

CDS Trade Parameters & Price

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

Quanto Parameters

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

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

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

<sup>1</sup> Hazard rates are implied from credit models, approximately  $Hazard\ Rate = Par\ CDS\ Rate / (1 - Recovery\ Rate)$

<sup>2</sup> 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%	-40.00%	-50.00%
	1.00	-10.80	-1.62	7.56	25.91	44.25	62.58	80.89
	0.75	-8.10	0.94	9.99	28.07	46.14	64.19	82.24
	0.50	-5.40	3.51	12.42	30.23	48.02	65.81	83.58
	0.25	-2.70	6.07	14.85	32.38	49.91	67.43	84.93
	0.00	0.00	8.64	17.28	34.54	51.80	69.04	86.28
	-0.25	2.70	11.20	19.70	36.70	53.68	70.66	87.62
	-0.50	5.40	13.77	22.13	38.86	55.57	72.27	88.97
	-0.75	8.10	16.33	24.56	41.01	57.46	73.89	90.32
	-1.00	10.80	18.89	26.99	43.17	59.34	75.51	91.66

Basis

)  
/ TimeToMaturityInYears

... What-If Analysis

Time, T	Notional, N	CreditSpread, s	YearFraction, $\delta t$	Coupon	Domestic P(Survive), Q(T)
0.25	-10,000,000	1.0000%	0.2500	-25,000	0.994280
0.50	-10,000,000	1.0000%	0.2500	-25,000	0.988592
0.75	-10,000,000	1.0000%	0.2500	-25,000	0.982937
1.00	-10,000,000	1.0000%	0.2500	-25,000	0.977315
1.25	-10,000,000	1.0000%	0.2500	-25,000	0.971724
1.50	-10,000,000	1.0000%	0.2500	-25,000	0.966166
1.75	-10,000,000	1.0000%	0.2500	-25,000	0.960639
2.00	-10,000,000	1.0000%	0.2500	-25,000	0.955144
2.25	-10,000,000	1.0000%	0.2500	-25,000	0.949680
2.50	-10,000,000	1.0000%	0.2500	-25,000	0.944248
2.75	-10,000,000	1.0000%	0.2500	-25,000	0.938846
3.00	-10,000,000	1.0000%	0.2500	-25,000	0.933476
3.25	-10,000,000	1.0000%	0.2500	-25,000	0.928136
3.50	-10,000,000	1.0000%	0.2500	-25,000	0.922827
3.75	-10,000,000	1.0000%	0.2500	-25,000	0.917548
4.00	-10,000,000	1.0000%	0.2500	-25,000	0.912300
4.25	-10,000,000	1.0000%	0.2500	-25,000	0.907081
4.50	-10,000,000	1.0000%	0.2500	-25,000	0.901892
4.75	-10,000,000	1.0000%	0.2500	-25,000	0.896733
5.00	-10,000,000	1.0000%	0.2500	-25,000	0.891604
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	-	-	-	-	-

PremiumLegTotalPV	
-335,060	-342,377
Domestic	Quanto

... Premium Leg

Time, T	Notional, N	CreditSpread, s	YearFraction, $\delta t$	Accrued Interest	Domestic $P(\text{Default}, Q(t) \mathcal{H}(t))$
0.250	-10,000,000	1.0000%	0.1250	-12,500	0.005720
0.500	-10,000,000	1.0000%	0.1250	-12,500	0.005688
0.750	-10,000,000	1.0000%	0.1250	-12,500	0.005655
1.000	-10,000,000	1.0000%	0.1250	-12,500	0.005623
1.250	-10,000,000	1.0000%	0.1250	-12,500	0.005590
1.500	-10,000,000	1.0000%	0.1250	-12,500	0.005559
1.750	-10,000,000	1.0000%	0.1250	-12,500	0.005527
2.000	-10,000,000	1.0000%	0.1250	-12,500	0.005495
2.250	-10,000,000	1.0000%	0.1250	-12,500	0.005464
2.500	-10,000,000	1.0000%	0.1250	-12,500	0.005432
2.750	-10,000,000	1.0000%	0.1250	-12,500	0.005401
3.000	-10,000,000	1.0000%	0.1250	-12,500	0.005370
3.250	-10,000,000	1.0000%	0.1250	-12,500	0.005340
3.500	-10,000,000	1.0000%	0.1250	-12,500	0.005309
3.750	-10,000,000	1.0000%	0.1250	-12,500	0.005279
4.000	-10,000,000	1.0000%	0.1250	-12,500	0.005249
4.250	-10,000,000	1.0000%	0.1250	-12,500	0.005219
4.500	-10,000,000	1.0000%	0.1250	-12,500	0.005189
4.750	-10,000,000	1.0000%	0.1250	-12,500	0.005159
5.000	-10,000,000	1.0000%	0.1250	-12,500	0.005130
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	-	-	-	-	-

[illegible]

Accrued Interest	Total PV
-964	-581
Domestic	Quanto

... Accrued Interest

Time, T	Notional, N	LossGivenDefault, LGD	Domestic P(Default), Q(t)  $\mathcal{F}_t$	Quanto P(Default), Q(t)  $\mathcal{W}_t$
0.250	10,000,000	7,500,000	0.005720	0.003382
0.500	10,000,000	7,500,000	0.005688	0.003371
0.750	10,000,000	7,500,000	0.005655	0.003360
1.000	10,000,000	7,500,000	0.005623	0.003348
1.250	10,000,000	7,500,000	0.005590	0.003337
1.500	10,000,000	7,500,000	0.005559	0.003326
1.750	10,000,000	7,500,000	0.005527	0.003314
2.000	10,000,000	7,500,000	0.005495	0.003303
2.250	10,000,000	7,500,000	0.005464	0.003292
2.500	10,000,000	7,500,000	0.005432	0.003281
2.750	10,000,000	7,500,000	0.005401	0.003270
3.000	10,000,000	7,500,000	0.005370	0.003259
3.250	10,000,000	7,500,000	0.005340	0.003248
3.500	10,000,000	7,500,000	0.005309	0.003237
3.750	10,000,000	7,500,000	0.005279	0.003226
4.000	10,000,000	7,500,000	0.005249	0.003215
4.250	10,000,000	7,500,000	0.005219	0.003204
4.500	10,000,000	7,500,000	0.005189	0.003193
4.750	10,000,000	7,500,000	0.005159	0.003182
5.000	10,000,000	7,500,000	0.005130	0.003172
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	-	-	-	-

... Protection Leg

[illegible]

ProtectionLegTotalPV	
578,297	348,605
Domestic	Quanto