

CDS Trade Parameters & Price

BuyOrSellProtection	BUY	
BuySellIndicator, ϕ	1	
Notional, N	10,000,000	
HazardRate ¹ , $\lambda^{\text{Domestic CCY}}$	2.2947%	See Footnote 1
RecoveryRate, R	25.00%	Spread (bps)
CreditSpread, s	1.0000%	100.00
PremiumFrequency	QUARTERLY	
PremiumYearFraction, Δt	0.2500	
Maturity, years	5.0000	
ZeroRate ² , z	14.00%	See footnote 2

Quanto Parameters

FX Jump on Default, J_{FX}	-40.00%	
Corrleation, $\rho_{(C,FX)}$	-0.25	
Credit Volatility, σ_C	25.00%	
FX Volatility, σ_{FX}	10.00%	Lambda Adjustment
HazardRate, $\lambda^{\text{Quanto CCY}}$	1.3553%	-0.9394%

$$\lambda^{\text{Quanto}}(t) = (1 + J_{FX}) \left(1 + \frac{1}{2} \rho_{C,FX} \sigma_C \sigma_{FX} t \right) \lambda^{\text{Domestic}}(t)$$

Present Value (PV)

	Without Adj	With Adj	+/-
CreditDefaultSwap	242,273	5,648	-236,626
PremiumLeg	-335,060	-342,377	-7,316
AccruedInterest	-964	-581	383
ProtectionLeg	578,297	348,605	-229,692

Par CDS Rate

	Without Adj	With Adj	+/-	Quanto
Par CDS Rate, p	1.7231%	1.0165%	-0.7066%	70.66
ProtectionPV - AccruedInterest	-577,334	-348,024	229,309	
RiskyFixedAnnuity	-33,506,024	-34,237,674	-731,650	

Footnotes

¹ Hazard rates are implied from credit models, approximately **Hazard Rate = Par CDS Rate / (1 - Recovery Rate**

² Zero rates are implied from yield curve models, approximately **Zero Rate = - ln(Discount Factor at Maturity) ,**

What-If Analysis

Quanto Basis		FX Jump on Default				
Correlation	70.66	0.00%	-5.00%	-10.00%	-20.00%	-30.00%
	1.00	-10.80	-1.62	7.56	25.91	44.25
	0.75	-8.10	0.94	9.99	28.07	46.14
	0.50	-5.40	3.51	12.42	30.23	48.02
	0.25	-2.70	6.07	14.85	32.38	49.91
	0.00	0.00	8.64	17.28	34.54	51.80
	-0.25	2.70	11.20	19.70	36.70	53.68
	-0.50	5.40	13.77	22.13	38.86	55.57
	-0.75	8.10	16.33	24.56	41.01	57.46
	-1.00	10.80	18.89	26.99	43.17	59.34

Basis

;)
 / TimeToMaturityInYears

... What-If Analysis

-40.00%	-50.00%
62.58	80.89
64.19	82.24
65.81	83.58
67.43	84.93
69.04	86.28
70.66	87.62
72.27	88.97
73.89	90.32
75.51	91.66

Time, T	Notional, N
0.25	-10,000,000
0.50	-10,000,000
0.75	-10,000,000
1.00	-10,000,000
1.25	-10,000,000
1.50	-10,000,000
1.75	-10,000,000
2.00	-10,000,000
2.25	-10,000,000
2.50	-10,000,000
2.75	-10,000,000
3.00	-10,000,000
3.25	-10,000,000
3.50	-10,000,000
3.75	-10,000,000
4.00	-10,000,000
4.25	-10,000,000
4.50	-10,000,000
4.75	-10,000,000
5.00	-10,000,000
5.25	-
5.50	-
5.75	-
6.00	-
6.25	-
6.50	-
6.75	-
7.00	-
7.25	-
7.50	-
7.75	-
8.00	-
8.25	-
8.50	-
8.75	-
9.00	-
9.25	-
9.50	-
9.75	-
10.00	-
10.25	-
10.50	-

[illegible]

... Premium Leg

DiscFact, P(t,T)	Domestic PV	Quanto PV	Time, T
0.965605	-24,002	-24,058	0.250
0.932394	-23,044	-23,152	0.500
0.900325	-22,124	-22,280	0.750
0.869358	-21,241	-21,441	1.000
0.839457	-20,393	-20,634	1.250
0.810584	-19,579	-19,857	1.500
0.782705	-18,797	-19,109	1.750
0.755784	-18,047	-18,389	2.000
0.729789	-17,327	-17,697	2.250
0.704688	-16,635	-17,030	2.500
0.680451	-15,971	-16,389	2.750
0.657047	-15,333	-15,772	3.000
0.634448	-14,721	-15,178	3.250
0.612626	-14,134	-14,606	3.500
0.591555	-13,570	-14,056	3.750
0.571209	-13,028	-13,527	4.000
0.551563	-12,508	-13,017	4.250
0.532592	-12,009	-12,527	4.500
0.514274	-11,529	-12,055	4.750
0.496585	-11,069	-11,601	5.000
-	-	-	5.250
-	-	-	5.500
-	-	-	5.750
-	-	-	6.000
-	-	-	6.250
-	-	-	6.500
-	-	-	6.750
-	-	-	7.000
-	-	-	7.250
-	-	-	7.500
-	-	-	7.750
-	-	-	8.000
-	-	-	8.250
-	-	-	8.500
-	-	-	8.750
-	-	-	9.000
-	-	-	9.250
-	-	-	9.500
-	-	-	9.750
-	-	-	10.000
-	-	-	10.250
-	-	-	10.500

PremiumLegTotalPV

-335,060	-342,377
Domestic	Quanto

[illegible]

[illegible]**AccruedInterestTot:**

-964

Domestic

... Accrued Interest

Quanto PV	Time, T	Notional, N
-41	0.250	10,000,000
-39	0.500	10,000,000
-38	0.750	10,000,000
-36	1.000	10,000,000
-35	1.250	10,000,000
-34	1.500	10,000,000
-32	1.750	10,000,000
-31	2.000	10,000,000
-30	2.250	10,000,000
-29	2.500	10,000,000
-28	2.750	10,000,000
-27	3.000	10,000,000
-26	3.250	10,000,000
-25	3.500	10,000,000
-24	3.750	10,000,000
-23	4.000	10,000,000
-22	4.250	10,000,000
-21	4.500	10,000,000
-20	4.750	10,000,000
-20	5.000	10,000,000
-	5.250	-
-	5.500	-
-	5.750	-
-	6.000	-
-	6.250	-
-	6.500	-
-	6.750	-
-	7.000	-
-	7.250	-
-	7.500	-
-	7.750	-
-	8.000	-
-	8.250	-
-	8.500	-
-	8.750	-
-	9.000	-
-	9.250	-
-	9.500	-
-	9.750	-
-	10.000	-
-	10.250	-
-	10.500	-

alPV

-581

Quanto

[illegible]

... Protection Leg

[illegible]**ProtectionLegTotalPV**

578,297	348,605
Domestic	Quanto