 2pmfix Opti
(Black)
Start 2022-07-01
30%
25%
20%
15%
10%
5%
0%
90%
92%
94%
96%
98%
100%
102%
104%
106%
108%
110%

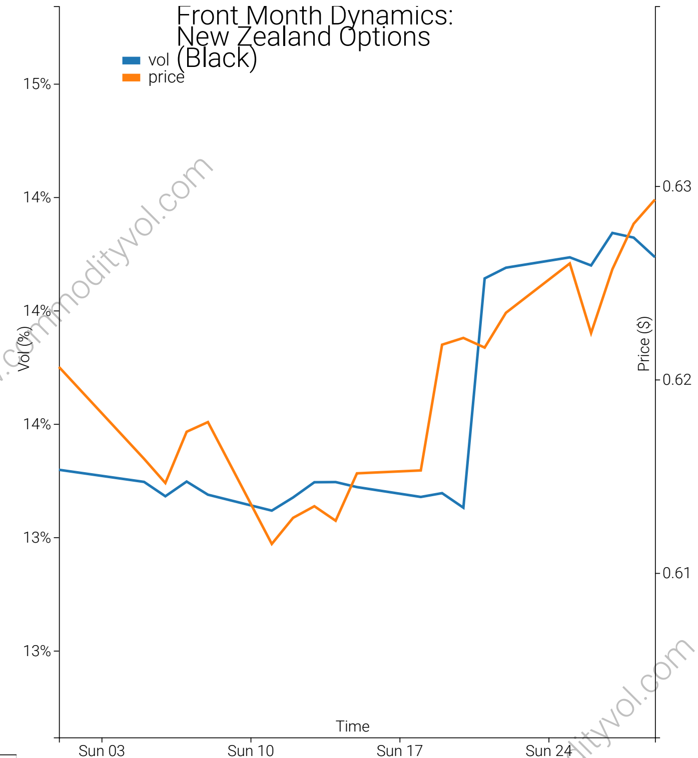

Termstructure Evolution:
BRLUSD Monthly Options
(Black)
Today 2022-07-29
20220901
Start 2022-07-01
Vol (%)
20%
15%
10%
5%
0%
0.00
0.02
0.04
0.06
0.08
Time to Expiry (Yrs)

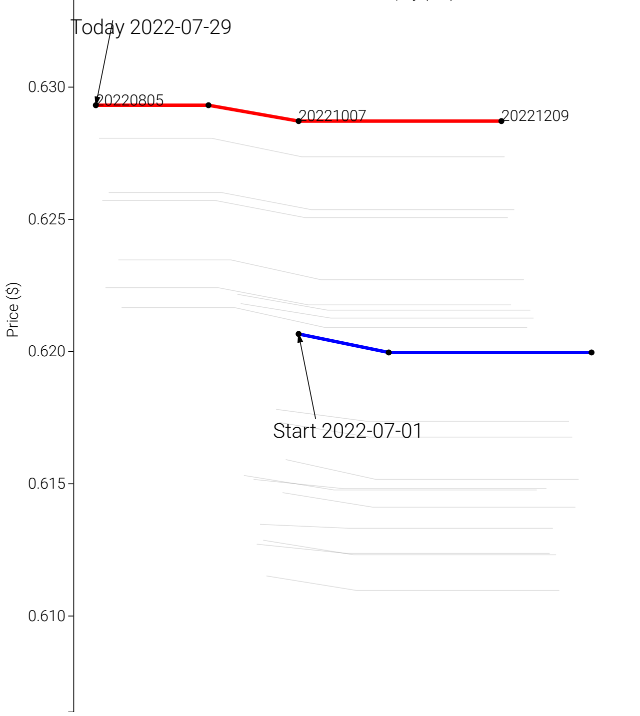

Front Month Dynamics:
BRLUSD Monthly Options
(Black)
vol
price
Vol (%)
Price ($)
20%
19%
18%
17%
16%
15%
14%
0.200
0.195
0.190
0.185
0.180
0.175
Time
Sun 03
Sun 10
Sun 17
Sun 24


Today 2022-07-29
20220901
Start 2022-07-01
Price ($)
0.192
0.190
0.188
0.186
0.184
0.182
0.180

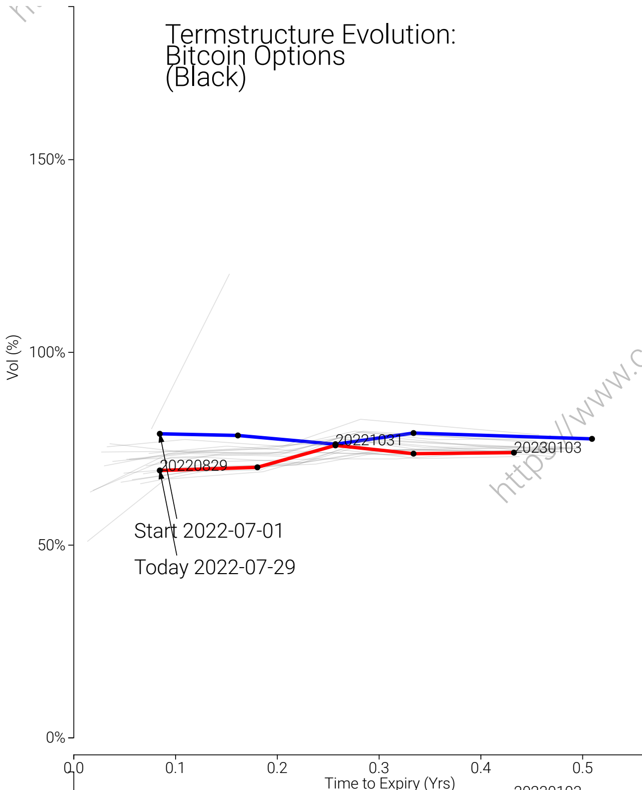

Today 2022-07-29
Front Month Skews:
BRLUSD Monthly Options
(Black)
Start 2022-07-01
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
86%
88%
90%
92%
94%
96%
98%
100%
102%
104%
106%
108%
110%

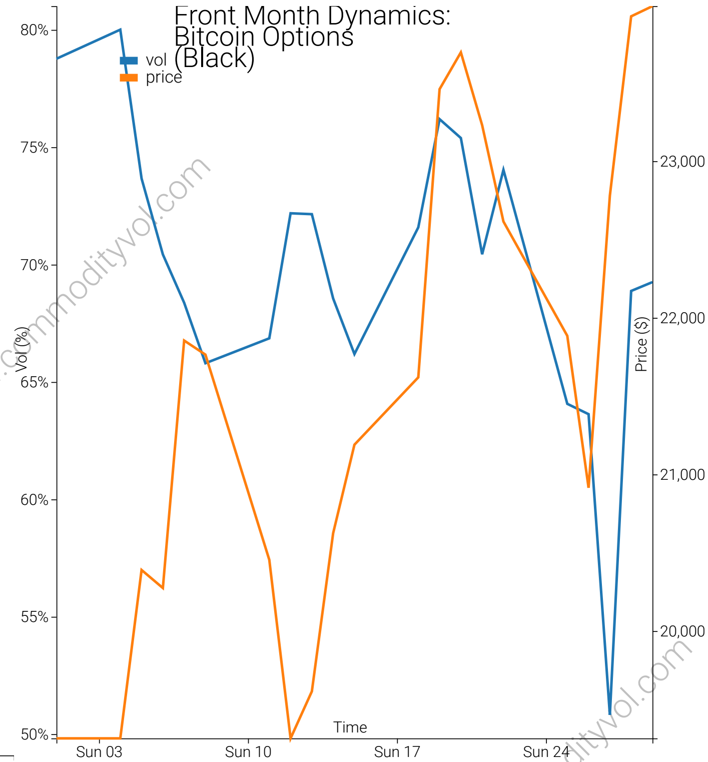

Termstructure Evolution:
New Zealand Options
(Black)
Today 2022-07-29
Start 2022-07-01
20220805
20221007
20221209
Vol (%)
Time to Expiry (Yrs)
0%
5%
10%
15%
0.0
0.1
0.2
0.3
0.4

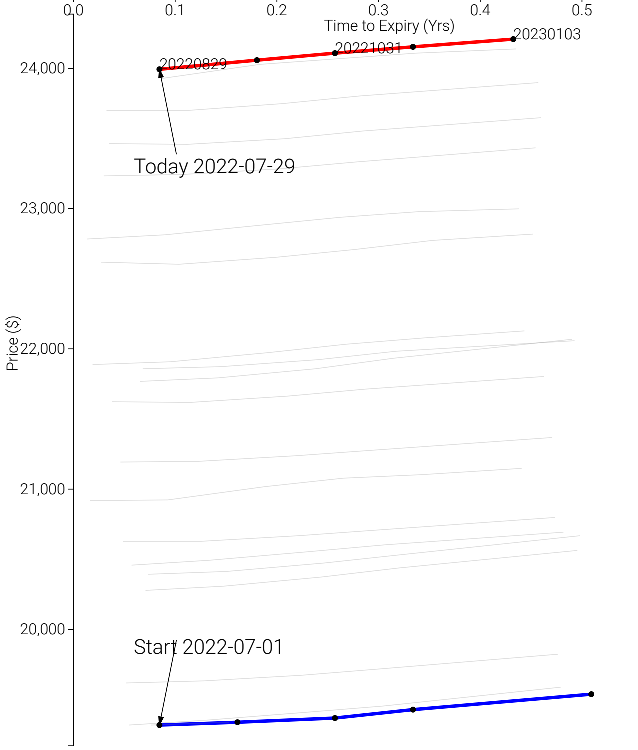

Front Month Dynamics:
New Zealand Options
(Black)
vol
price
Vol (%)
Price ($)
Time
13%
14%
15%
0.61
0.62
0.63
Sun 03
Sun 10
Sun 17
Sun 24

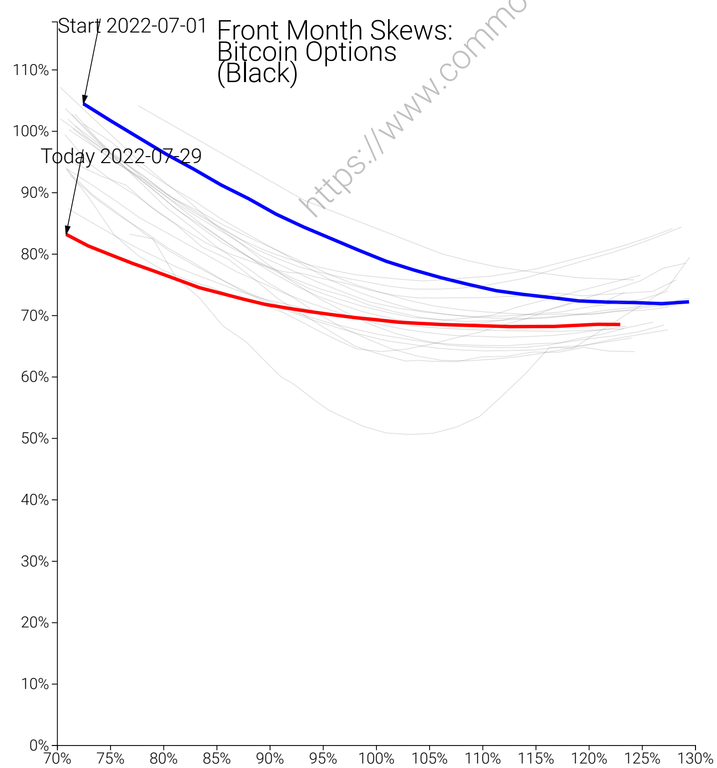

Today 2022-07-29
Start 2022-07-01
20220805
20221007
20221209
Price ($)
0.610
0.615
0.620
0.625
0.630


Front Month Skews:
New Zealand Options
(Black)
Today 2022-07-29
Start 2022-07-01
0%
2%
4%
6%
8%
10%
12%
14%
90%
92%
94%
96%
98%
100%
102%
104%
106%
108%
110%


Termstructure Evolution:
Bitcoin Options
(Black)
Vol (%)
150%
100%
50%
0%
20220829
20221031
20230103
Start 2022-07-01
Today 2022-07-29
0.0
0.1
0.2
0.3
0.4
0.5
Time to Expiry (Yrs)

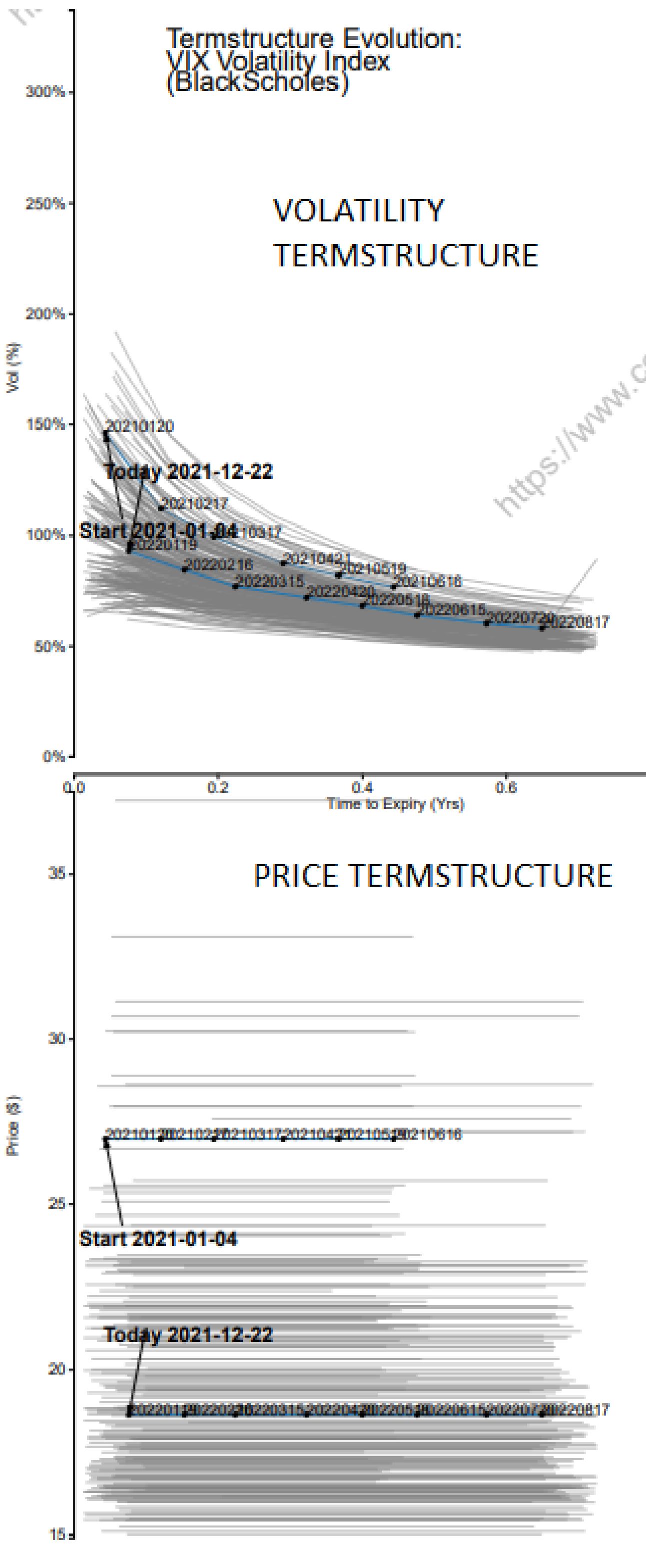

Front Month Dynamics:
Bitcoin Options
(Black)
vol
price
80%
75%
70%
65%
60%
55%
50%
Vol (%)
Price ($)
23,000
22,000
21,000
20,000
Time
Sun 03
Sun 10
Sun 17
Sun 24


20220829
20221031
20230103
24,000
23,000
22,000
21,000
20,000
Price ($)
Today 2022-07-29
Start 2022-07-01


Start 2022-07-01
Front Month Skews:
Bitcoin Options
(Black)
Today 2022-07-29
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%

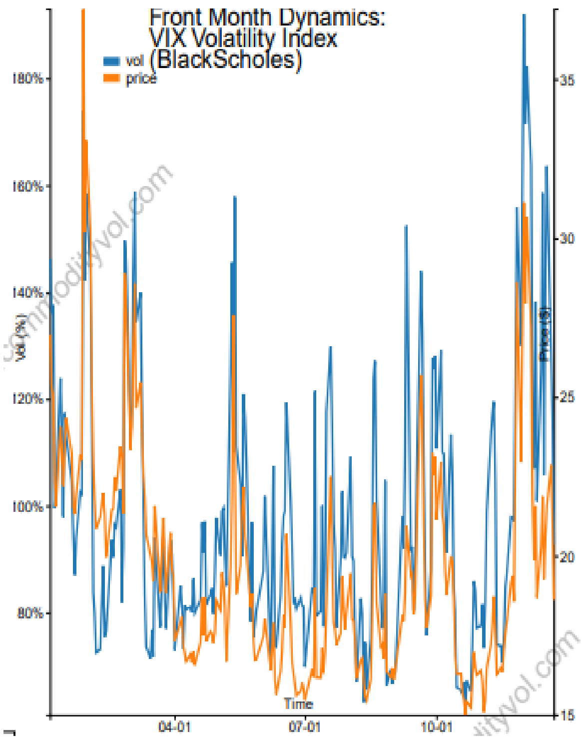
Explanation:
The document is composed of two parts. There is a tabular portion which summarizes the changes in front month futures prices and the changes in the at the money front month implied volatility. The results are presented as raw differences and percentage changes. The plots in this document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

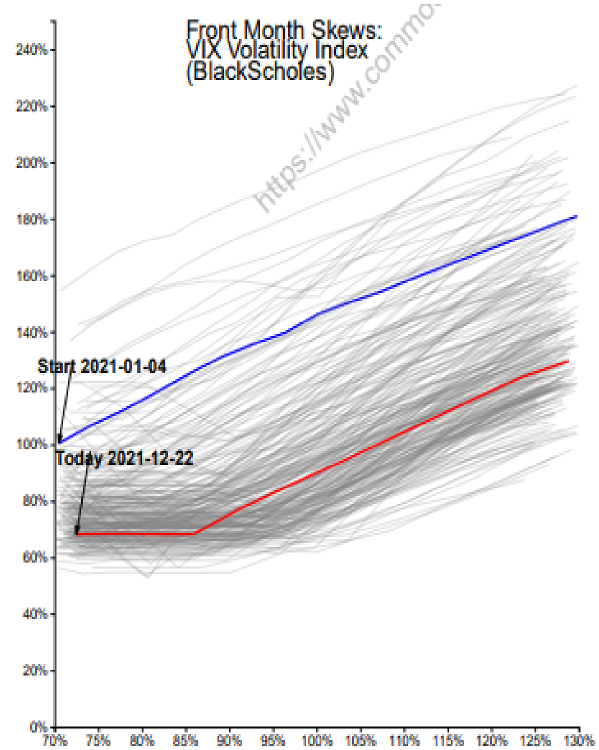
Front Month At the Money Volatilty and Front Month Price Over the Year:
On the right hand panel we have the price and implied volatility of the front month contract.



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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