Welcome to our September 2023 Recap:

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

Rates go up, markets go up? Nope! That was true a couple of months ago. Rates have gone up, and, just like the blast from Joshua's horn caused the walls to tumble, equity came falling down in response. There is a lot of impassioned hand-wringing. Everyone wants to see the end of the rate increases. On this point, we will side with the lemmings. There is a limit to the immediate pain, woe and misery Mr. Powell will seem to unleash on the markets-especially heading into the electioneering season in the US.

Truth be told, it is the view of this author that interest rates are endogenous (especially in the long run). Given the near failure of the banking system earlier this year, the COVID closure aftermath and oodles of misspent capital, it is a wonder it took this long for rates to adjust. Let us also not forget a long discarded theory of interest rate determination. Namely, there is a fixed amount of savings (low elasticity of supply), and some demand function for loanable funds. With low elasticity of supply and a profligate government, borrowing everything and sundry, the equilibrium interest rates must rise, irrespective of the Fed. The paradox is that the Fed's move probably catalyzed a change that was likely to happen. Mr Powell is pilloried right and left. However, just as Greenspan and Bernanke never earned the praise bestowed upon them, the clean up guy (Powell) doesn't deserve the slings and arrows. With a limited supply of loanable funds in the economy, the Fed will most likely be the backstop in the bond market. They must supply the loanable funds that private sources do not have. This is the tango with the Devil that will be hard to escape. It is the seductive dance that consumed Hungary, Yugoslavia and Zimbabwe. Whether the Fed Funds target is raised or lowered, the big risk is the creeping monetization of the debt. We predict that the stable price mandate of the Fed will fade. You can't have omelets if you never break a few eggs. The choice will be between a failed US Government bond market and high inflation. It is easy to see that a few eggs will be broken.

What are the implications for commodities? The moves in commodities have been muted. Yes, oil is up. Some of the oil derivatives are showing signs of life, but this is due more to OPEC+ coordination and less the interest rate policy. We believe that many or most commodities should see a bid. On the other hand, the effect is likely to be complicated because the basis is likely to change dramatically. This interplay between buying pressure as well as the increased financing cost might have all sorts of effects on the shape of price curves. We would expect both realized and implied volatility to rise. Consumers and producers of commodities would do well to consider building a hedging program now-in a much more forgiving environment. We stand by to offer our help.

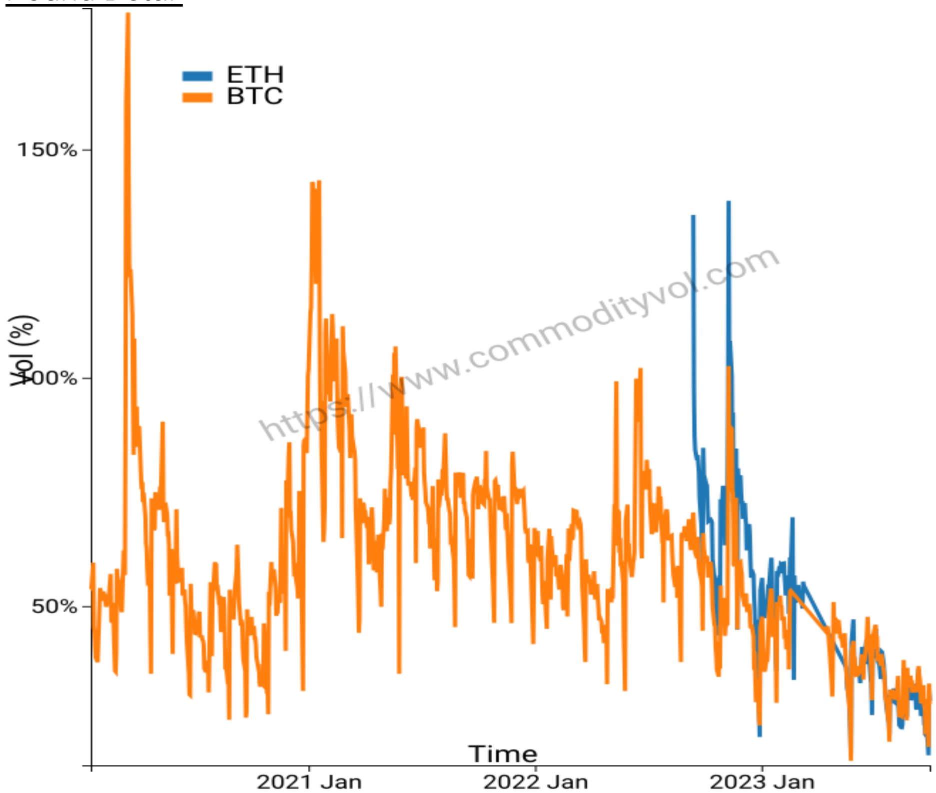
All things in consideration, the FX market seems to be uncertain what direction to take. The Dollar gained slightly against the Yen and the Euro. The crypto futures contracts also gained. Vol was down almost across the board. It is interesting that the Ethereum contract has mirrored closely the BTC contract-with the implied volatility diminishing for both.

[Foreign Exchange ATM]

[Bitcoin Detail]

[Yen Detail]

[Pound Detail]



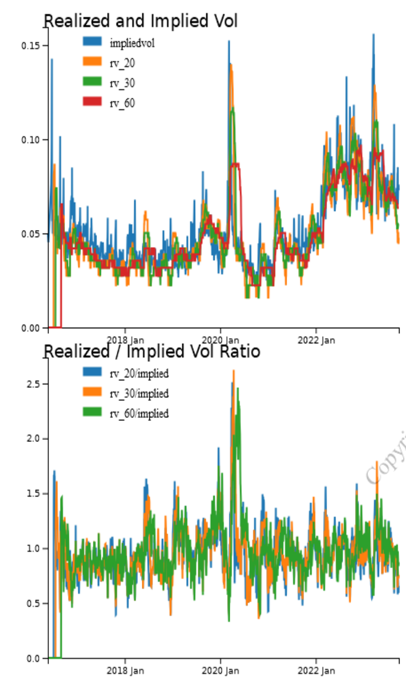
The interest rate picture got an update this past month. The certainty that this Fed Fund rate revision was the last one has collapsed. Unlike the previous times, the curve has sold off and stayed sold off. The move was approximately in line with the maturity of the futures. The biggest move was in the long end of the market. Vol also increased dramatically. Vol increased 10 bps at the short end to about 300 bps at the 30 Year or Ultra Bond contract. Looking at realized to implied ratios in the US Treasury contract, it is easy to see the uncertainty creeping into the picture.

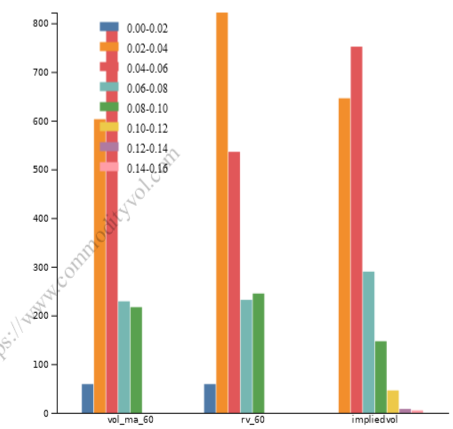
[Interest Rates ATM]

[10 Year Detail]

[30 Year Detail]

10 YR US Treasury Note Options Front Month 50Δ





	mean	median	min	max	stddev
impliedvol	0.052	0.045	0.022	0.156	0.020
dailyreturn	-0.000	0.000	-0.015	0.020	0.003
sqrt(dr*dr*252)	0.038	0.028	0.000	0.312	0.038
vol_ma_20	0.051	0.045	0.000	0.112	0.019
vol_ma_30	0.051	0.044	0.000	0.104	0.019
vol_ma_60	0.050	0.044	0.000	0.094	0.019
rv_20	0.048	0.042	0.000	0.139	0.023
rv_30	0.048	0.042	0.000	0.117	0.022
rv_60	0.048	0.042	0.000	0.097	0.021

The index magic came up short this month. S&P 500 was down a bit more than 4%. The Russell Index was down approximately 7%. Vol rocketed up dramatically, but, our view is that vol is below its historical norms. S&P500 vol rallied by 570 bps. The VIX moved up 4.48-which close to the S&P 500. The vol of vol rocketed up. Again, the levels are still very low from a historical perspective. We are also entering the Christmas shopping season. If the reports about diminishing credit quality are true, the holiday season might be another downside catalyst.

[EquityIndex ATM]

[SP500 Detail]

[VIX Detail]

Metals were mostly down. Copper, Gold and Platinum were down significantly. Palladium was the only standout. The feeling seems to be that metals are suffering from the expected slow down as the rates bite. Our view is that this is temporary. The Fed must provide liquidity and that will put upward pressure on prices. Implied vol was up for Gold and Silver, with vol down for Palladium.

[Metals ATM]

Copper Detail
Silver Detail

Except for cattle, almost all agricultural commodities were down. The soybean complex was down aggressively, from 5 to 14%. Wheat was down approximately 10%. Vol was down in most commodities, except for cattle, oats and bean oil. This is a far cry from what was happening a couple of months ago.
Ags ATM
Wheat Detail
Soybeans Detail
Corn Detail
Ags Details

Just as the talking heads were sure that the rates would stop rising, they were sure that the OPEC+ cartel would fail. OPEC+ has so far been quite deft in its moves around managing the supply of oil. Brent was up 3.65 and WTI was up about $5.24. Implied volatility for both contracts showed an unusually healthy bid, rising by 360 bps for Brent and 470 bps for WTI. The decision of Russia to cease exporting diesel has put a floor under diesel. However, the moves have been very sedate. Implied vol is up, but nothing to suggest fear in the market. We shall see how calm things remain into winter. Finally, Natural Gas was up 0.16, with vol continuing to drip away.
Energy ATM
US Natty Gas Detail
Details Energy

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At The Money Roundup of Products

EquityIndex

exch/prod	desc	futures chng [%]	vol chng [%]
CBT/YM	E-Mini Dow	-1157.000 [-3.3%]	+0.032 [+33.2%]
CME/NQ	E-Mini Nasdaq	-649.750 [-4.2%]	+0.052 [+34.7%]
CME/RTO	E-Mini Russell 2000	-124.100 [-6.5%]	+0.056 [+42.5%]
CME/RTM	E-Mini Russell EOM	-143.600 [-7.4%]	+0.036 [+24.3%]
CME/ES	E-Mini S&P 500	-196.000 [-4.3%]	+0.057 [+60.0%]
CBOE/VIX	VIX Volatility Index	+4.430 [+33.8%]	+0.393 [+74.5%]

Energy

exch/prod	desc	futures chng [%]	vol chng [%]
NYMEX/BZO	Brent Crude Oil Margin	+3.650 [+4.1%]	+0.036 [+14.3%]
NYMEX/BE	Brent Euro Style	+4.400 [+5.0%]	+0.032 [+12.3%]
NYMEX/CVR	Chicago Ethanol(platts) Average Price	-0.075 [-3.3%]	+0.028 [+16.5%]
NYMEX/LO	Crude Oil	+5.240 [+6.1%]	+0.047 [+17.6%]
NYMEX/LN	European Natural Gas	+0.164 [+5.9%]	-0.038 [-6.1%]
NYMEX/E7	Henry Hub Financial Last Day	+0.164 [+5.9%]	-0.042 [-6.7%]
NYMEX/ON	Natural Gas	+0.164 [+5.9%]	-0.039 [-6.3%]
NYMEX/OH	NY Harbor ULSD	+0.196 [+6.3%]	+0.013 [+4.1%]
NYMEX/OB	RBOB	-0.192 [-7.4%]	+0.018 [+5.6%]

Forex

exch/prod	desc	futures chng [%]	vol chng [%]
CME/ADU	AUDUSD 2pmfix	+0.000 [+0.0%]	-0.003 [-2.9%]
CME/BTC	Bitcoin	+1400.000 [+5.4%]	-0.025 [-8.1%]
CME/CAU	CADUSD 2pmfix	+0.003 [+0.4%]	+0.005 [+9.1%]
CME/CHU	CHFUSD 2pmfix	-0.030 [-2.6%]	+0.011 [+18.6%]
CME/ETH	Ethereum	+55.500 [+3.4%]	-0.024 [-7.5%]
CME/EUU	EURUSD 2pmfix	-0.017 [-1.6%]	+0.002 [+2.7%]
CME/GBU	GBPUSD 2pmfix	-0.038 [-3.0%]	+0.009 [+14.5%]
CME/JPU	JPYUSD 2pmfix	-0.000 [-1.2%]	-0.004 [-5.3%]
CME/MP	Mexican Peso	-0.002 [-2.8%]	+0.016 [+14.1%]
CME/NE	New Zealand	+0.006 [+1.0%]	+0.003 [+3.1%]

InterestRates

exch/prod	desc	futures chng [%]	vol chng [%]
CBT/26	2 YR US Treasury Note	-0.523 [-0.5%]	-0.001 [-3.2%]
CBT/25	5 YR US Treasury Note	-1.367 [-1.3%]	+0.002 [+4.3%]
CBT/21	10 YR US Treasury Note	-2.516 [-2.3%]	+0.008 [+11.7%]
CBT/17	30 YR US Treasury Bond	-6.563 [-5.5%]	+0.029 [+24.3%]
CBT/UBE	Long Term US Treasury Bond	-9.094 [-7.1%]	+0.038 [+25.8%]
CME/S0	One-year Mid-curve Three-month SOFR	-0.065 [-0.1%]	+0.000 [+1.1%]
CME/SR3	Three-month SOFR	-0.045 [-0.0%]	+0.002 [+64.8%]
CME/S3	Three-year Mid-curve Three-month SOFR	-0.345 [-0.4%]	+0.002 [+13.5%]
CME/S2	Two-year Mid-curve Three-month SOFR	-0.285 [-0.3%]	+0.000 [+2.5%]

Metals

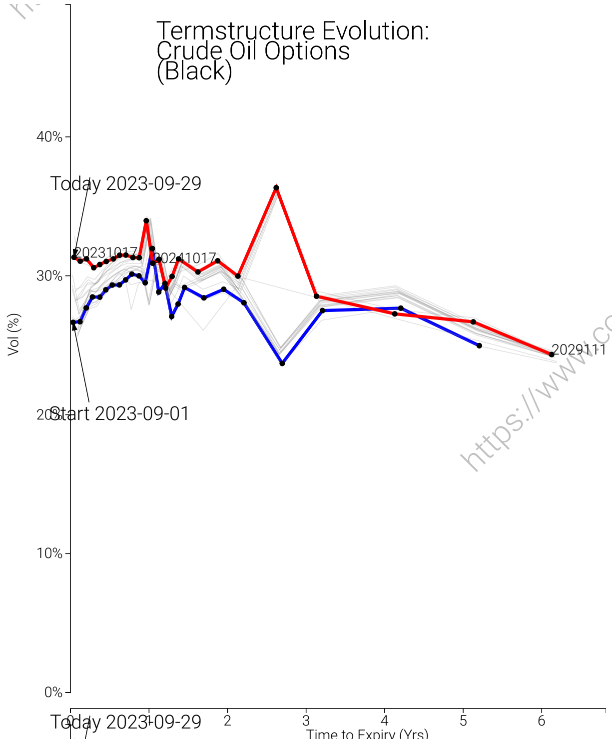
exch/prod	desc	futures chng [%]	vol chng [%]
COMEX/HX	Copper	-0.115 [-3.0%]	+0.004 [+2.4%]
COMEX/OG	Gold	-82.300 [-4.2%]	+0.013 [+13.7%]
NYMEX/PAO	Palladium	+28.600 [+2.3%]	-0.054 [-14.6%]
NYMEX/PO	Platinum	-52.800 [-5.5%]	-0.006 [-2.9%]
COMEX/SO	Silver	-2.112 [-8.6%]	+0.034 [+16.8%]

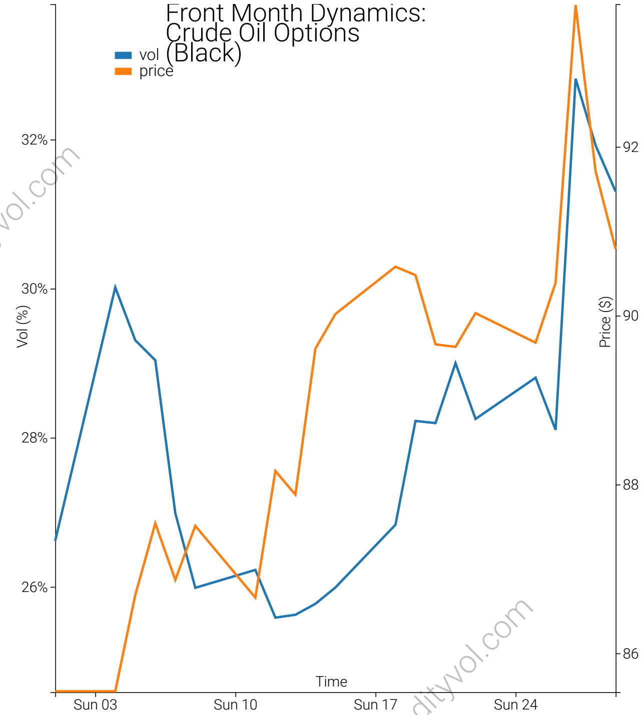
Ags

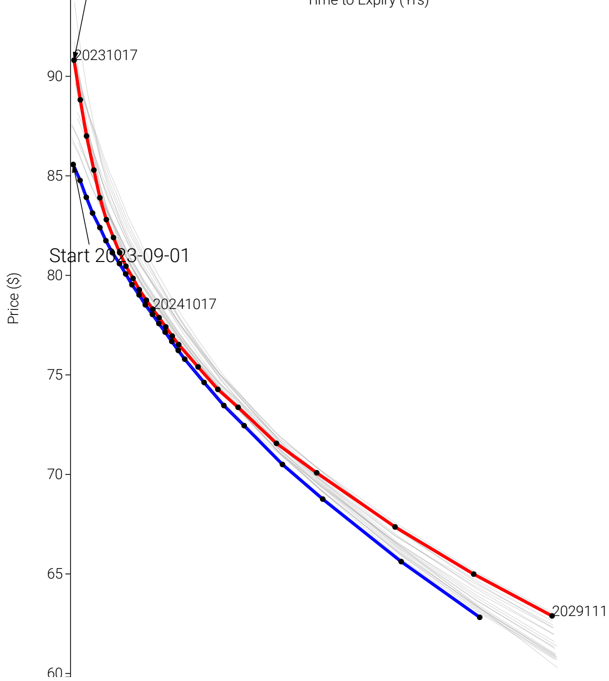
exch/prod	desc	futures chng [%]	vol chng [%]
CME/DK	Class IV Milk	+0.250 [+1.3%]	-0.085 [-75.0%]
CBT/C	Corn	-0.048 [-1.0%]	-0.067 [-26.8%]
CME/62	Feeder Cattle	+0.625 [+0.2%]	+0.021 [+26.0%]
CBT/KW	KC HRW Wheat	-0.590 [-8.2%]	-0.020 [-6.6%]
CME/LN	Lean Hog	-2.850 [-3.4%]	-0.046 [-20.0%]
CME/48	Live Cattle	+4.050 [+2.2%]	+0.009 [+8.7%]
CME/NF	Nonfat Dry Milk	+0.675 [+0.6%]	-0.073 [-82.9%]
CBT/O	Oats	-0.540 [-11.1%]	+0.104 [+24.3%]
CBT/14	Rough Rice	-0.655 [-4.0%]	-0.015 [-8.9%]
CBT/S	Soybean	-0.943 [-6.9%]	-0.010 [-6.0%]
CBT/06	Soybean Meal	-20.000 [-5.0%]	-0.022 [-9.9%]
CBT/07	Soybean Oil	-8.920 [-13.8%]	+0.012 [+4.6%]
CBT/W	Wheat	-0.540 [-9.1%]	-0.021 [-6.6%]

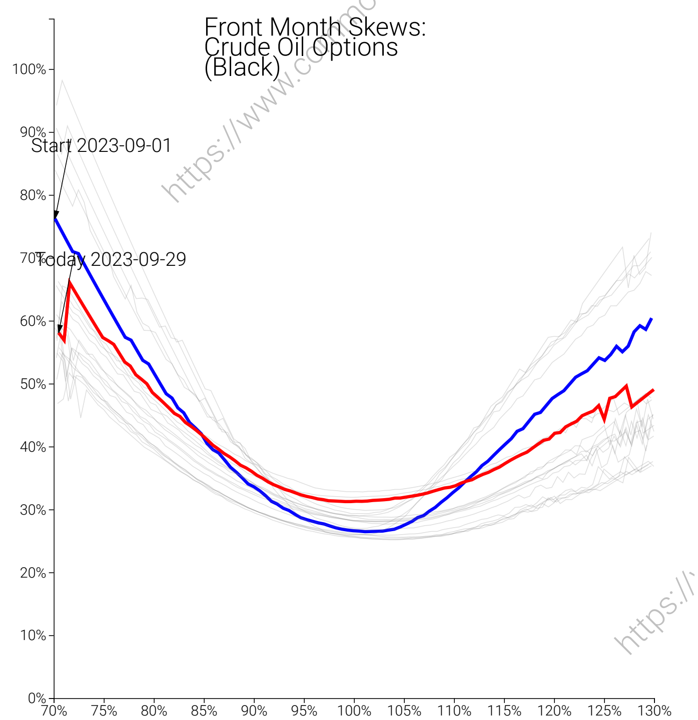
Skews, Termstructures and more

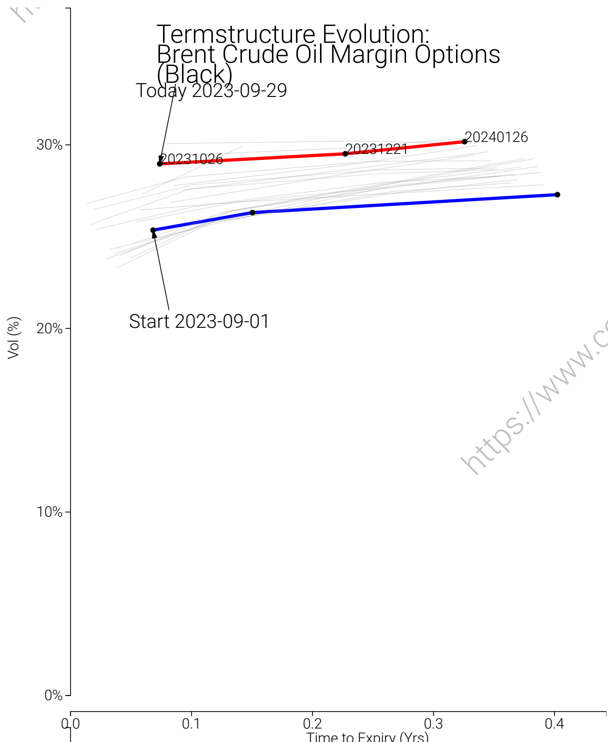
Energy: Crude and Derivatives

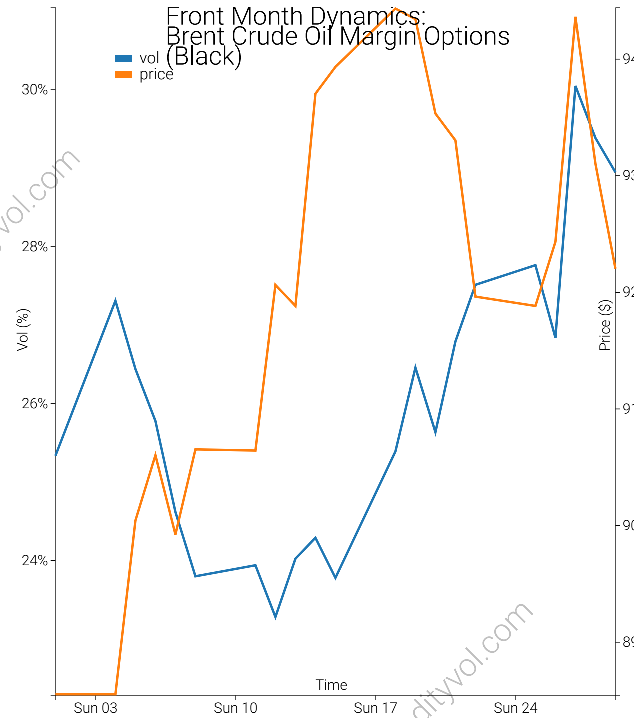

Termstructure Evolution:
Crude Oil Options
(Black)
Today 2023-09-29
Start 2023-09-01
20231017
20241017
2029111
Vol (%)
Time to Expiry (Yrs)

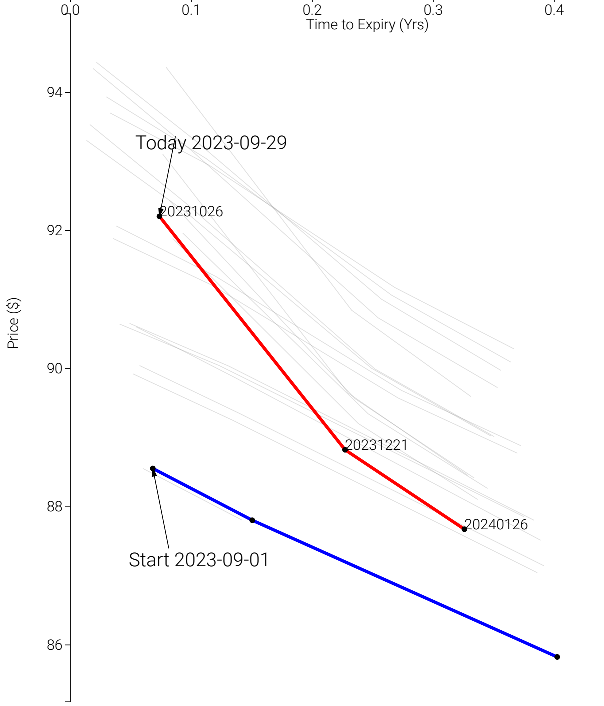

Front Month Dynamics:
Crude Oil Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

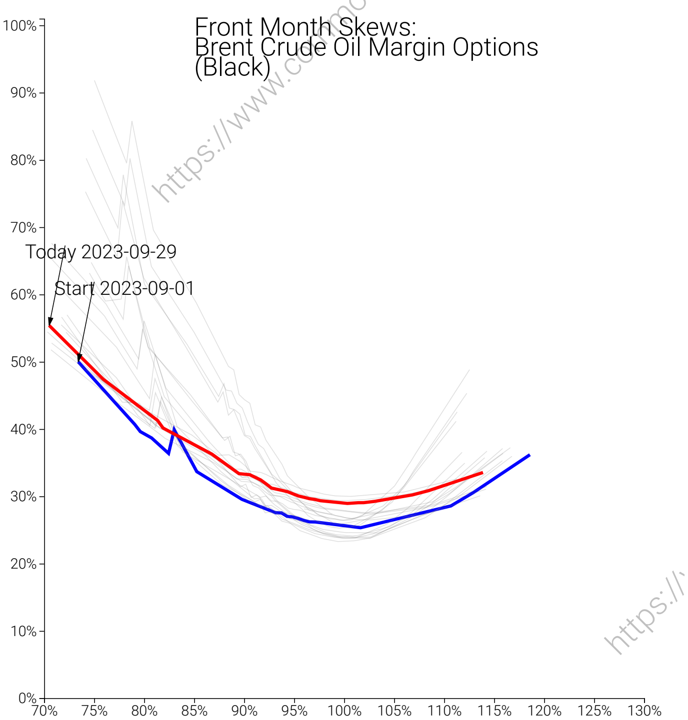

Today 2023-09-29
Start 2023-09-01
20231017
20241017
2029111
Price ($)


Front Month Skews:
Crude Oil Options
(Black)
Start 2023-09-01
Today 2023-09-29


Termstructure Evolution:
Brent Crude Oil Margin Options
(Black)
Today 2023-09-29
Start 2023-09-01
20231026
20231221
20240126
Vol (%)
Time to Expiry (Yrs)


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


Today 2023-09-29
Start 2023-09-01
20231026
20231221
20240126
Price ($)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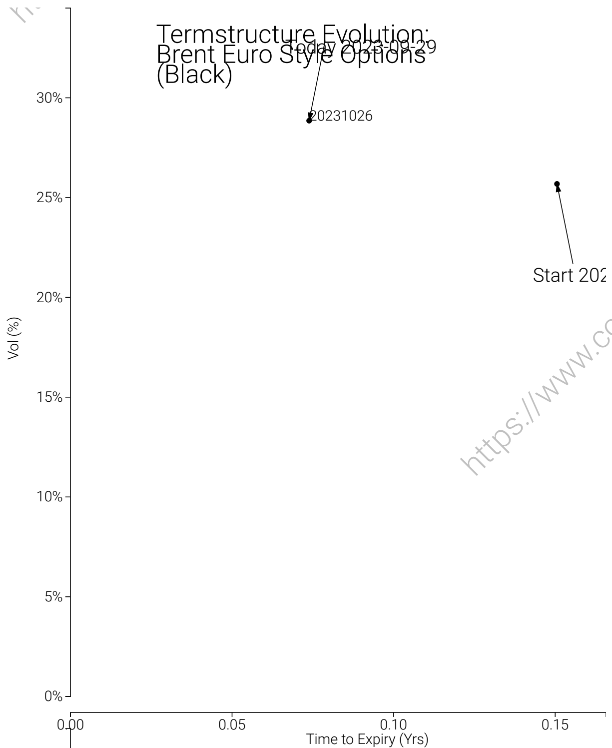
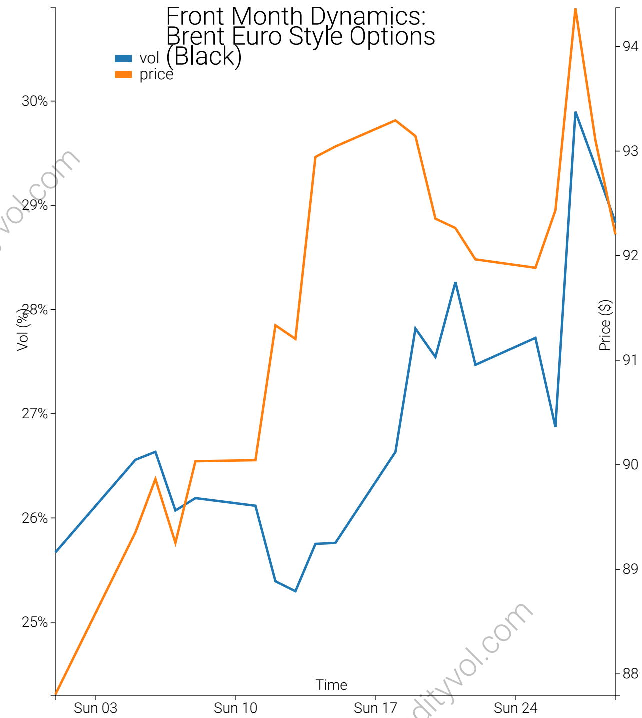
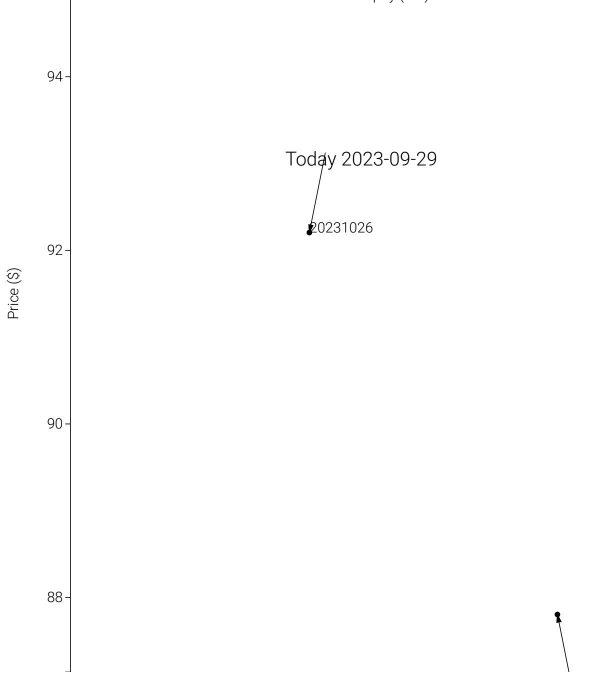
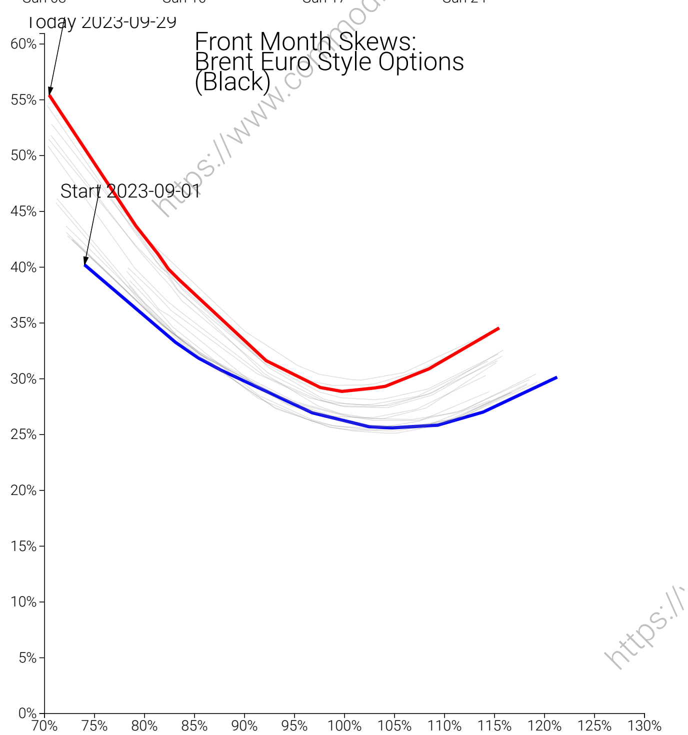
Brent Crude Oil Margin Options
(Black)
Today 2023-09-29
Start 2023-09-01


Termstructure Evolution:
Brent Euro Style Options
(Black)
Today 2023-09-29
20231026
Start 202
Vol (%)
0%
5%
10%
15%
20%
25%
30%
0.00
0.05
0.10
0.15
Time to Expiry (Yrs)


Front Month Dynamics:
Brent Euro Style Options
(Black)
vol
price
Vol (%)
Price ($)
25%
26%
27%
28%
29%
30%
88
89
90
91
92
93
94
Sun 03
Sun 10
Sun 17
Sun 24
Time


Today 2023-09-29
20231026
Price ($)
88
90
92
94


Front Month Skews:
Brent Euro Style Options
(Black)
Today 2023-09-29
Start 2023-09-01
0%
5%
10%
15%
20%
25%
30%
35%
40%
45%
50%
55%
60%
70%
75%
80%
85%
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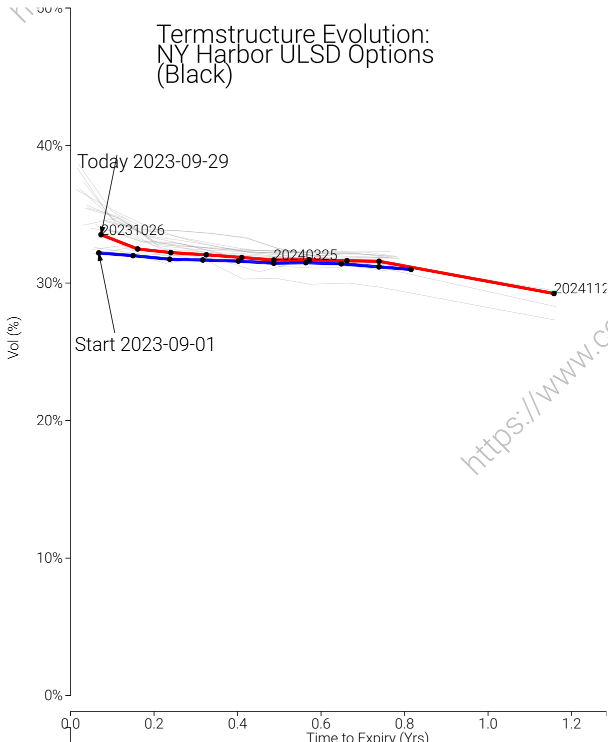
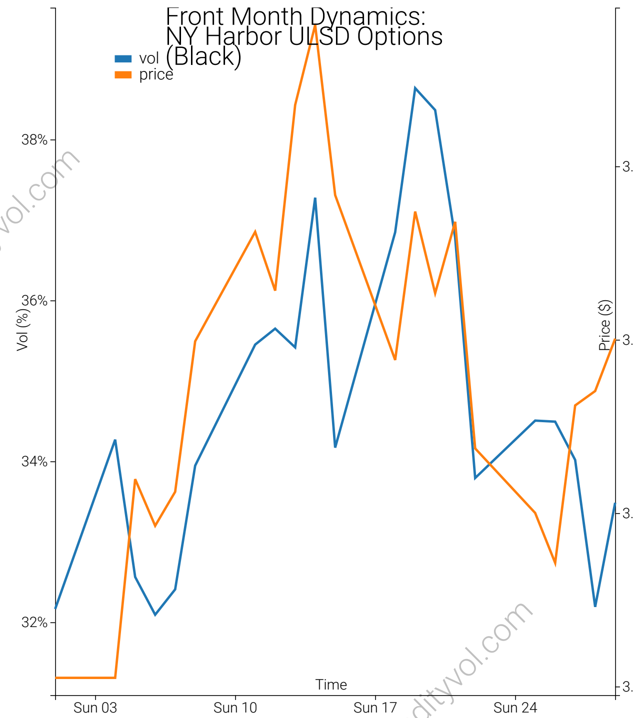
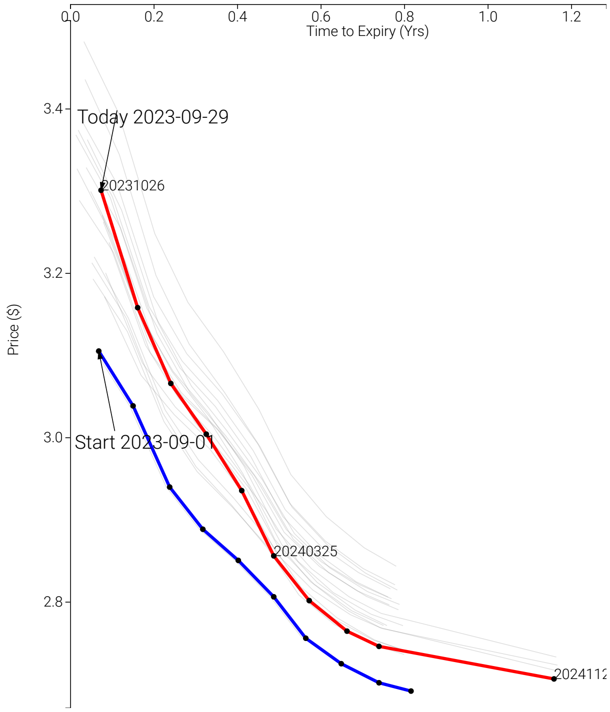
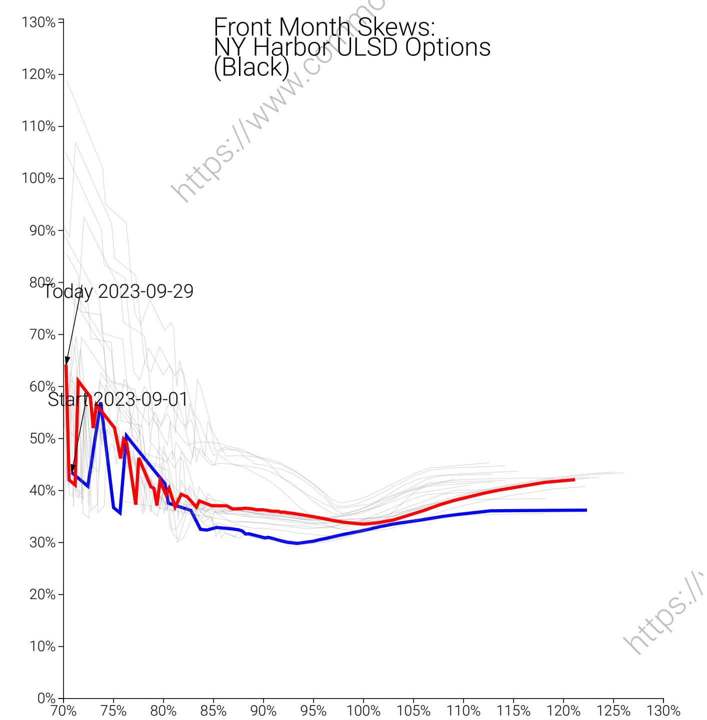
105%
110%
115%
120%
125%
130%


Termstructure Evolution:
NY Harbor ULSD Options
(Black)
Today 2023-09-29
20231026
20240325
2024112
Start 2023-09-01
Vol (%)
Time to Expiry (Yrs)
40%
30%
20%
10%
0%
0.0
0.2
0.4
0.6
0.8
1.0
1.2


Front Month Dynamics:
NY Harbor ULSD Options
(Black)
vol
price
Vol (%)
Price ($)
Time
38%
36%
34%
32%
3.4
3.3
3.2
3.1
Sun 03
Sun 10
Sun 17
Sun 24


Today 2023-09-29
20231026
20240325
2024112
Start 2023-09-01
Price ($)
3.4
3.2
3.0
2.8


Front Month Skews:
NY Harbor ULSD Options
(Black)
Today 2023-09-29
Start 2023-09-01
130%
120%
110%
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
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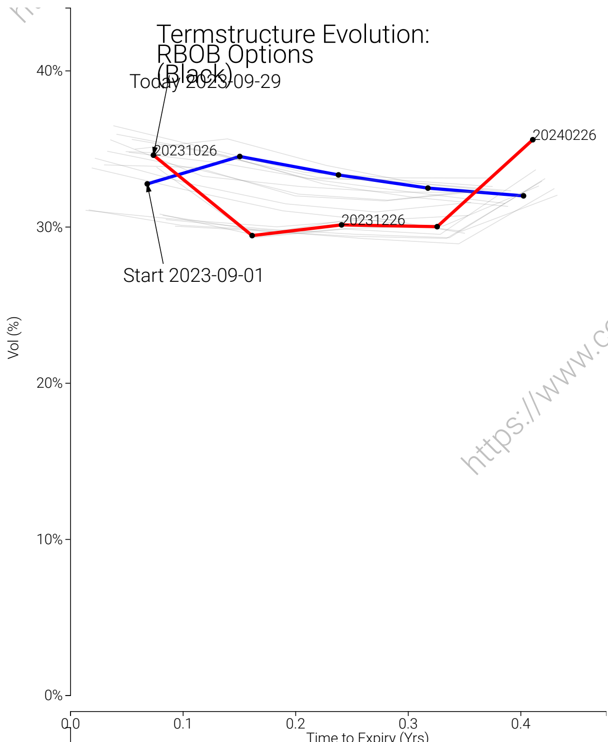
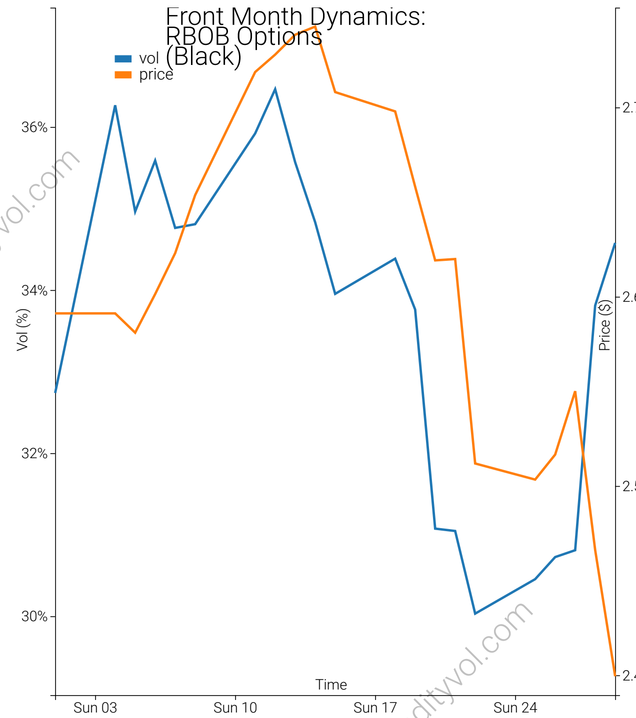
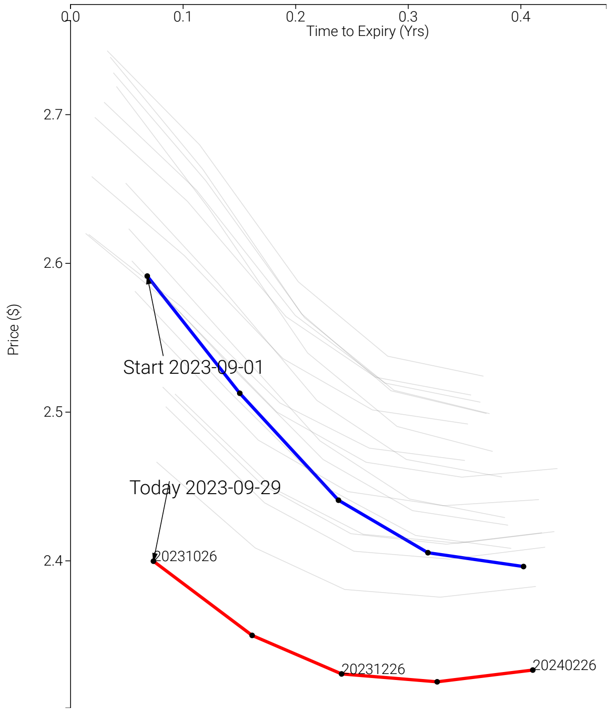
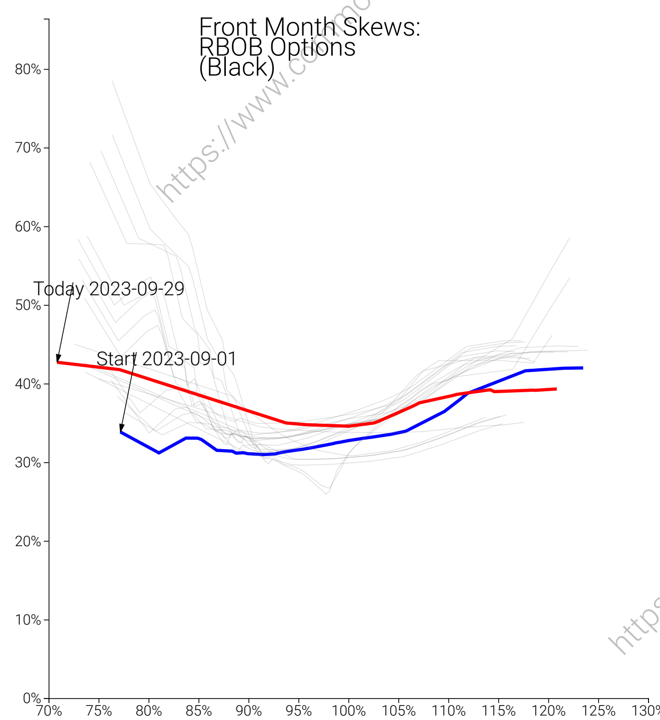
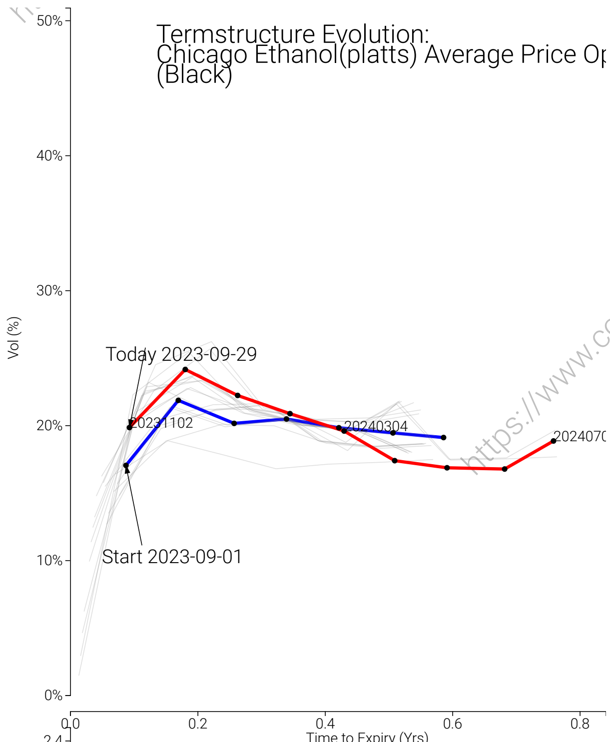
115%
120%
125%
130%

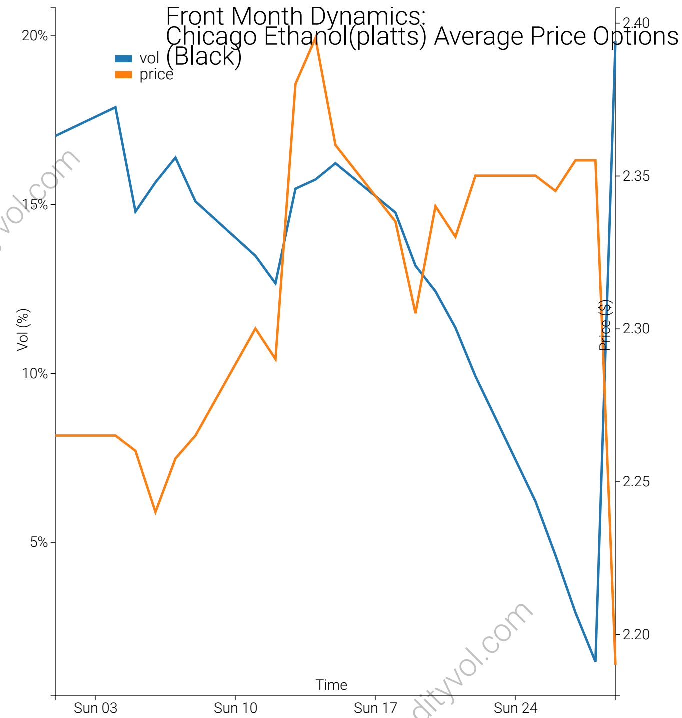

Termstructure Evolution:
RBOB Options
(Black)
Today 2023-09-29
Start 2023-09-01
20231026
20231226
20240226
Vol (%)
Time to Expiry (Yrs)
https://www.commodityvol.com

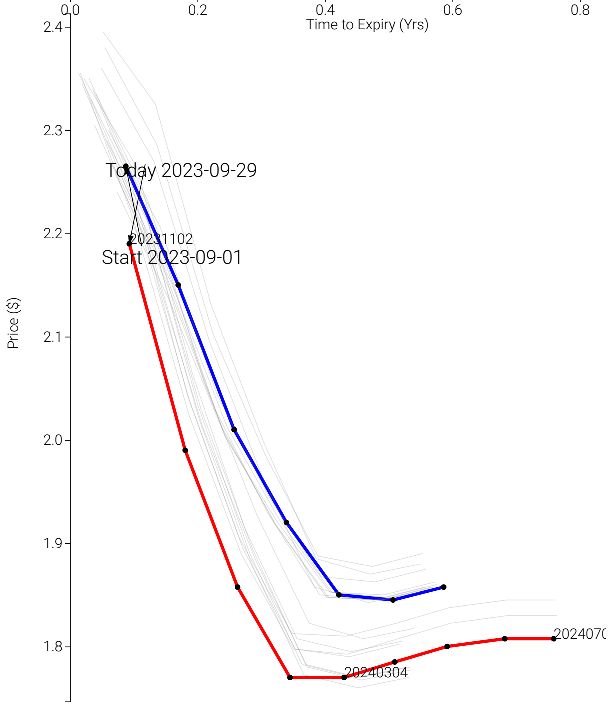

Front Month Dynamics:
RBOB Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24
https://www.commodityvol.com

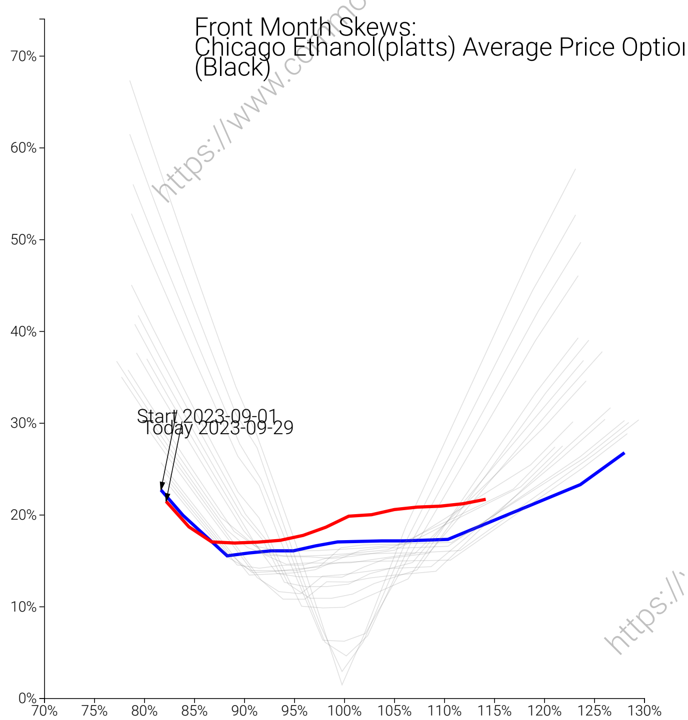

Price ($)
Start 2023-09-01
Today 2023-09-29
20231026
20231226
20240226


Front Month Skews:
RBOB Options
(Black)
Today 2023-09-29
Start 2023-09-01
https://www.commodityvol.com

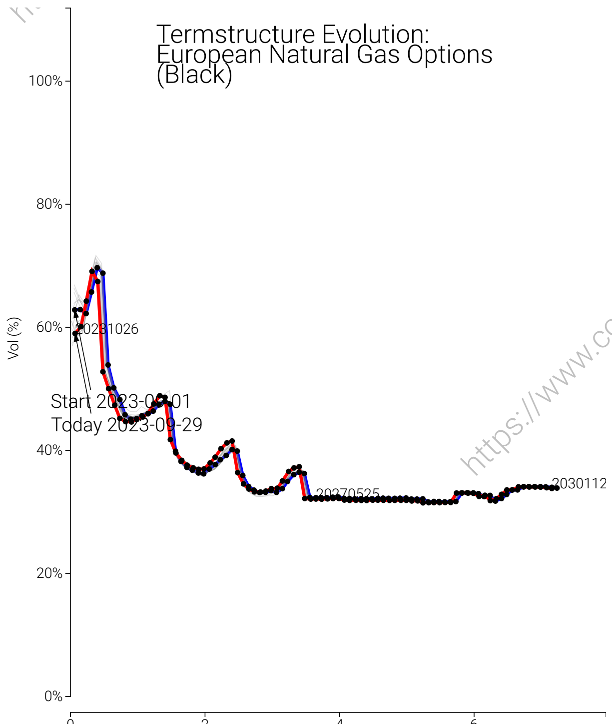

Termstructure Evolution:
Chicago Ethanol(platts) Average Price Op
(Black)
Vol (%)
50%
40%
30%
20%
10%
0%
Today 2023-09-29
20231102
20240304
2024070
Start 2023-09-01
0.0
0.2
0.4
0.6
0.8
Time to Expiry (Yrs)
https://www.commodityvol.com

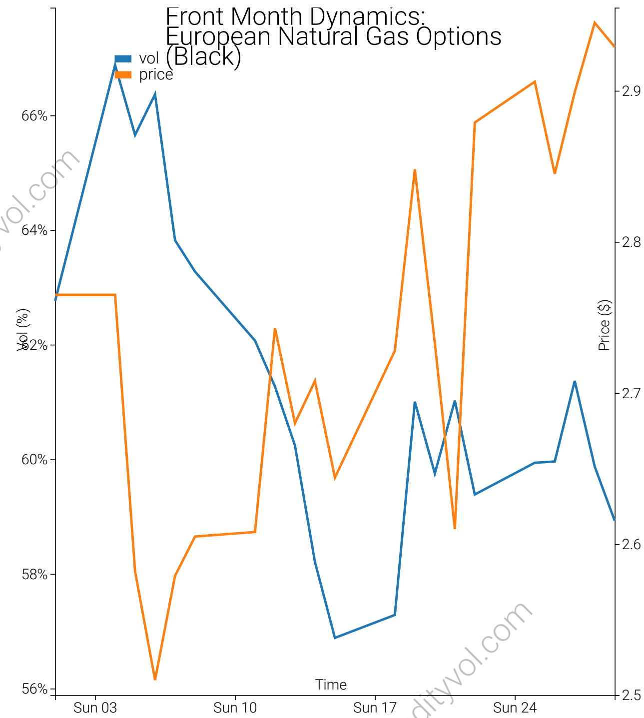

Front Month Dynamics:
Chicago Ethanol(platts) Average Price Options
(Black)
vol
price
Vol (%)
20%
15%
10%
5%
Price ($)
2.40
2.35
2.30
2.25
2.20
Time
Sun 03
Sun 10
Sun 17
Sun 24

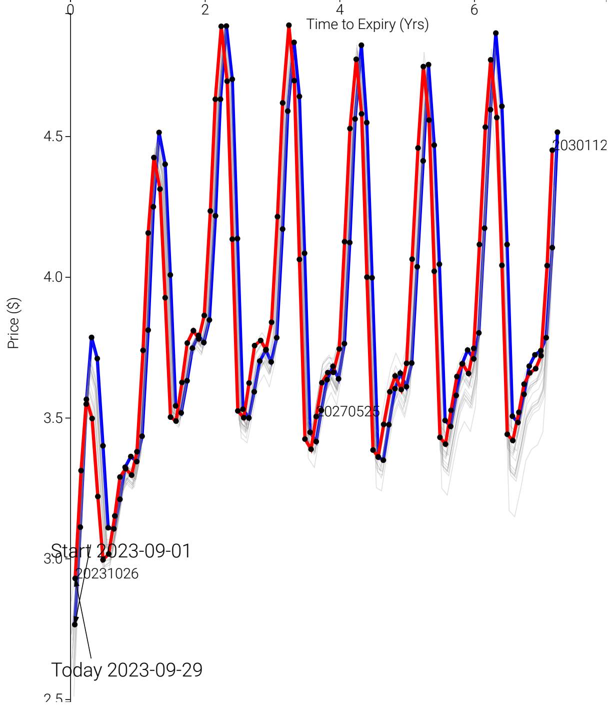

Price ($)
2.4
2.3
2.2
2.1
2.0
1.9
1.8
Today 2023-09-29
20231102
Start 2023-09-01
20240304
2024070

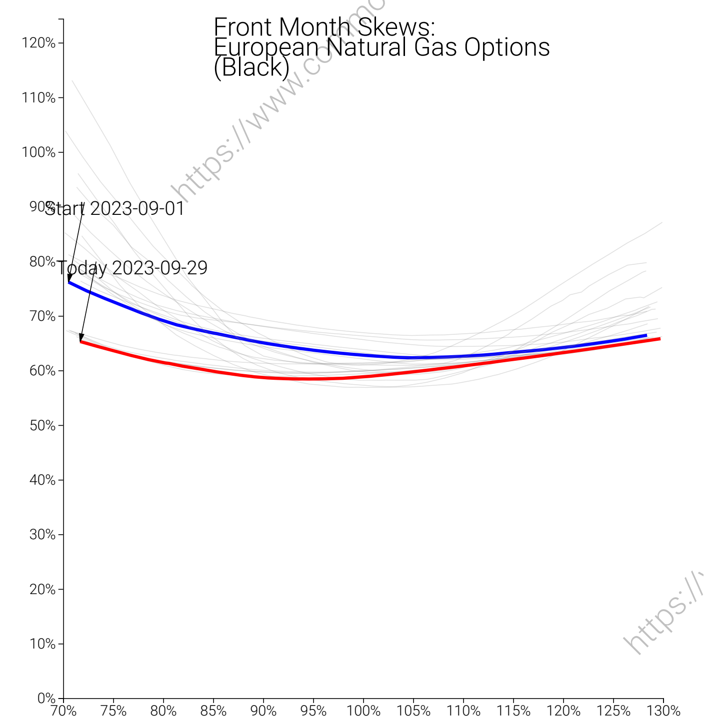

Front Month Skews:
Chicago Ethanol(platts) Average Price Optio
(Black)
70%
60%
50%
40%
30%
20%
10%
0%
Start 2023-09-01
Today 2023-09-29
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%
https://www.commodityvol.com

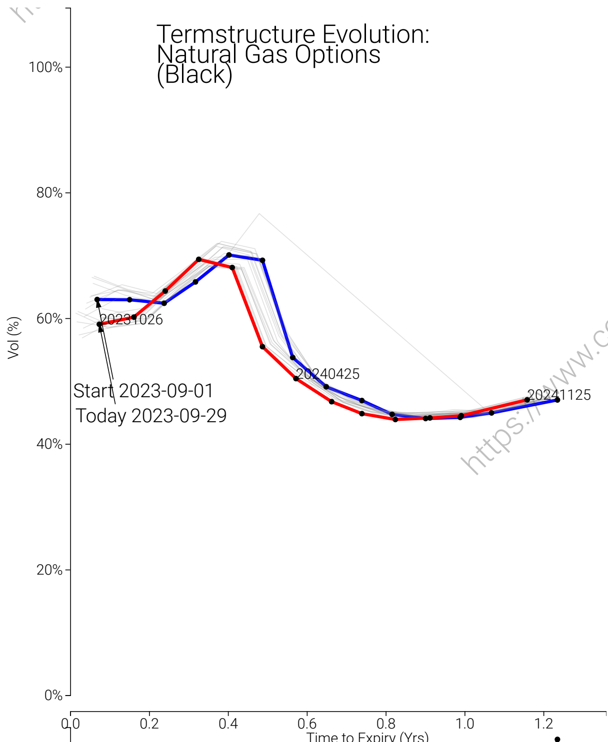
Energy: Natural Gas

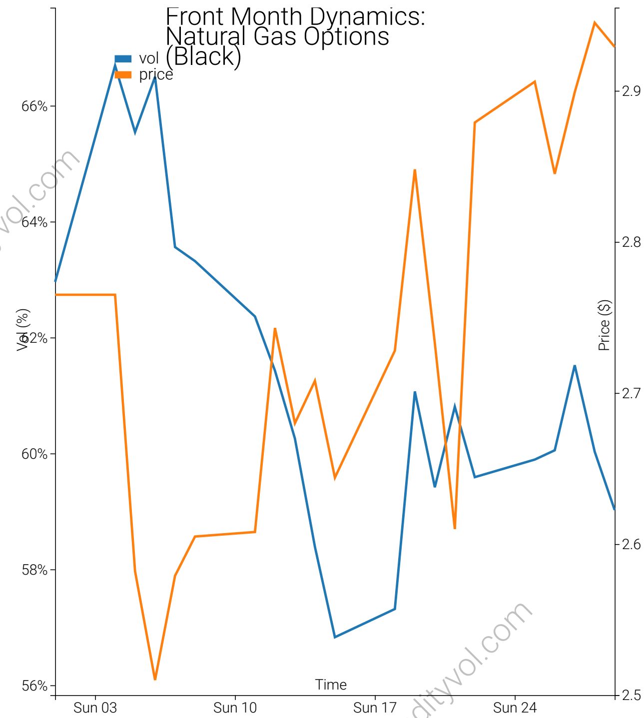

Termstructure Evolution:
European Natural Gas Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20231026
Start 2023-09-01
Today 2023-09-29
20270525
2030112
0%
20%
40%
60%
80%
100%
0
2
4
6

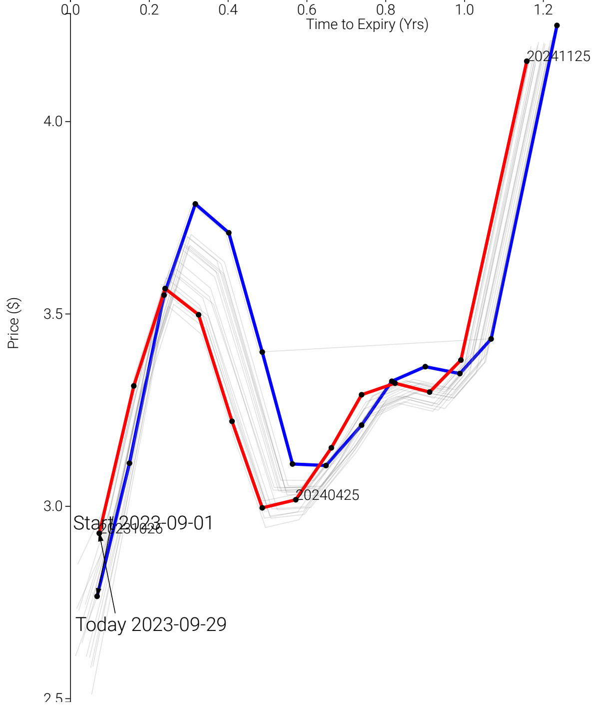

Front Month Dynamics:
European Natural Gas Options
(Black)
vol
price
Vol (%)
Price ($)
Time
56%
58%
60%
62%
64%
66%
2.5
2.6
2.7
2.8
2.9
Sun 03
Sun 10
Sun 17
Sun 24

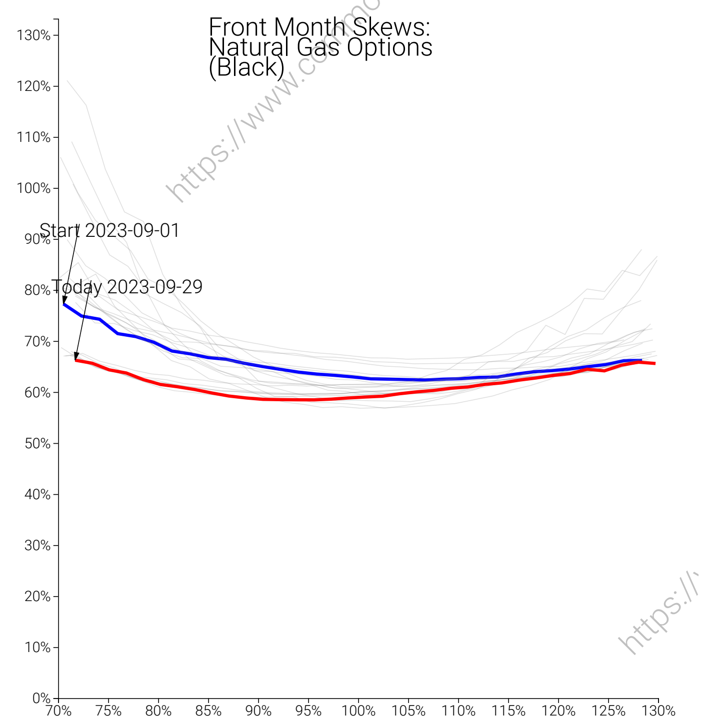

Price ($)
Start 2023-09-01
20231026
Today 2023-09-29
20270525
2030112
2.5
3.0
3.5
4.0
4.5

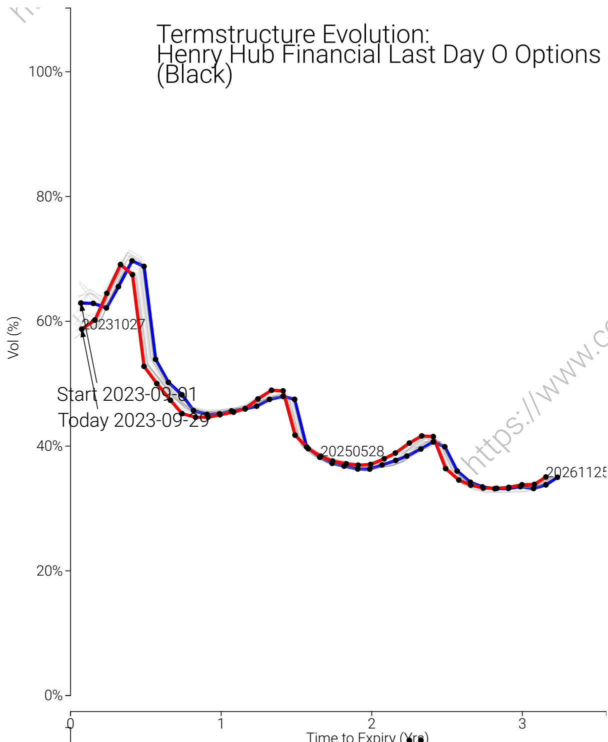

Front Month Skews:
European Natural Gas Options
(Black)
Start 2023-09-01
Today 2023-09-29
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
110%
120%
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

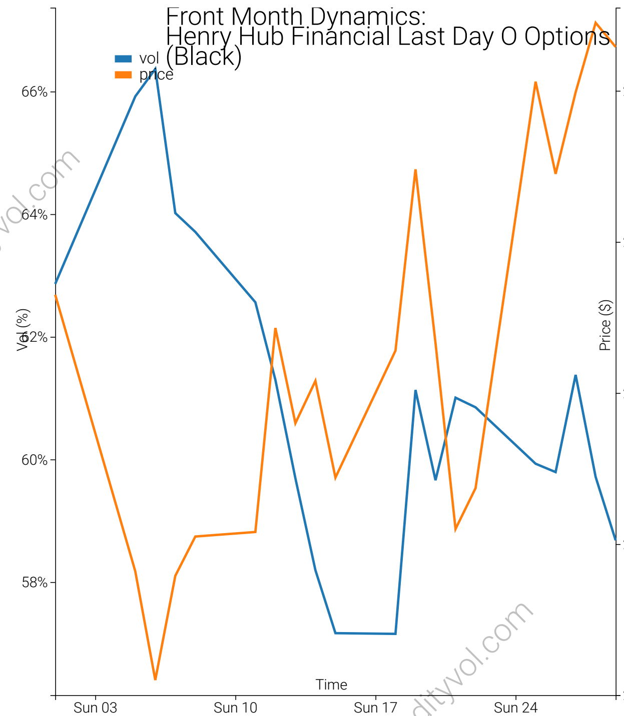

Termstructure Evolution:
Natural Gas Options
(Black)
Vol (%)
100%
80%
60%
40%
20%
0%
20231026
20240425
20241125
Start 2023-09-01
Today 2023-09-29
Time to Expiry (Yrs)
0.0
0.2
0.4
0.6
0.8
1.0
1.2

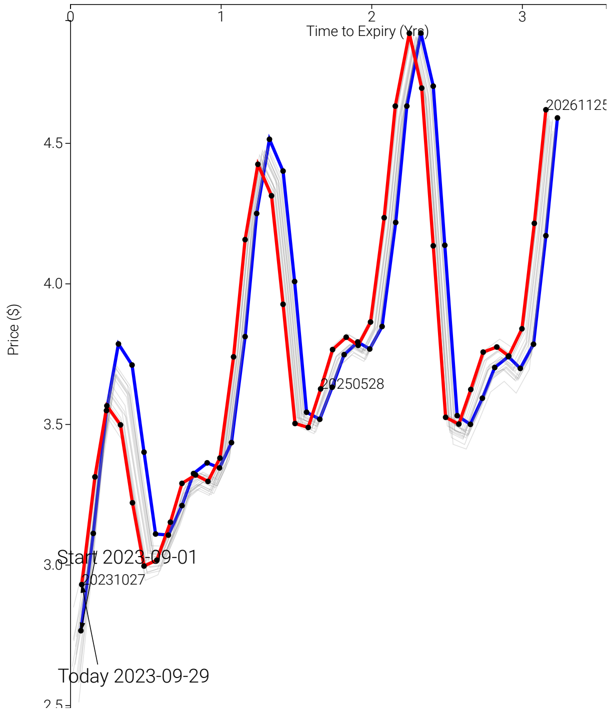

Front Month Dynamics:
Natural Gas Options
(Black)
vol
price
Vol (%)
66%
64%
62%
60%
58%
56%
Price ($)
2.9
2.8
2.7
2.6
2.5
Time
Sun 03
Sun 10
Sun 17
Sun 24

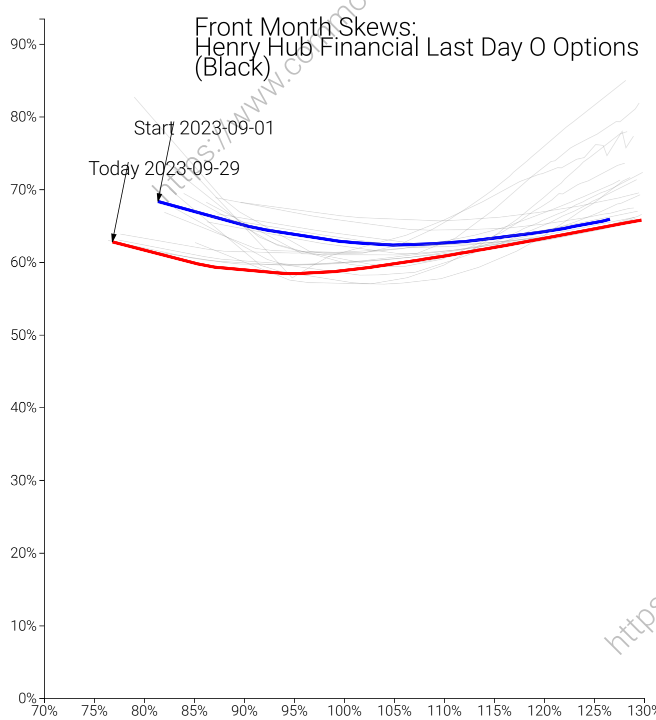

Price ($)
4.0
3.5
3.0
2.5
20241125
20240425
20231026
Start 2023-09-01
Today 2023-09-29


Front Month Skews:
Natural Gas Options
(Black)
130%
120%
110%
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Start 2023-09-01
Today 2023-09-29
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

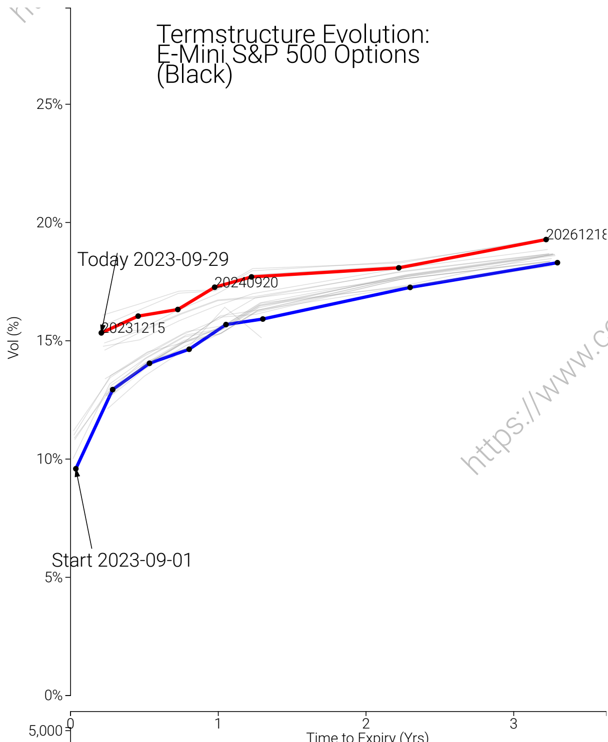

Termstructure Evolution:
Henry Hub Financial Last Day O Options
(Black)
Vol (%)
100%
80%
60%
40%
20%
0%
20231027
Start 2023-09-01
Today 2023-09-29
20250528
20261125
0
1
2
3
Time to Expiry (Yrs)

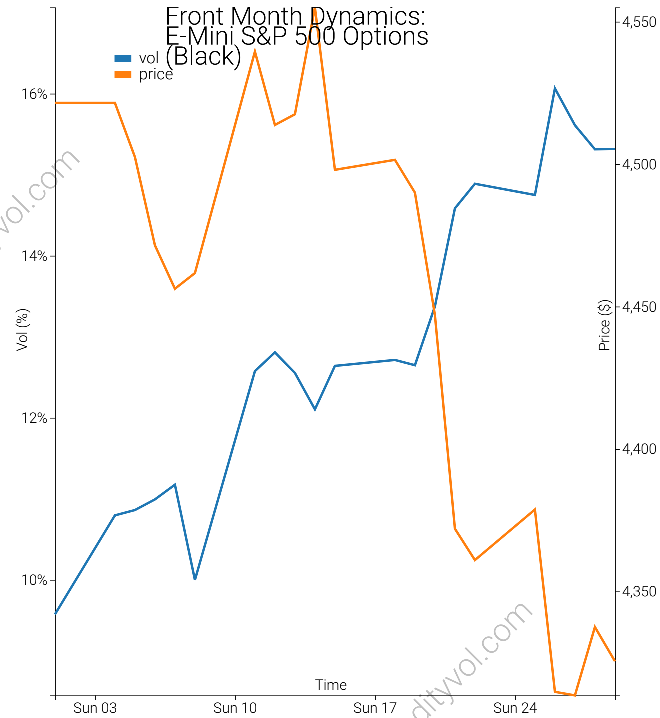

Front Month Dynamics:
Henry Hub Financial Last Day O Options
(Black)
vol
price
Vol (%)
Price ($)
66%
64%
62%
60%
58%
2.9
2.8
2.7
2.6
2.5
Time
Sun 03
Sun 10
Sun 17
Sun 24

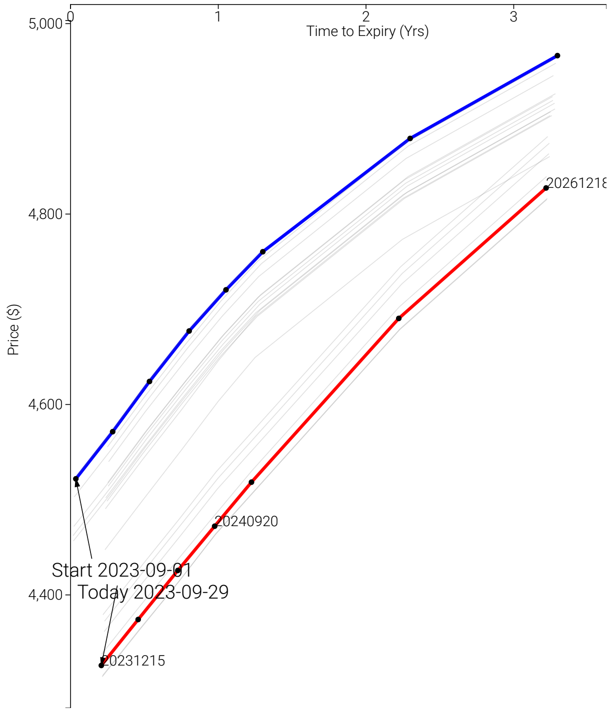

Price ($)
4.5
4.0
3.5
3.0
2.5
Start 2023-09-01
20231027
Today 2023-09-29
20250528
20261125

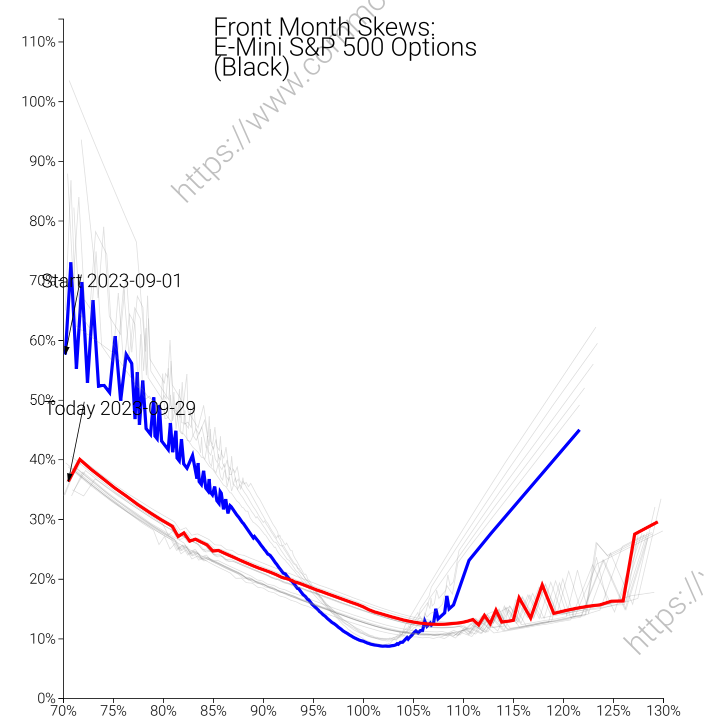

Front Month Skews:
Henry Hub Financial Last Day O Options
(Black)
Start 2023-09-01
Today 2023-09-29
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

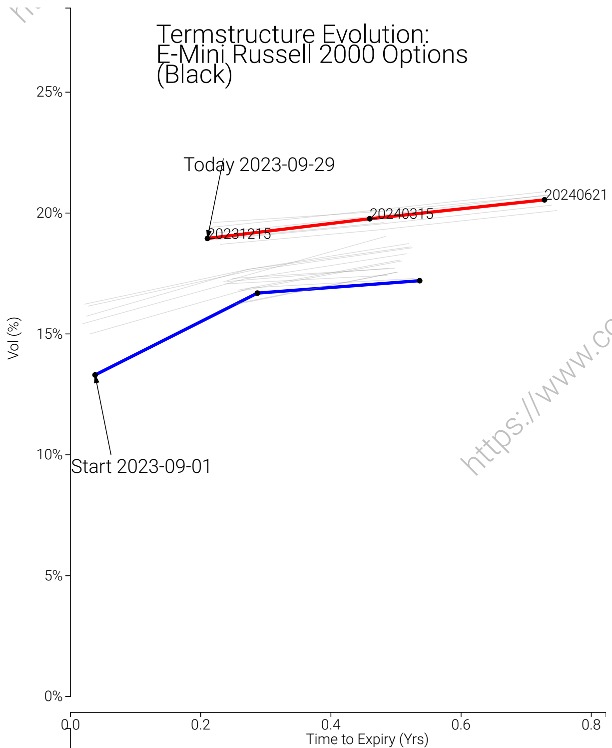
EquityIndex

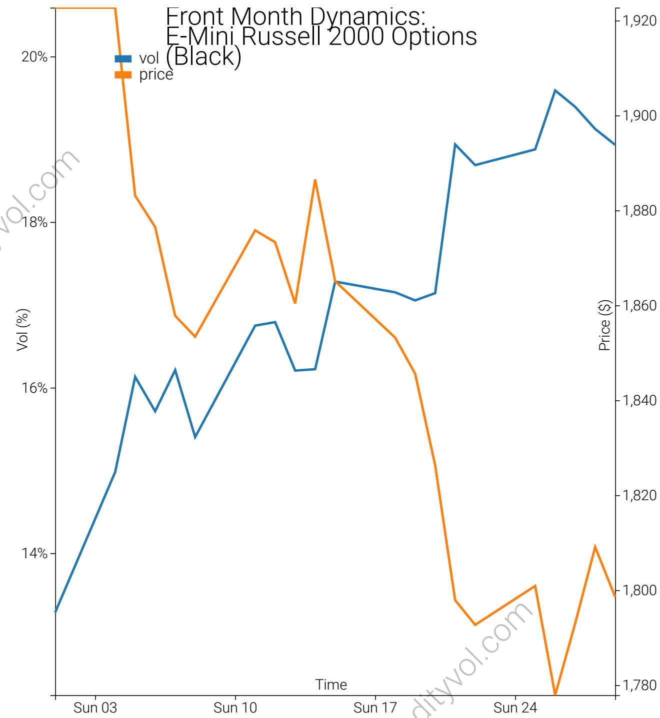

Termstructure Evolution:
E-Mini S&P 500 Options
(Black)
Today 2023-09-29
Start 2023-09-01
20231215
20240920
20261218
Vol (%)
Time to Expiry (Yrs)

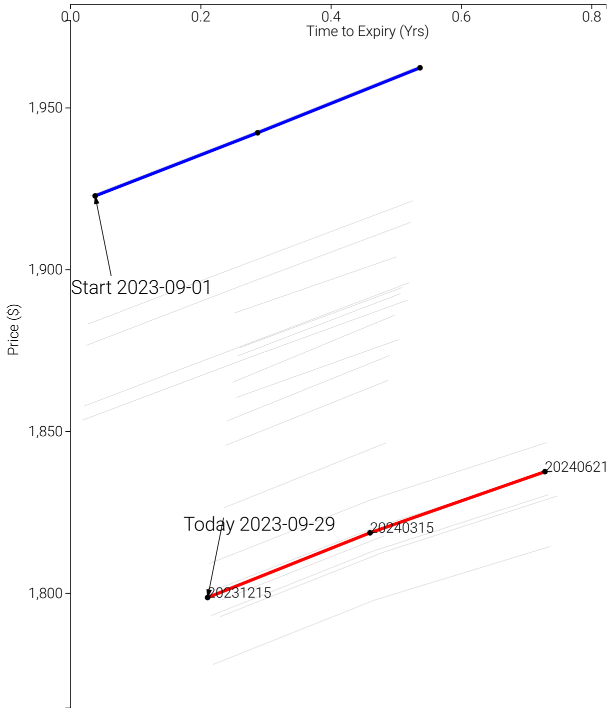

Front Month Dynamics:
E-Mini S&P 500 Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

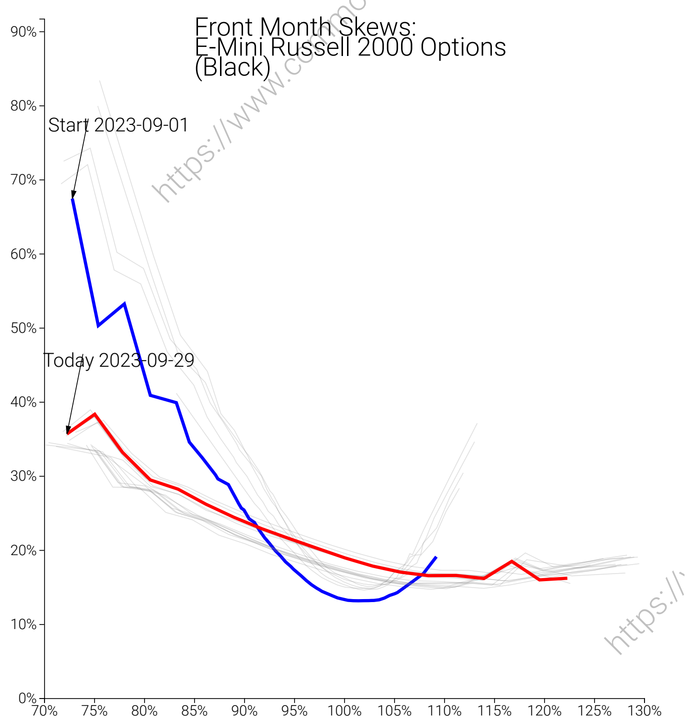

Price ($)
Start 2023-09-01
Today 2023-09-29
20231215
20240920
20261218

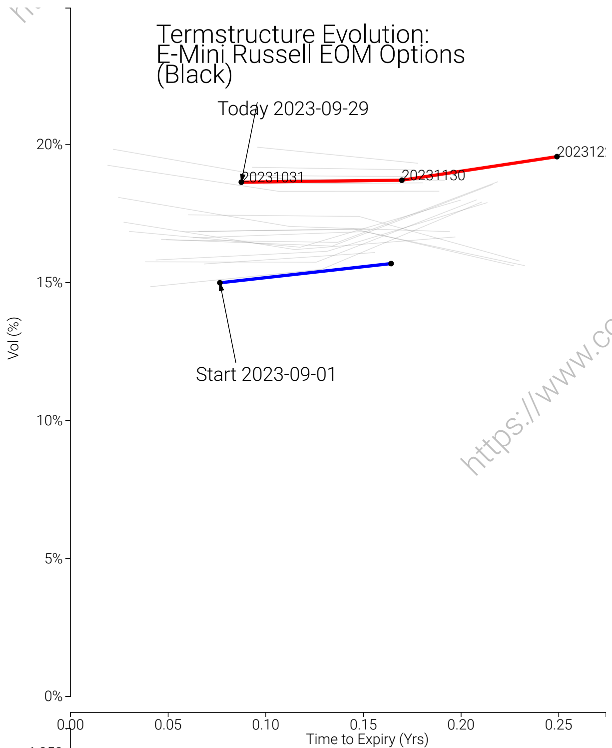

Front Month Skews:
E-Mini S&P 500 Options
(Black)
Start 2023-09-01
Today 2023-09-29

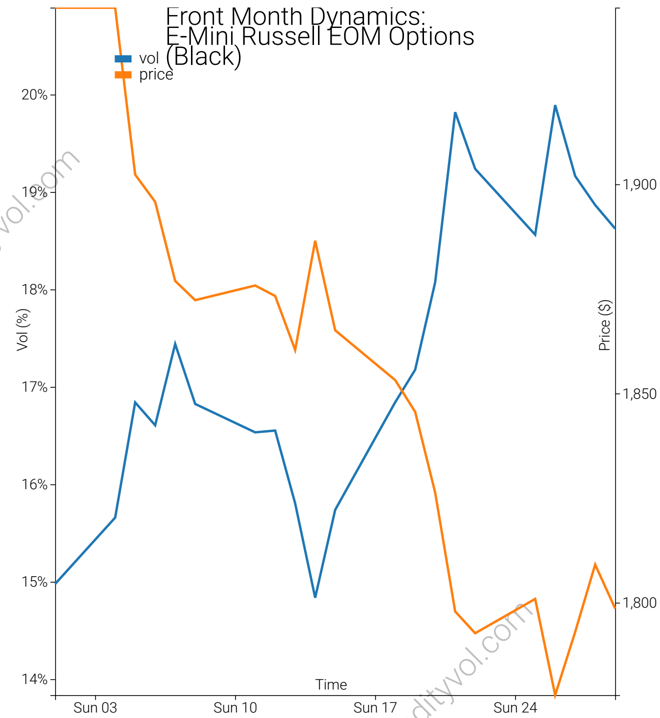

Termstructure Evolution:
E-Mini Russell 2000 Options
(Black)
Today 2023-09-29
20231215
20240315
20240621
Start 2023-09-01
Vol (%)
25%
20%
15%
10%
5%
0%
0.0
0.2
0.4
0.6
0.8
Time to Expiry (Yrs)

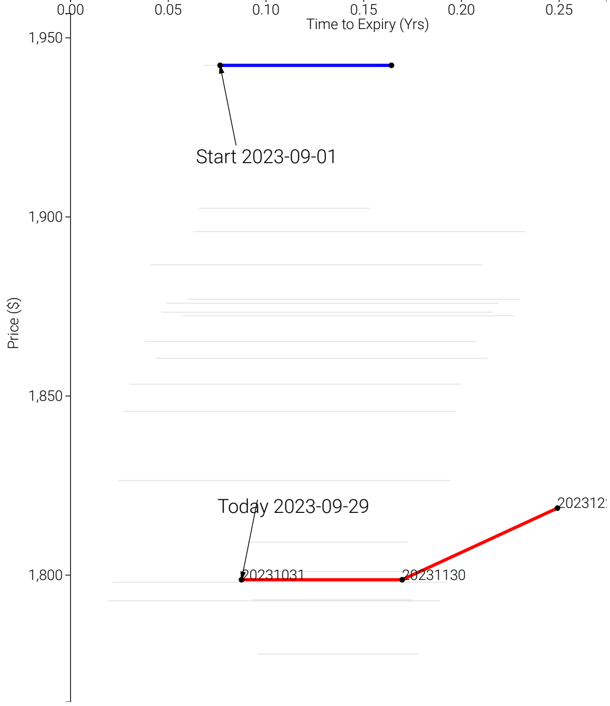

Front Month Dynamics:
E-Mini Russell 2000 Options
(Black)
vol
price
Vol (%)
Price ($)
20%
18%
16%
14%
1,920
1,900
1,880
1,860
1,840
1,820
1,800
1,780
Time
Sun 03
Sun 10
Sun 17
Sun 24

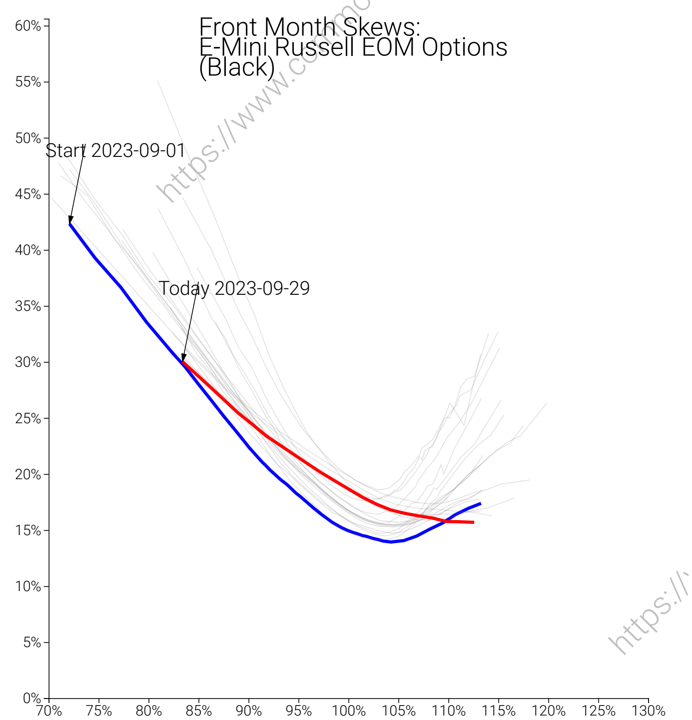

Price ($)
1,950
1,900
1,850
1,800
Start 2023-09-01
Today 2023-09-29
20231215
20240315
20240621

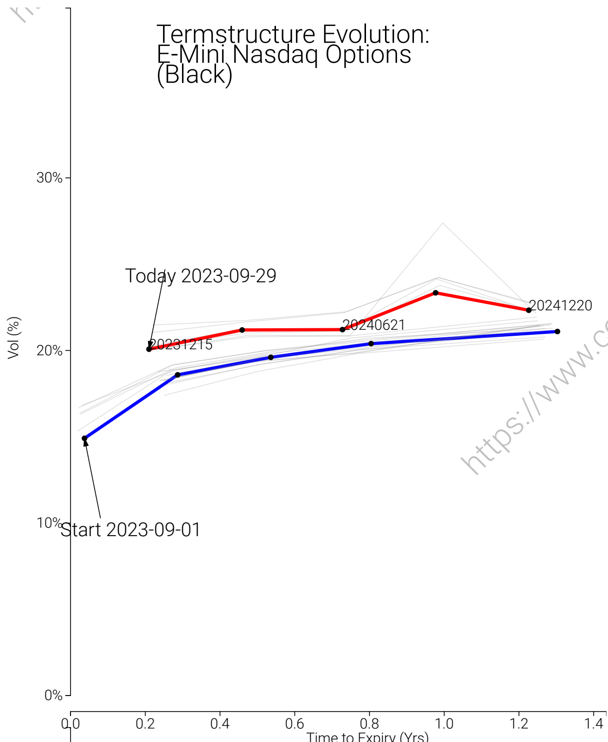

Front Month Skews:
E-Mini Russell 2000 Options
(Black)
Start 2023-09-01
Today 2023-09-29
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

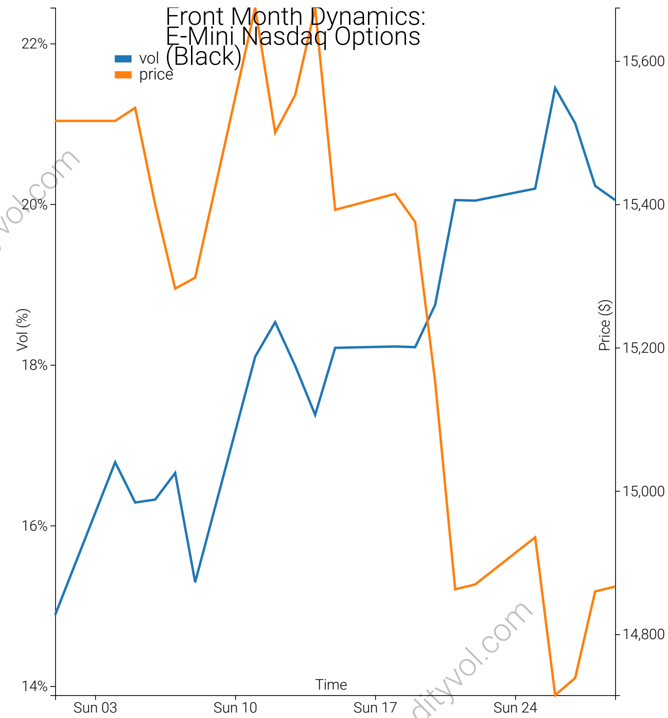

Termstructure Evolution:
E-Mini Russell EOM Options
(Black)
Today 2023-09-29
20231031
20231130
Start 2023-09-01
Vol (%)
Time to Expiry (Yrs)

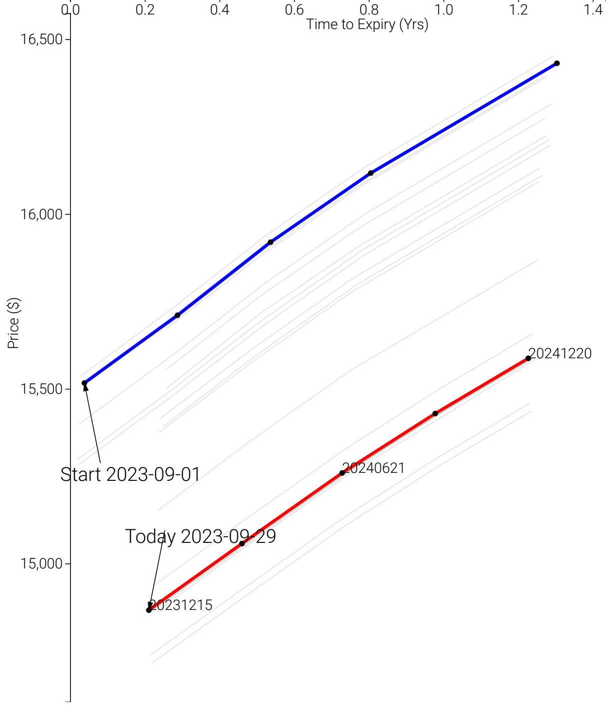

Front Month Dynamics:
E-Mini Russell EOM Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

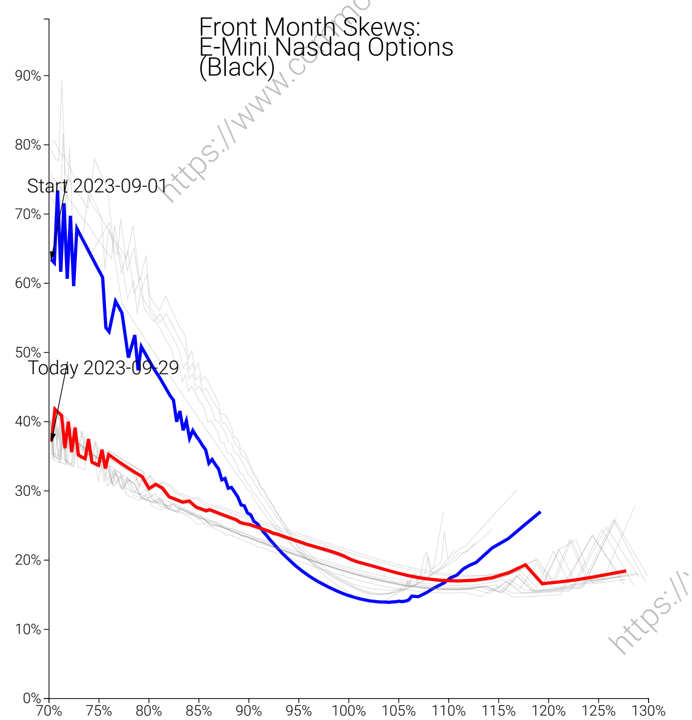

Start 2023-09-01
Today 2023-09-29
20231031
20231130
Price ($)

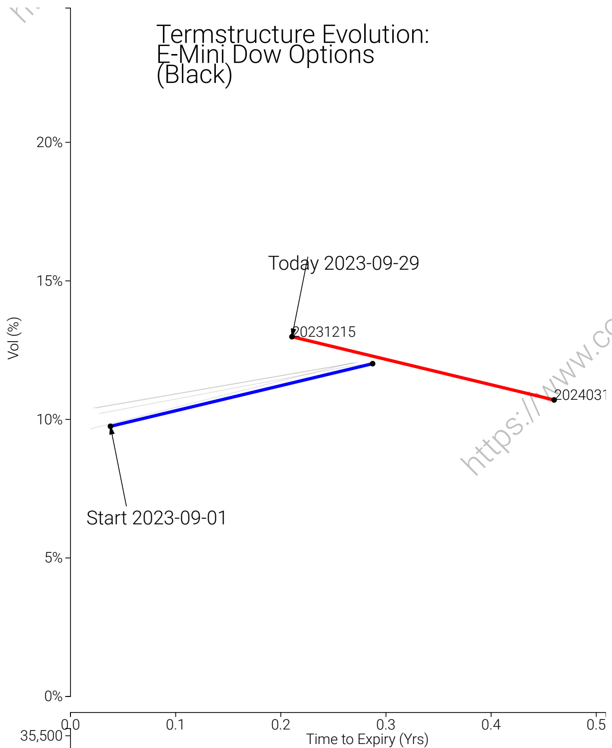

Front Month Skews:
E-Mini Russell EOM Options
(Black)
Start 2023-09-01
Today 2023-09-29

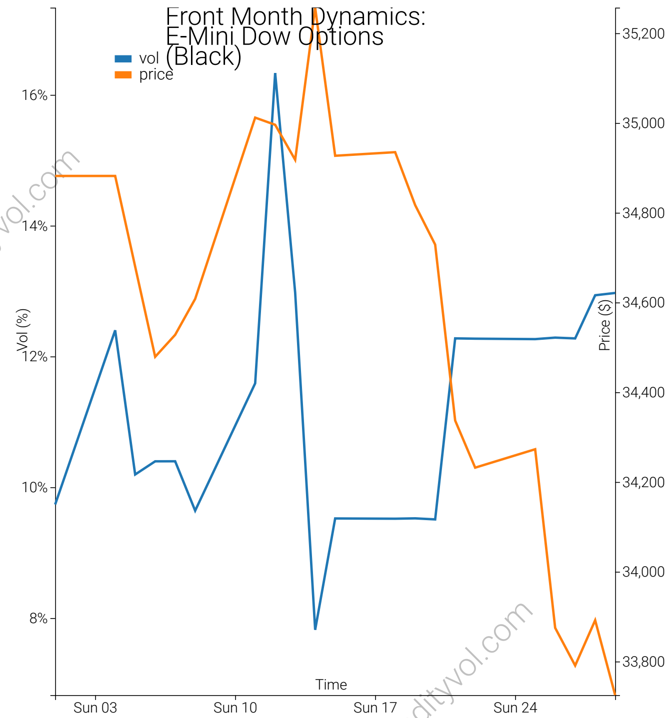

Termstructure Evolution:
E-Mini Nasdaq Options
(Black)
Vol (%)
Time to Expiry (Yrs)
Today 2023-09-29
Start 2023-09-01
20231215
20240621
20241220

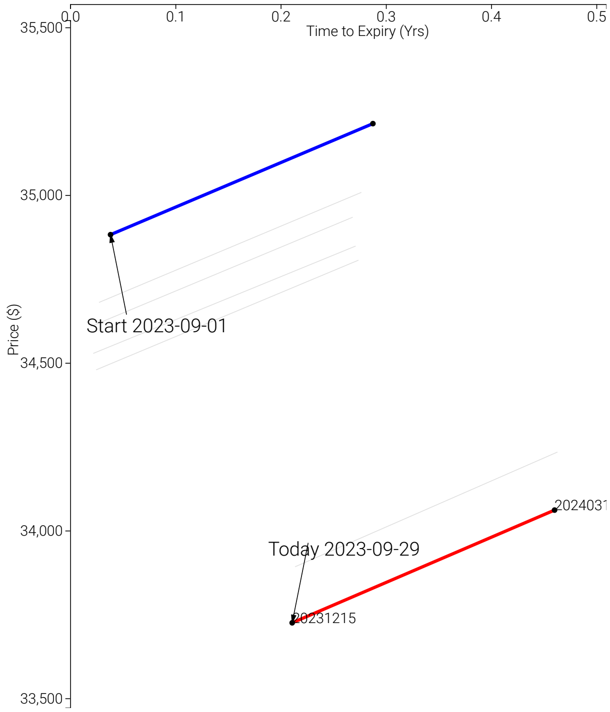

Front Month Dynamics:
E-Mini Nasdaq Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

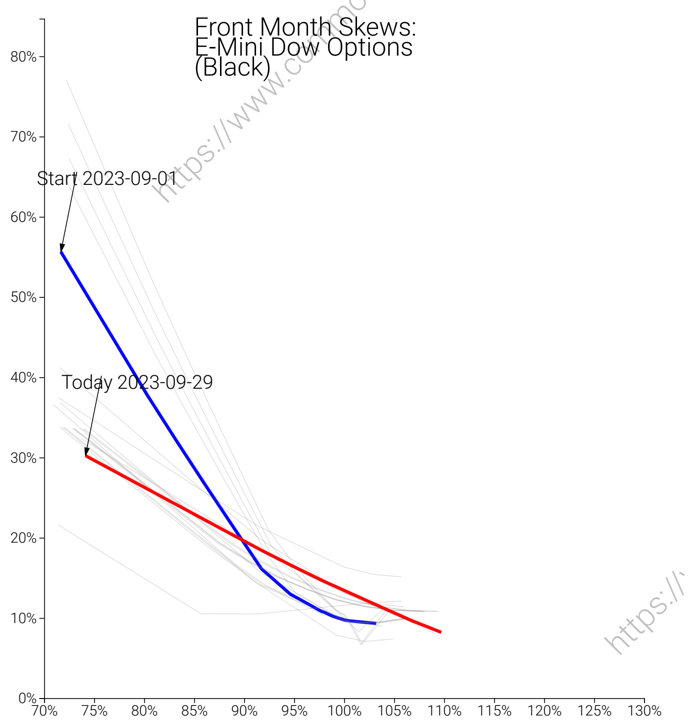

Price ($)
Start 2023-09-01
Today 2023-09-29
20231215
20240621
20241220

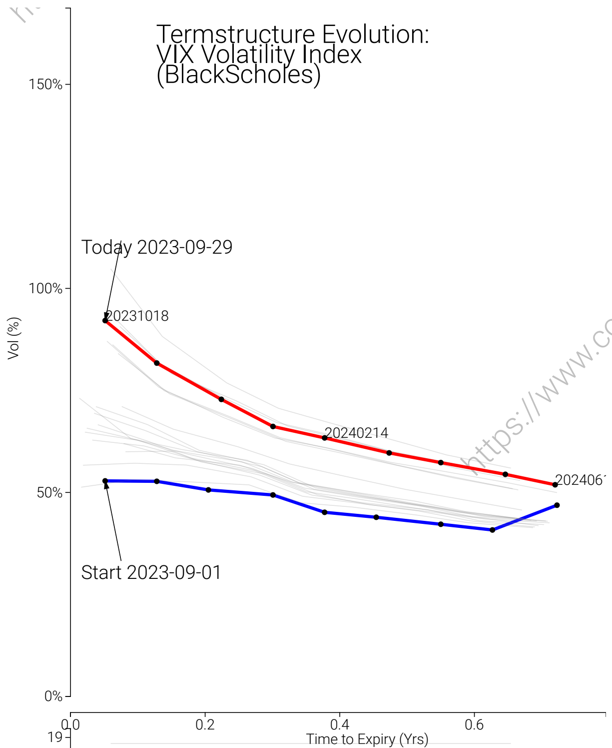

Front Month Skews:
E-Mini Nasdaq Options
(Black)
Start 2023-09-01
Today 2023-09-29

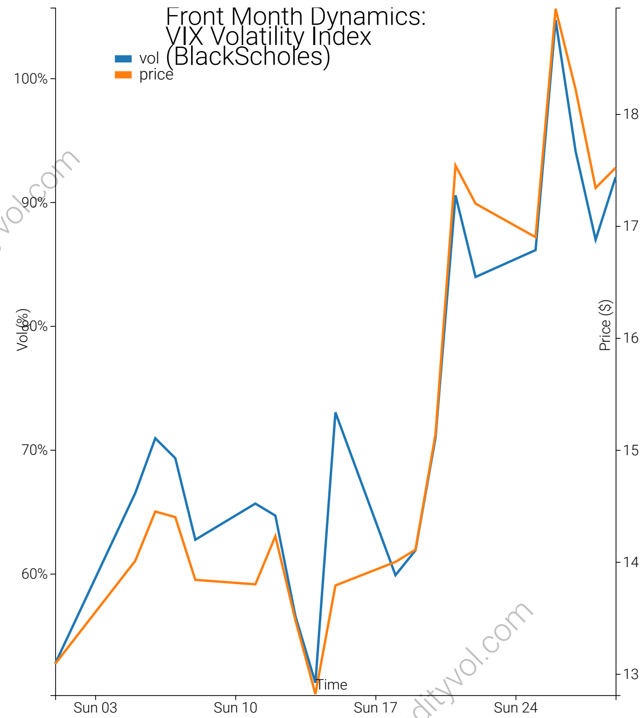

Termstructure Evolution:
E-Mini Dow Options
(Black)
Today 2023-09-29
20231215
2024031
Start 2023-09-01
Vol (%)
0%
5%
10%
15%
20%
0.0
0.1
0.2
0.3
0.4
0.5
Time to Expiry (Yrs)

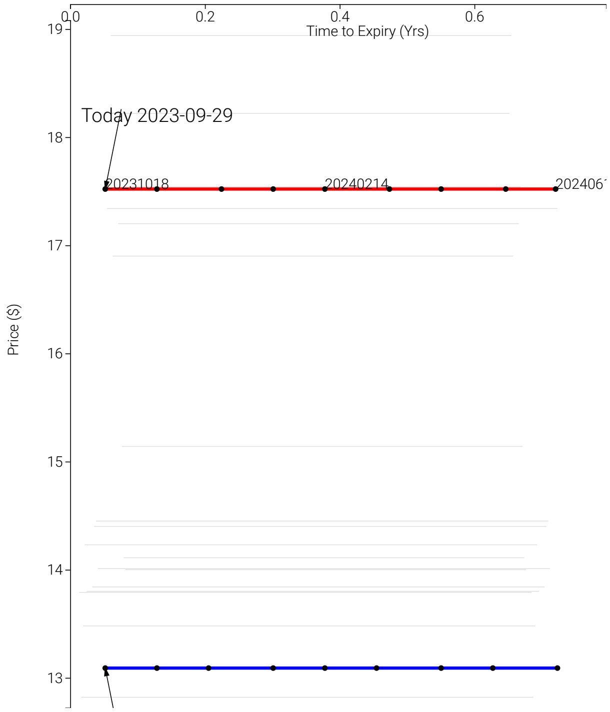

Front Month Dynamics:
E-Mini Dow Options
(Black)
vol
price
Vol (%)
Price ($)
8%
10%
12%
14%
16%
33,800
34,000
34,200
34,400
34,600
34,800
35,000
35,200
Time
Sun 03
Sun 10
Sun 17
Sun 24

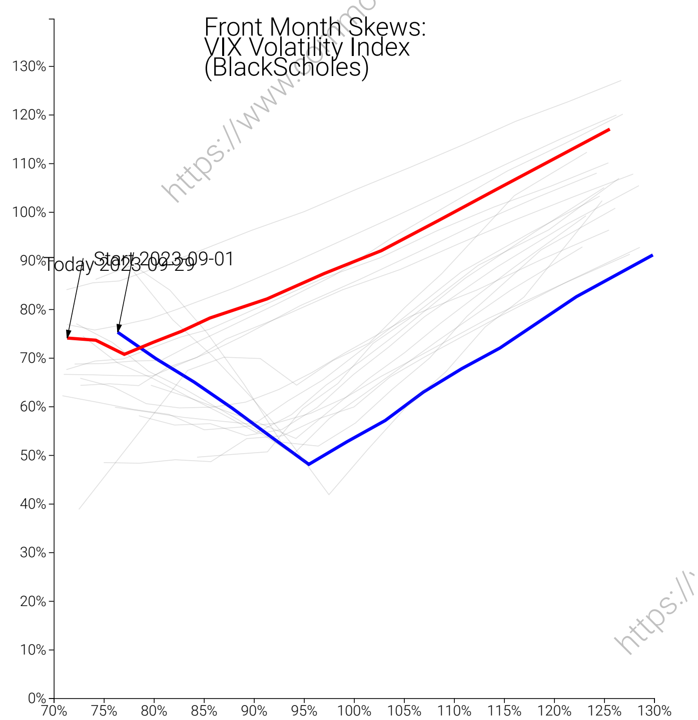

Start 2023-09-01
Today 2023-09-29
20231215
2024031
Price ($)
33,500
34,000
34,500
35,000
35,500


Front Month Skews:
E-Mini Dow Options
(Black)
Start 2023-09-01
Today 2023-09-29
0%
10%
20%
30%
40%
50%
60%
70%
80%
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

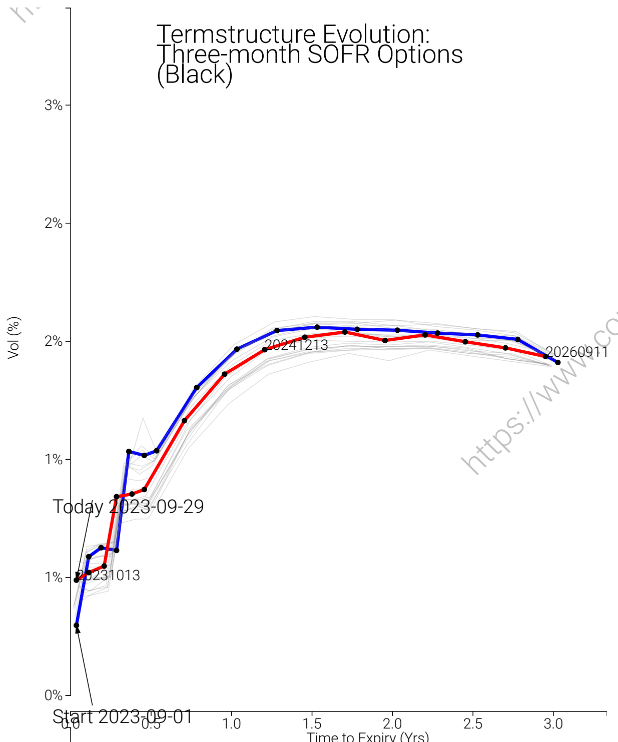

Termstructure Evolution:
VIX Volatility Index
(BlackScholes)
Today 2023-09-29
20231018
20240214
Start 2023-09-01
Vol (%)
Time to Expiry (Yrs)

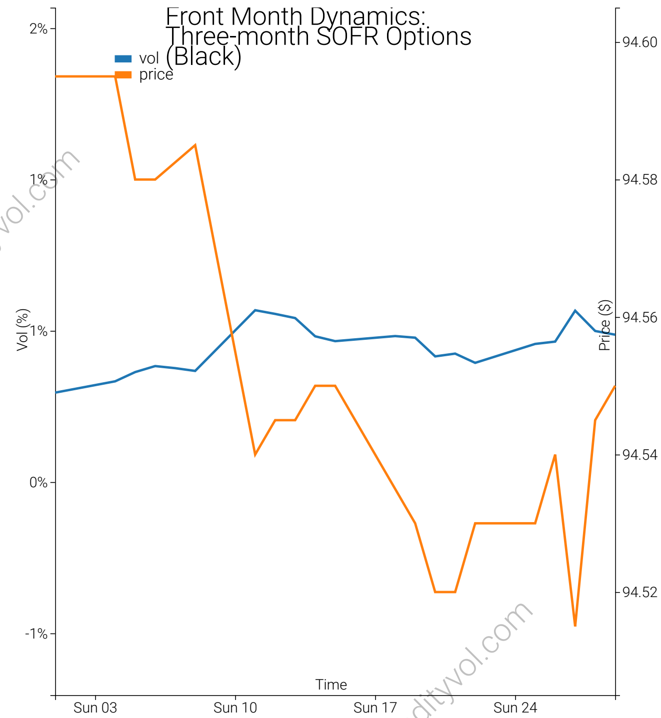

Front Month Dynamics:
VIX Volatility Index
(BlackScholes)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

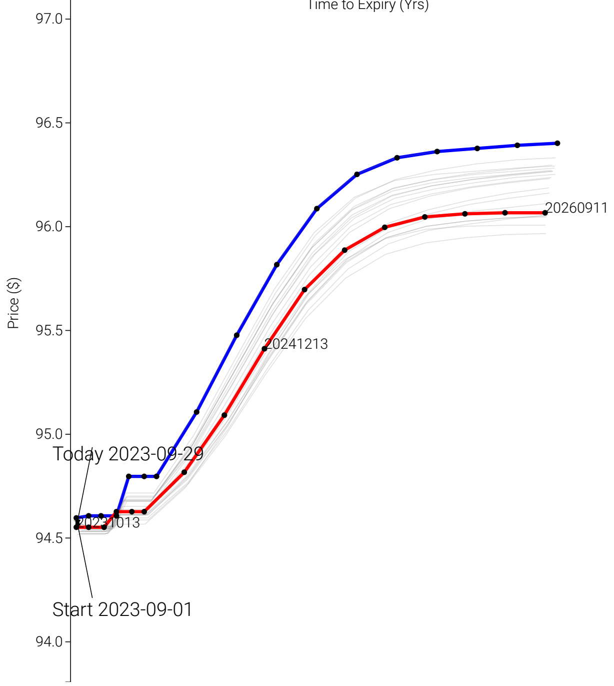

Today 2023-09-29
20231018
20240214
Price ($)

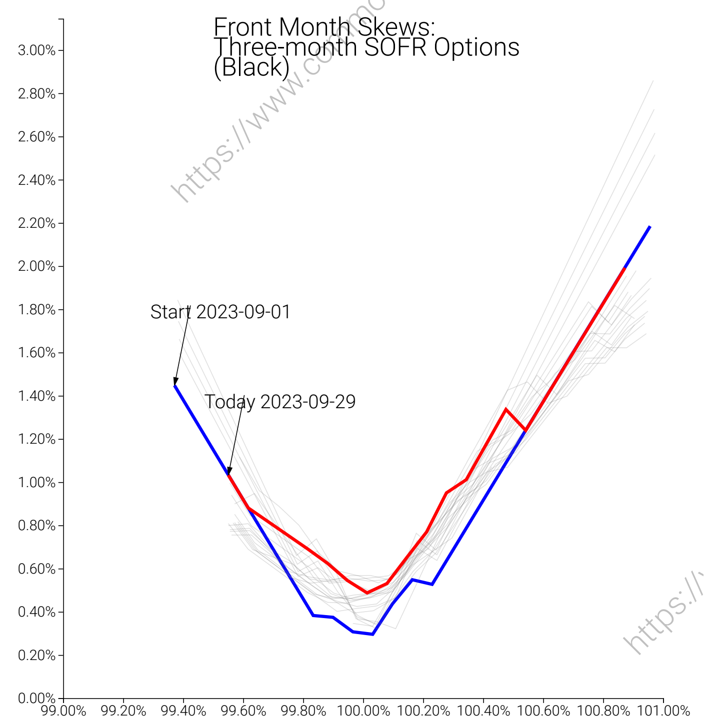

Front Month Skews:
VIX Volatility Index
(BlackScholes)
Today 2023-09-29
Start 2023-09-01

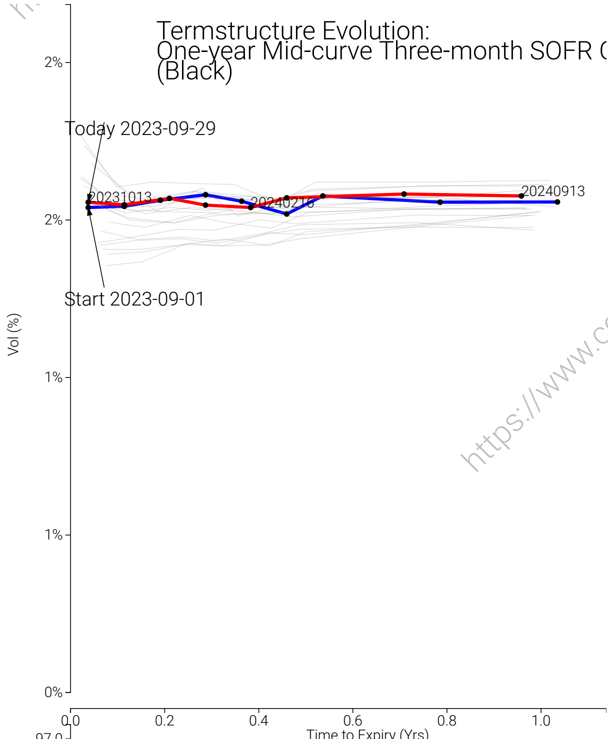
InterestRates: Fixed Income and STIRS

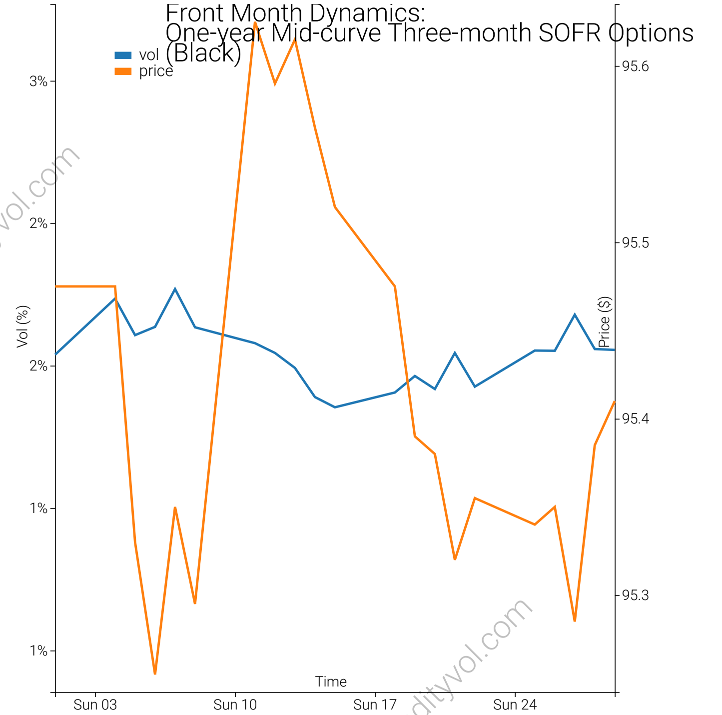

Termstructure Evolution:
Three-month SOFR Options
(Black)
Vol (%)
Time to Expiry (Yrs)
Today 2023-09-29
Start 2023-09-01
20231013
20241213
20260911
https://www.commodityvol.com

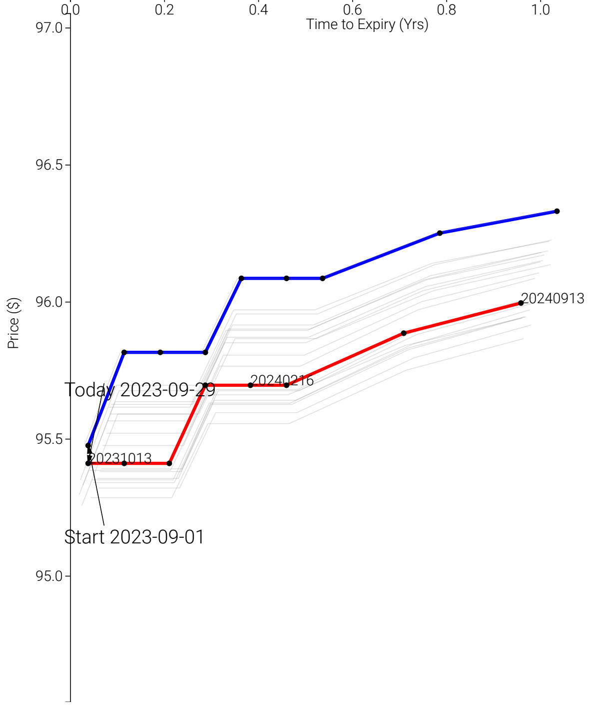

Front Month Dynamics:
Three-month SOFR Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24
https://www.commodityvol.com

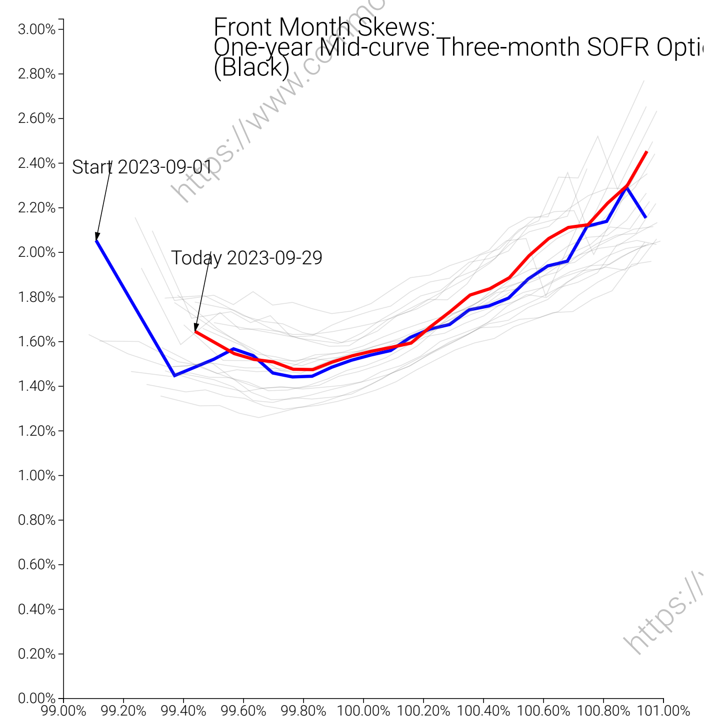

Price ($)
Today 2023-09-29
Start 2023-09-01
20231013
20241213
20260911

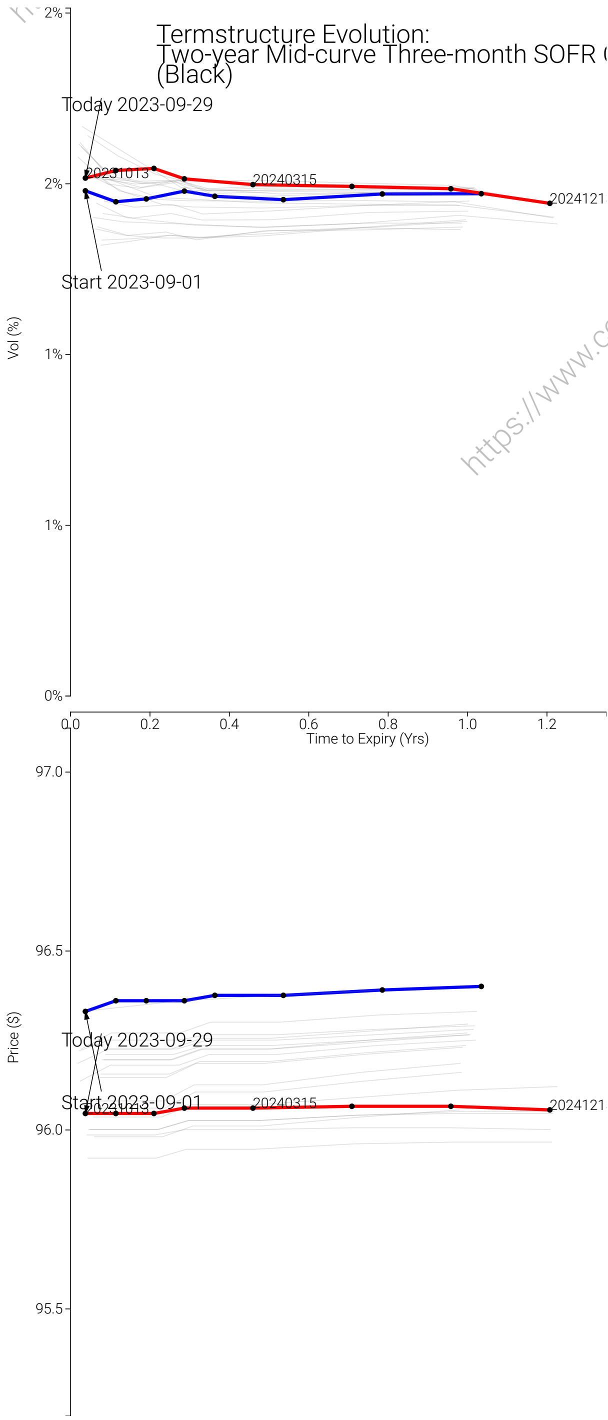

Front Month Skews:
Three-month SOFR Options
(Black)
Start 2023-09-01
Today 2023-09-29
https://www.commodityvol.com

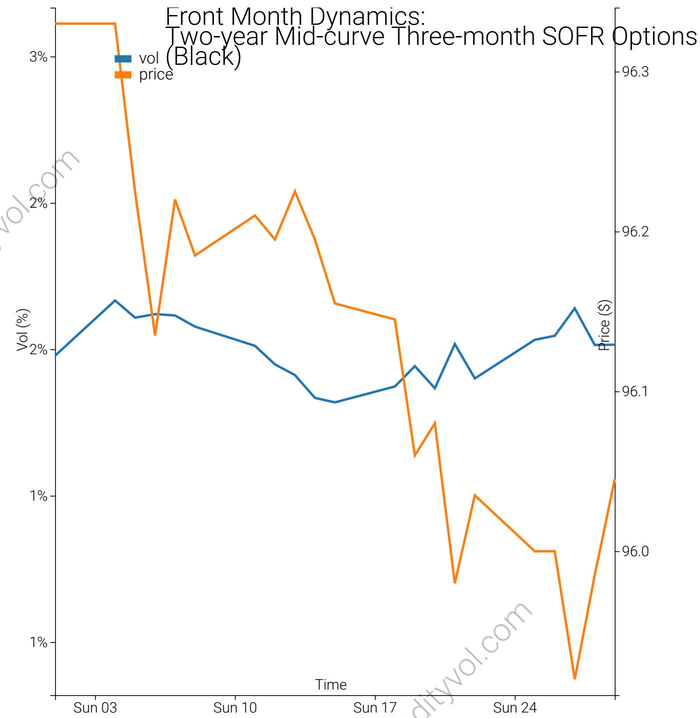

Termstructure Evolution:
One-year Mid-curve Three-month SOFR (
(Black)
Today 2023-09-29
Start 2023-09-01
20231013
20240216
20240913
Vol (%)
Time to Expiry (Yrs)

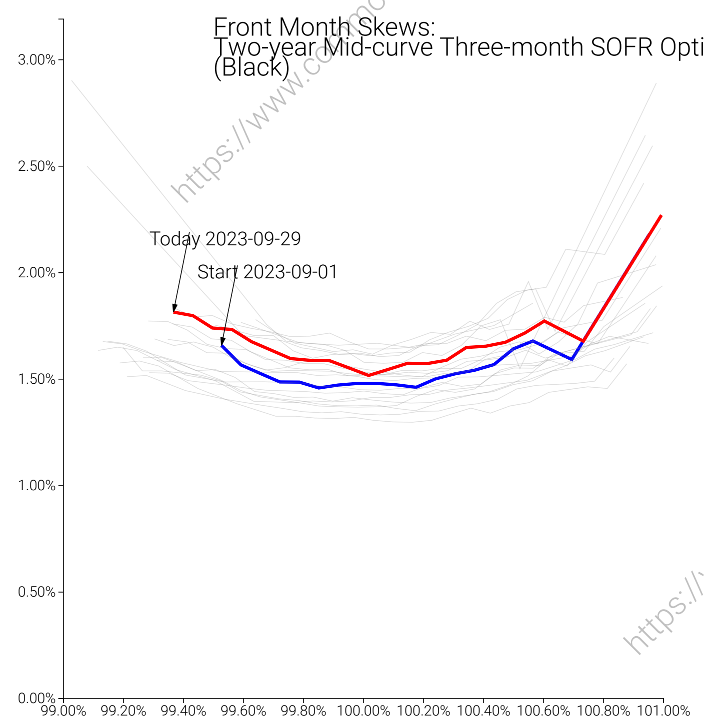

Front Month Dynamics:
One-year Mid-curve Three-month SOFR Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

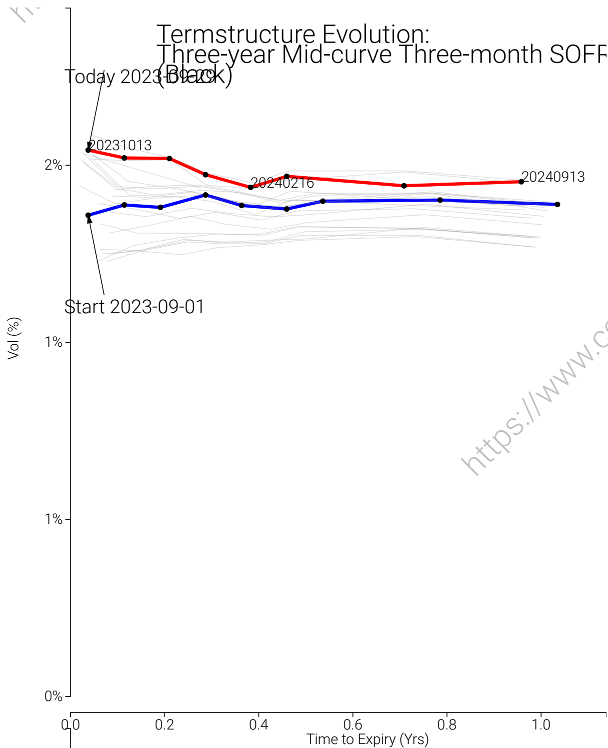

Today 2023-09-29
Start 2023-09-01
20231013
20240216
20240913
Price ($)

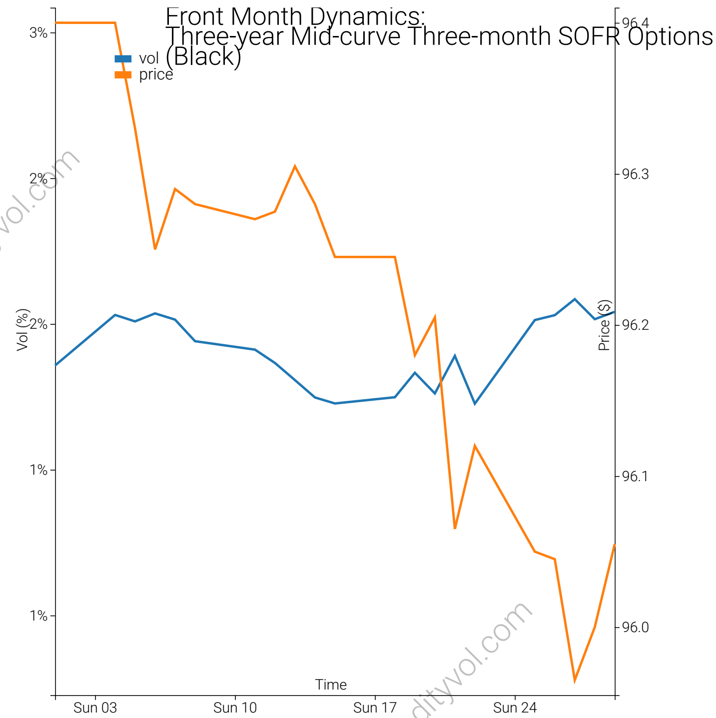

Front Month Skews:
One-year Mid-curve Three-month SOFR Opti
(Black)
Start 2023-09-01
Today 2023-09-29

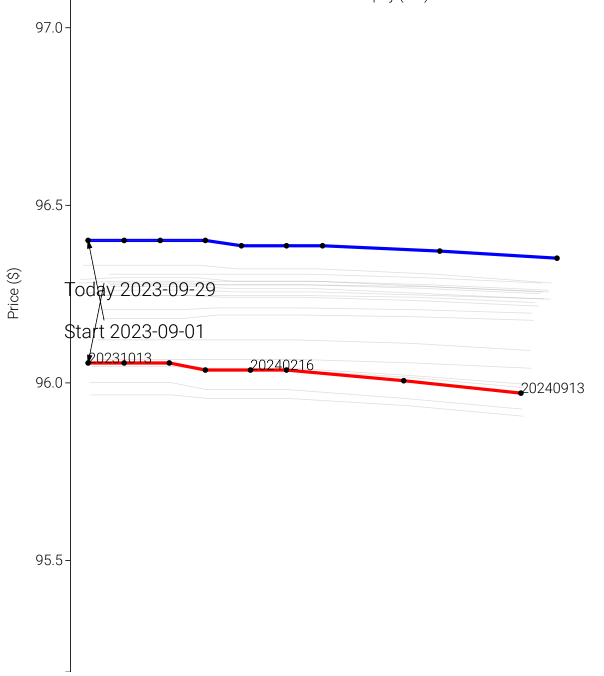

Termstructure Evolution:
Two-year Mid-curve Three-month SOFR (
(Black)
Today 2023-09-29
Start 2023-09-01
20231013
20240315
2024121
Vol (%)
Time to Expiry (Yrs)
Price ($)

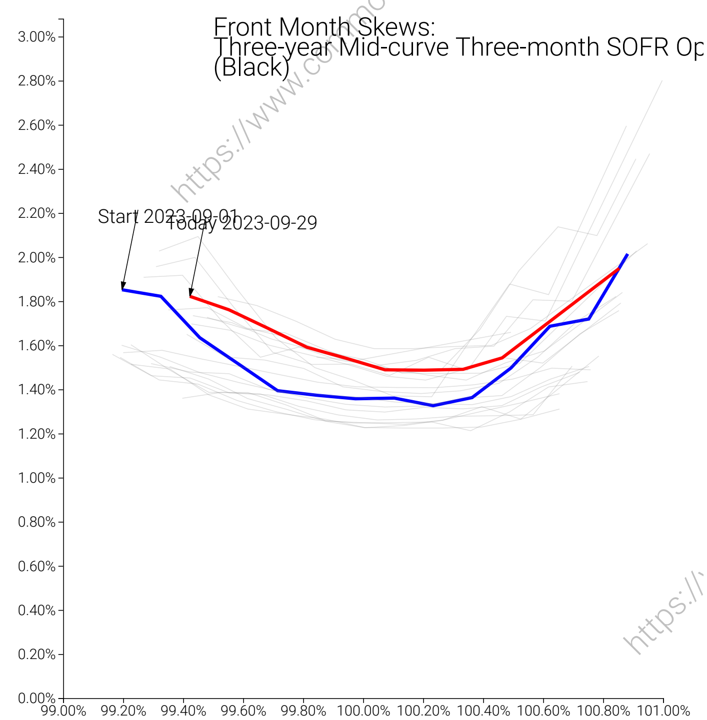

Front Month Dynamics:
Two-year Mid-curve Three-month SOFR Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

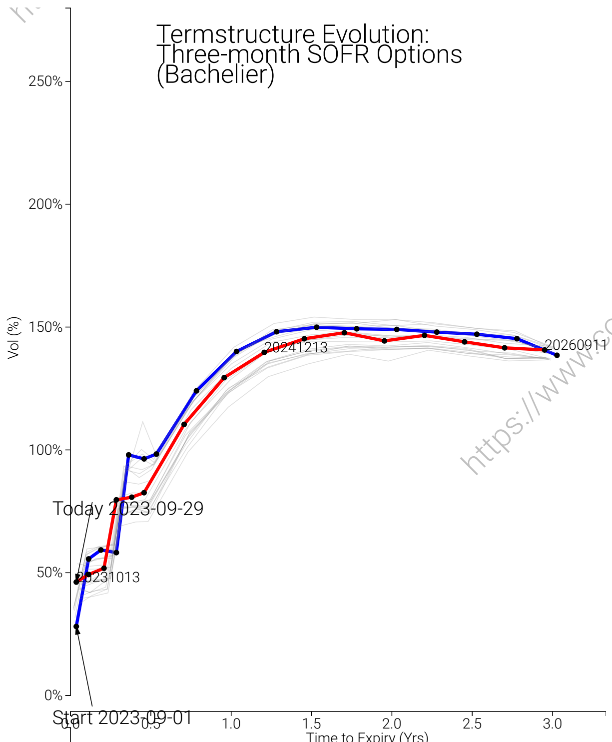

Front Month Skews:
Two-year Mid-curve Three-month SOFR Opti
(Black)
Today 2023-09-29
Start 2023-09-01

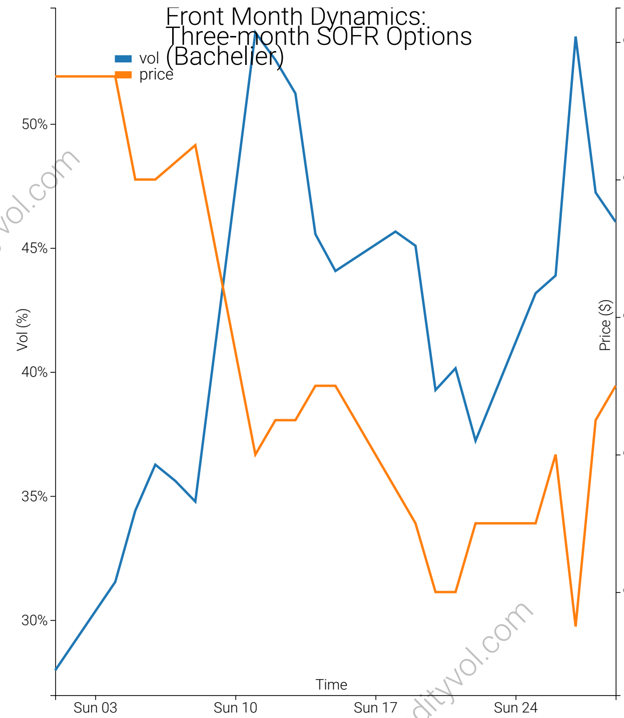

Termstructure Evolution:
Three-year Mid-curve Three-month SOFR
(Black)
Today 2023-09-29
Start 2023-09-01
20231013
20240216
20240913
Vol (%)
Time to Expiry (Yrs)

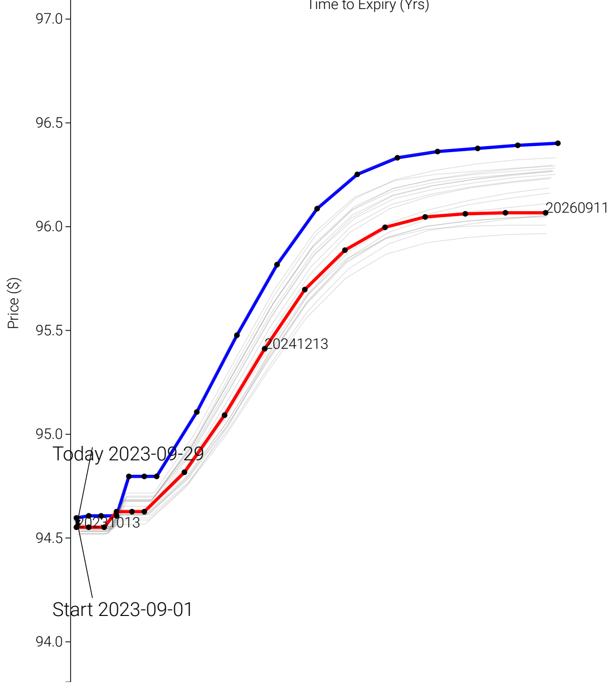

Front Month Dynamics:
Three-year Mid-curve Three-month SOFR Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

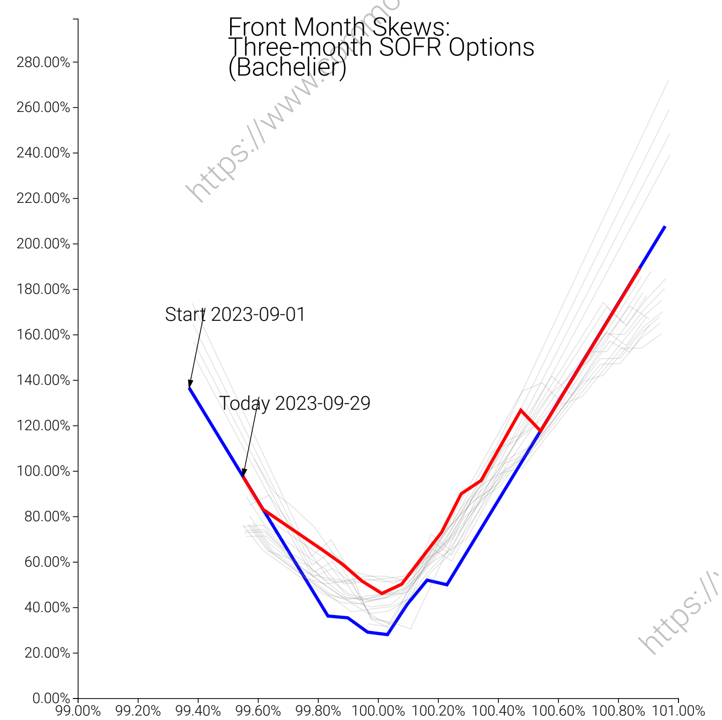

Today 2023-09-29
Start 2023-09-01
20231013
20240216
20240913
Price ($)

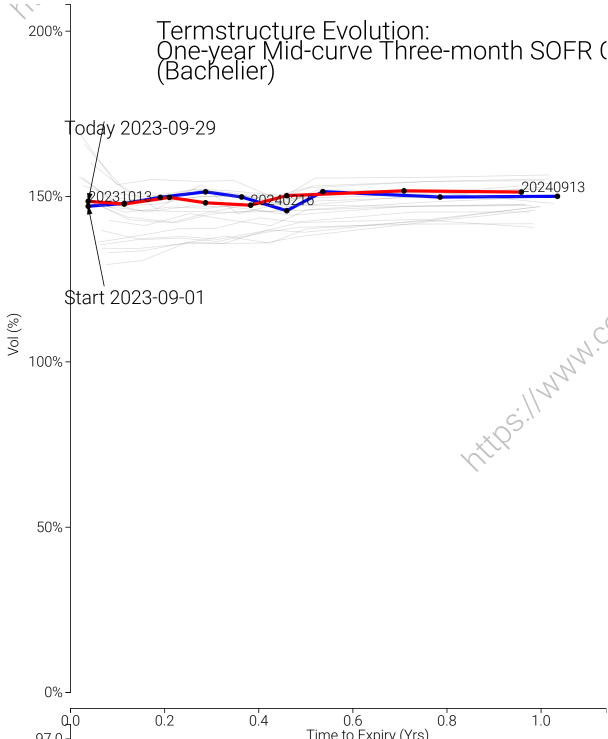

Front Month Skews:
Three-year Mid-curve Three-month SOFR Op
(Black)
Start 2023-09-01
Today 2023-09-29

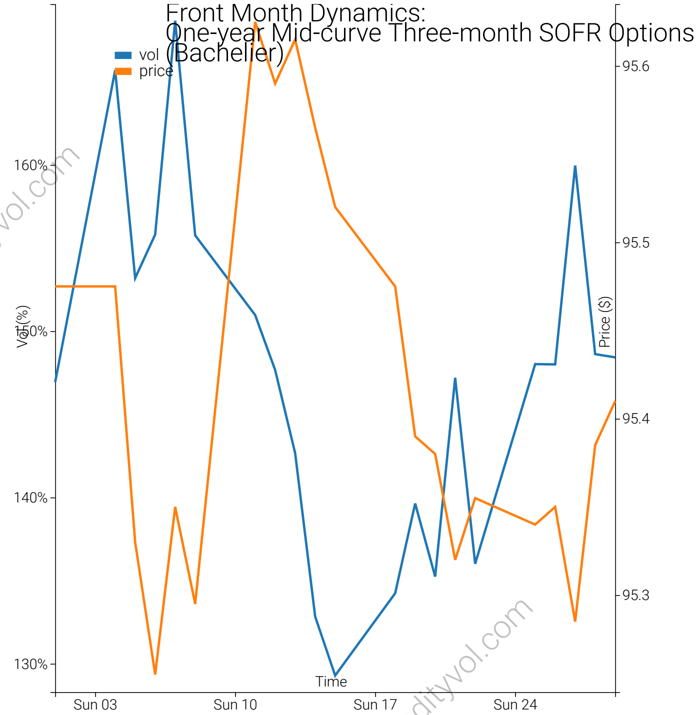

Termstructure Evolution:
Three-month SOFR Options
(Bachelier)
Vol (%)
Time to Expiry (Yrs)
Today 2023-09-29
Start 2023-09-01
20231013
20241213
20260911

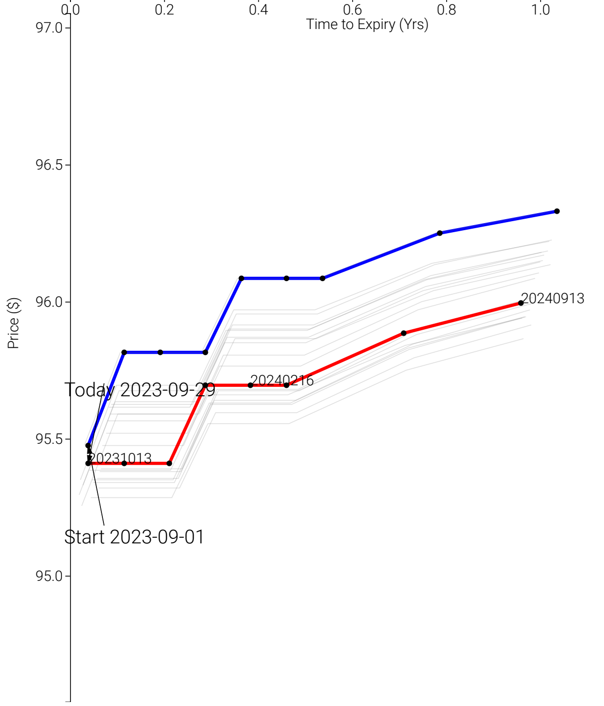

Front Month Dynamics:
Three-month SOFR Options
(Bachelier)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

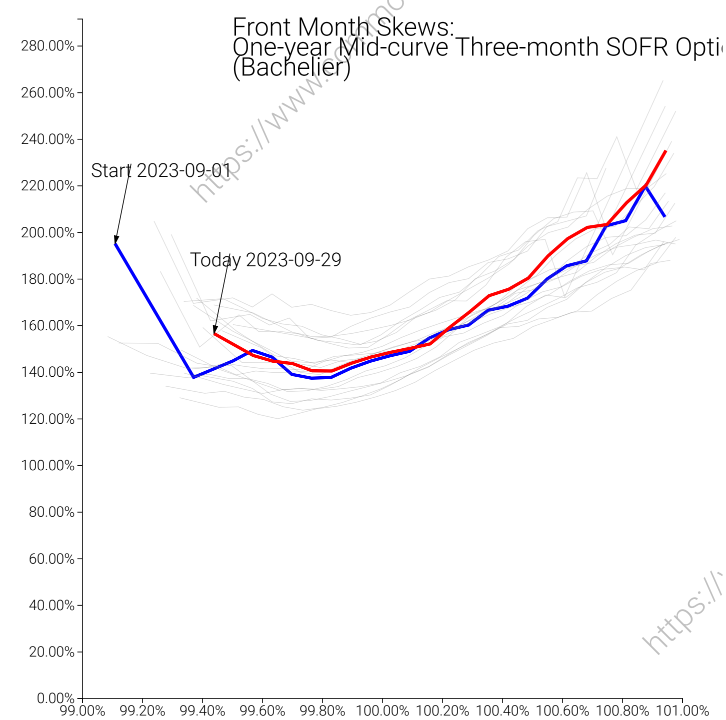

Price ($)
Today 2023-09-29
Start 2023-09-01
20231013
20241213
20260911

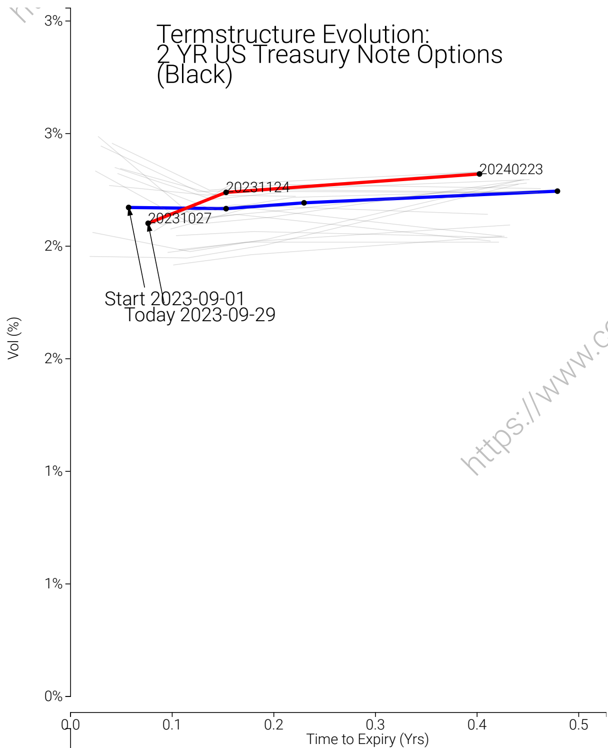

Front Month Skews:
Three-month SOFR Options
(Bachelier)
Start 2023-09-01
Today 2023-09-29

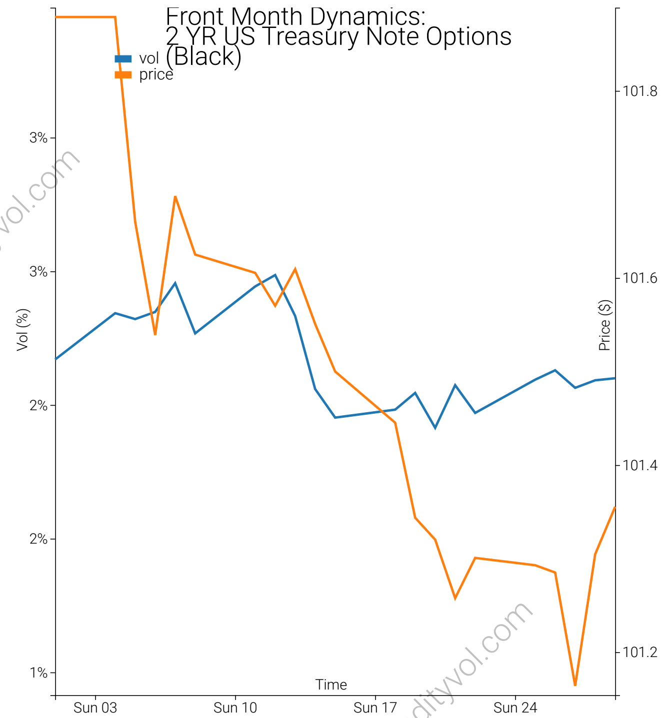

Termstructure Evolution:
One-year Mid-curve Three-month SOFR (
(Bachelier)
Today 2023-09-29
Start 2023-09-01
20231013
20240216
20240913
Vol (%)
Time to Expiry (Yrs)
200%
150%
100%
50%
0%
0.0
0.2
0.4
0.6
0.8
1.0

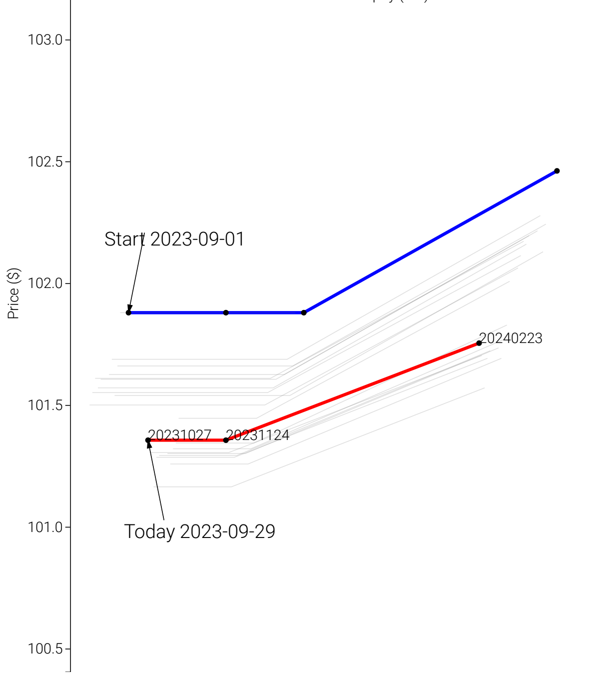

Front Month Dynamics:
One-year Mid-curve Three-month SOFR Options
(Bachelier)
vol
price
Vol (%)
Price ($)
Time
160%
150%
140%
130%
95.6
95.5
95.4
95.3
Sun 03
Sun 10
Sun 17
Sun 24

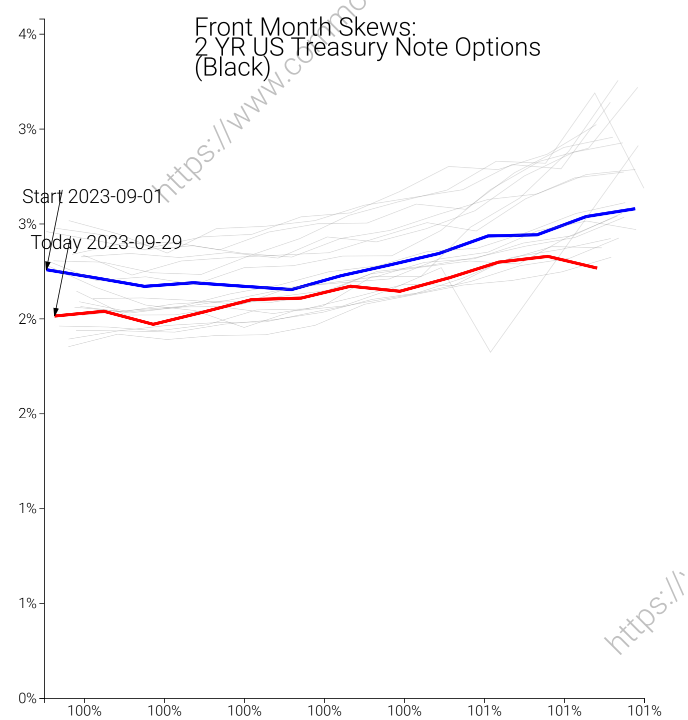

Price ($)
Today 2023-09-29
Start 2023-09-01
20231013
20240216
20240913
97.0
96.5
96.0
95.5
95.0

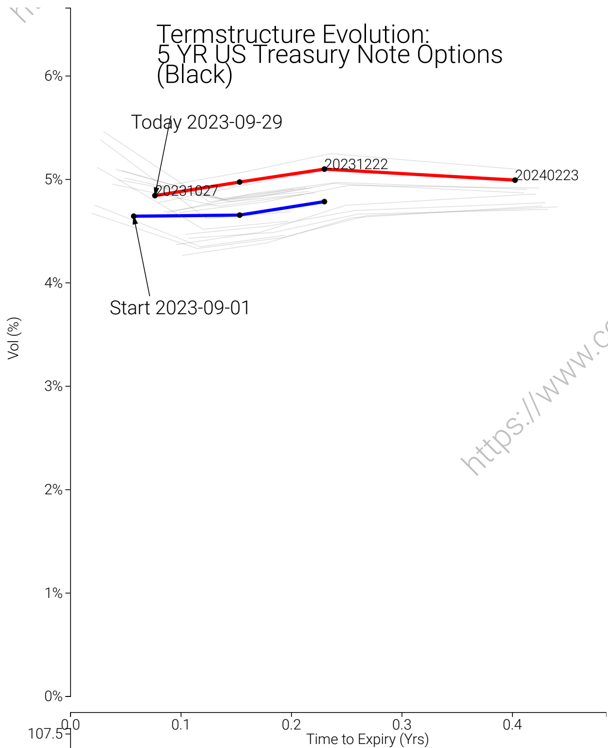

Front Month Skews:
One-year Mid-curve Three-month SOFR Opti
(Bachelier)
Start 2023-09-01
Today 2023-09-29
280.00%
260.00%
240.00%
220.00%
200.00%
180.00%
160.00%
140.00%
120.00%
100.00%
80.00%
60.00%
40.00%
20.00%
0.00%
99.00%
99.20%
99.40%
99.60%
99.80%
100.00%
100.20%
100.40%
100.60%
100.80%
101.00%

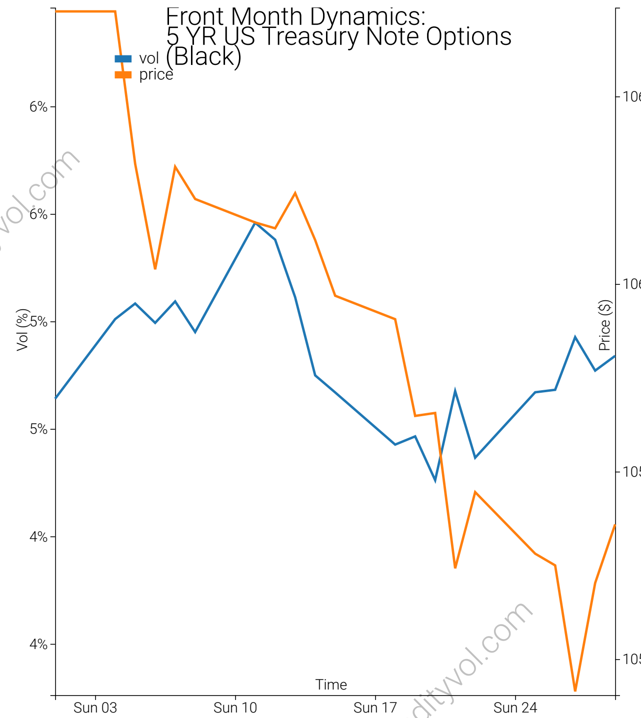

Termstructure Evolution:
2 YR US Treasury Note Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20231124
20240223
20231027
Start 2023-09-01
Today 2023-09-29

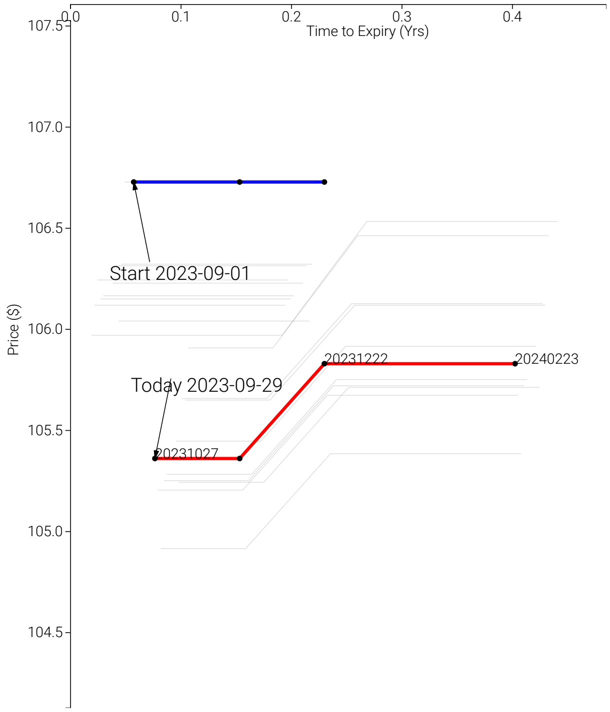

Front Month Dynamics:
2 YR US Treasury Note Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

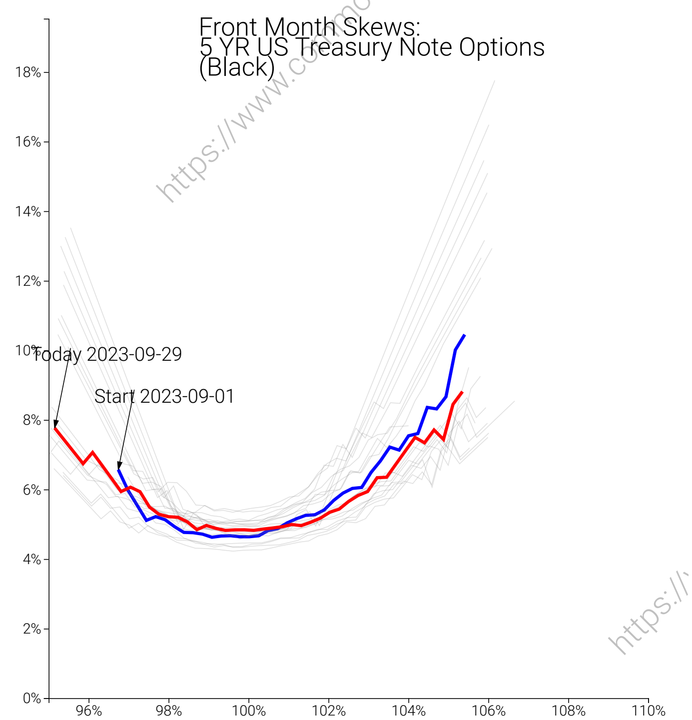

Price ($)
Start 2023-09-01
20240223
20231027
20231124
Today 2023-09-29

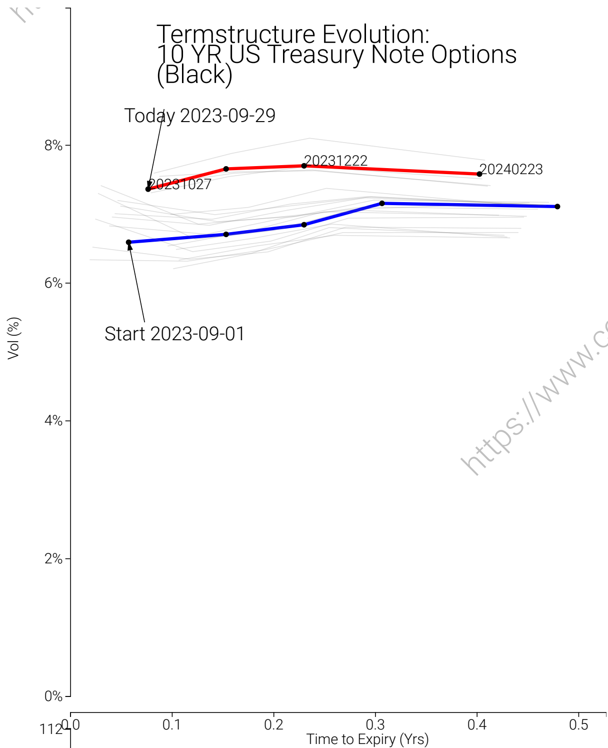

Front Month Skews:
2 YR US Treasury Note Options
(Black)
Start 2023-09-01
Today 2023-09-29

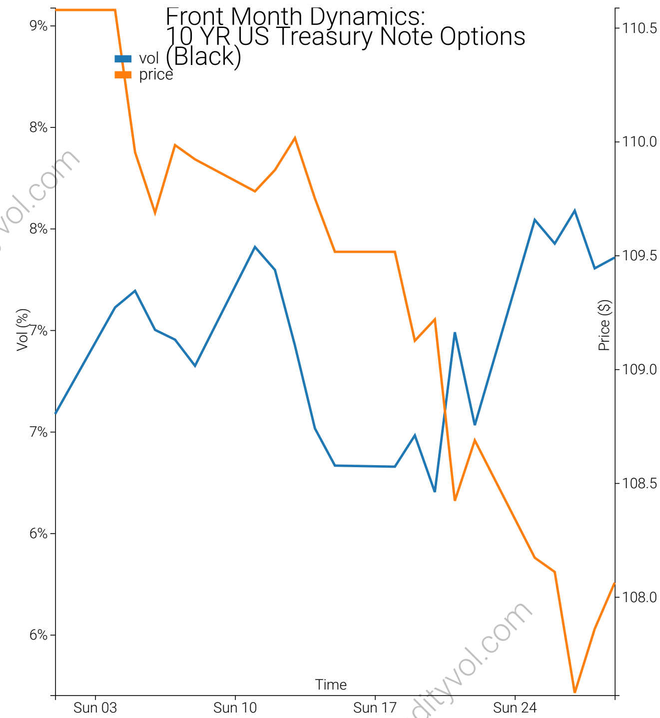

Termstructure Evolution:
5 YR US Treasury Note Options
(Black)
Today 2023-09-29
Start 2023-09-01
20231027
20231222
20240223
Vol (%)
Time to Expiry (Yrs)

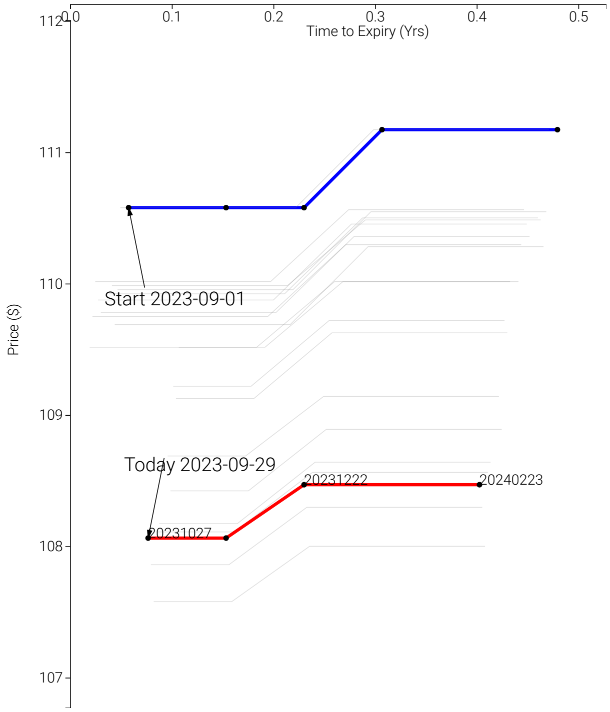

Front Month Dynamics:
5 YR US Treasury Note Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

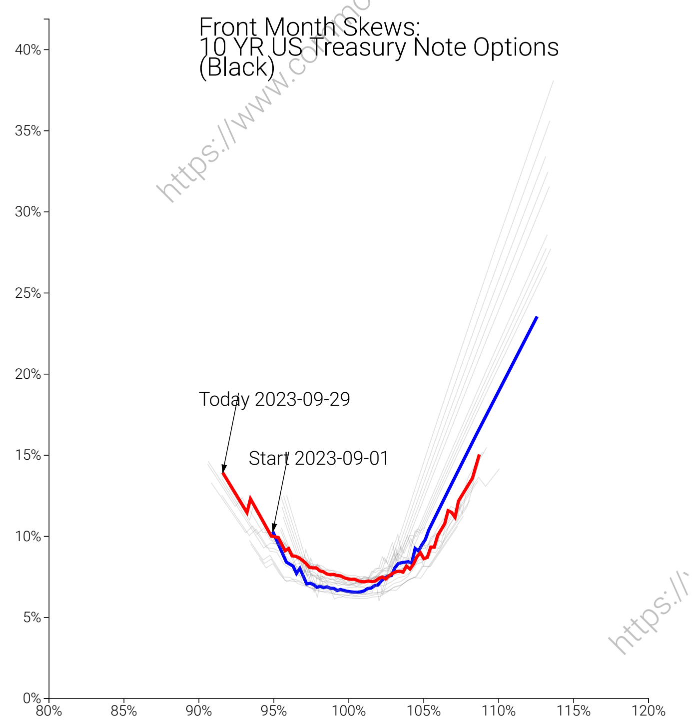

Start 2023-09-01
Today 2023-09-29
20231027
20231222
20240223
Price ($)

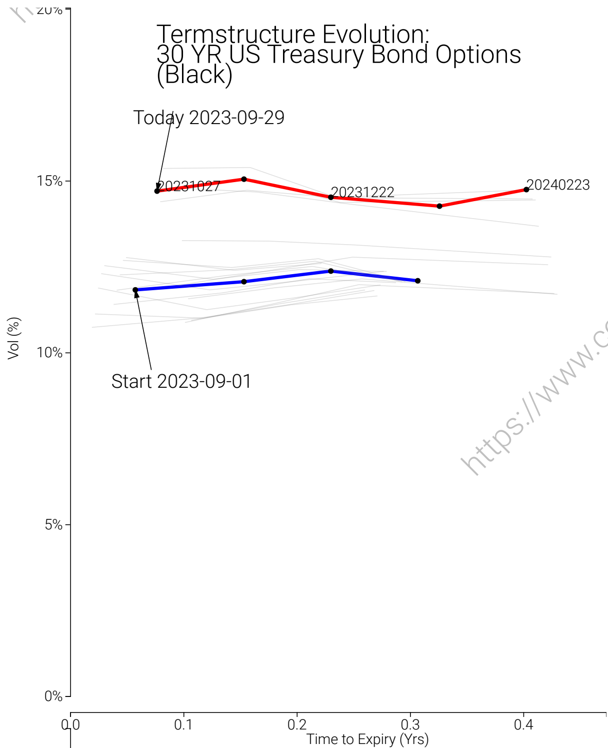

Front Month Skews:
5 YR US Treasury Note Options
(Black)
Today 2023-09-29
Start 2023-09-01

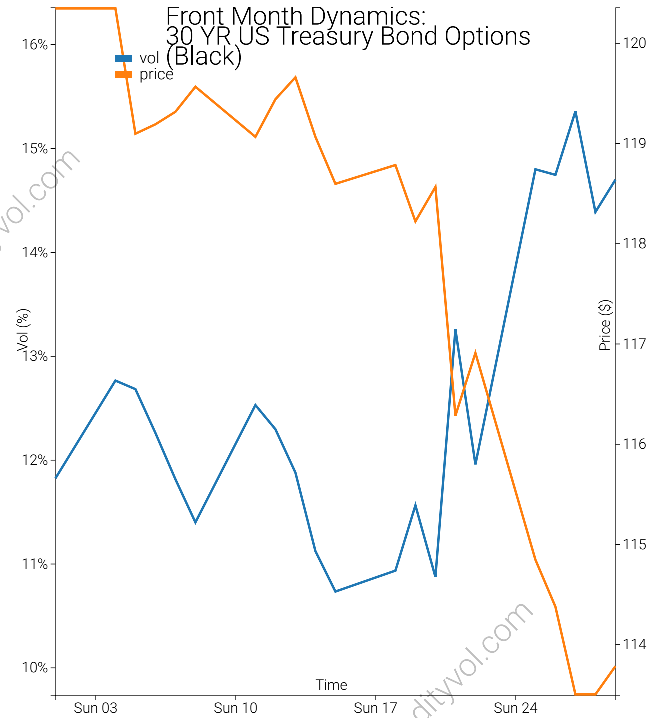

Termstructure Evolution:
10 YR US Treasury Note Options
(Black)
Today 2023-09-29
20231027
20231222
20240223
Start 2023-09-01
Vol (%)
Time to Expiry (Yrs)

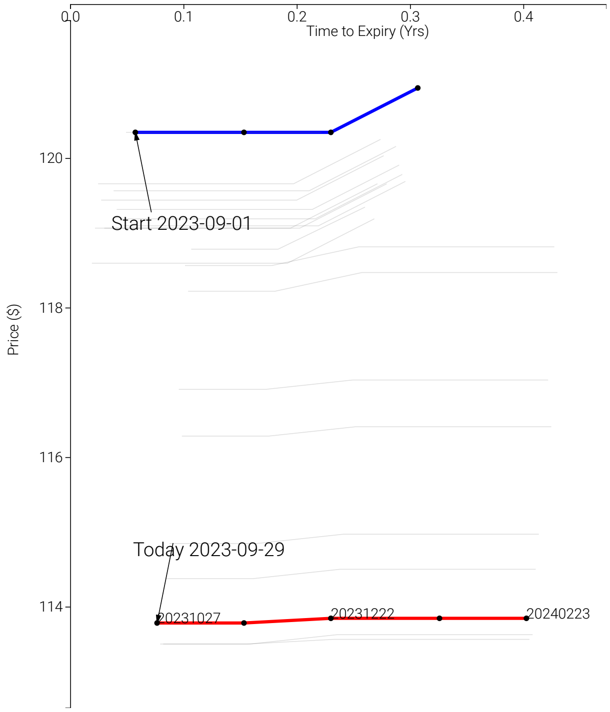

Front Month Dynamics:
10 YR US Treasury Note Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

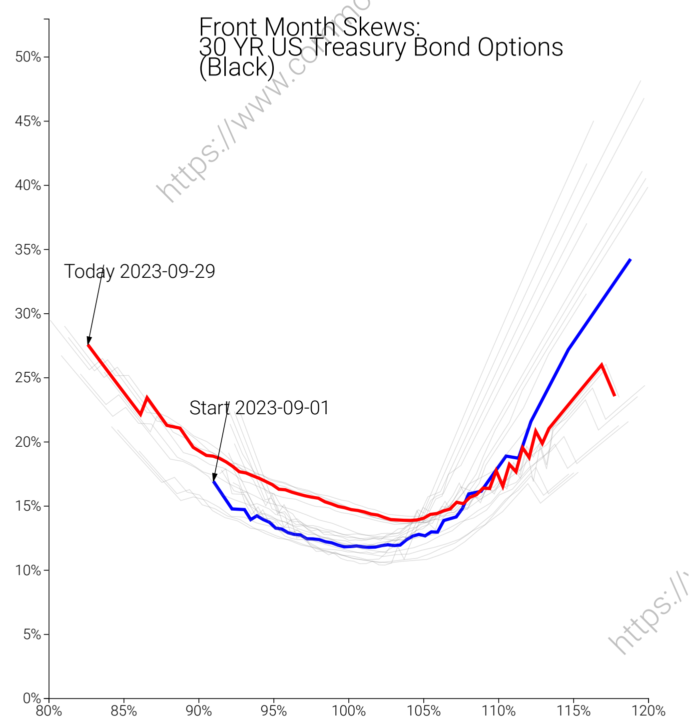

Start 2023-09-01
Today 2023-09-29
20231027
20231222
20240223
Price ($)

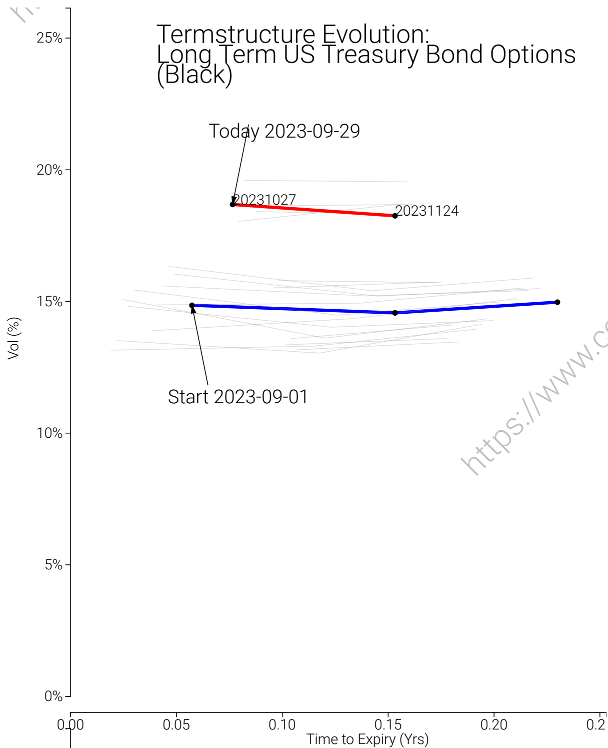

Front Month Skews:
10 YR US Treasury Note Options
(Black)
Today 2023-09-29
Start 2023-09-01

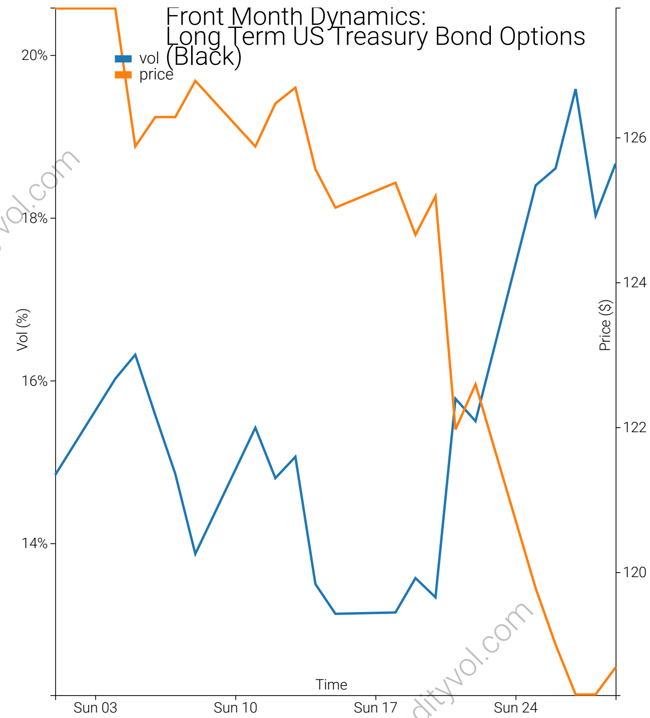

Termstructure Evolution:
30 YR US Treasury Bond Options
(Black)
Today 2023-09-29
20231027
20231222
20240223
Start 2023-09-01
Vol (%)
Time to Expiry (Yrs)

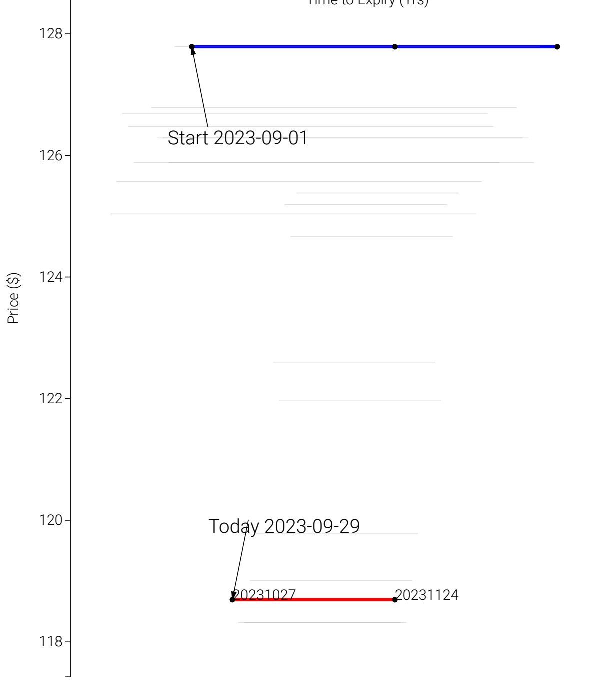

Front Month Dynamics:
30 YR US Treasury Bond Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

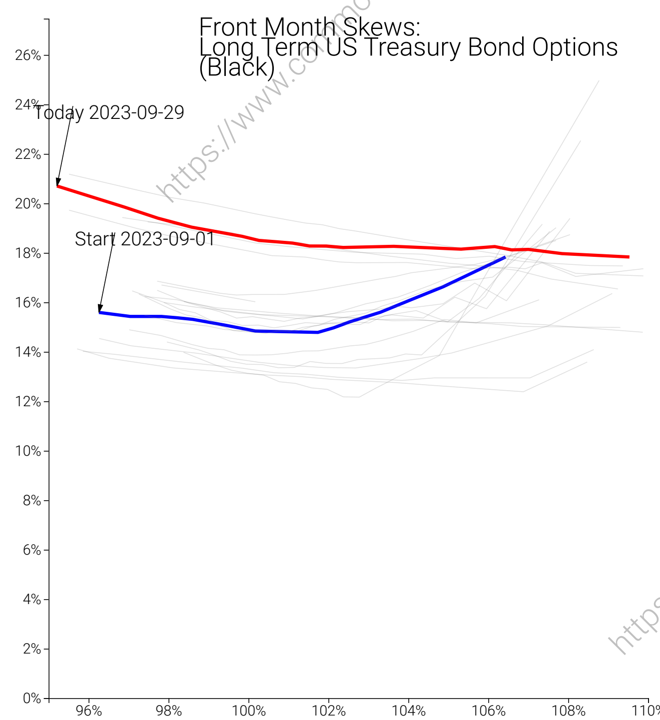

Start 2023-09-01
Today 2023-09-29
20231027
20231222
20240223
Price ($)


Front Month Skews:
30 YR US Treasury Bond Options
(Black)
Today 2023-09-29
Start 2023-09-01

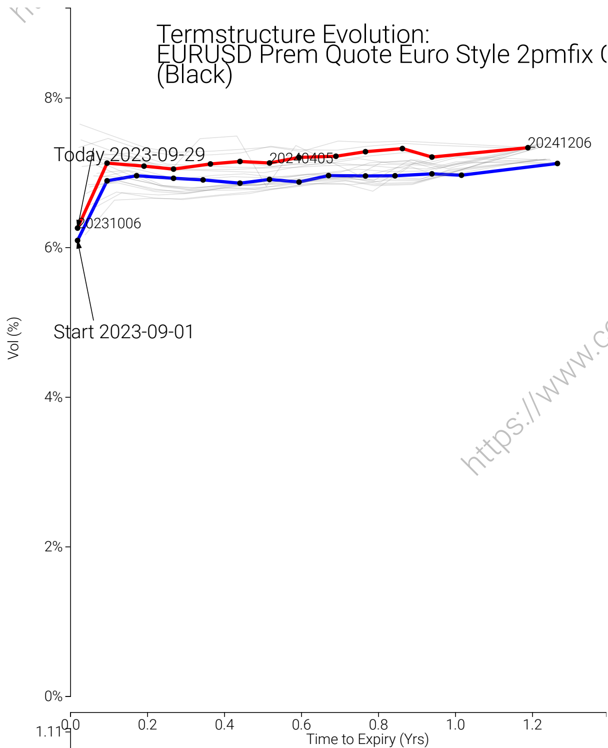

Termstructure Evolution:
Long Term US Treasury Bond Options
(Black)
Today 2023-09-29
20231027
20231124
Start 2023-09-01
Vol (%)
25%
20%
15%
10%
5%
0%
0.00
0.05
0.10
0.15
0.20
Time to Expiry (Yrs)


Front Month Dynamics:
Long Term US Treasury Bond Options
(Black)
vol
price
Vol (%)
Price ($)
20%
18%
16%
14%
126
124
122
120
Time
Sun 03
Sun 10
Sun 17
Sun 24

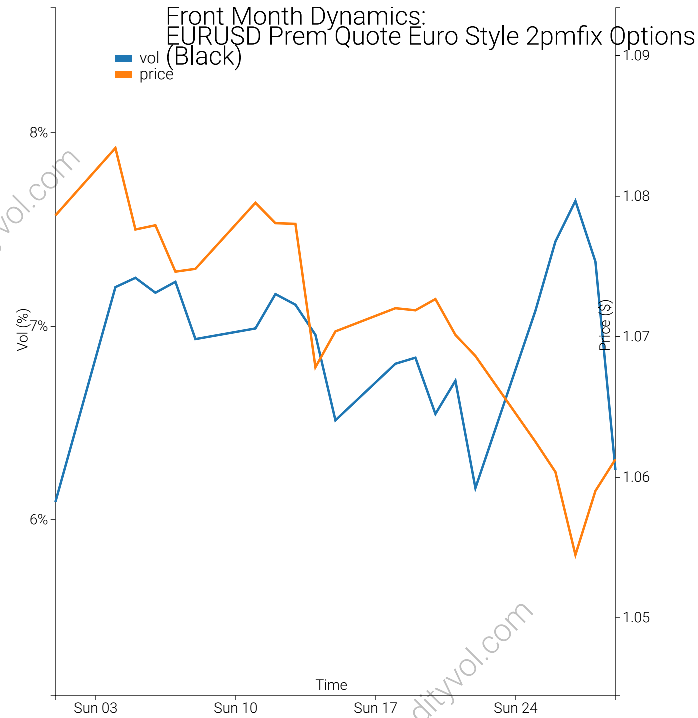

Price ($)
128
126
124
122
120
118
Start 2023-09-01
Today 2023-09-29
20231027
20231124


Front Month Skews:
Long Term US Treasury Bond Options
(Black)
Today 2023-09-29
Start 2023-09-01
26%
24%
22%
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
96%
98%
100%
102%
104%
106%
108%
110%

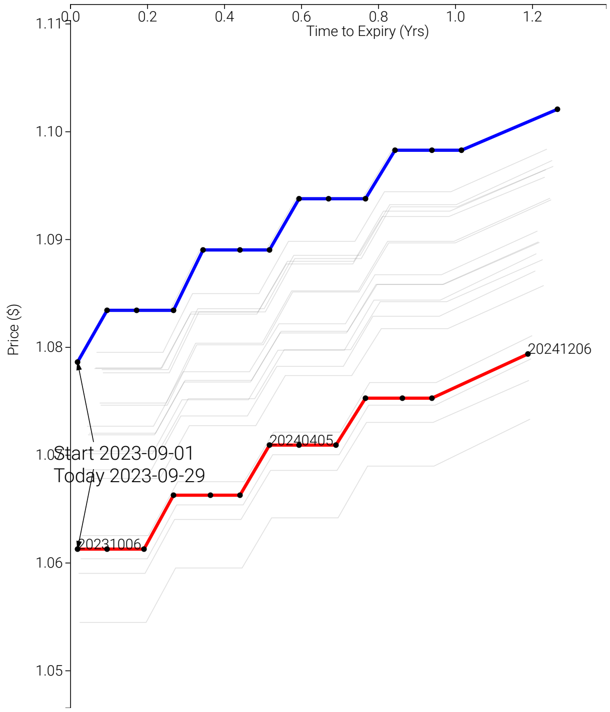
Forex



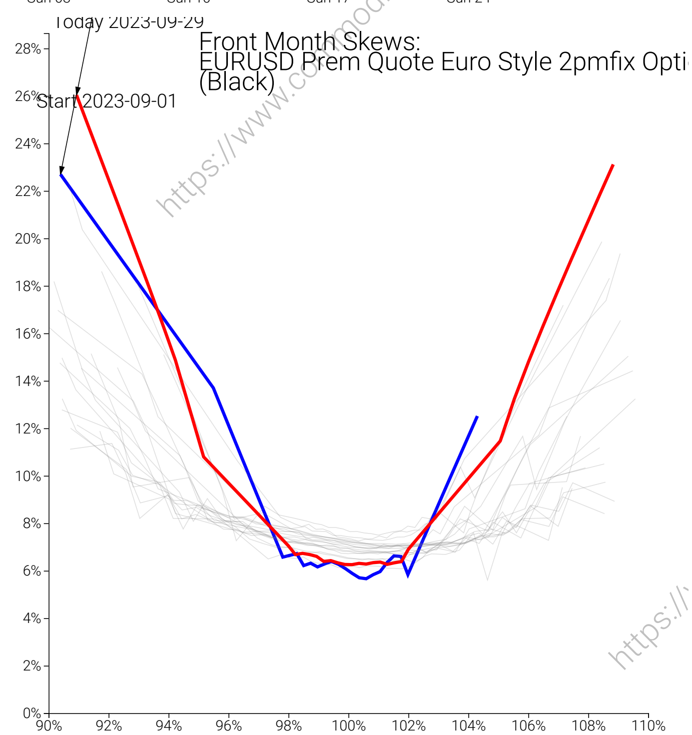
Termstructure Evolution:
EURUSD Prem Quote Euro Style 2pmfix (Black)
Today 2023-09-29
Start 2023-09-01
20231006
20240405
20241206
Vol (%)
Time to Expiry (Yrs)



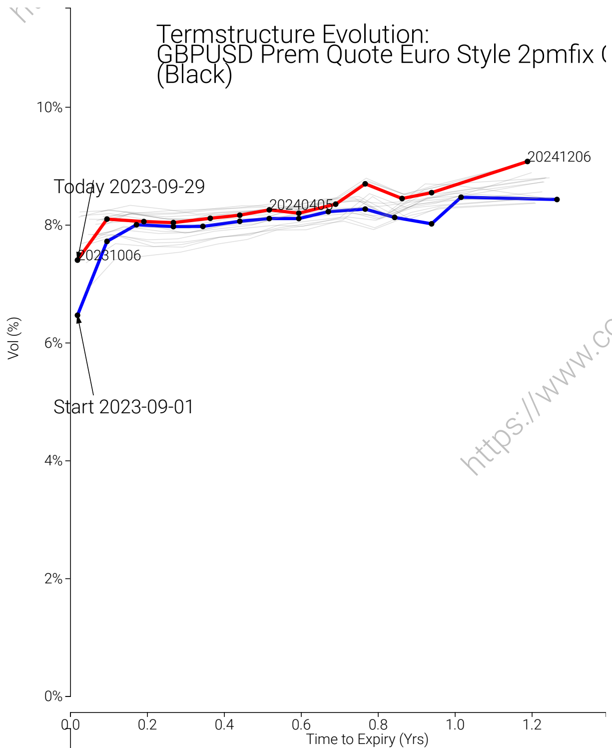
Front Month Dynamics:
EURUSD Prem Quote Euro Style 2pmfix Options (Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

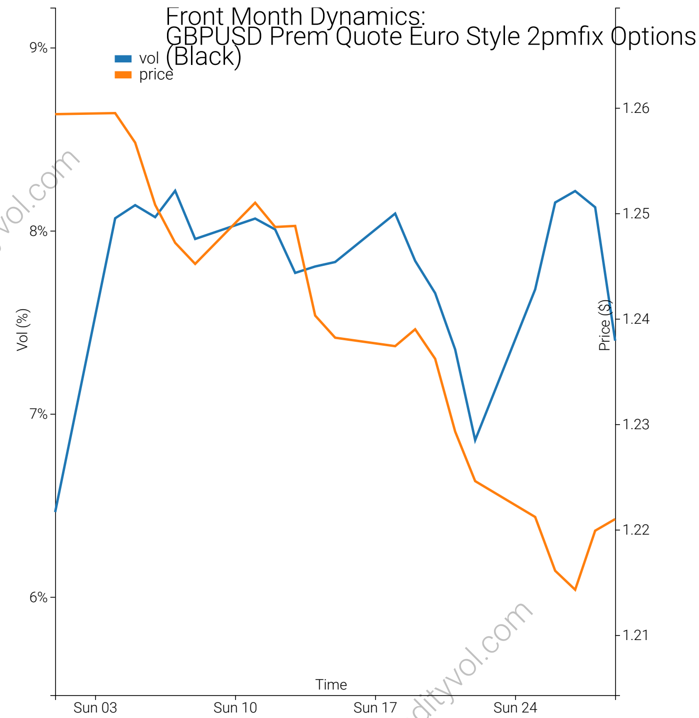


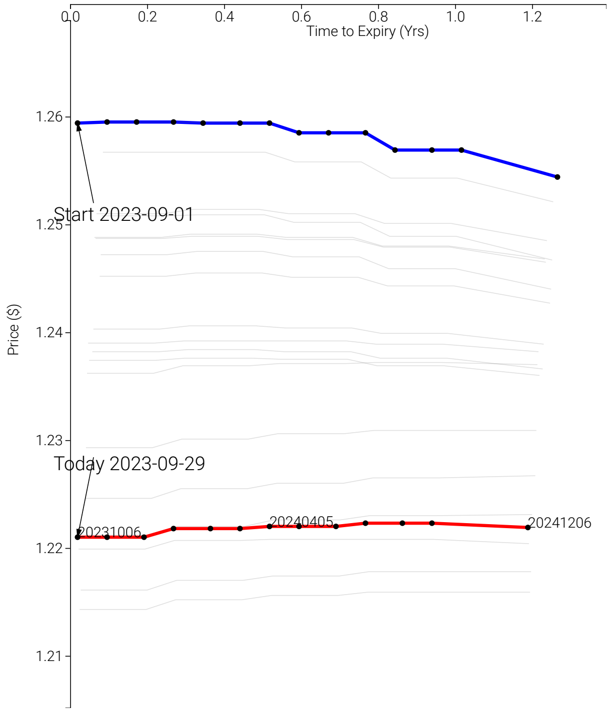
Start 2023-09-01
Today 2023-09-29
20231006
20240405
20241206
Price ($)

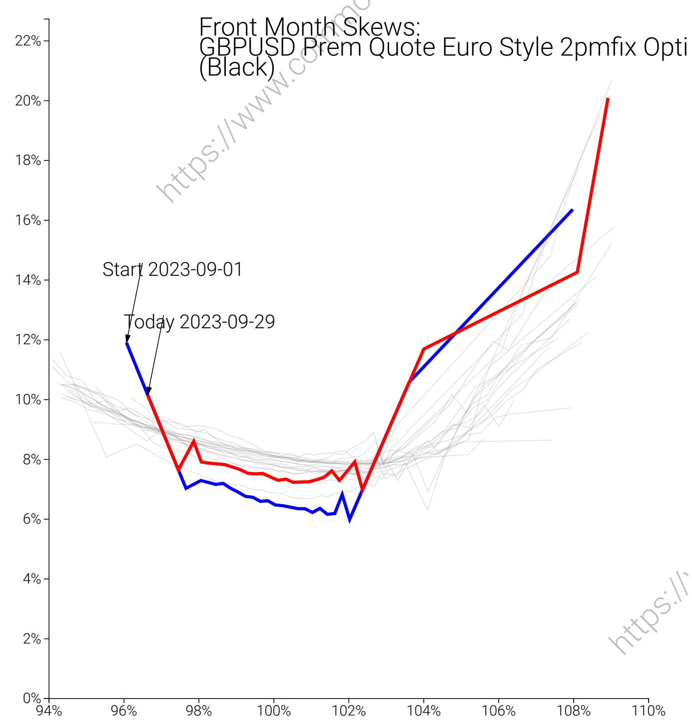


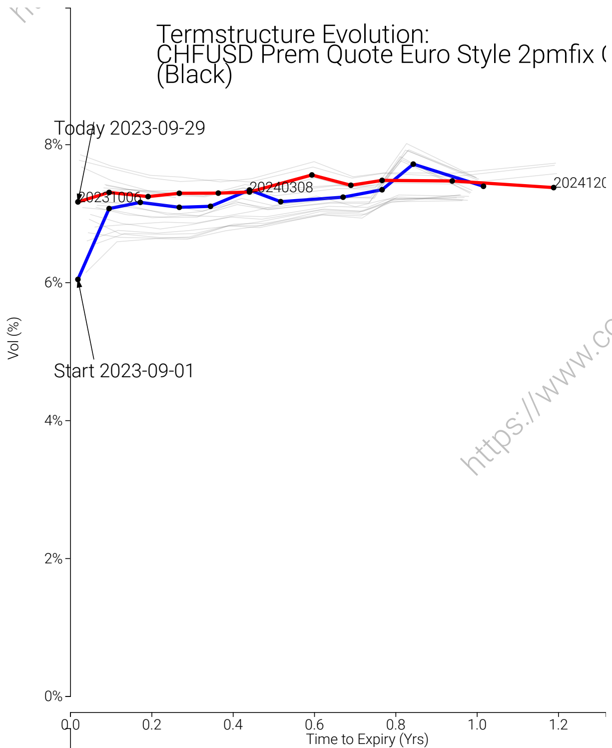
Front Month Skews:
EURUSD Prem Quote Euro Style 2pmfix Options (Black)
Today 2023-09-29
Start 2023-09-01

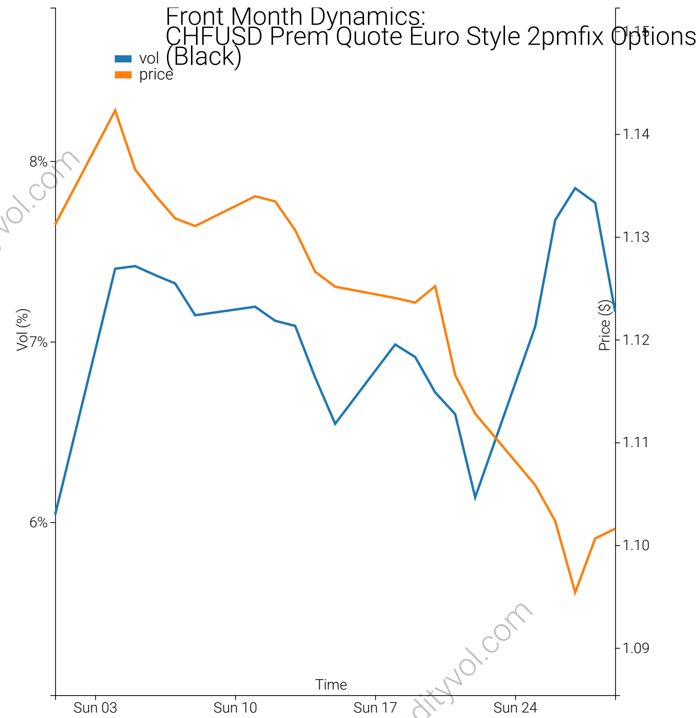

Termstructure Evolution:
GBPUSD Prem Quote Euro Style 2pmfix (
(Black)
Today 2023-09-29
Start 2023-09-01
20231006
20240405
20241206
Vol (%)
Time to Expiry (Yrs)

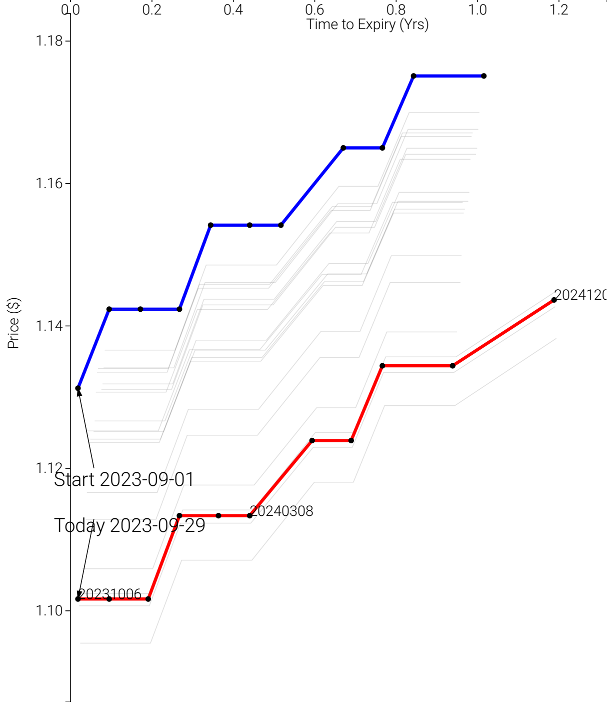

Front Month Dynamics:
GBPUSD Prem Quote Euro Style 2pmfix Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

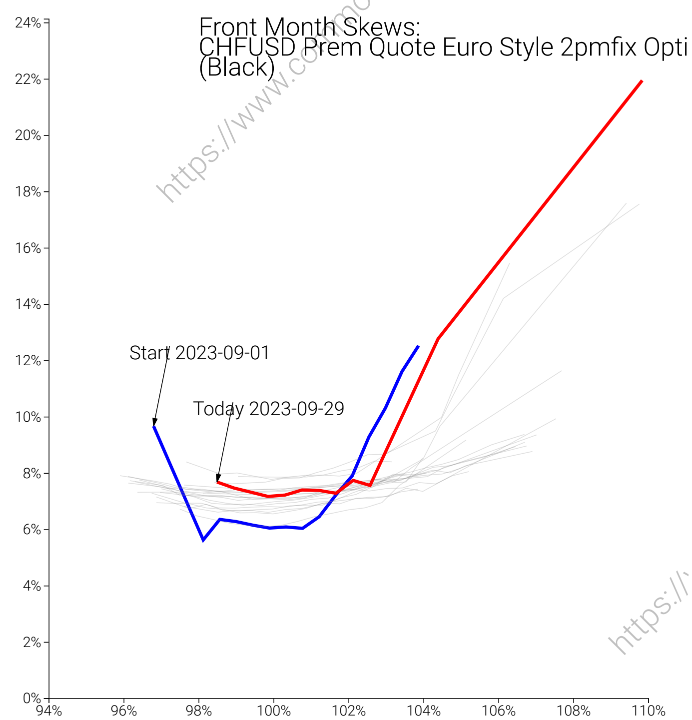

Start 2023-09-01
Today 2023-09-29
20231006
20240405
20241206
Price ($)

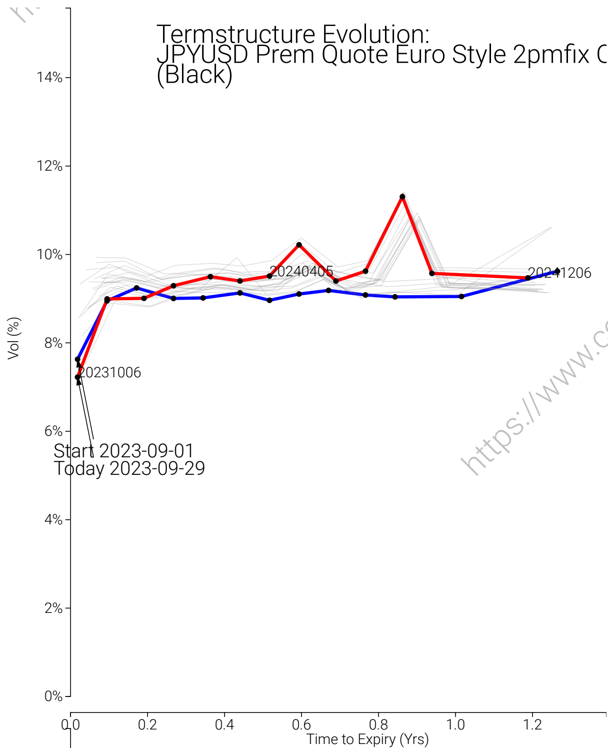

Front Month Skews:
GBPUSD Prem Quote Euro Style 2pmfix Opti
(Black)
Start 2023-09-01
Today 2023-09-29

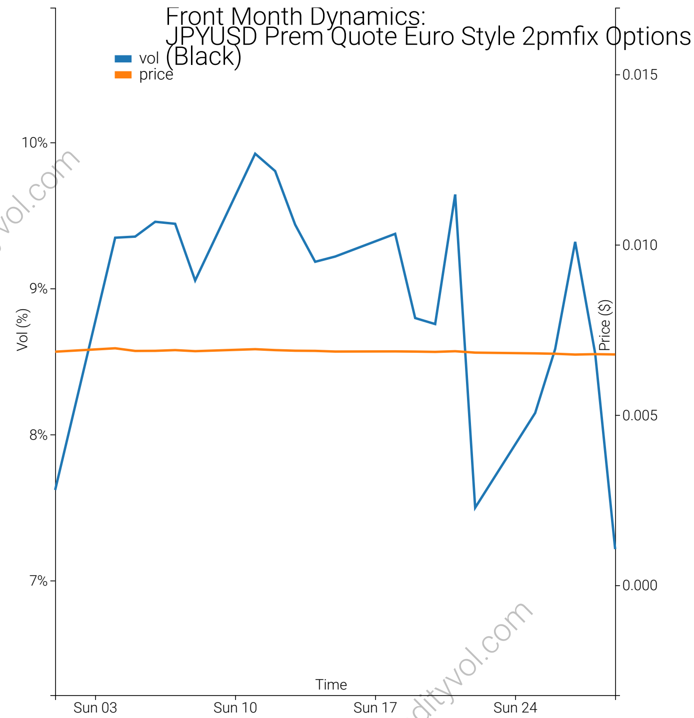

Termstructure Evolution:
CHFUSD Prem Quote Euro Style 2pmfix (
(Black)
Today 2023-09-29
Start 2023-09-01
20231006
20240308
2024120
Vol (%)
Time to Expiry (Yrs)

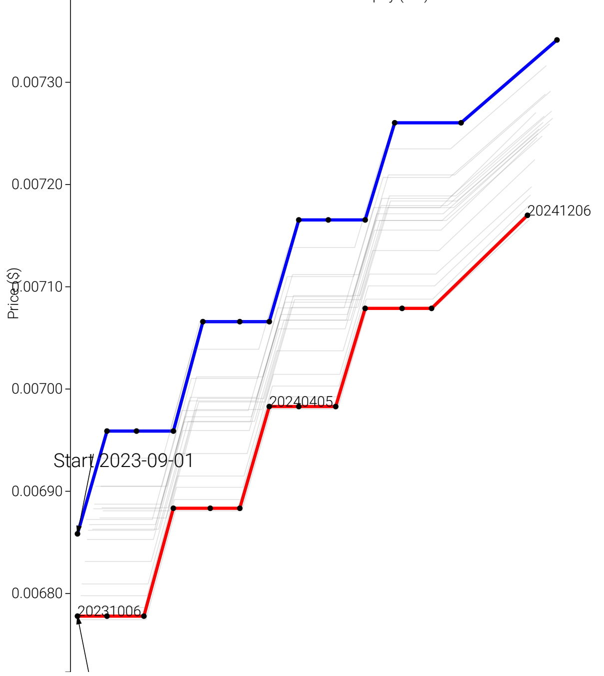

Front Month Dynamics:
CHFUSD Prem Quote Euro Style 2pmfix Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

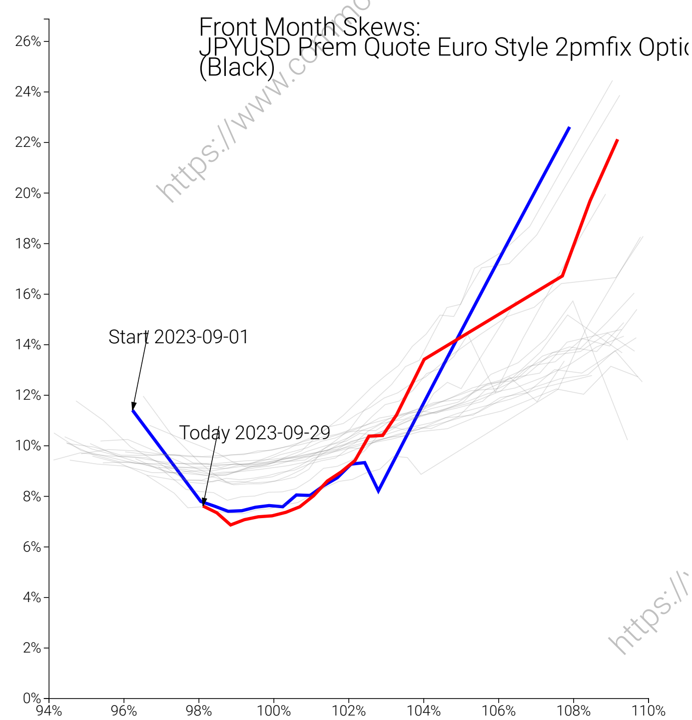

Price ($)
Start 2023-09-01
Today 2023-09-29
20231006
20240308
2024120

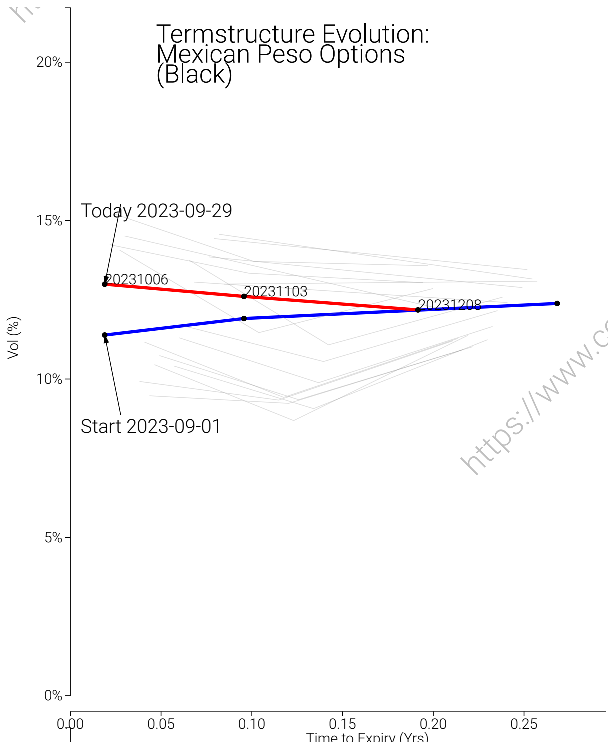

Front Month Skews:
CHFUSD Prem Quote Euro Style 2pmfix Opti
(Black)
Start 2023-09-01
Today 2023-09-29


Termstructure Evolution:
JPYUSD Prem Quote Euro Style 2pmfix C
(Black)
Vol (%)
14%
12%
10%
8%
6%
4%
2%
0%
20240405
20241206
20231006
Start 2023-09-01
Today 2023-09-29
0.0
0.2
0.4
0.6
0.8
1.0
1.2
Time to Expiry (Yrs)

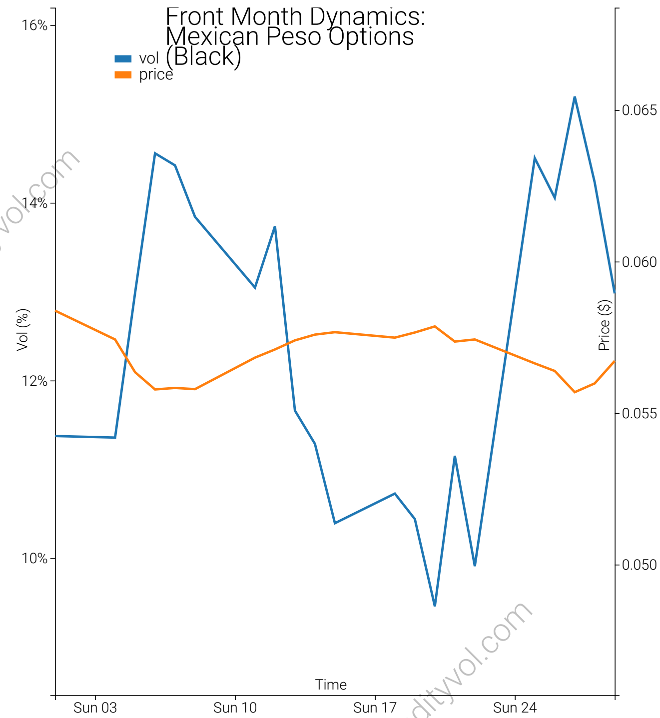

Front Month Dynamics:
JPYUSD Prem Quote Euro Style 2pmfix Options
(Black)
vol
price
Vol (%)
10%
9%
8%
7%
Price ($)
0.015
0.010
0.005
0.000
Time
Sun 03
Sun 10
Sun 17
Sun 24


Price($)
0.00730
0.00720
0.00710
0.00700
0.00690
0.00680
20241206
20240405
Start 2023-09-01
20231006

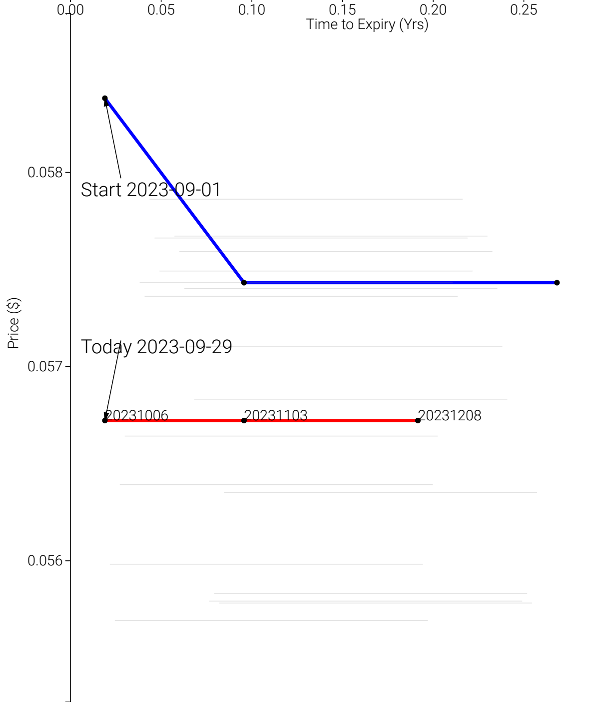

Front Month Skews:
JPYUSD Prem Quote Euro Style 2pmfix Optic
(Black)
26%
24%
22%
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
Start 2023-09-01
Today 2023-09-29
94%
96%
98%
100%
102%
104%
106%
108%
110%



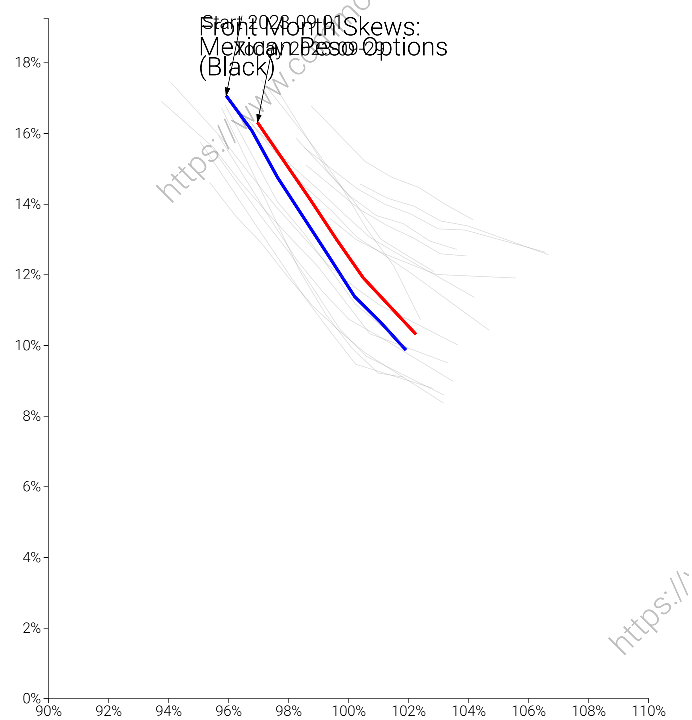
Termstructure Evolution:
Mexican Peso Options
(Black)
Today 2023-09-29
20231006
20231103
20231208
Start 2023-09-01
Vol (%)
Time to Expiry (Yrs)
0%
5%
10%
15%
20%
0.00
0.05
0.10
0.15
0.20
0.25



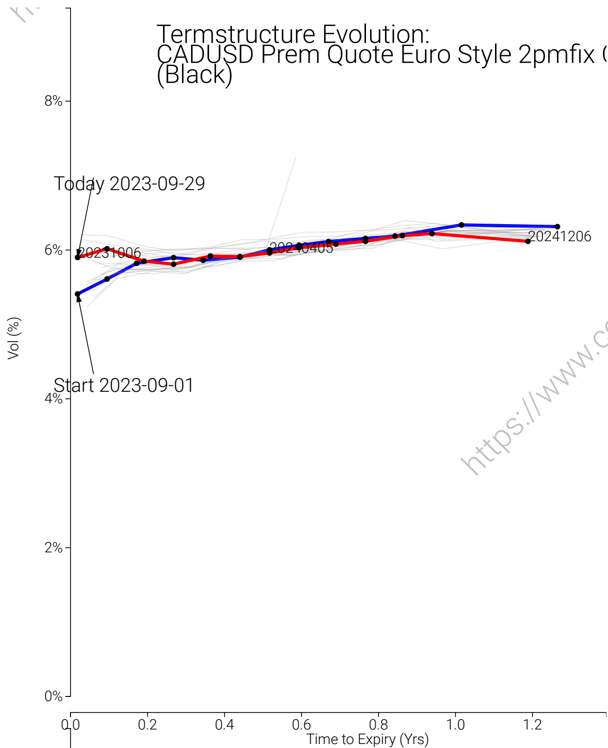
Front Month Dynamics:
Mexican Peso Options
(Black)
vol
price
Vol (%)
Price ($)
Time
16%
14%
12%
10%
0.065
0.060
0.055
0.050
Sun 03
Sun 10
Sun 17
Sun 24

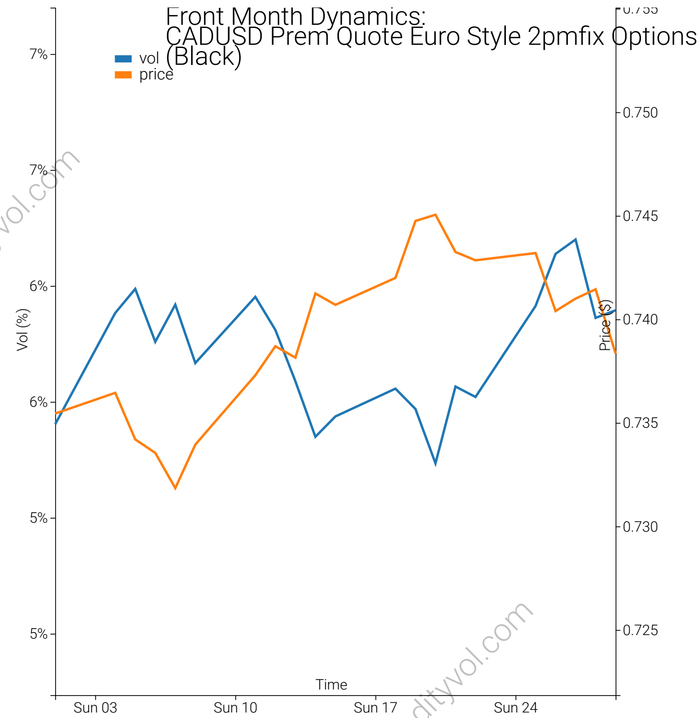


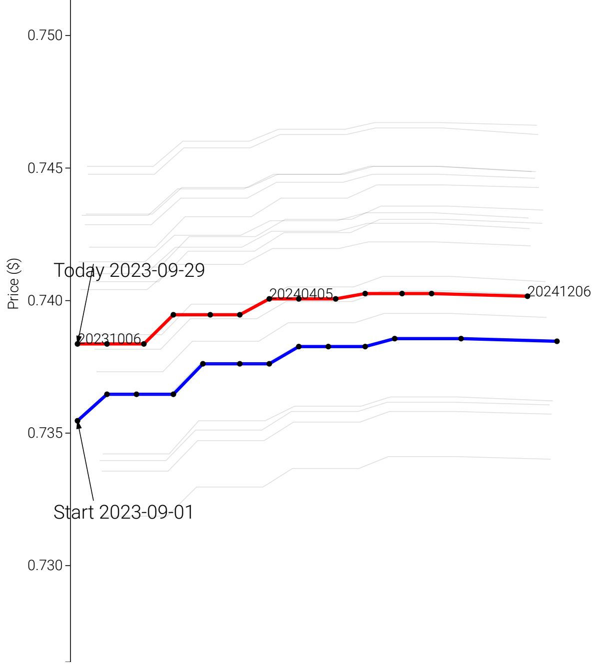
Start 2023-09-01
Today 2023-09-29
20231006
20231103
20231208
Price ($)
0.058
0.057
0.056

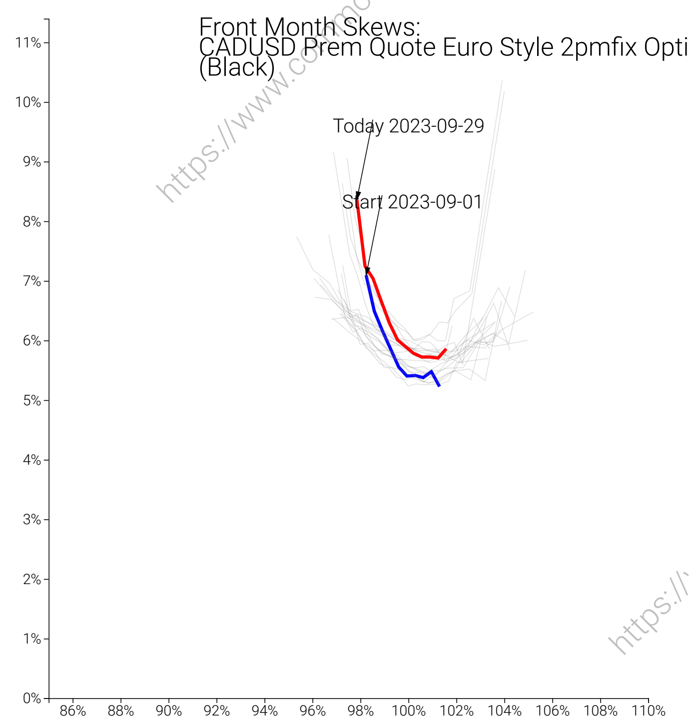


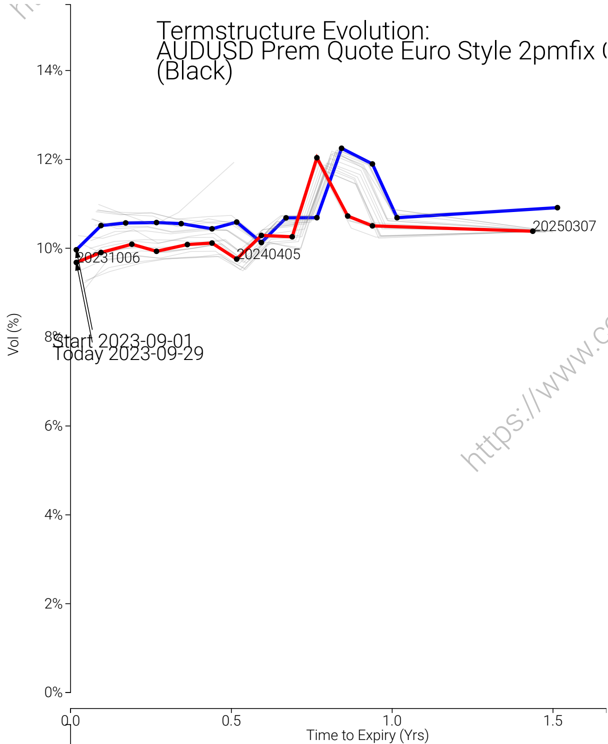
Front Month Skews:
Mexican Peso Options
(Black)
Start 2023-09-01
Today 2023-09-29
0%
2%
4%
6%
8%
10%
12%
14%
16%
18%
90%
92%
94%
96%
98%
100%
102%
104%
106%
108%
110%


Termstructure Evolution:
CADUSD Prem Quote Euro Style 2pmfix (
(Black)
Today 2023-09-29
Start 2023-09-01
20231006
20240405
20241206
Vol (%)
Time to Expiry (Yrs)

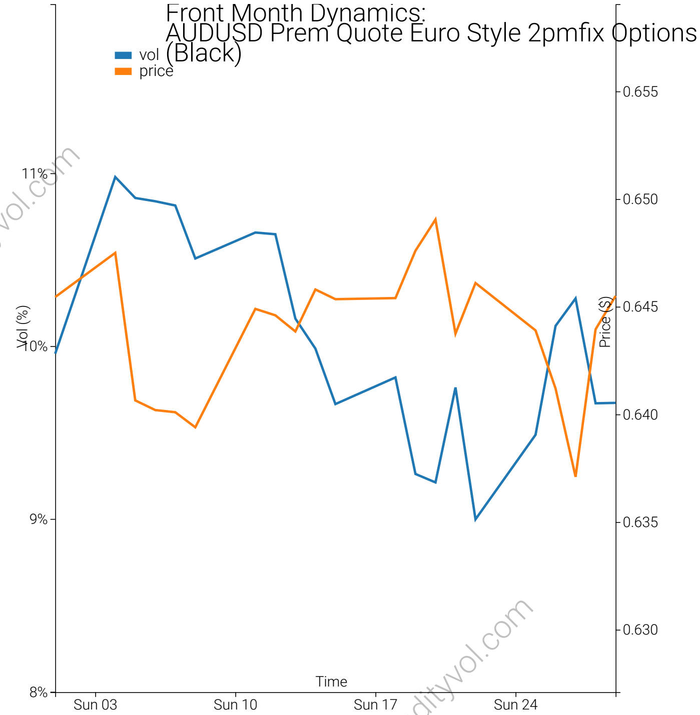

Front Month Dynamics:
CADUSD Prem Quote Euro Style 2pmfix Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24


Today 2023-09-29
Start 2023-09-01
20231006
20240405
20241206
Price ($)

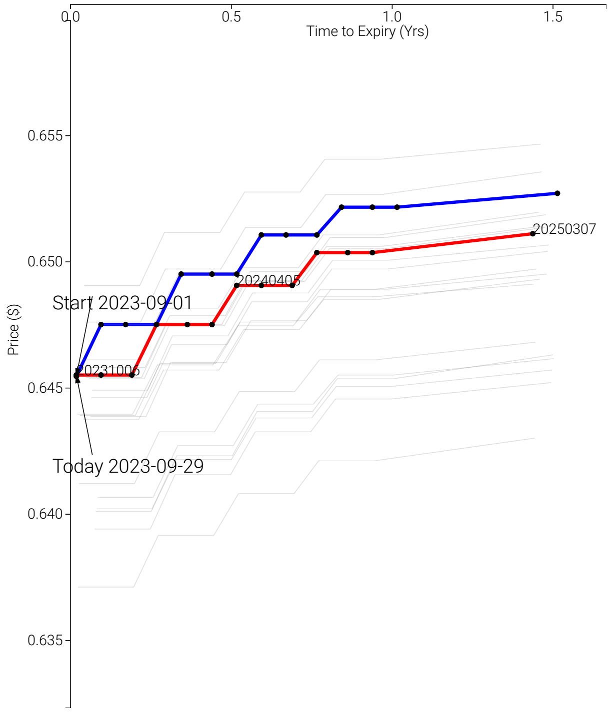

Front Month Skews:
CADUSD Prem Quote Euro Style 2pmfix Opti
(Black)
Today 2023-09-29
Start 2023-09-01



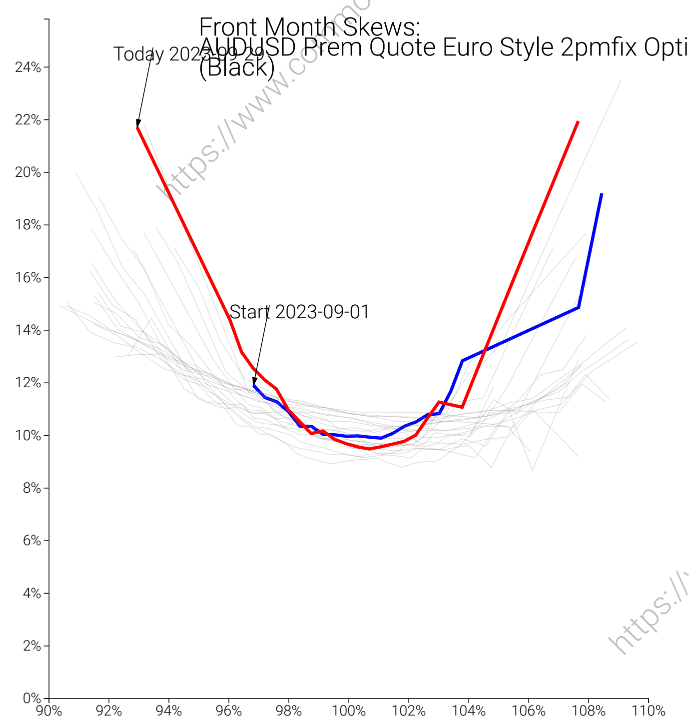
Termstructure Evolution:
AUDUSD Prem Quote Euro Style 2pmfix (
(Black)
Vol (%)
Time to Expiry (Yrs)
20231006
20240405
20250307
Start 2023-09-01
Today 2023-09-29



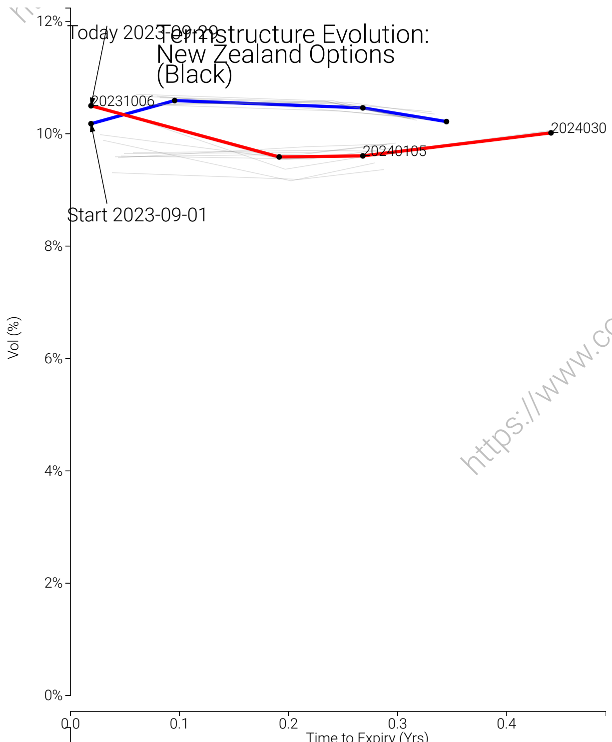
Front Month Dynamics:
AUDUSD Prem Quote Euro Style 2pmfix Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

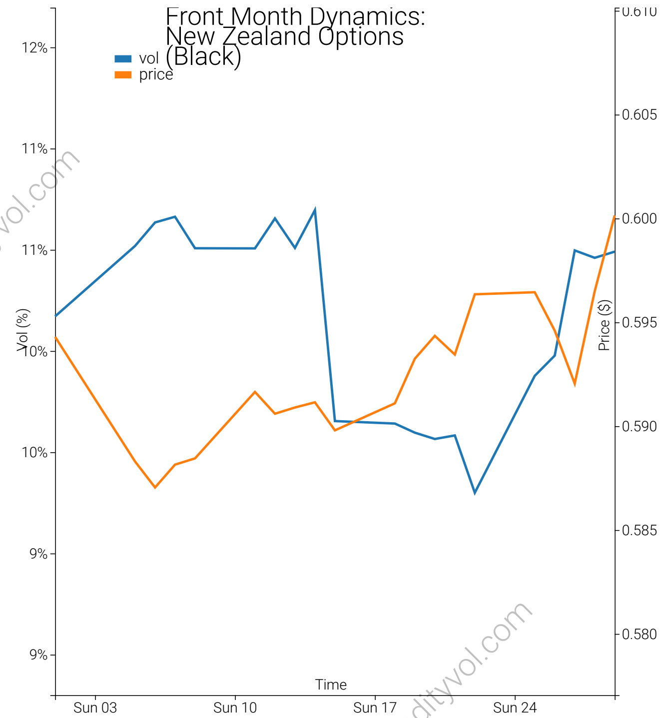


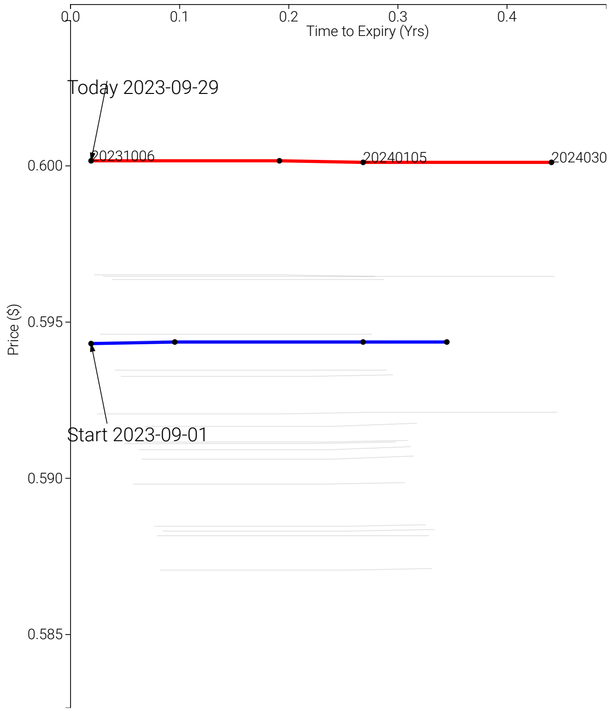
Price ($)
20231006
20240405
20250307
Start 2023-09-01
Today 2023-09-29

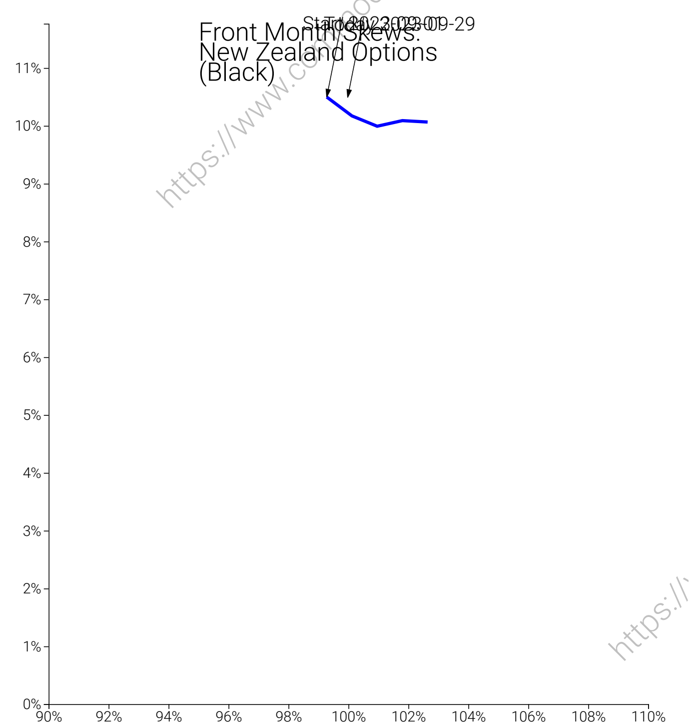


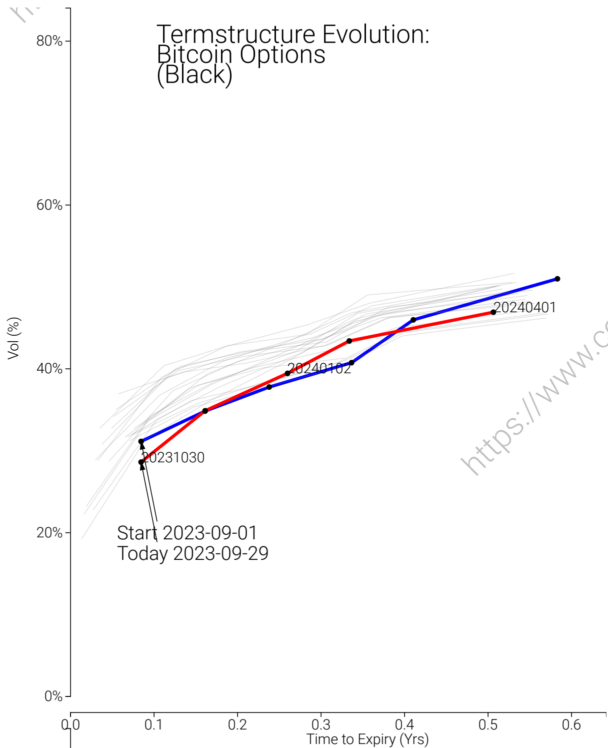
Front Month Skews:
AUDUSD Prem Quote Euro Style 2pmfix Opti
(Black)
Today 2023-09-29
Start 2023-09-01

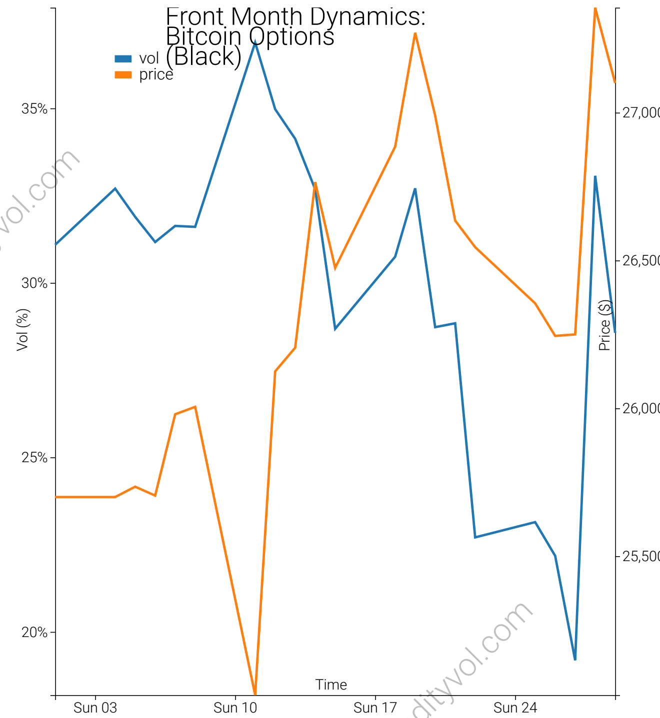

Termstructure Evolution:
New Zealand Options
(Black)
Today 2023-09-29
Start 2023-09-01
20231006
20240105
2024030
Vol (%)
12%
10%
8%
6%
4%
2%
0%
Time to Expiry (Yrs)
0.0
0.1
0.2
0.3
0.4

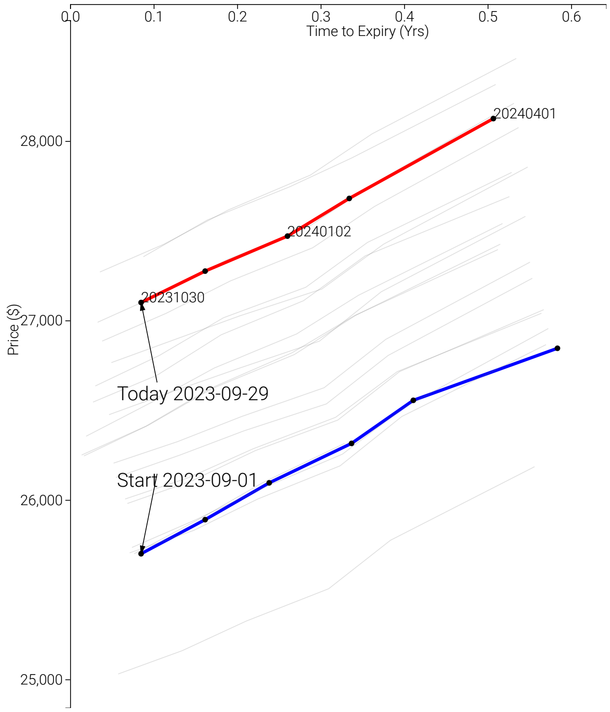

Front Month Dynamics:
New Zealand Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24
0.610
0.605
0.600
0.595
0.590
0.585
0.580

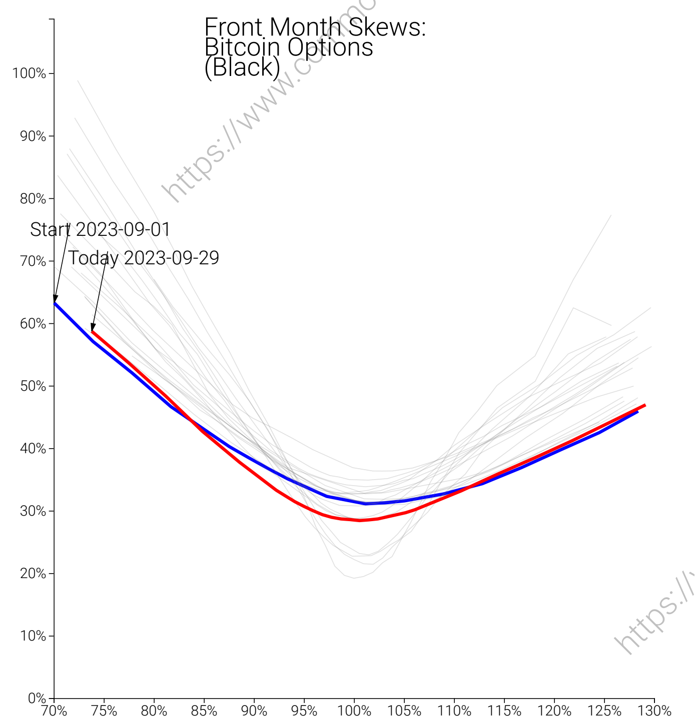

Today 2023-09-29
Start 2023-09-01
20231006
20240105
2024030
Price ($)
0.600
0.595
0.590
0.585

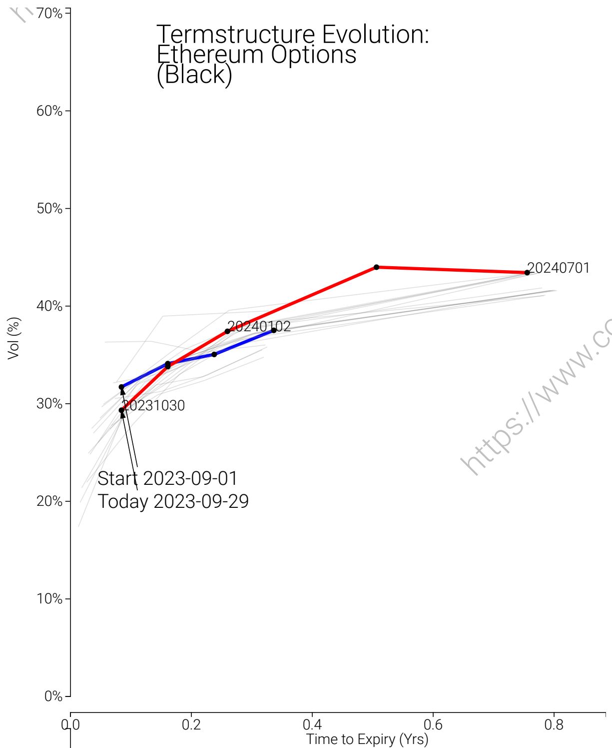

Front Month Skews:
New Zealand Options
(Black)
Start 2023-09-01
Today 2023-09-29
11%
10%
9%
8%
7%
6%
5%
4%
3%
2%
1%
0%
90%
92%
94%
96%
98%
100%
102%
104%
106%
108%
110%

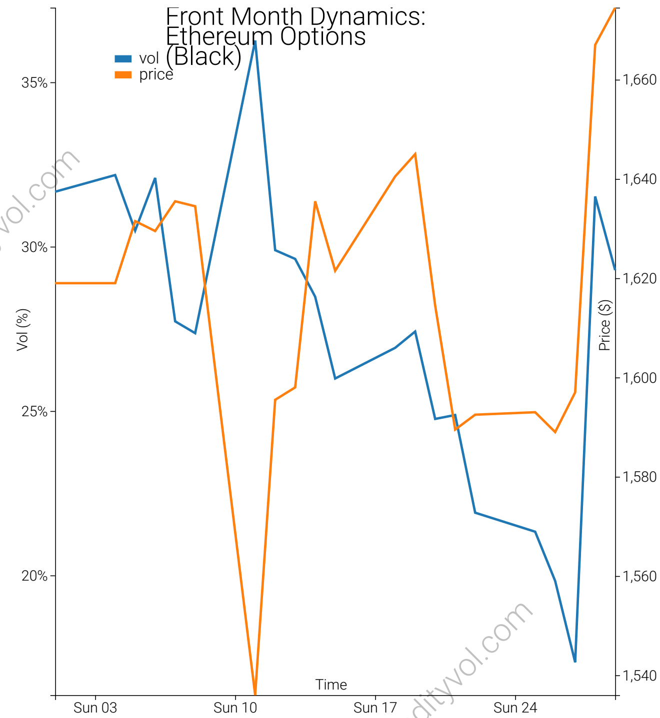

Termstructure Evolution:
Bitcoin Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20231030
20240102
20240401
Start 2023-09-01
Today 2023-09-29

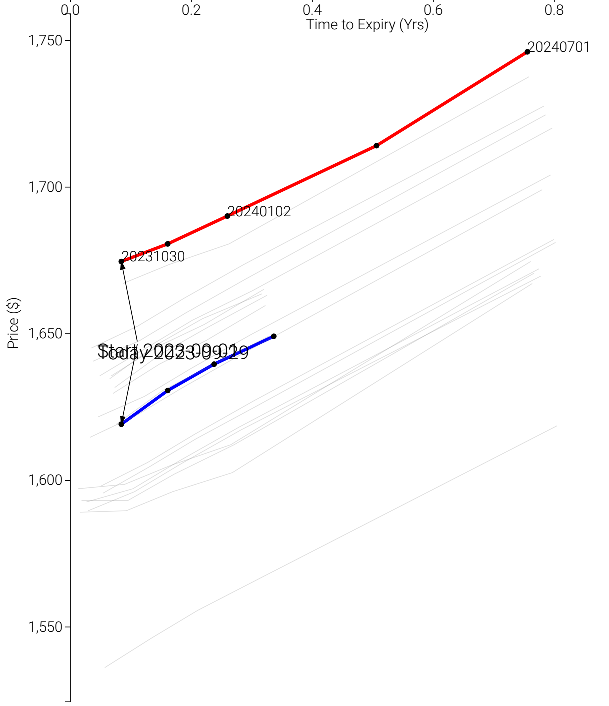

Front Month Dynamics:
Bitcoin Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

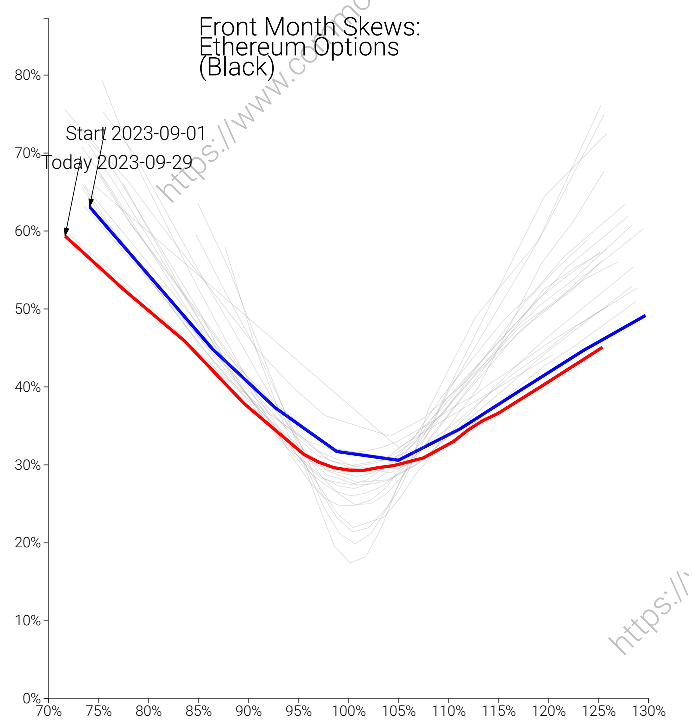

Price ($)
20231030
20240102
20240401
Today 2023-09-29
Start 2023-09-01


Front Month Skews:
Bitcoin Options
(Black)
Start 2023-09-01
Today 2023-09-29

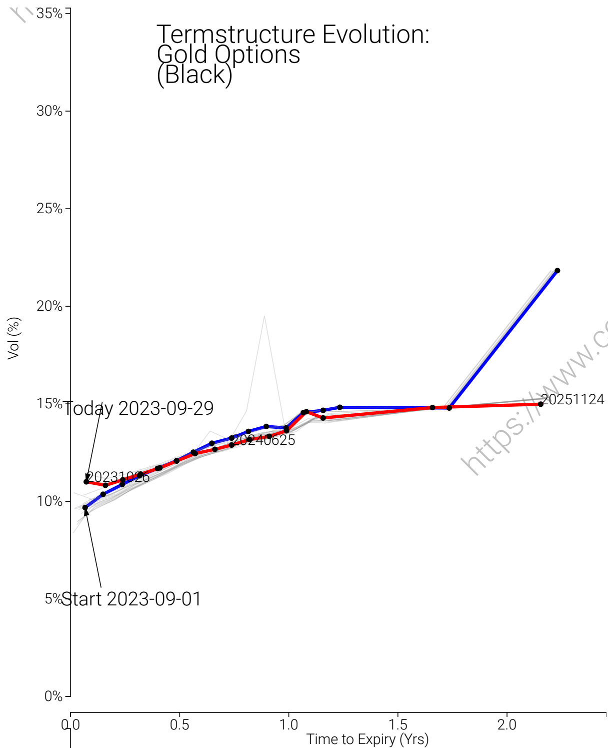

Termstructure Evolution:
Ethereum Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20240701
20240102
20231030
Start 2023-09-01
Today 2023-09-29


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

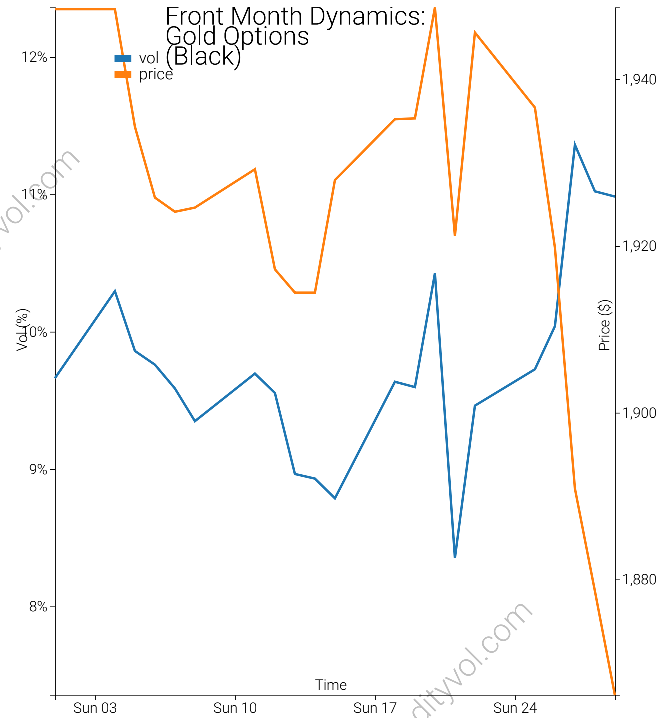

Price ($)
20240701
20240102
20231030
Start 2023-09-01
Today 2023-09-29


Front Month Skews:
Ethereum Options
(Black)
Start 2023-09-01
Today 2023-09-29

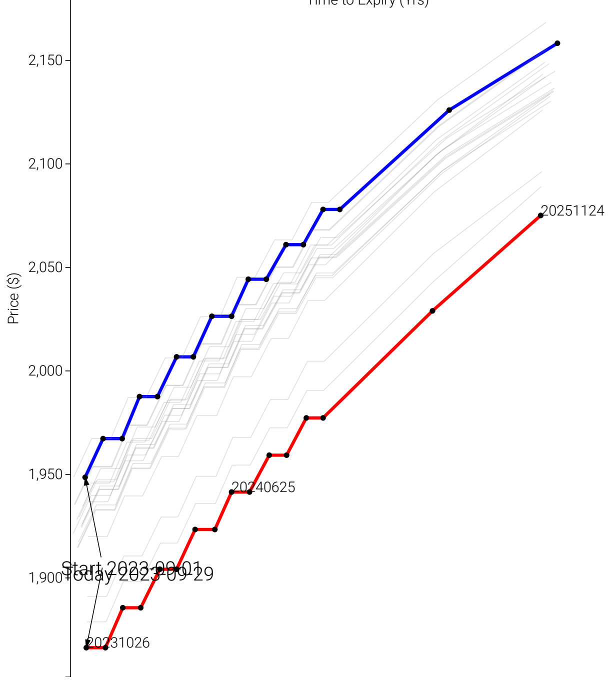
Metals



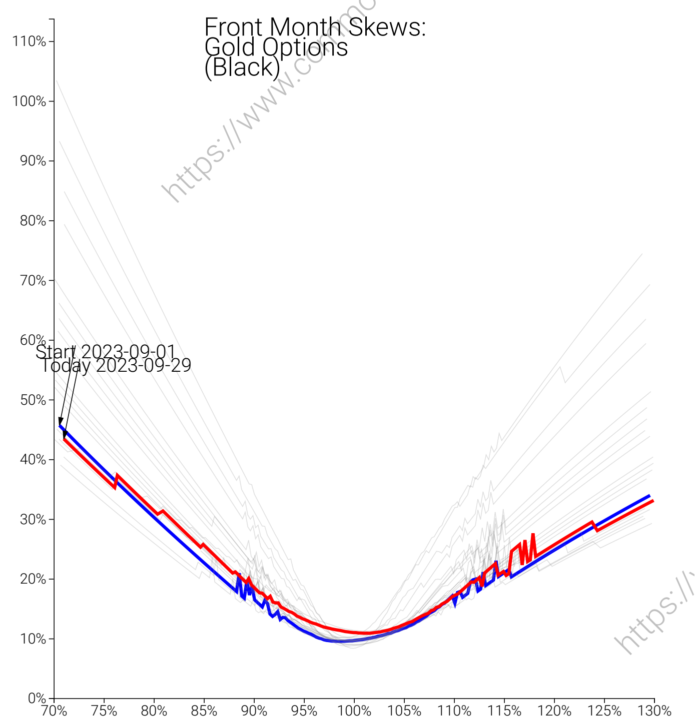
Termstructure Evolution:
Gold Options
(Black)
Vol (%)
Time to Expiry (Yrs)
Today 2023-09-29
Start 2023-09-01
20231026
20240625
20251124



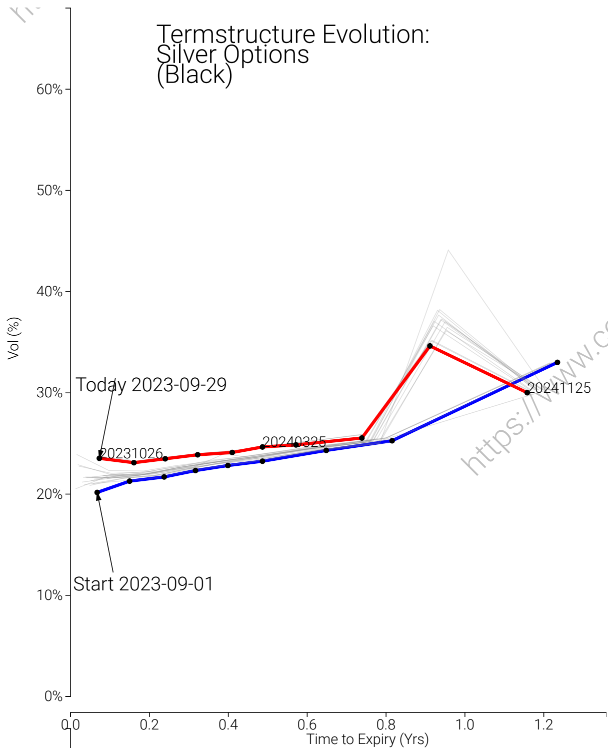
Front Month Dynamics:
Gold Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

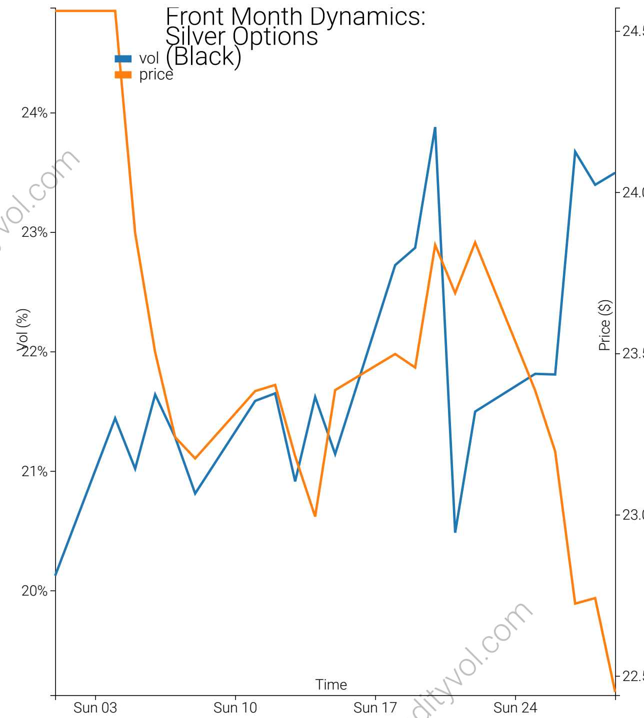


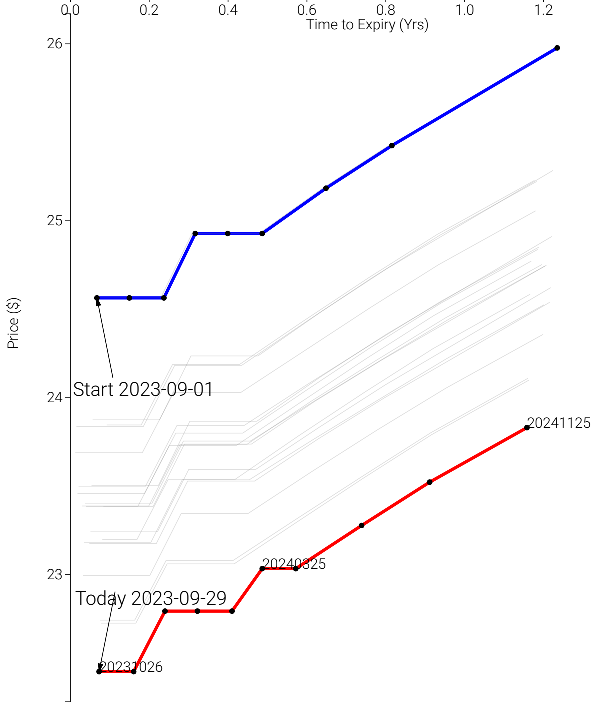
Price ($)
Start 2023-09-01
Today 2023-09-29
20231026
20240625
20251124

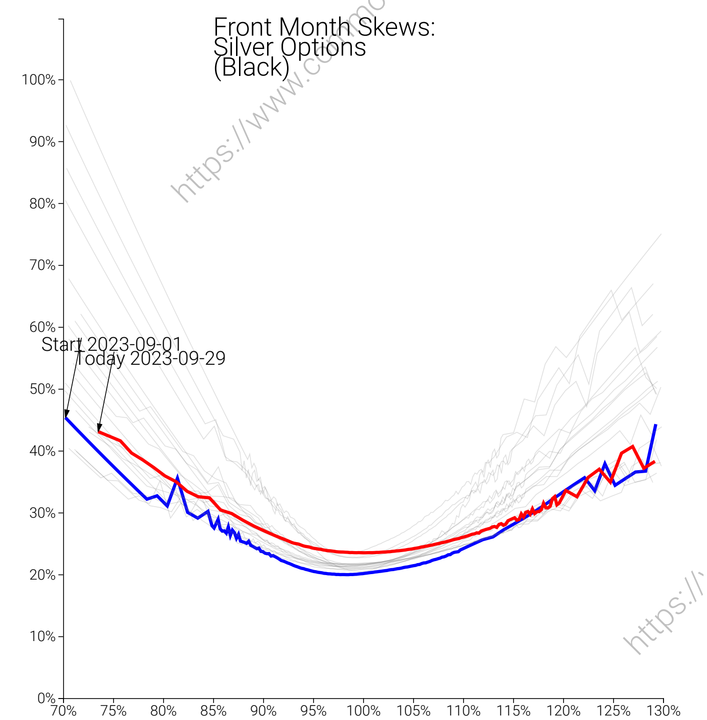


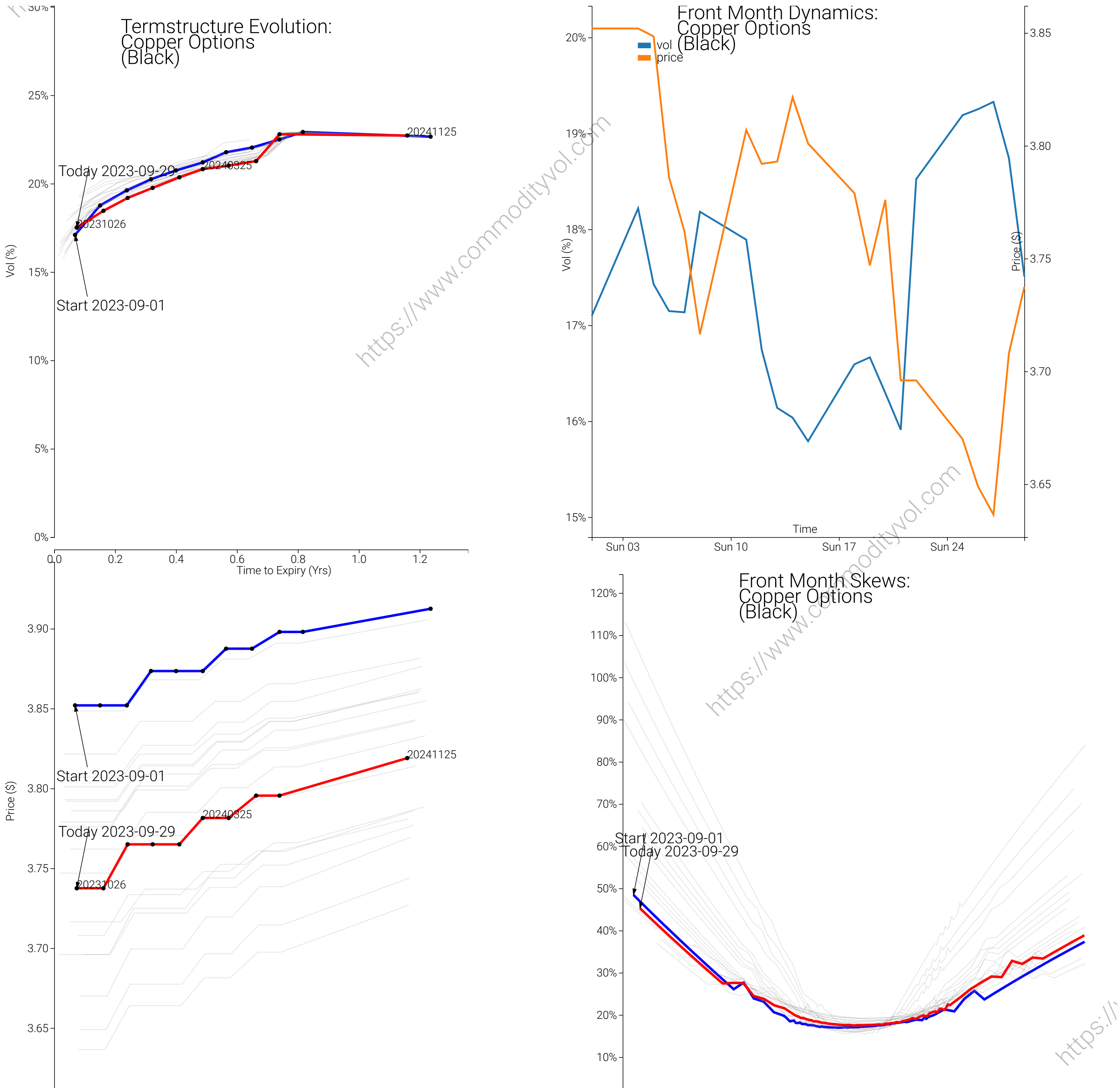
Front Month Skews:
Gold Options
(Black)
Start 2023-09-01
Today 2023-09-29


Termstructure Evolution:
Silver Options
(Black)
Vol (%)
Time to Expiry (Yrs)
Today 2023-09-29
Start 2023-09-01
20231026
20240325
20241125

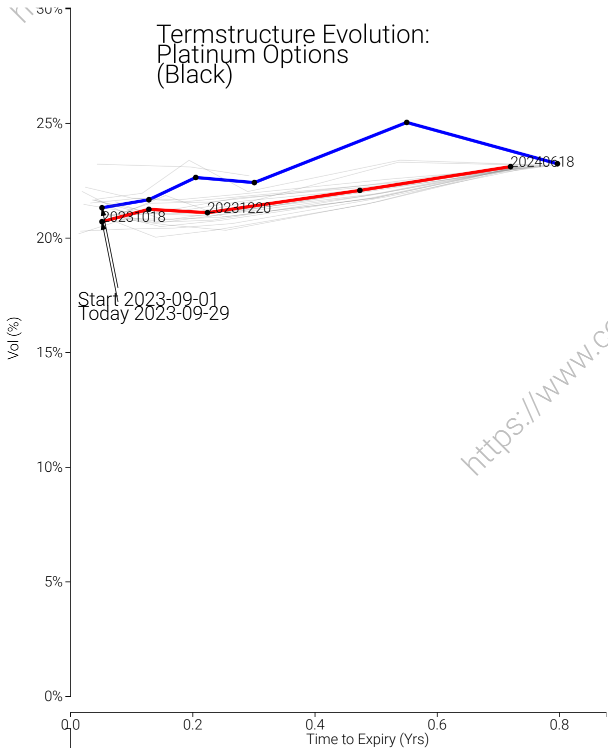

Front Month Dynamics:
Silver Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

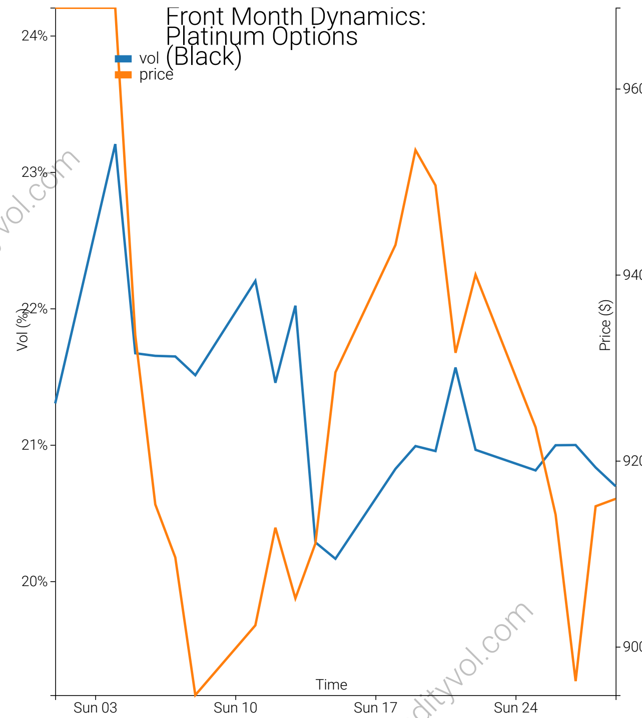

Price ($)
Start 2023-09-01
Today 2023-09-29
20231026
20240325
20241125

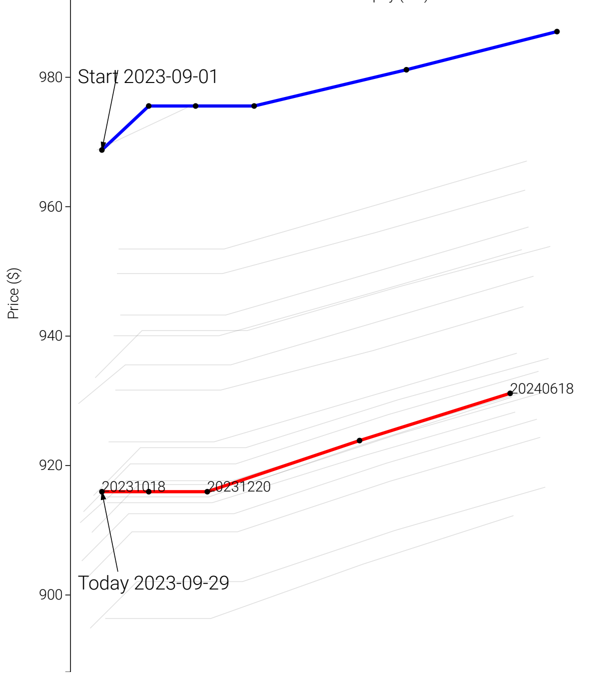

Front Month Skews:
Silver Options
(Black)
Start 2023-09-01
Today 2023-09-29

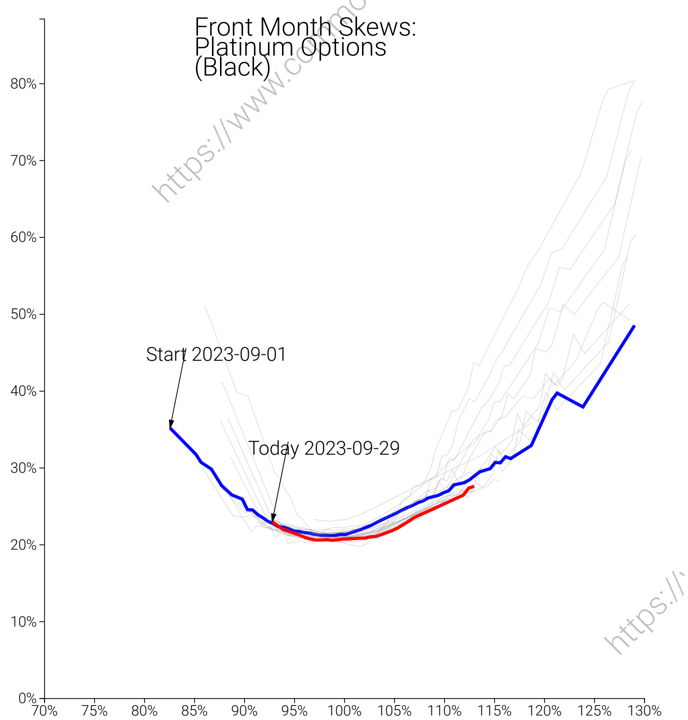


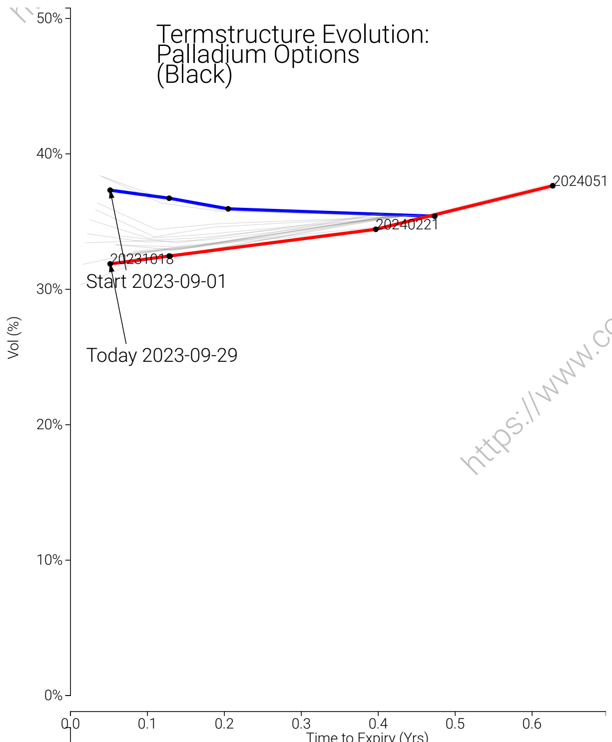
Termstructure Evolution:
Copper Options
(Black)
Vol (%)
Time to Expiry (Yrs)
Today 2023-09-29
Start 2023-09-01
20231026
20240325
20241125
Front Month Dynamics:
Copper Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24
Price ($)
Front Month Skews:
Copper Options
(Black)
https://www.commodityvol.com

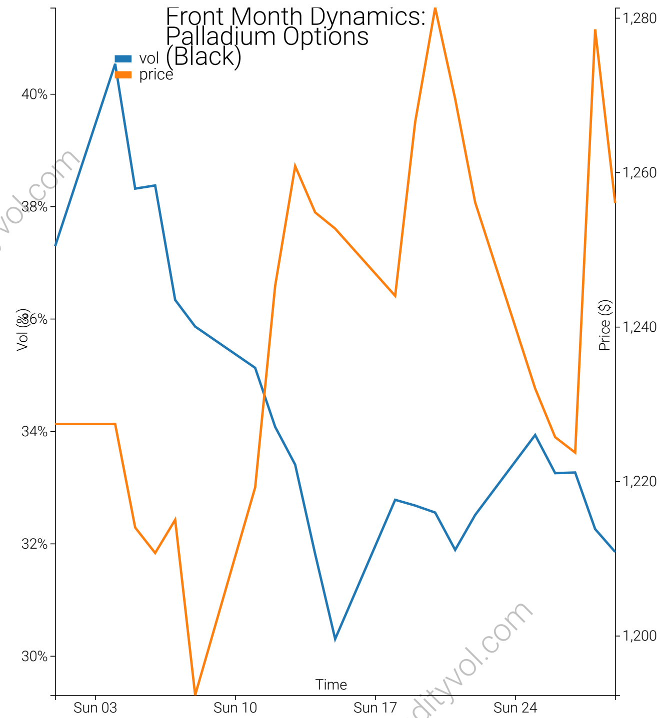

Termstructure Evolution:
Platinum Options
(Black)
Vol (%)
30%
25%
20%
15%
10%
5%
0%
20240618
20231018
20231220
Start 2023-09-01
Today 2023-09-29
0.0
0.2
0.4
0.6
0.8
Time to Expiry (Yrs)
https://www.commodityvol.com

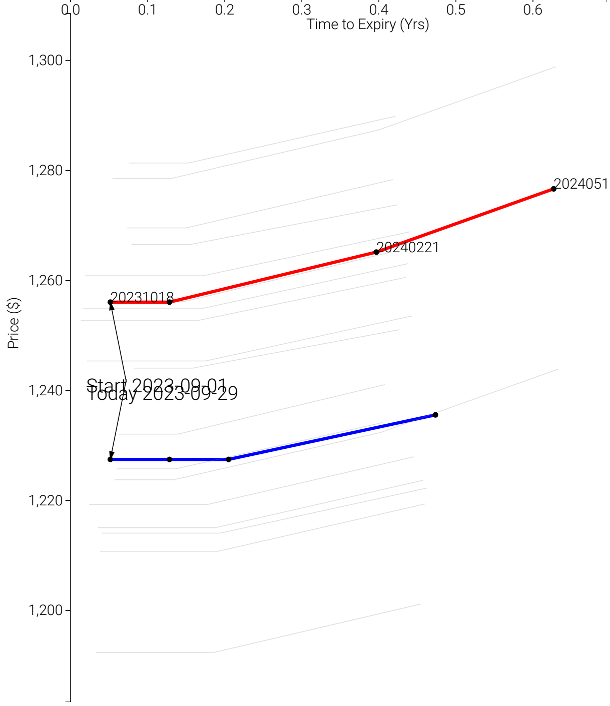

Front Month Dynamics:
Platinum Options
(Black)
vol
price
Vol (%)
24%
23%
22%
21%
20%
Price ($)
960
940
920
900
Time
Sun 03
Sun 10
Sun 17
Sun 24

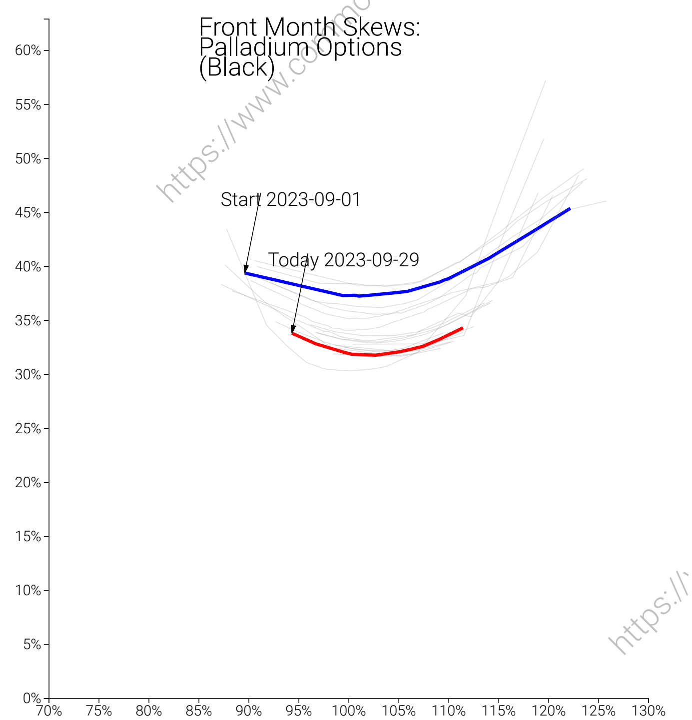

Price ($)
980
960
940
920
900
Start 2023-09-01
Today 2023-09-29
20240618
20231018
20231220


Front Month Skews:
Platinum Options
(Black)
80%
70%
60%
50%
40%
30%
20%
10%
0%
Start 2023-09-01
Today 2023-09-29
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%
https://www.commodityvol.com

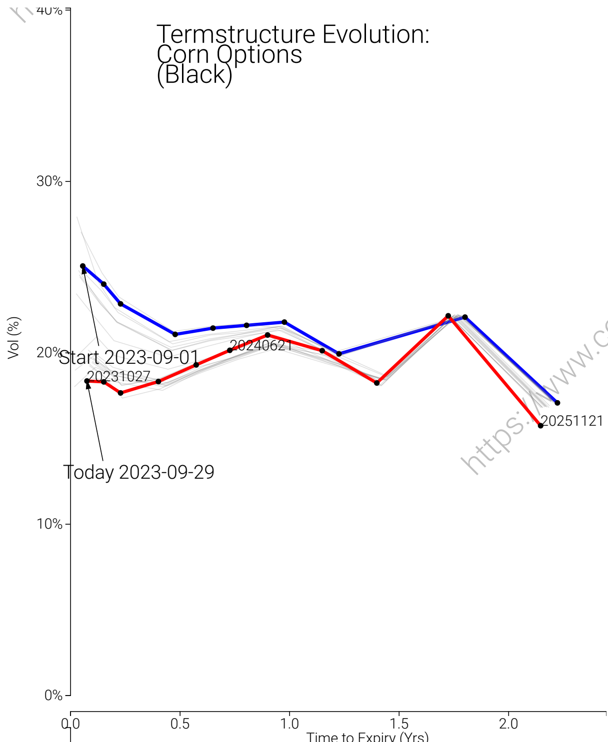

Termstructure Evolution:
Palladium Options
(Black)
Vol (%)
Time to Expiry (Yrs)
Start 2023-09-01
Today 2023-09-29
20231018
20240221
2024051

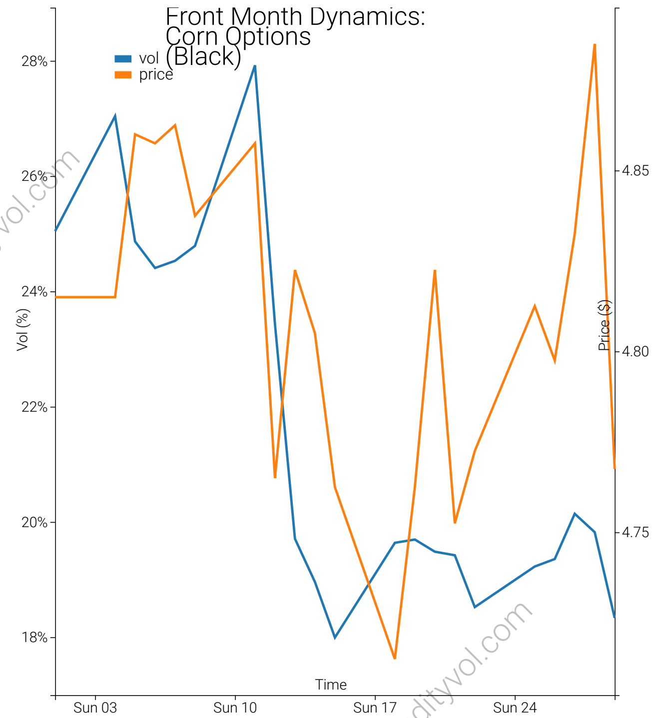

Front Month Dynamics:
Palladium Options
(Black)
vol
price
Vol (%)
Price ($)
Time

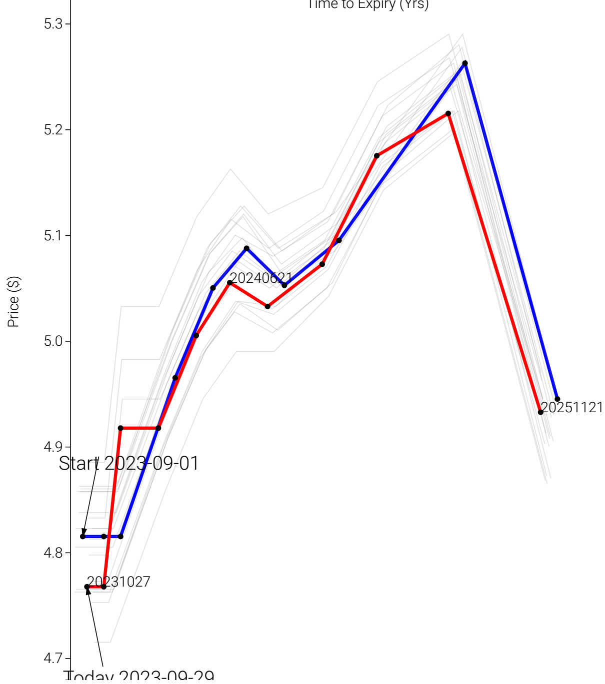

Price ($)
Start 2023-09-01
Today 2023-09-29
20231018
20240221
2024051

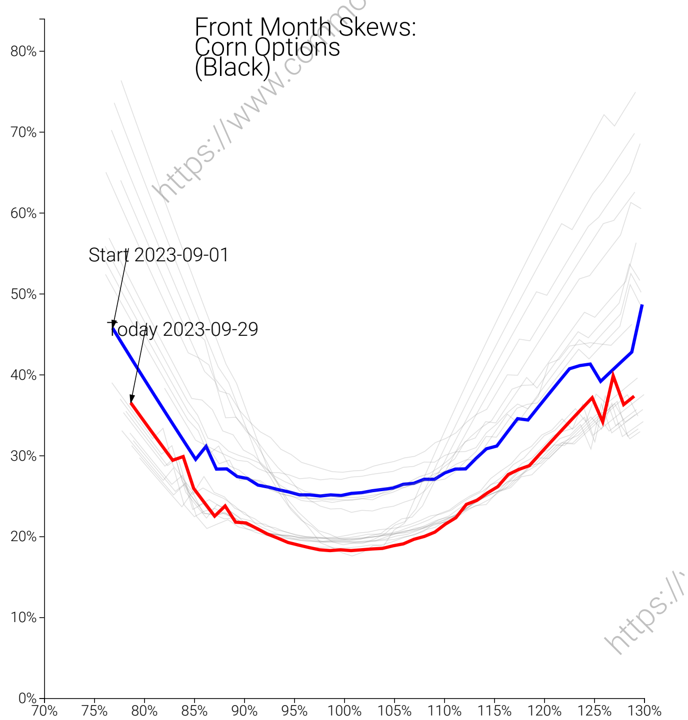

Front Month Skews:
Palladium Options
(Black)
Start 2023-09-01
Today 2023-09-29

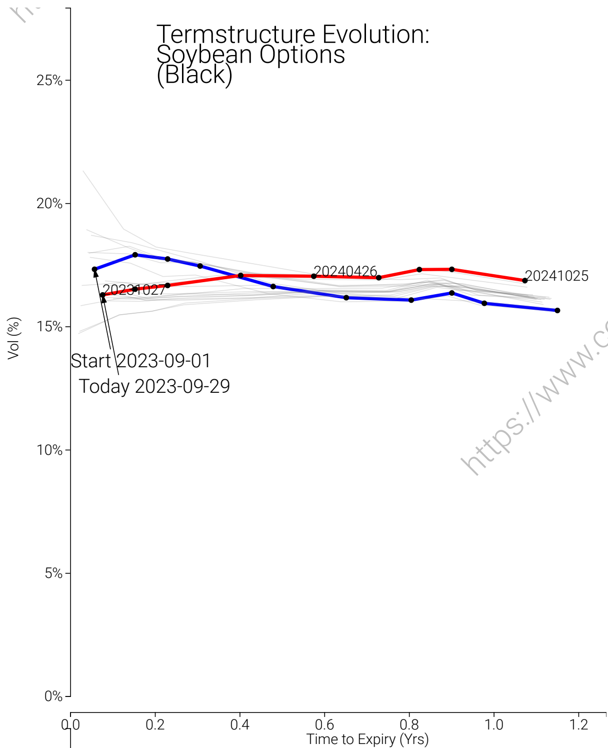
Ags: Grains, Oilseeds, and so forth

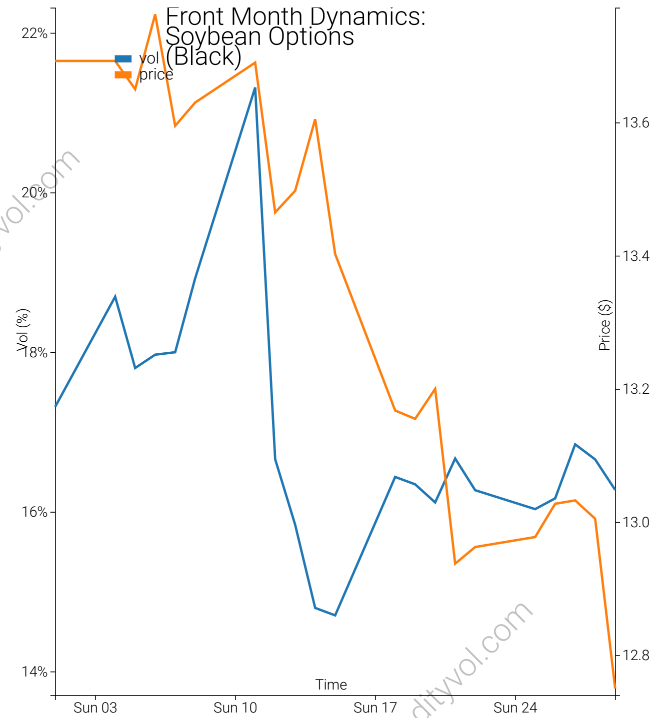

Termstructure Evolution:
Corn Options
(Black)
Vol (%)
40%
30%
20%
10%
0%
Start 2023-09-01
20231027
20240621
20251121
Today 2023-09-29
0.0
0.5
1.0
1.5
2.0
Time to Expiry (Yrs)
https://www.commodityvol.com

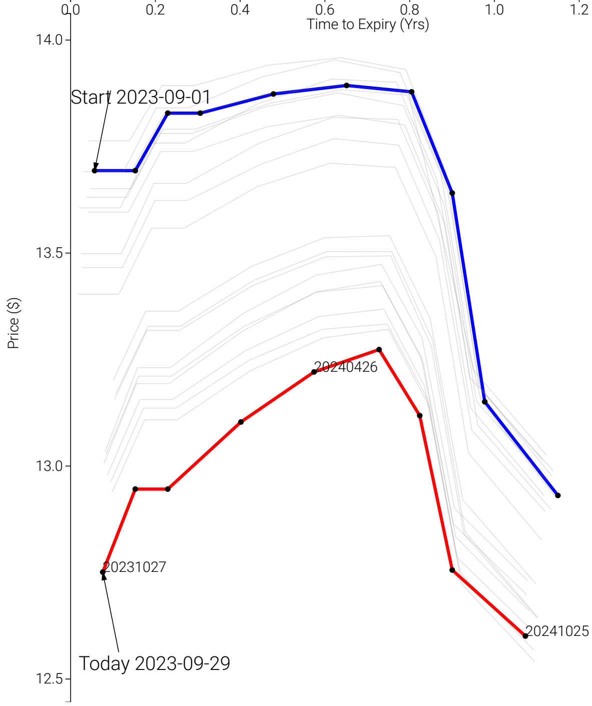

Front Month Dynamics:
Corn Options
(Black)
vol
price
Vol (%)
28%
26%
24%
22%
20%
18%
Price ($)
4.85
4.80
4.75
Time
Sun 03
Sun 10
Sun 17
Sun 24
https://www.commodityvol.com

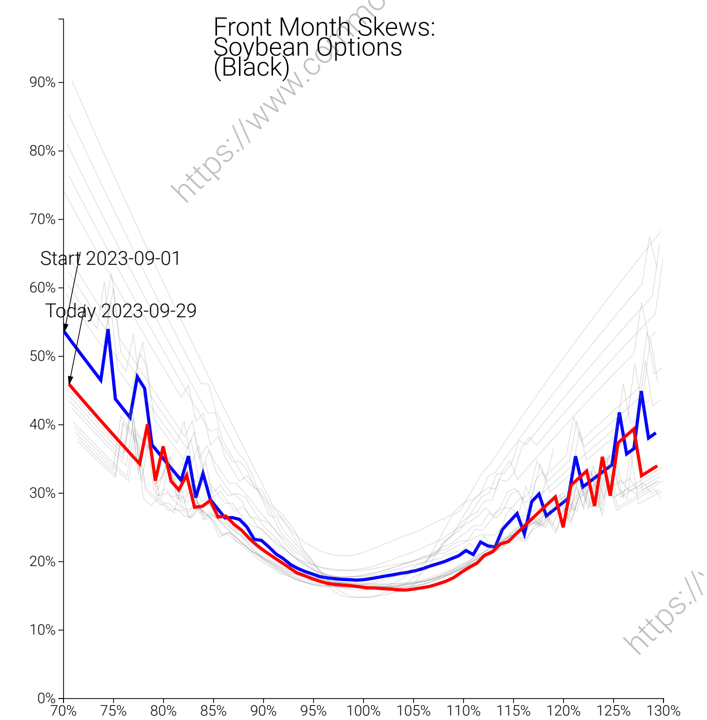

Price ($)
5.3
5.2
5.1
5.0
4.9
4.8
4.7
20240621
20251121
Start 2023-09-01
20231027
Today 2023-09-29

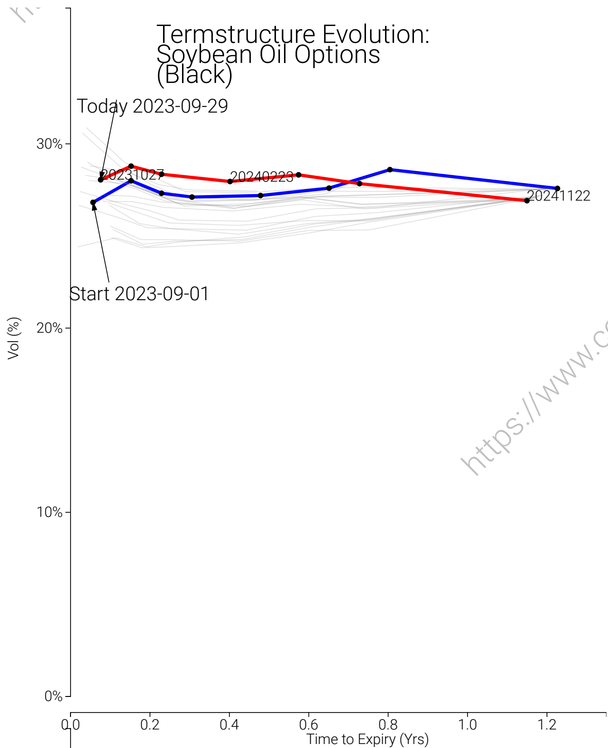

Front Month Skews:
Corn Options
(Black)
80%
70%
60%
50%
40%
30%
20%
10%
0%
Start 2023-09-01
Today 2023-09-29
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%
https://www.commodityvol.com

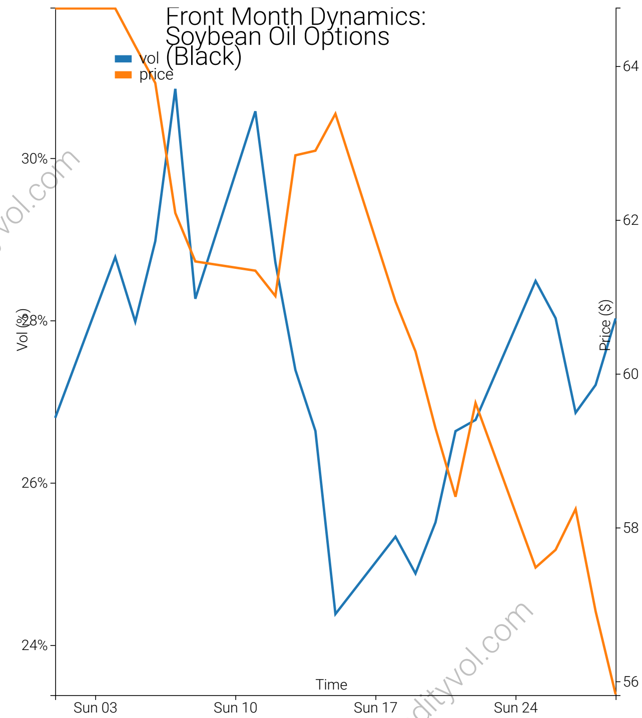

Termstructure Evolution:
Soybean Options
(Black)
Vol (%)
0%
5%
10%
15%
20%
25%
Time to Expiry (Yrs)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
20231027
20240426
20241025
Start 2023-09-01
Today 2023-09-29

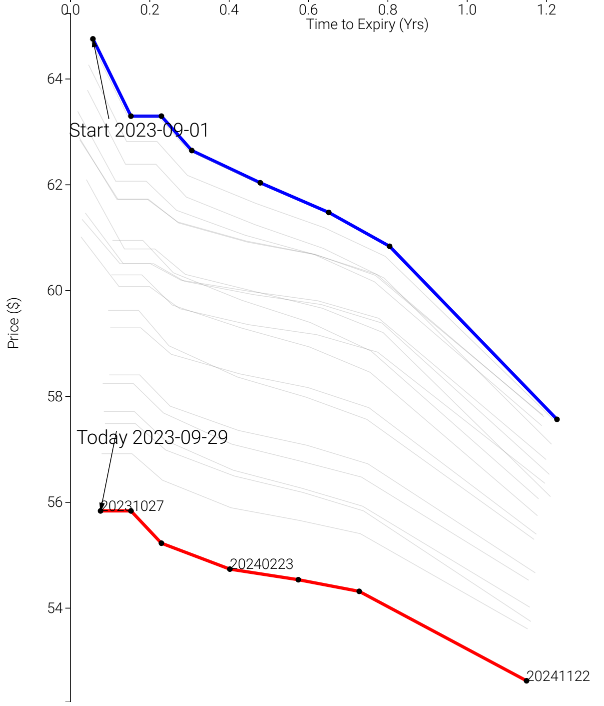

Front Month Dynamics:
Soybean Options
(Black)
vol
price
Vol (%)
Price ($)
14%
16%
18%
20%
22%
12.8
13.0
13.2
13.4
13.6
Time
Sun 03
Sun 10
Sun 17
Sun 24
https://www.commodityvol.com

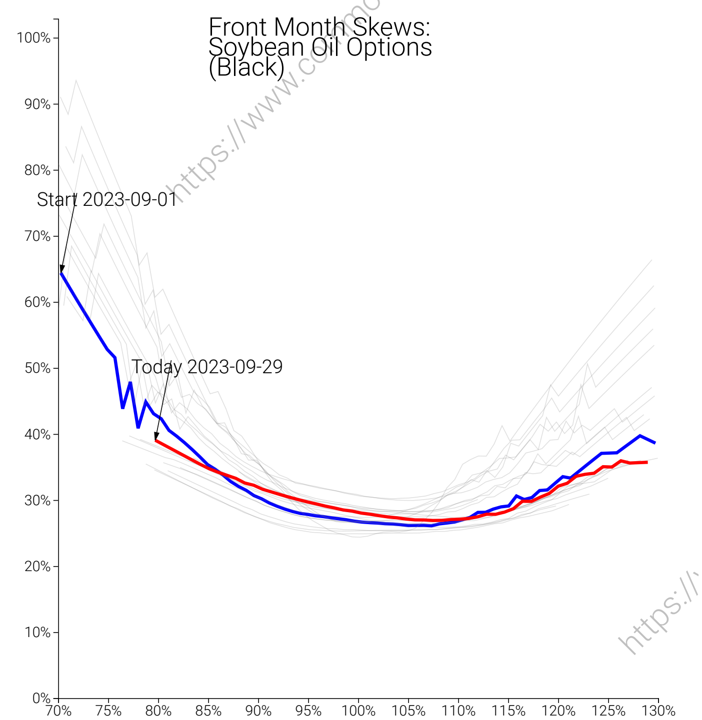

Price ($)
12.5
13.0
13.5
14.0
Start 2023-09-01
20231027
20240426
20241025
Today 2023-09-29

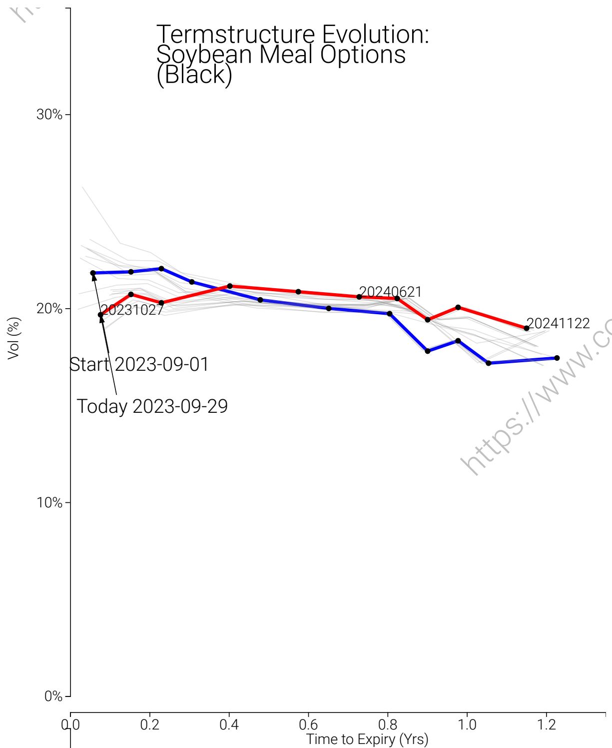

Front Month Skews:
Soybean Options
(Black)
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%
Start 2023-09-01
Today 2023-09-29
https://www.commodityvol.com

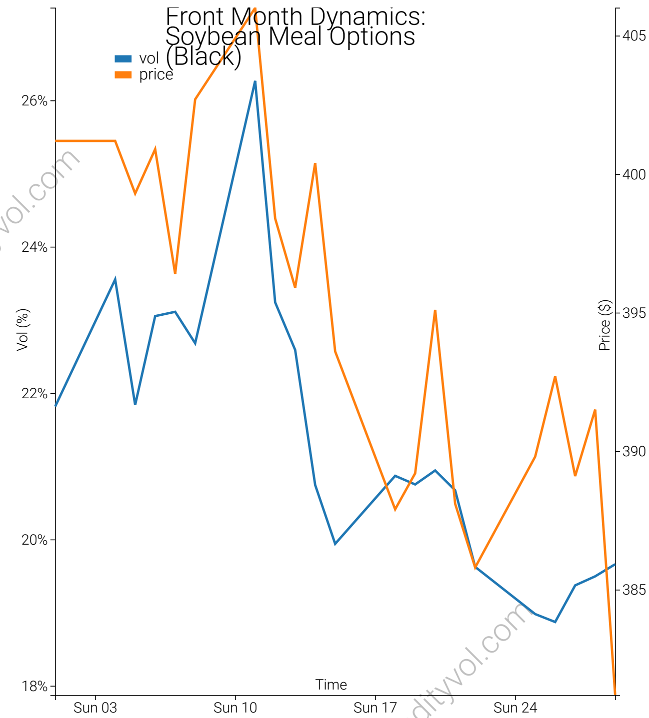

Termstructure Evolution:
Soybean Oil Options
(Black)
Today 2023-09-29
Start 2023-09-01
20231027
20240223
20241122
Vol (%)
Time to Expiry (Yrs)

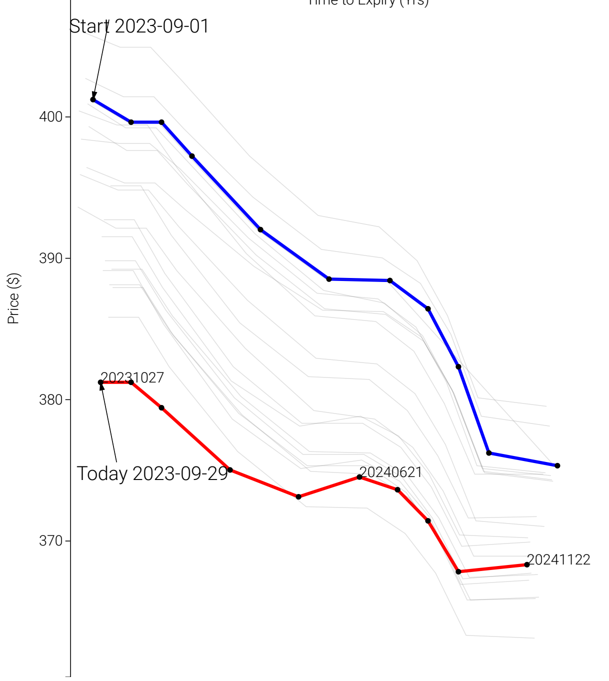

Front Month Dynamics:
Soybean Oil Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

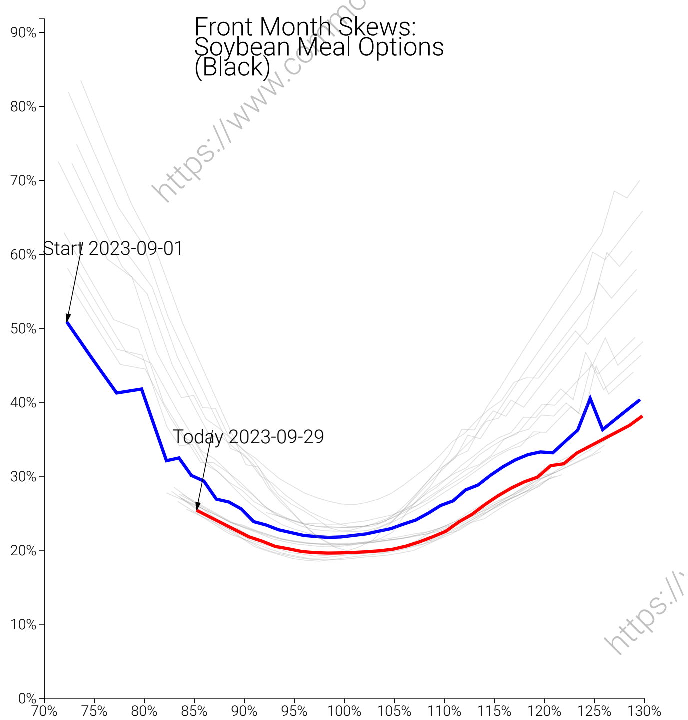

Start 2023-09-01
Today 2023-09-29
20231027
20240223
20241122
Price ($)

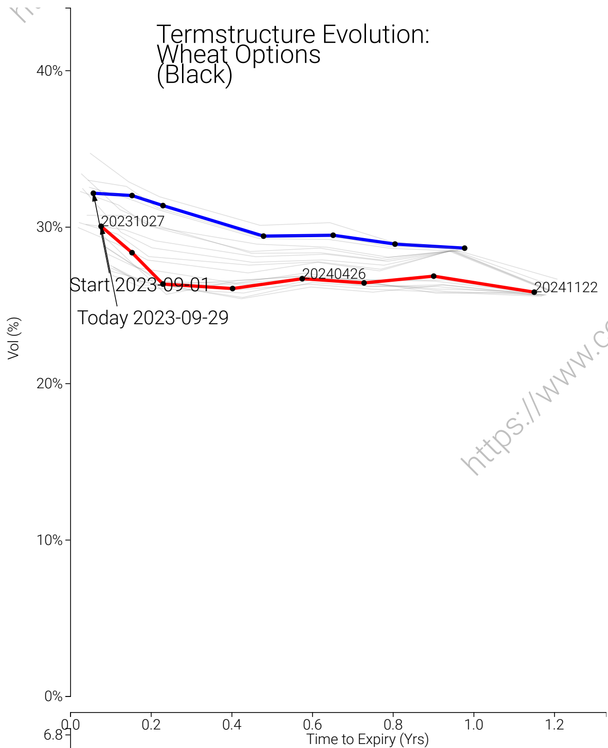

Front Month Skews:
Soybean Oil Options
(Black)
Start 2023-09-01
Today 2023-09-29

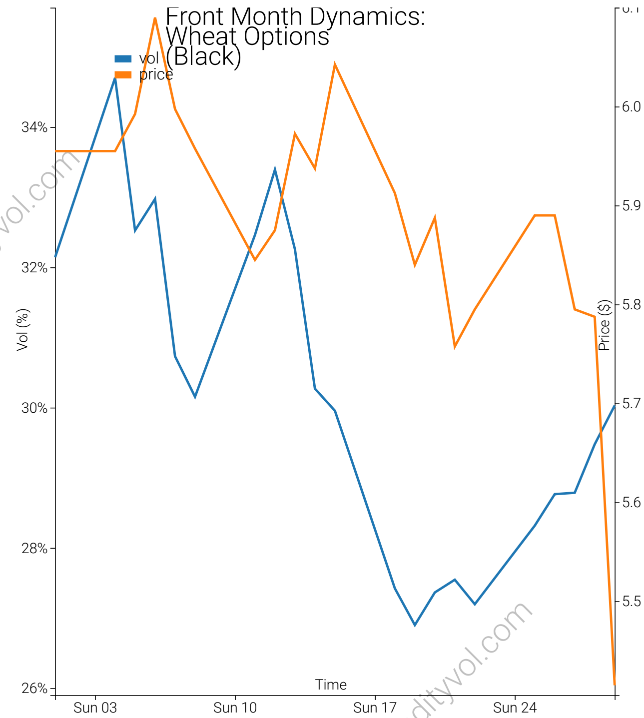

Termstructure Evolution:
Soybean Meal Options
(Black)
Vol (%)
Time to Expiry (Yrs)
Start 2023-09-01
Today 2023-09-29
20231027
20240621
20241122

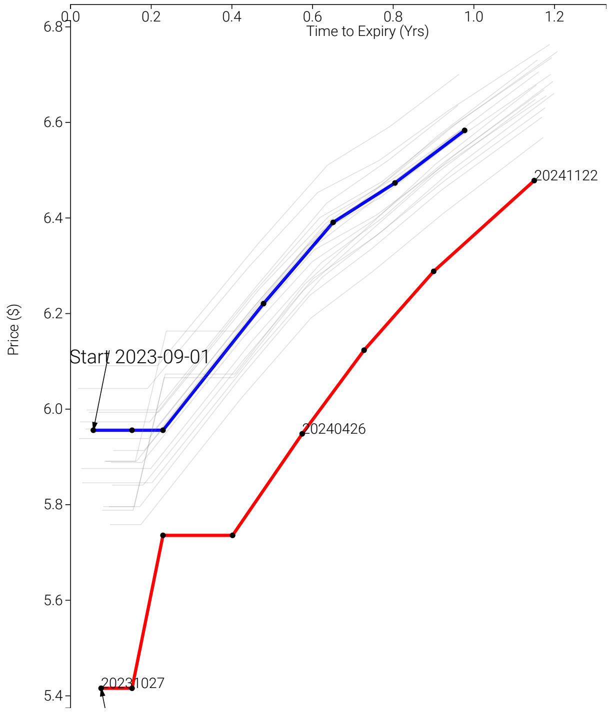

Front Month Dynamics:
Soybean Meal Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

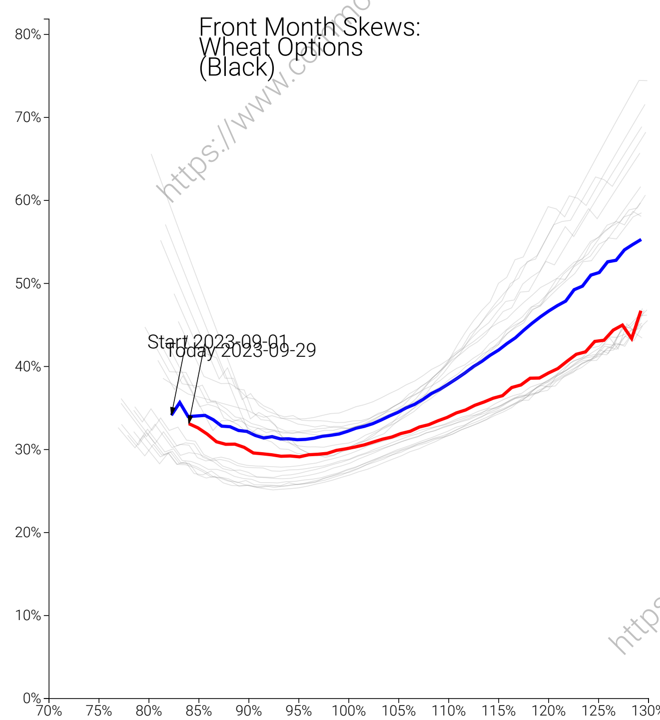

Price ($)
Start 2023-09-01
Today 2023-09-29
20231027
20240621
20241122

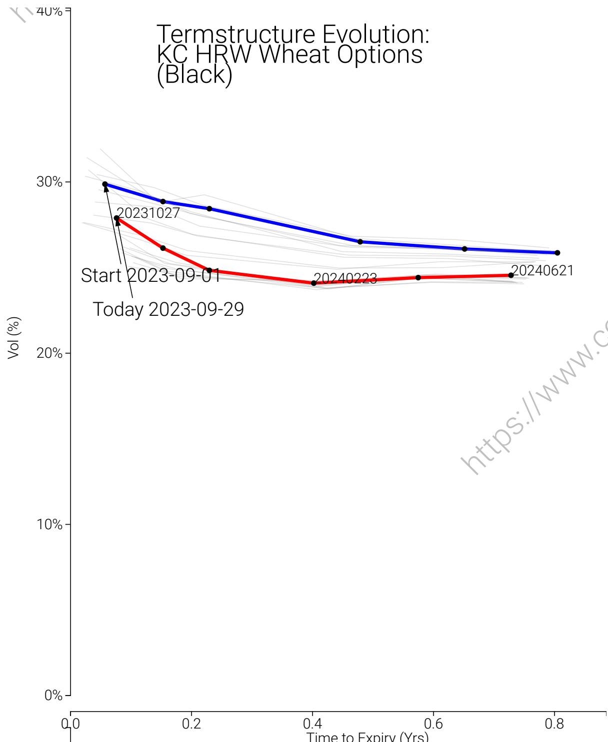

Front Month Skews:
Soybean Meal Options
(Black)
Start 2023-09-01
Today 2023-09-29

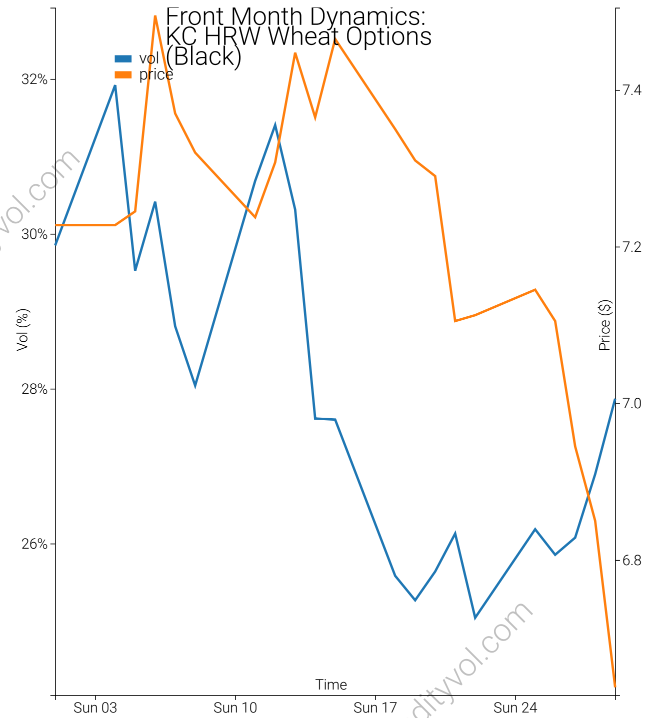

Termstructure Evolution:
Wheat Options
(Black)
Vol (%)
40%
30%
20%
10%
0%
20231027
20240426
20241122
Start 2023-09-01
Today 2023-09-29
0.0
0.2
0.4
0.6
0.8
1.0
1.2
Time to Expiry (Yrs)

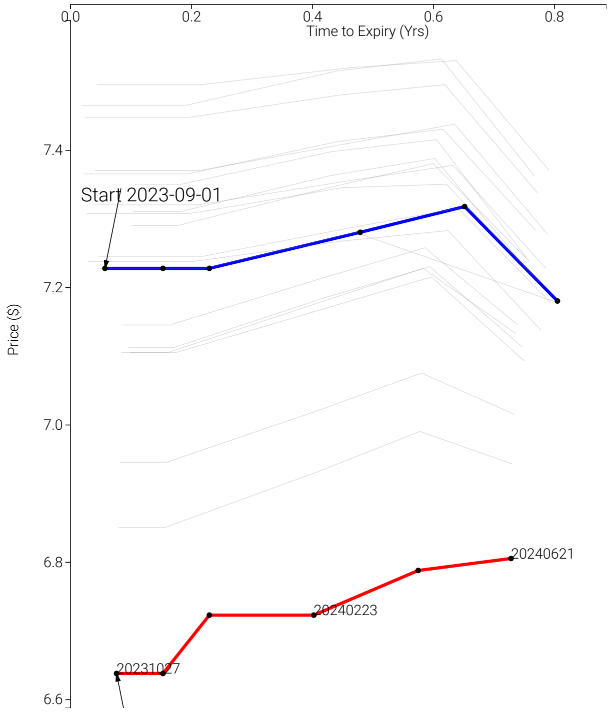

Front Month Dynamics:
Wheat Options
(Black)
vol
price
Vol (%)
34%
32%
30%
28%
26%
Price ($)
6.0
5.9
5.8
5.7
5.6
5.5
Time
Sun 03
Sun 10
Sun 17
Sun 24

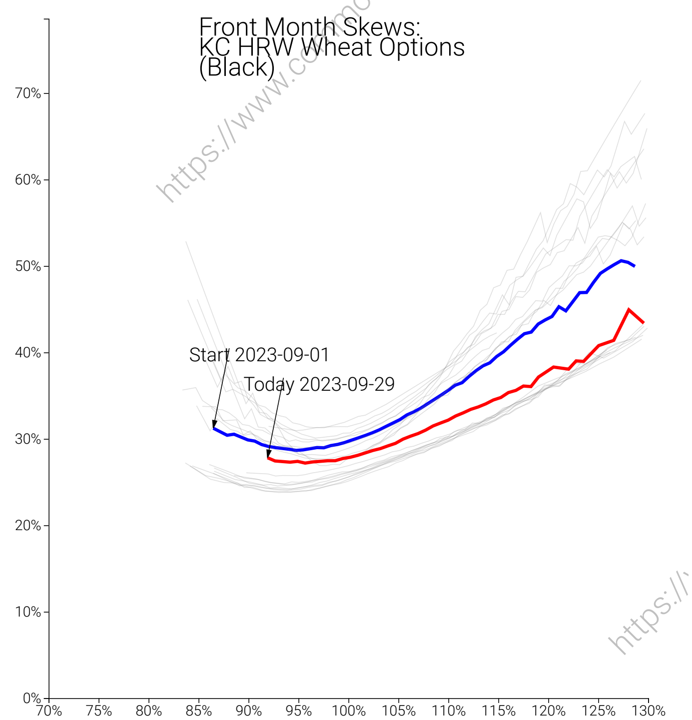

Price ($)
6.8
6.6
6.4
6.2
6.0
5.8
5.6
5.4
Start 2023-09-01
20240426
20241122
20231027

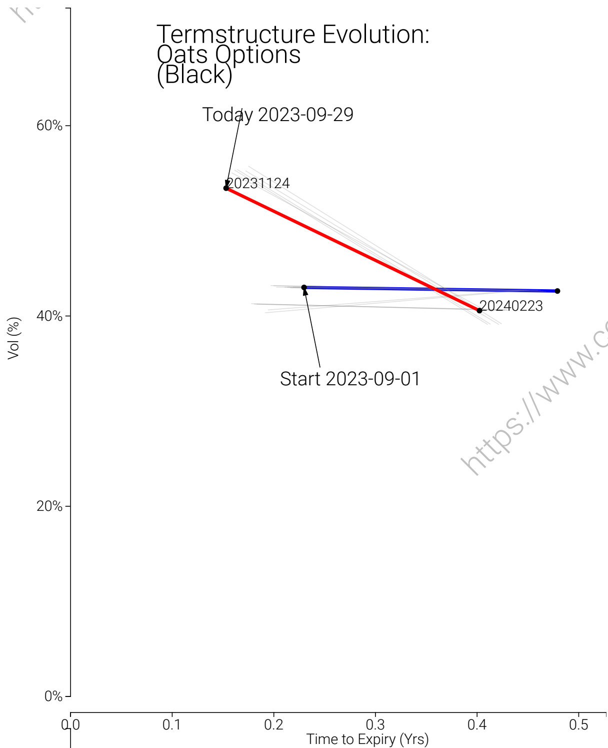

Front Month Skews:
Wheat Options
(Black)
80%
70%
60%
50%
40%
30%
20%
10%
0%
Start 2023-09-01
Today 2023-09-29
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%


Termstructure Evolution:
KC HRW Wheat Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20231027
20240223
20240621
Start 2023-09-01
Today 2023-09-29

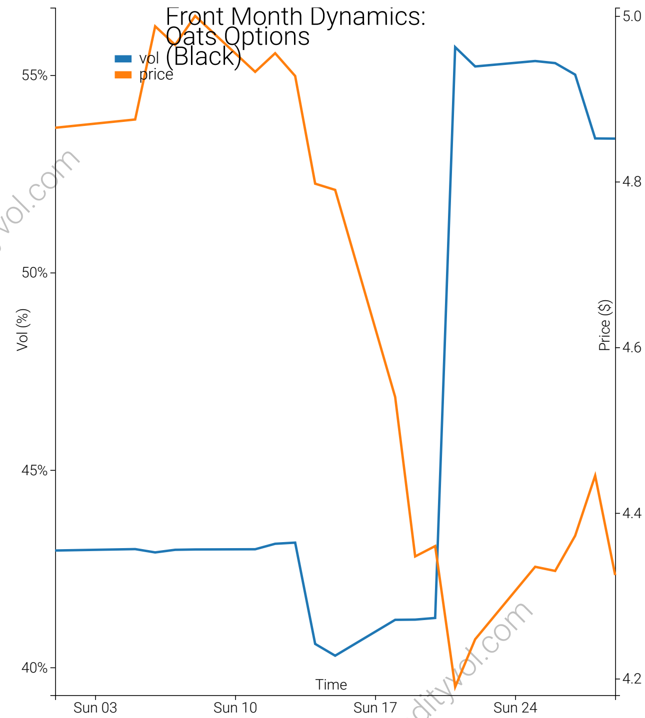

Front Month Dynamics:
KC HRW Wheat Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24


Price ($)
Start 2023-09-01
20231027
20240223
20240621

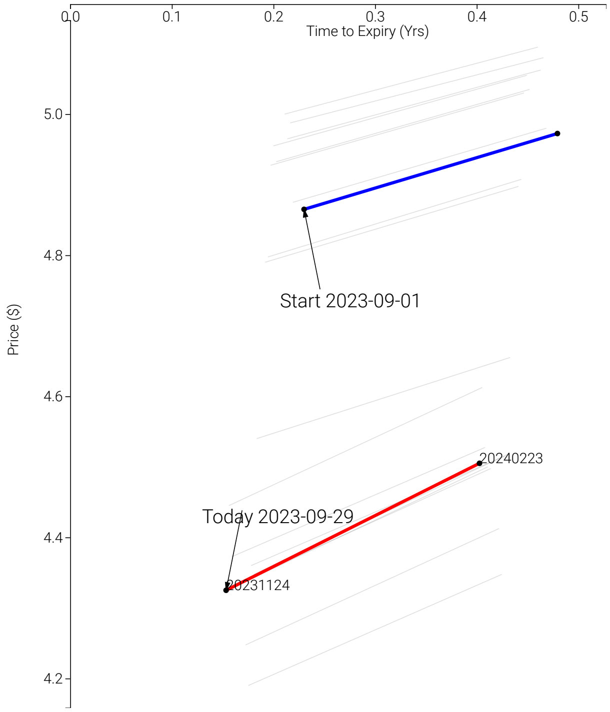

Front Month Skews:
KC HRW Wheat Options
(Black)
Start 2023-09-01
Today 2023-09-29



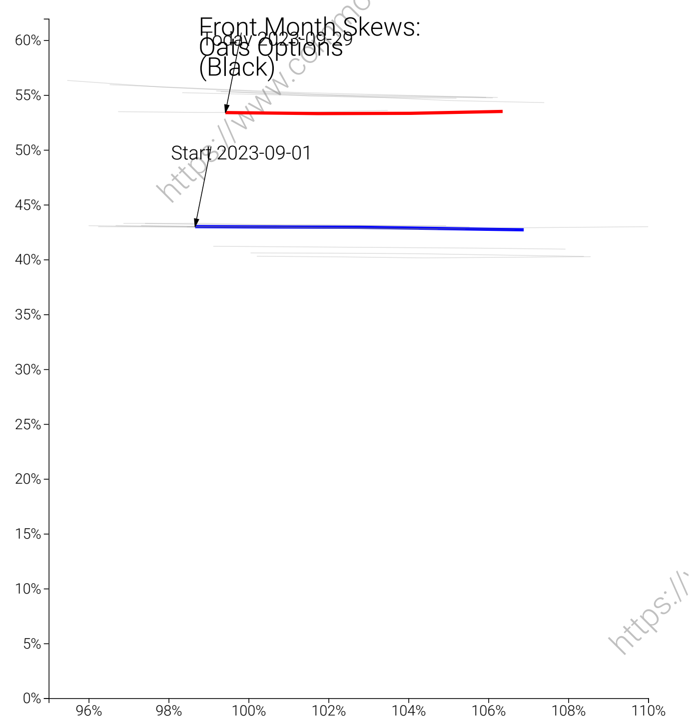
Termstructure Evolution:
Oats Options
(Black)
Today 2023-09-29
20231124
20240223
Start 2023-09-01
Vol (%)
Time to Expiry (Yrs)



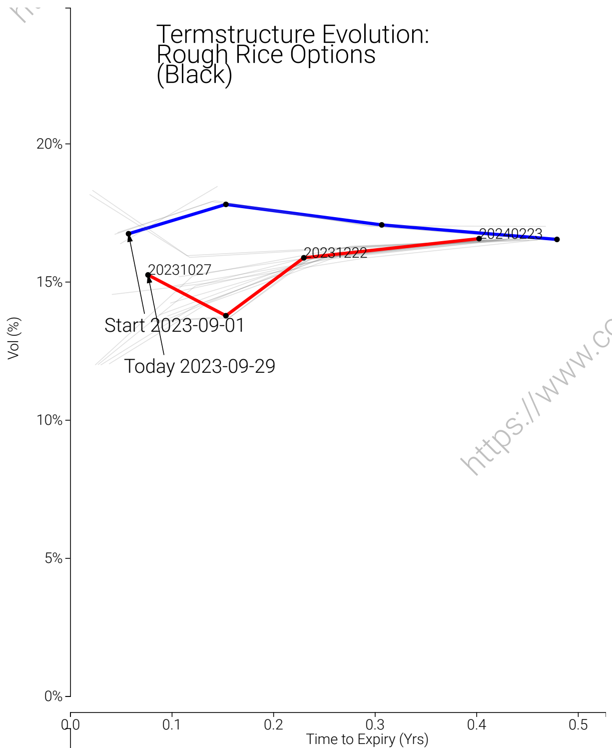
Front Month Dynamics:
Oats Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

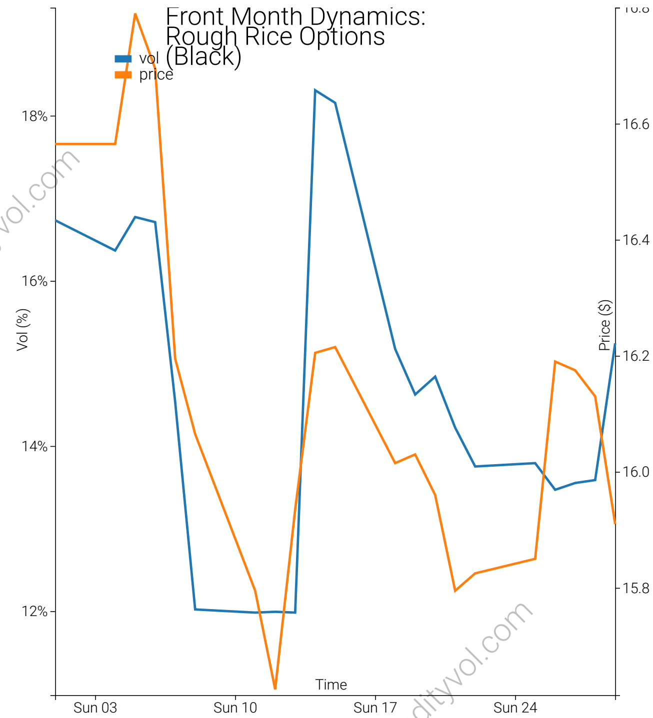


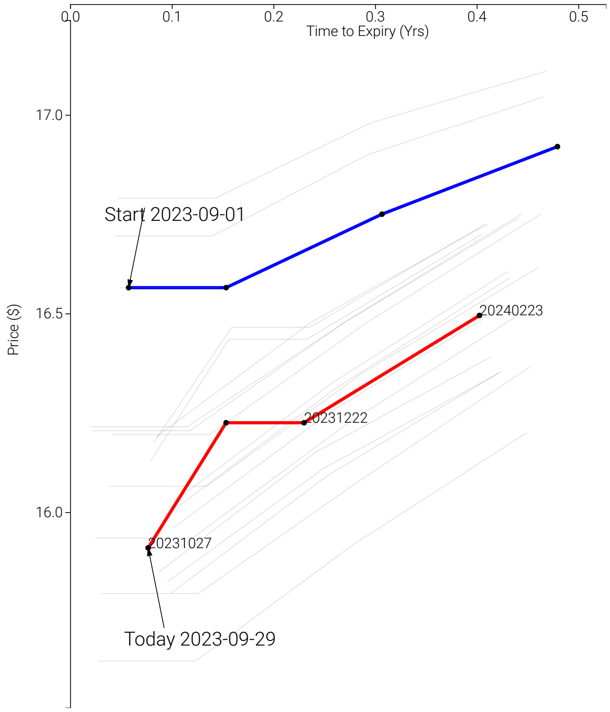
Start 2023-09-01
Today 2023-09-29
20231124
20240223
Price ($)

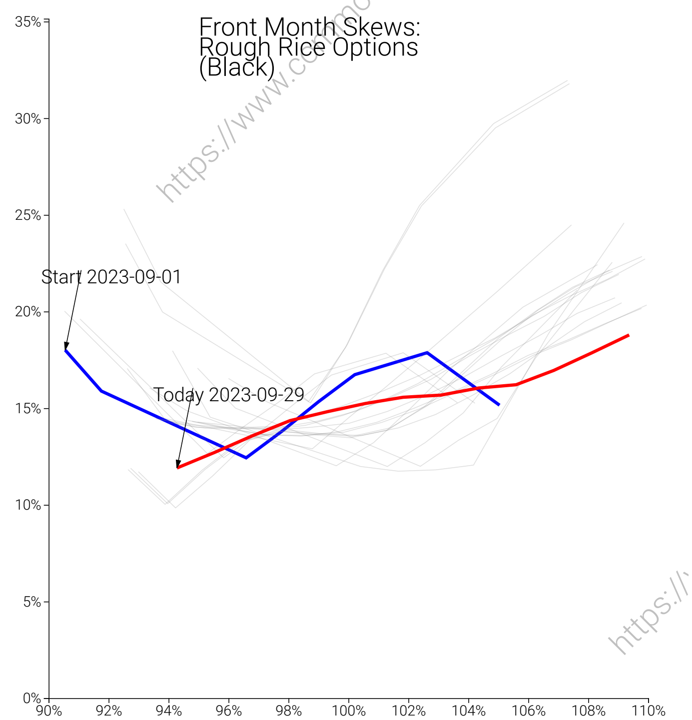


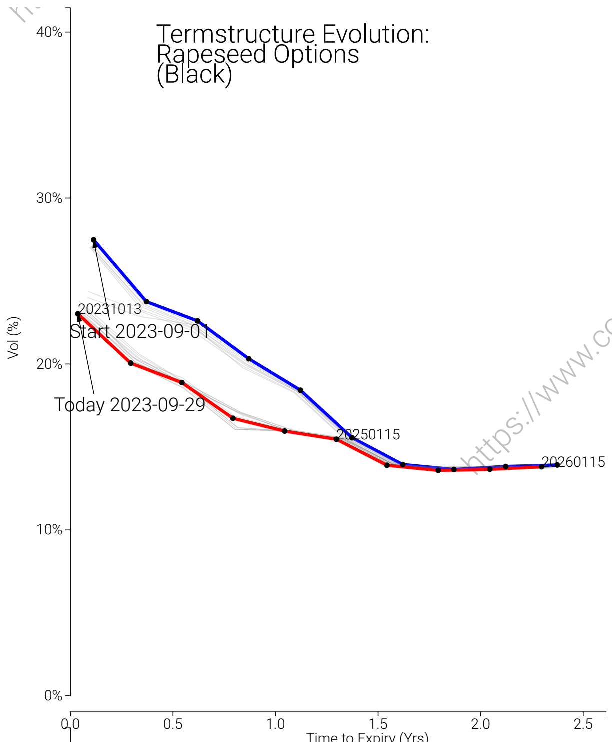
Front Month Skews:
Oats Options
(Black)
Today 2023-09-29
Start 2023-09-01

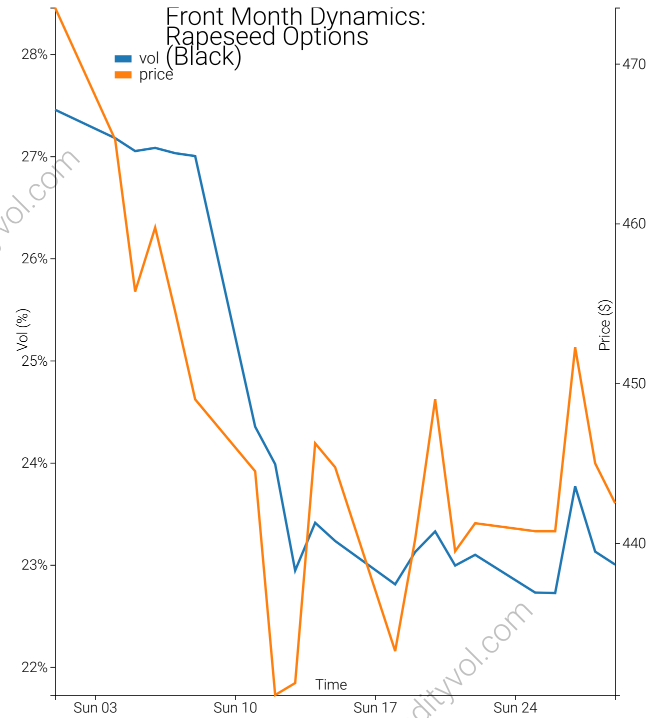

Termstructure Evolution:
Rough Rice Options
(Black)
Vol (%)
Time to Expiry (Yrs)
Start 2023-09-01
Today 2023-09-29
20231027
20231222
20240223

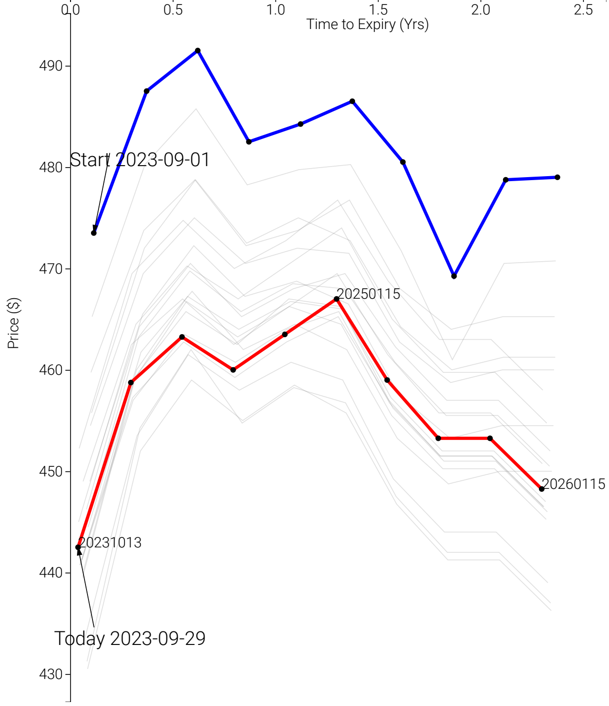

Front Month Dynamics:
Rough Rice Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

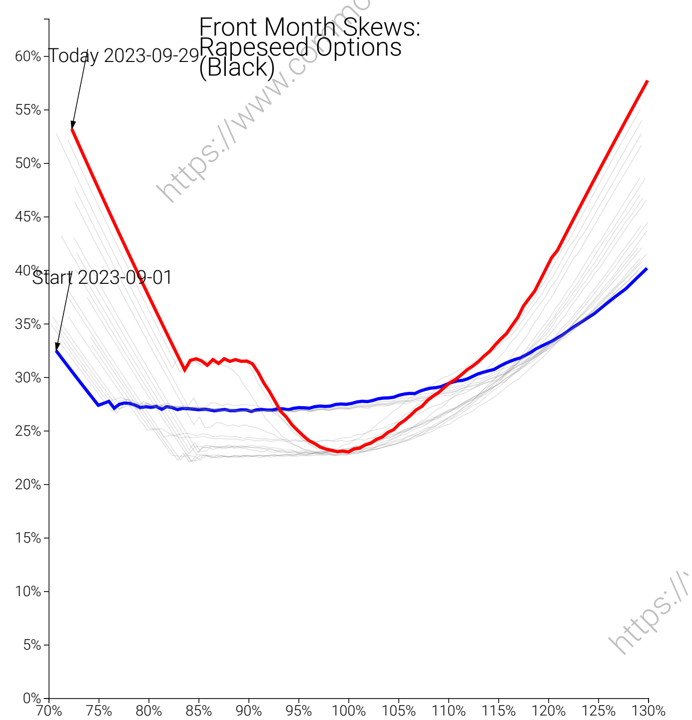

Price ($)
Start 2023-09-01
Today 2023-09-29
20231027
20231222
20240223


Front Month Skews:
Rough Rice Options
(Black)
Start 2023-09-01
Today 2023-09-29

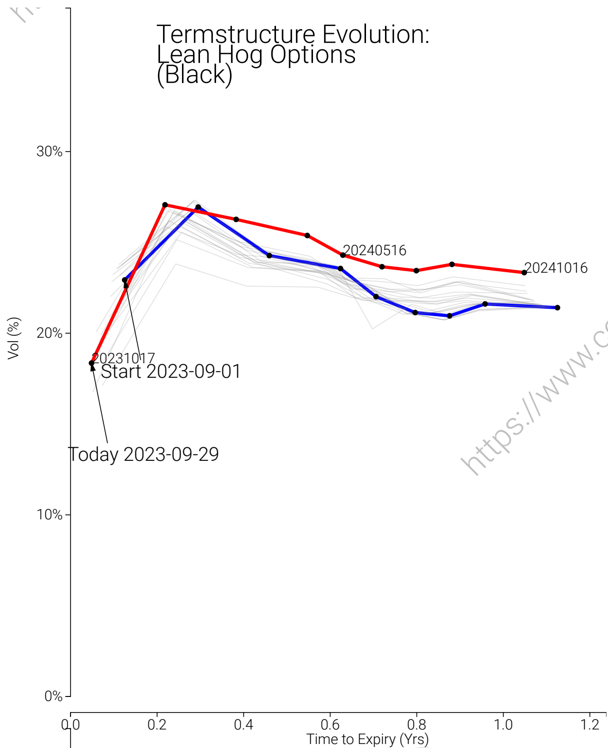

Termstructure Evolution:
Rapeseed Options
(Black)
Vol (%)
Time to Expiry (Yrs)
20231013
Start 2023-09-01
Today 2023-09-29
20250115
20260115

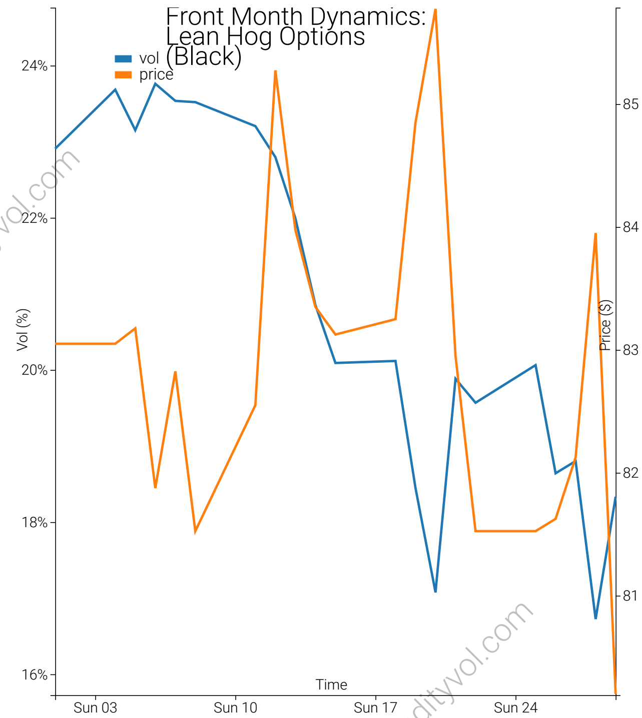

Front Month Dynamics:
Rapeseed Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

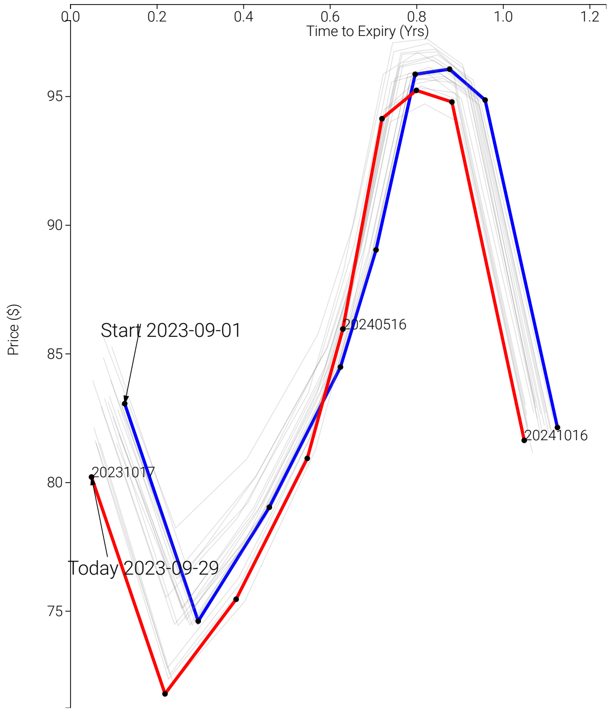

Price ($)
Start 2023-09-01
20250115
20231013
20260115
Today 2023-09-29

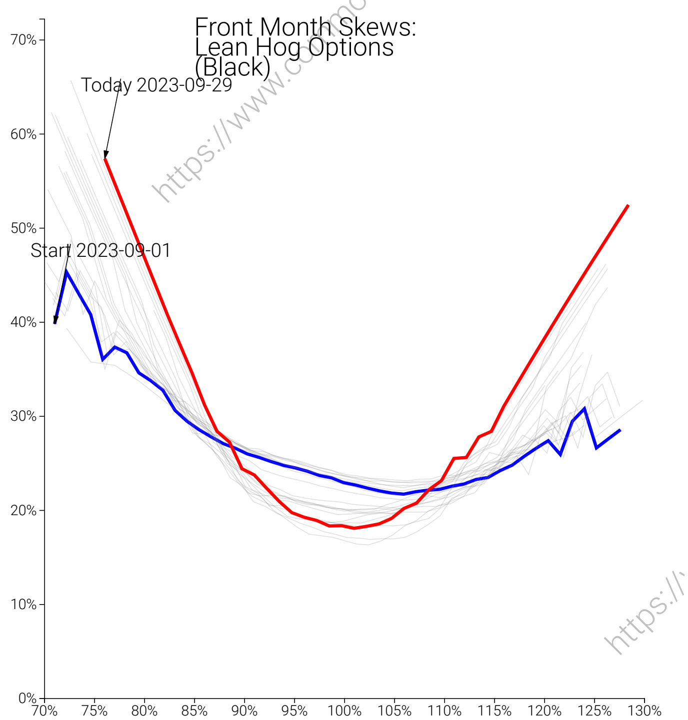

Front Month Skews:
Rapeseed Options
(Black)
Today 2023-09-29
Start 2023-09-01

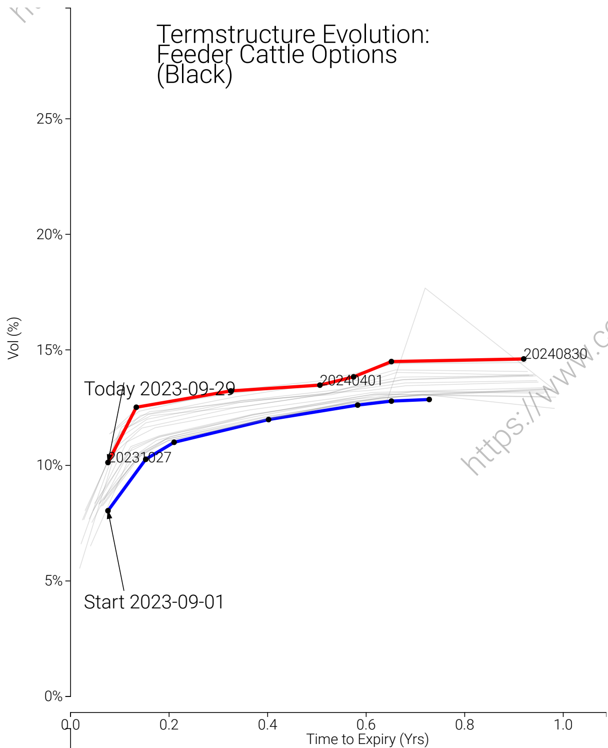
Ags: Proteins, Meats and so forth

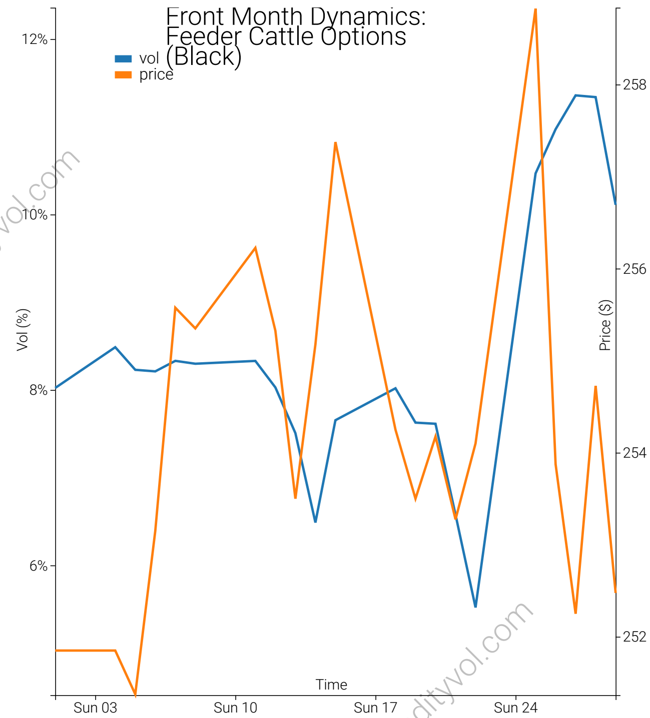

Termstructure Evolution:
Lean Hog Options
(Black)
Vol (%)
0%
10%
20%
30%
0.0
0.2
0.4
0.6
0.8
1.0
1.2
Time to Expiry (Yrs)
20231017
Start 2023-09-01
Today 2023-09-29
20240516
20241016

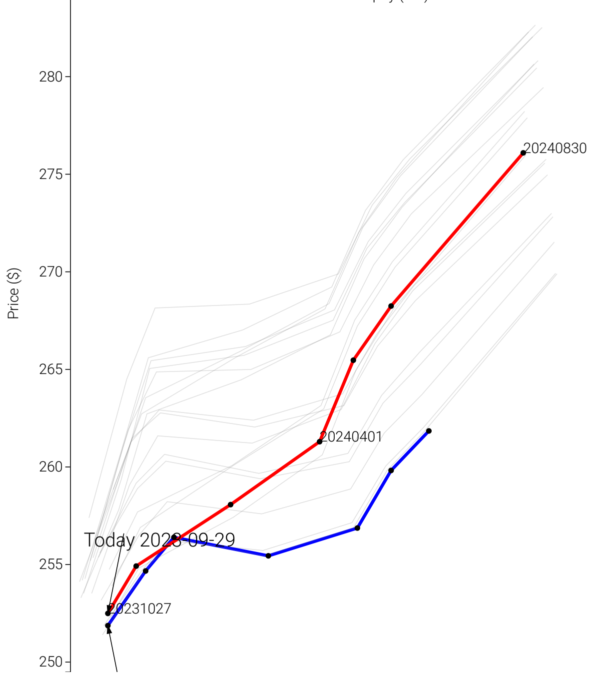

Front Month Dynamics:
Lean Hog Options
(Black)
vol
price
Vol (%)
16%
18%
20%
22%
24%
Price ($)
81
82
83
84
85
Time
Sun 03
Sun 10
Sun 17
Sun 24

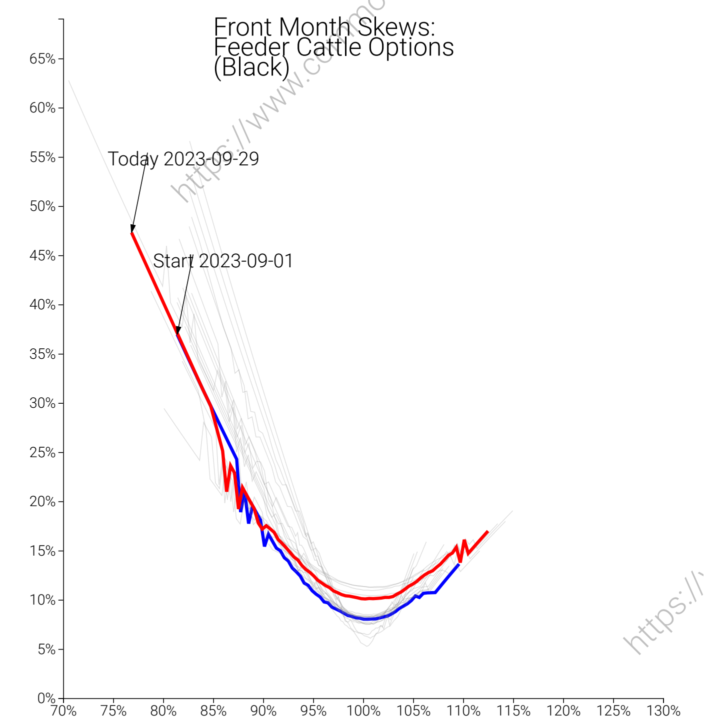

Price ($)
75
80
85
90
95
Start 2023-09-01
20231017
Today 2023-09-29
20240516
20241016

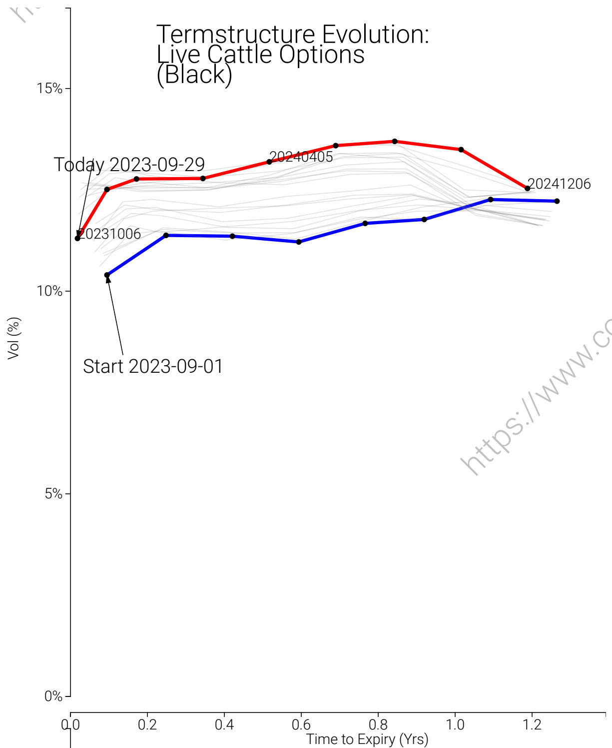

Front Month Skews:
Lean Hog Options
(Black)
Today 2023-09-29
Start 2023-09-01
0%
10%
20%
30%
40%
50%
60%
70%
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

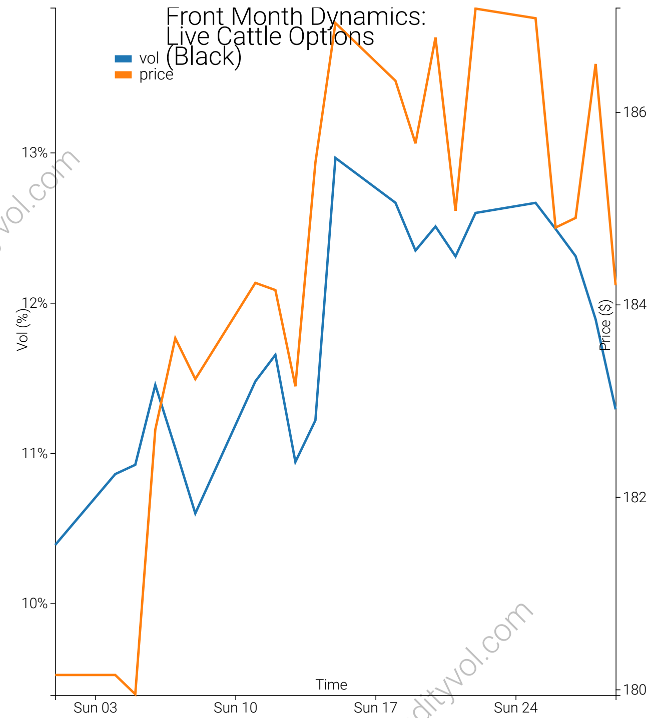

Termstructure Evolution:
Feeder Cattle Options
(Black)
Vol (%)
Time to Expiry (Yrs)
Today 2023-09-29
Start 2023-09-01
20231027
20240401
20240830

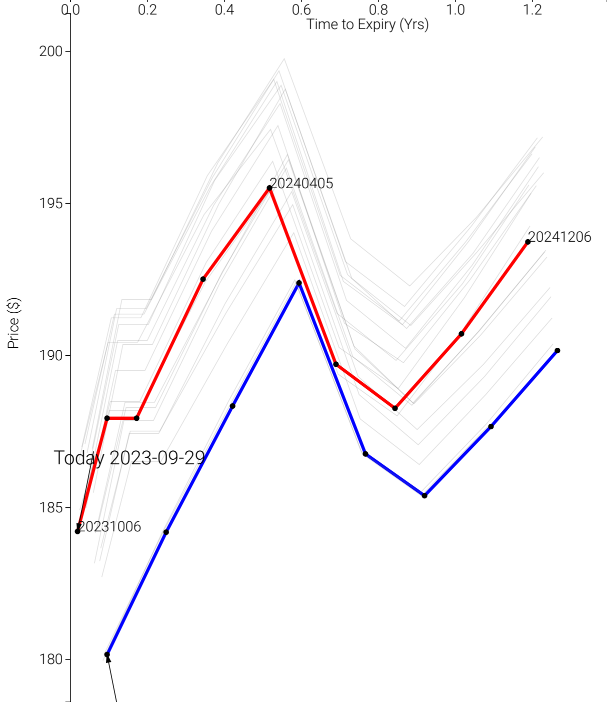

Front Month Dynamics:
Feeder Cattle Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

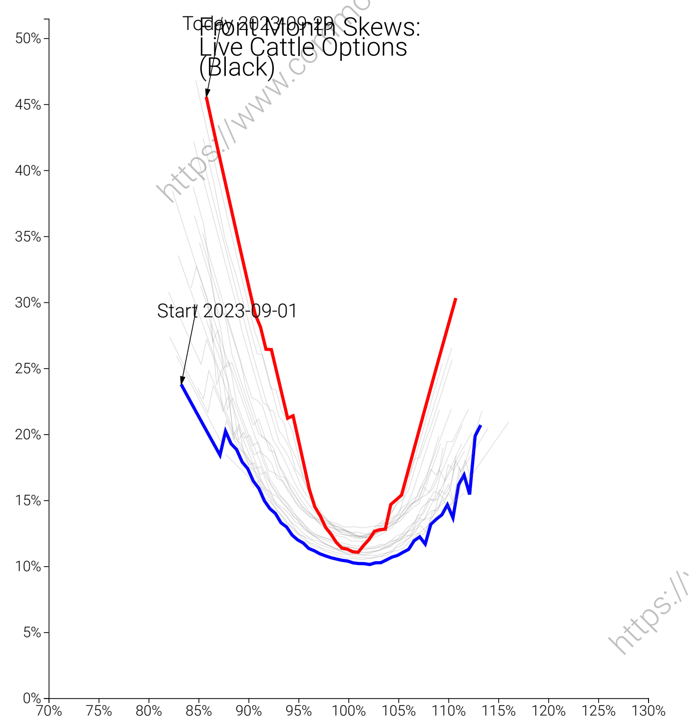

Price ($)
Today 2023-09-29
20231027
20240401
20240830

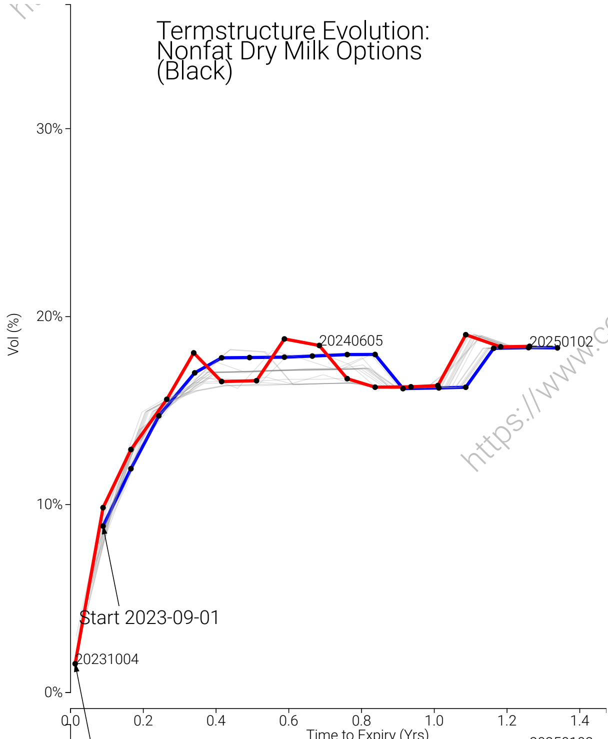

Front Month Skews:
Feeder Cattle Options
(Black)
Today 2023-09-29
Start 2023-09-01

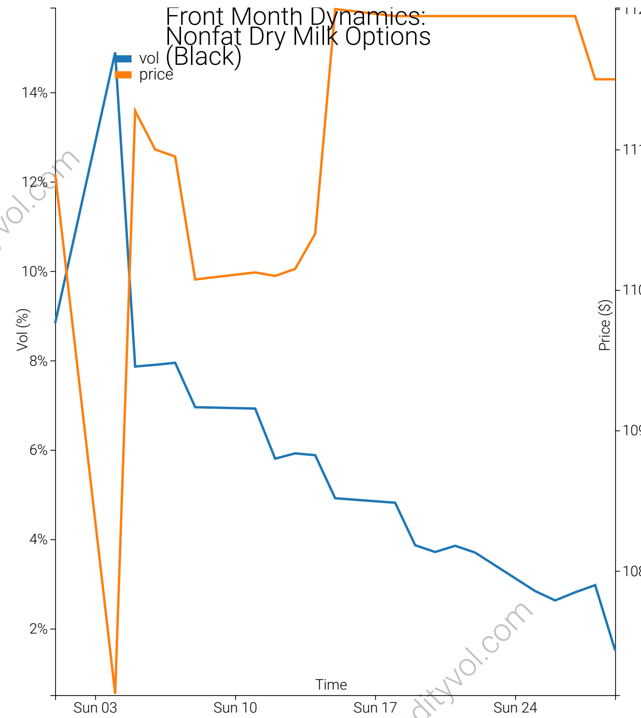

Termstructure Evolution:
Live Cattle Options
(Black)
Today 2023-09-29
20240405
20241206
20231006
Start 2023-09-01
Vol (%)
Time to Expiry (Yrs)

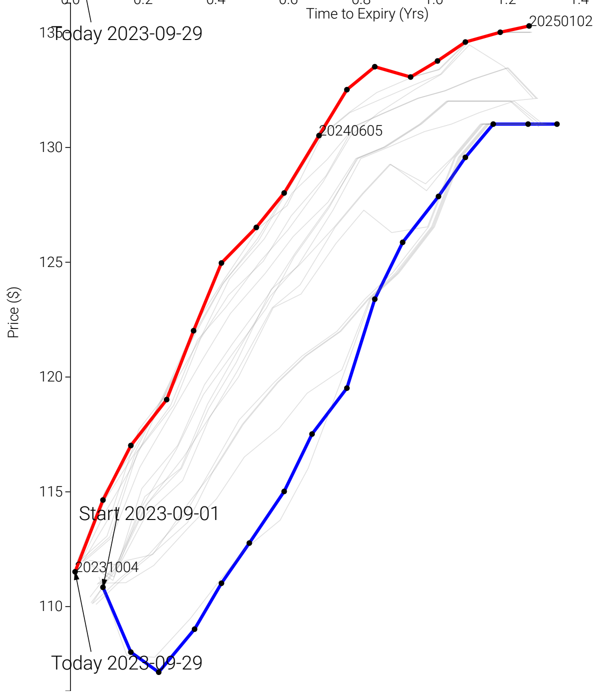

Front Month Dynamics:
Live Cattle Options
(Black)
vol
price
Vol (%)
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

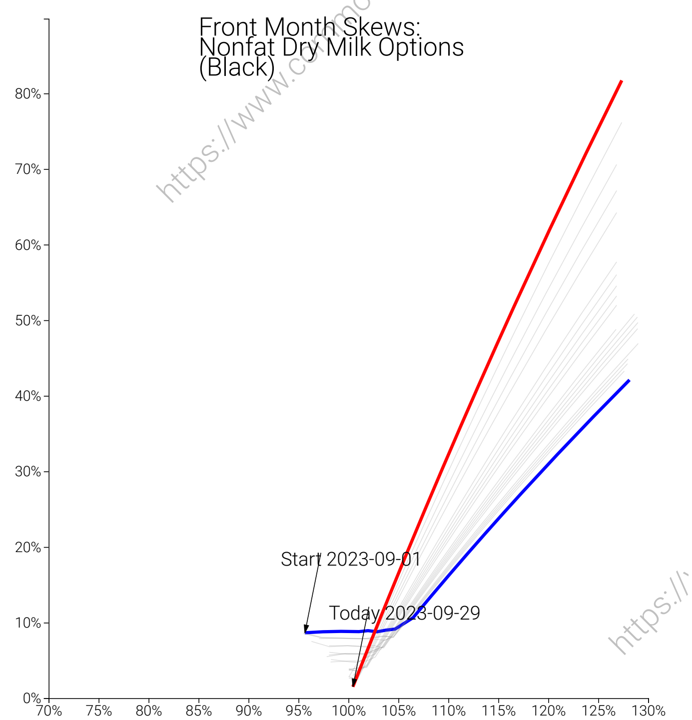

20240405
20241206
Today 2023-09-29
20231006
Price ($)

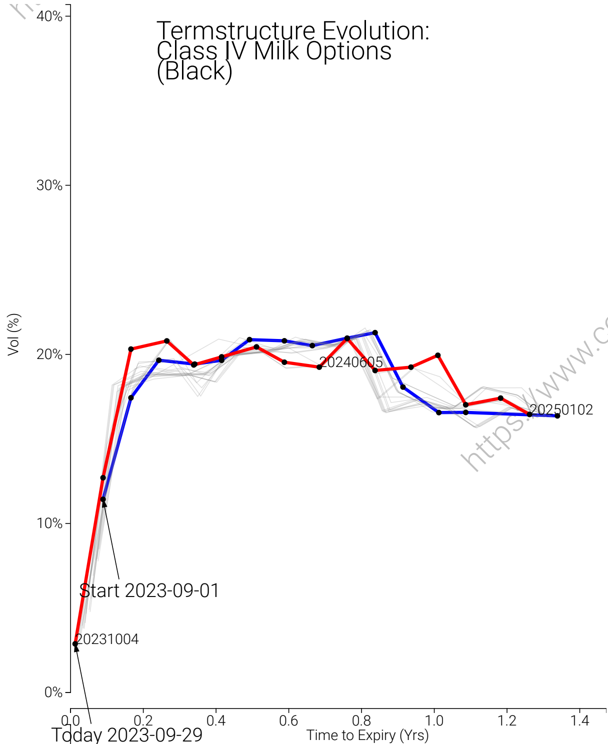

Front Month Skews:
Live Cattle Options
(Black)
Today 2023-09-29
Start 2023-09-01

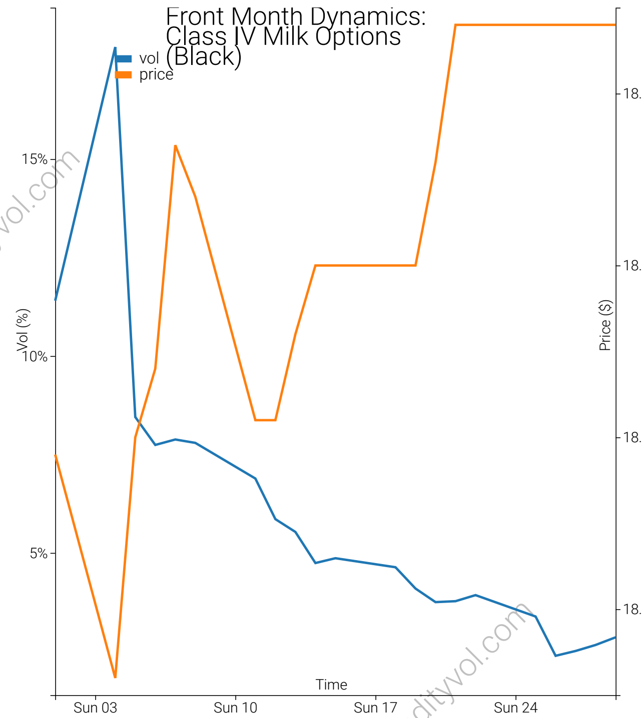

Termstructure Evolution:
Nonfat Dry Milk Options
(Black)
Vol (%)
30%
20%
10%
0%
20240605
20250102
Start 2023-09-01
20231004
Today 2023-09-29
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
Time to Expiry (Yrs)

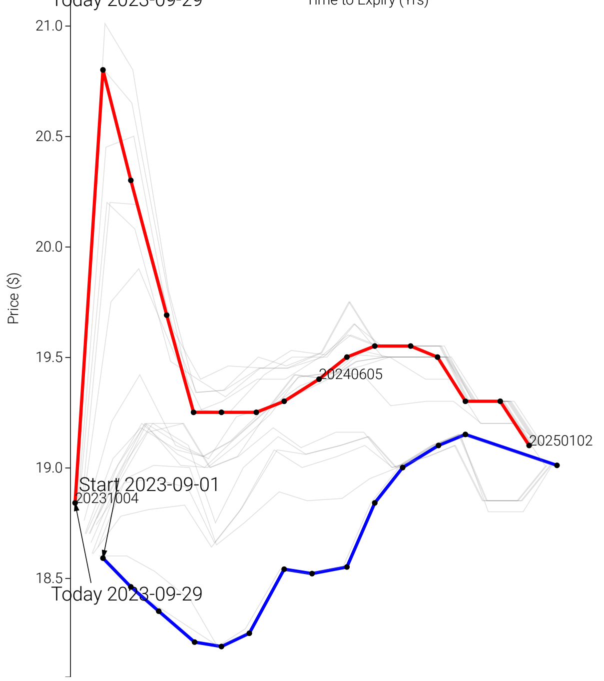

Front Month Dynamics:
Nonfat Dry Milk Options
(Black)
vol
price
14%
12%
10%
8%
6%
4%
2%
Vol (%)
112
111
110
109
108
Price ($)
Time
Sun 03
Sun 10
Sun 17
Sun 24

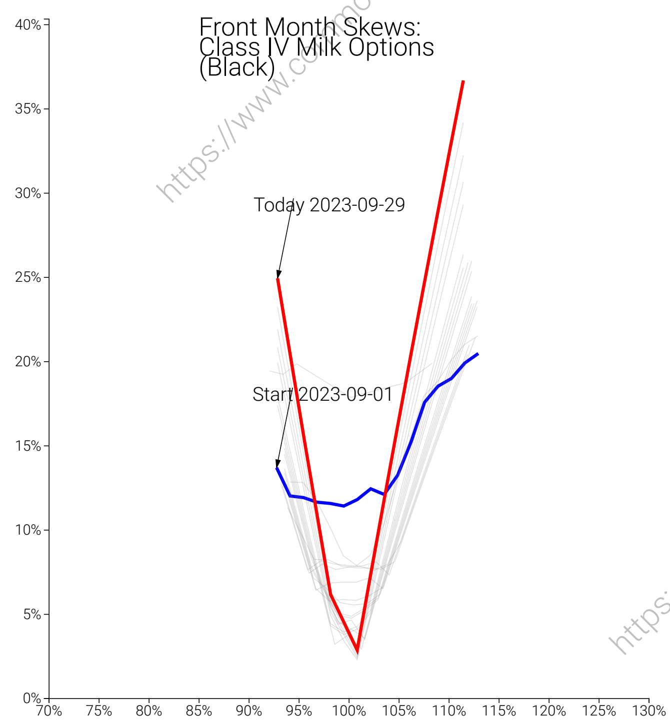

Price ($)
135
130
125
120
115
110
20250102
20240605
Start 2023-09-01
20231004
Today 2023-09-29


Front Month Skews:
Nonfat Dry Milk Options
(Black)
80%
70%
60%
50%
40%
30%
20%
10%
0%
Start 2023-09-01
Today 2023-09-29
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%


Termstructure Evolution:
Class IV Milk Options
(Black)
Vol (%)
40%
30%
20%
10%
0%
20240605
20250102
Start 2023-09-01
20231004
Today 2023-09-29
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
Time to Expiry (Yrs)


Front Month Dynamics:
Class IV Milk Options
(Black)
vol
price
Vol (%)
15%
10%
5%
Price ($)
18.8
18.7
18.6
18.5
Time
Sun 03
Sun 10
Sun 17
Sun 24


Price ($)
21.0
20.5
20.0
19.5
19.0
18.5
20240605
20250102
Start 2023-09-01
20231004
Today 2023-09-29

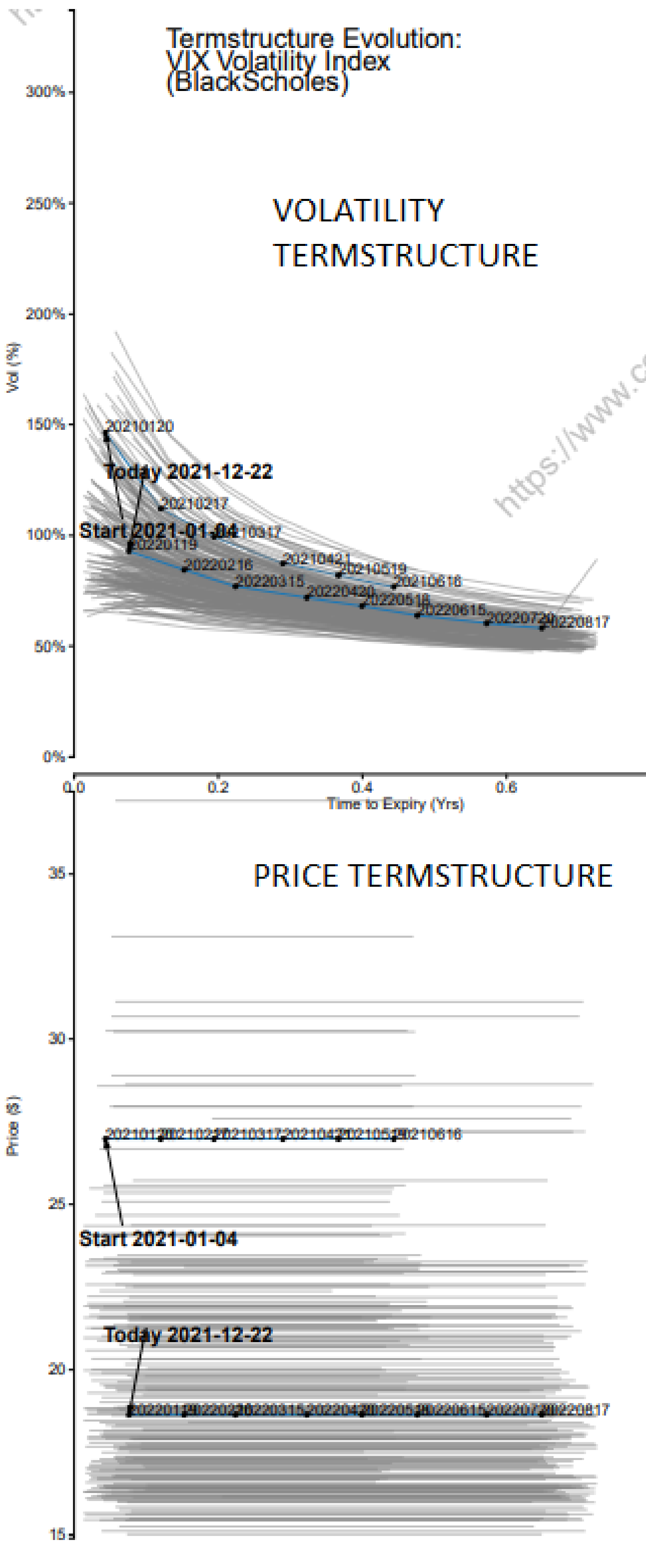

Front Month Skews:
Class IV Milk Options
(Black)
40%
35%
30%
25%
20%
15%
10%
5%
0%
Today 2023-09-29
Start 2023-09-01
70%
75%
80%
85%
90%
95%
100%
105%
110%
115%
120%
125%
130%

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.

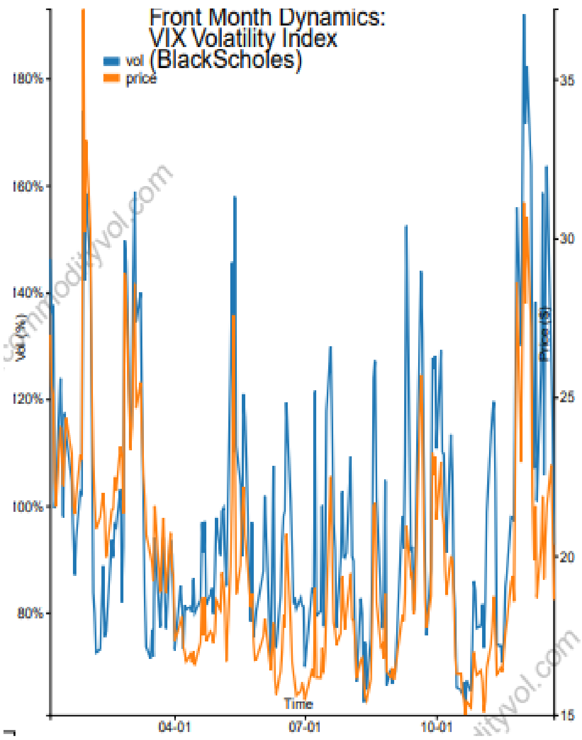
At the Money Volatilty and Price Term Structures:

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



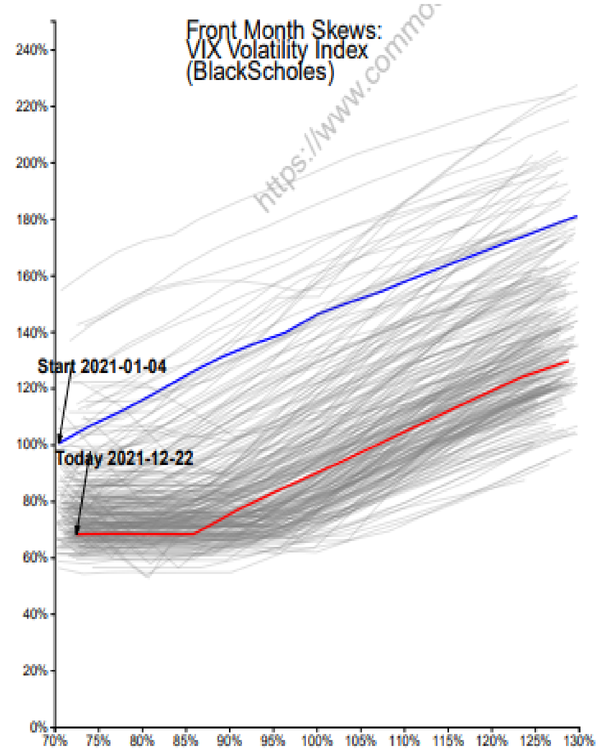
The starting curve is the termstructure at the beginning of the period. This curve is labelled start and is typically colored blue. The ending curve is typically colored red and denoted by the text: Today. The greyed out lines are the termstructures for each day of the period. The hope is that the range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