Part II: (Swaption Calibration)

1 Model Calibration

Calibrated Displaced-Diffsion Model Parameters

Sigma

Expiry\Tenor	1Y	2Y	3Y	5Y	10Y
1Y	0.254272	0.315158	0.319319	0.272275	0.251499
5Y	0.300943	0.312254	0.308568	0.270108	0.247218
10Y	0.295093	0.297198	0.295274	0.266388	0.242929

Beta

Expiry\Tenor	1Y	2Y	3Y	5Y	10Y
1Y	0.089747	0.081814	0.111088	0.155968	0.219184
5Y	0.047096	0.079271	0.146513	0.244734	0.336325
10Y	0.170571	0.11628	0.172804	0.328284	0.26183

(a) Displaced-Diffsion Model

Calibrated SABR Model Parameters

Alpha

Expiry\Tenor	1Y	2Y	3Y	5Y	10Y
1Y	0.139067	0.184647	0.19685	0.178062	0.171145
5Y	0.166427	0.199486	0.210327	0.19118	0.17709
10Y	0.177375	0.195093	0.206595	0.201625	0.180628

Nu

Expiry\Tenor	1Y	2Y	3Y	5Y	10Y
1Y	2.049654	1.677466	1.43821	1.064937	0.777669
5Y	1.339878	1.062712	0.937505	0.671783	0.497149
10Y	1.008059	0.926327	0.869024	0.720847	0.579857

Rho

Expiry\Tenor	1Y	2Y	3Y	5Y	10Y
1Y	-0.63326	-0.52512	-0.48286	-0.41448	-0.26497
5Y	-0.58484	-0.547	-0.5498	-0.512	-0.43794
10Y	-0.5457	-0.54425	-0.54963	-0.56287	-0.50973

(b) SABR Model

Figure 1: Parameter Calibration

2 Pricing swaptions using the calibrated model

	Price of 2y x 10y payer swaption	
Strikes	SABR	DD Model
1.00%	3003.9507	2991.7272
2.00%	2090.8074	2058.3907
3.00%	1255.7125	1226.6616
4.00%	600.6491	605.8902
5.00%	241.2084	241.9280
6.00%	106.5463	77.7913
7.00%	57.2594	20.3618
8.00%	35.7553	4.4183

(a) payer 2y x 10y

	Price of 8y x 10y receiver swaption	
Strikes	SABR	DD Model
1.00%	229.4442	138.1227
2.00%	425.7698	258.8897
3.00%	629.2016	445.3247
4.00%	856.1972	711.4585
5.00%	1128.5988	1066.7126
6.00%	1482.8792	1514.6057
7.00%	1969.7660	2052.7126
8.00%	2614.2315	2673.6823

(b) receiver 8y x 10y

Figure 2: Swaption price

bla bla bla bla...
bla bla bla bla...
bla bla bla bla...

3 Fitting curve

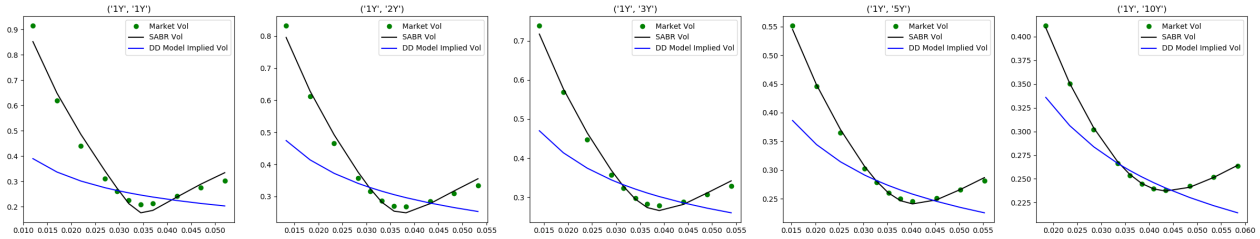

Figure 3: 1y expiry swaption: Tenor from 1y to 10y

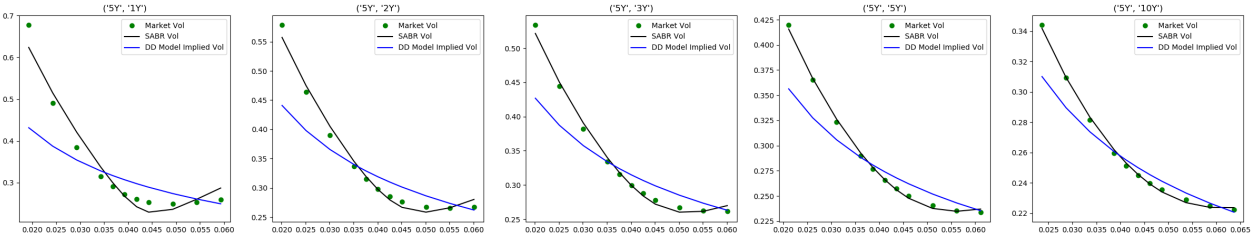

Figure 4: 5y expiry swaption: Tenor from 1y to 10y

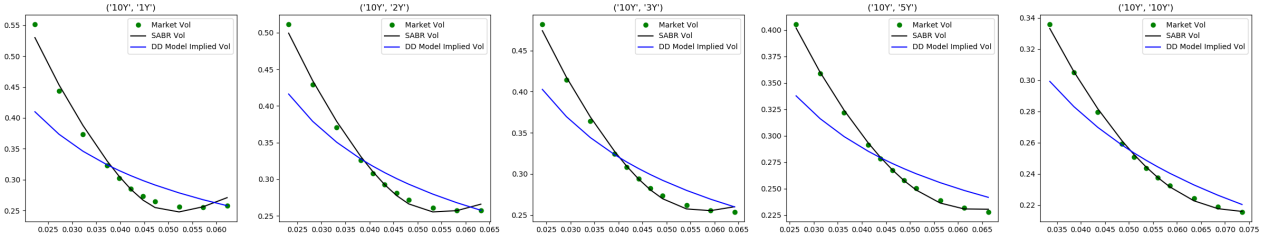

Figure 5: 10y expiry swaption: Tenor from 1y to 10y

bla bla bla bla...
bla bla bla bla...
bla bla bla bla...