

Why are the swap rates I see online different from what the bank quotes?

One of the benefits swaps offer is complete customization. Each swap can be structured independently of the financing to allow for flexibility for things like notional amount, term, amortization, and prepayment flexibility.

This makes publishing a “standard” swap rate challenging since each loan has unique characteristics that affect the final rate.

CMBS Swaps - Semi-Bond Conventions

In general, the rates published online, in the WSJ, or quoted by a CMBS desk utilize something called “semi-bond conventions”. That is a fancy way of saying that the fixed rate side makes payments every six months using 30/360 daycount conventions, while the floating rate side makes payments quarterly on 3 month LIBOR using actual/360 daycount conventions. Both sides of the swap are interest only. These rates are meant to replicate standard conventions found on corporate bonds.

We pulled the rates below from three commercial real estate brokerage websites at the same time. As you can see, the rates are pretty similar and any difference is probably attributable to different curve refresh times.

1.570%
1.561%
1.574%

If you are ok being off by a few basis points, these rates will do a reasonably good job of showing where the market is trading within about a 15–30 minute lag. But these are semi-bond convention rates, which means they are really only applicable to your financing *if* your financing has the structure and daycount conventions highlighted above.

And there is really only one financing mechanism in commercial real estate that uses these conventions - CMBS.

If you are pricing a CMBS deal, online rates will do a relatively good job of getting you close. Just as importantly, they do a good job of illustrating directional movements. If you went to a site and noticed the 10 year swap rate had increased from 1.57% to 1.67%, it’s likely the rate a borrower can lock in has increased by about 0.10%.

Semi-Bond Swap Rates

Here is a generic Bloomberg screen capture showing a variety of rates. We have highlighted the generic 10 year semi-bond swap rate, 1.569%. As you can see, these are pretty close to the online rates we found.

97) Regions		98) Settings		12:19:01 Swaps Markets: United States																							
GV Ask/Chg		Swp/Govt	Swap Mid	FNMA	FN/GV	FN/SW	FHLMC	FH/GV	FH/SW																		
2Y	1.650 -0.033	-0.06 +0.38	1.649 -0.033	1.862		-2.4 -1.1	1.752	10.6 -0.7	-1.6 +2.1																		
3Y	1.576 -0.040	-1.71 +0.81	1.560 -0.035	1.690	12.6 +0.6	0.1 +3.4	1.657	9.8 +1.2	5.4 +4.8																		
4Y	1.592 -0.039	-4.84 +0.57	1.521 -0.036					0.0 +0.0	0.0 +0.0																		
5Y	1.560 -0.040	-5.50 +0.35	1.507 -0.036	1.612	6.0 -0.2	7.4 +4.0	1.600	4.7 -0.5	7.7 +3.8																		
7Y	1.629 -0.041	-11.48 +0.21	1.514 -0.038	1.597	-2.8 -0.2	9.4 +4.4		0.0 +0.0	0.0 +0.0																		
10Y	1.687 -0.035	-12.00 -0.40	1.569	1.699	2.0 +0.7	19.3 +5.9	1.865	18.2 -0.8	30.2 +4.5																		
30Y	2.135 -0.027	-42.18 -0.68	1.715 -0.033	2.242	0.0 +0.0	56.2 +5.4	1.984	-13.7 -1.3	38.5 +4.7																		
Dow Jones		S&P 500 Index		NASDAQ Composite Index			Bloomberg European 500																				
DJIA 26962.29 +27.22		S&P 500 2993.55 +1.48		CCMP 8124.41 +6.73			BE500 260.41 -2.00																				
Cash Market		Active Futures		Swaption 1Y		3Y		5Y		7Y		10Y		Cap/Flr													
1M LIBOR	2.01838	5 Year	119-02 +0-10+	1Y	46.550	46.700	46.070	44.130	43.570	43.390																	
3M LIBOR	2.10625	10 Year	130-07+ +0-17+	2Y	46.290	45.810	44.970	43.070	42.840	48.960																	
6M LIBOR	2.05850	LONG BOND	162-02 +1-06	3Y	46.630	46.350	43.030	43.560	41.605	49.900																	
1Y LIBOR	2.03338	ULTRA BOND	191-14 +2-06	4Y	42.330	45.750	42.910	39.900	39.985	52.370																	
Fed Funds	1.85000	5Y Swap	100-04 +0-11+	5Y	47.390	41.870	40.535	38.440	38.670	52.360																	
O/N Repo	1.92500	10Y Swap	99-13 +0-21	7Y	42.150	38.440	37.020	36.080	37.005	51.050																	
SOFR	1.86000	30Y Swap	135-25 +0-00	10Y	38.860	37.480	37.180	36.490	35.380	43.741																	
30) Economic Releases		ECO		Date		Time		C		A		M		R		Event		Period		Surv(M)		Actual		Prior		Revised	
31)		09/23 08:30 US		Chicago Fed Nat Activity Index						Aug		-0.03		0.10		-0.36		-0.41									
32)		09/23 09:45 US		Markit US Manufacturing PMI						Sep P		50.4		51.0		50.3		--									
33)		09/23 09:45 US		Markit US Services PMI						Sep P		51.4		50.9		50.7		--									
34)		09/23 09:45 US		Markit US Composite PMI						Sep P		--		51.0		50.7		--									

Source: Bloomberg Finance, LP

Here is a more precise swap model. We have set all the parameters to semi-bond conventions, also highlighted. As you can see, the 10yr swap rate here matches the 10yr swap rate above because they both use semi-bond conventions. The rate in both cases is 1.57%.

91) Actions		92) Products		93) Views		94) Info		95) Settings		Swap Manager	
3) Main		4) Details		5) Curves		6) Cashflow		7) Resets		8) Scenario	
9) Risk		10) CVA		11) Matrix		Trade		CCP		Properties	
Deal		Fixed Float Swap		Counterparty		SWAP TEMPLATE		Ticker / SWAP		20) Properties	
Swap		Leg 1: Fixed		Receive		Leg 2: Float		Pay		Valuation Settings	
Notional		100MM		Notional		100MM		Curve Date		09/23/2019	
Currency		USD		Currency		USD		Valuation		09/23/2019	
Effective		0D 09/23/2019		Effective		0D 09/23/2019		CSA Coll Ccy		N/A	
Maturity		10Y 09/23/2029		Maturity		10Y 09/23/2029		OIS DC Stripping			
Coupon		1.570000 %		Index		3M US0003M					
Pay Freq		SemiAnnual		Spread		0.000 bp					
Day Count		301/360		Leverage		1.00000					
Calc Basis		Money Mkt		Latest Index		2.15888					
Market		Reset Freq		Quarterly							
Leg 1: NPV		102,248,897.17		Leg 2: NPV		-102,251,619.28					
Accrued		0.00		Accrued		0.00					
Premium		102.25		Premium		-102.25					
DV01		95,342.05		DV01		-1,821.24					
Valuation Results		Par Cpn		1.570291		Premium		-0.00272		20) Calculators	
Principal		-2,722.10		BP Value		-0.27221		PV01		93,487.42	
Accrued		0.00						DV01		93,520.81	
NPV		-2,722.10						Gamma (1bp)		96.22	

Source: Bloomberg Finance, LP

Bank Swaps - Monthly Money Conventions

Here's the rub – bank loans use monthly money conventions, not semi-bond conventions. Payments on most commercial real estate loans are made monthly using actual/360 daycount conventions and 1 month LIBOR. Additionally, these loans usually have an amortization (sometimes customized). This means there is a discrepancy between the online published rates and the rates you are locking in with your bank.

As you can see here, the rate for a 10x25 swap is 1.43%, a full 14bps lower than the generic 10 year swap rate. On a \$100mm swap, that is roughly \$1,100,000 in present value. Even on just a \$25mm swap, that's still \$275,000.

You may believe that as long as the rate is close to 1.57%, you are getting a fair deal. But as you can see, that would embed an additional 14 basis points today.

91) Actions	92) Products	93) Views	94) Info	95) Settings	Swap Manager
Solver (Premium)	Load	Save	Trade	CCP	
3) Main	4) Details	5) Curves	6) Cashflow	7) Resets	8) Scenario
9) Risk	10) CVA	11) Matrix			
Deal	Amort Fix Flt Swap	Counterparty	SWAP TEMPLATE	Ticker / SWAP	20) Properties
Swap	Amortizing	Amortizing	Amortizing	Valuation Settings	
Leg 1: Fixed	Receive	Leg 2: Float	Pay	Curve Date	09/23/2019
Notional	100MM	Notional	100MM	Valuation	09/23/2019
Currency	USD	Currency	USD	CSA Coll Ccy	N/A
Effective	0D 09/23/2019	Effective	0D 09/23/2019	OIS DC Stripping	
Maturity	10Y 09/23/2029	Maturity	10Y 09/23/2029		
Coupon	1.430000 %	Index	1M US0001M		
Pay Freq	Monthly	Spread	0.000 bp		
Day Count	ACT/360	Leverage	1.00000		
Calc Basis	Money Mkt	Latest Index	2.04588		
Market		Reset Freq	Monthly		
Leg 1: NPV	100,938,232.56	Pay Freq	Monthly		
Accrued	0.00	Day Count	ACT/360		
Premium	100.94	Leg 2: NPV	-100,887,594.81		
DV01	78,466.73	Accrued	0.00		
		Premium	-100.89		
		DV01	-1,234.91		
Valuation Results				2) Calculators	
Par Cpn	1.423593	Premium	0.05064	PV01	79,037.14
Principal	50,637.75	BP Value	5.06378	BR01 50:USD (v	-78,817.91
Accrued	0.00			DV01	77,231.82
NPV	50,637.75			Gamma (1bp)	74.16

Source: Bloomberg Finance, LP

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