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RESEARCH

Swap breakage costs in European CMBS

Potential additional loss severity from swaps placed in context

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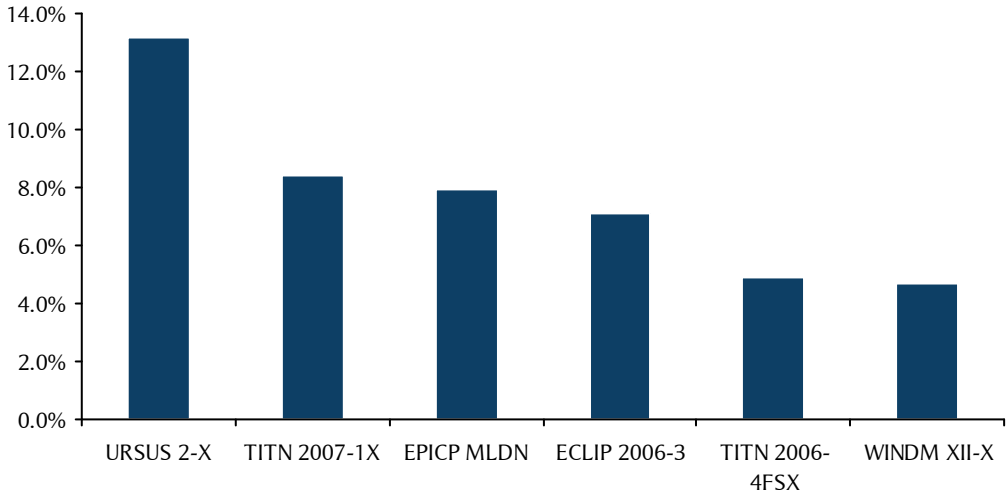
In this report, we analyse swap breakage costs in European CMBS transactions. Swaps are needed to match fixed rate loan assets with floating rate bond liabilities. Swap breakage costs are the result of a default under the swap contract and are paid to make counterparties whole for the default under the swap contract. If due to a default by the issuer, swap breakage costs (if any) are generally senior to bondholders in the priority of payments. As a result, investors should expect additional loss severity from the swap breakage costs in the current rate environment.

CMBS issuers are expected to default on the swap, especially if the loan's interest income cannot cover the swap payments due. This has become more of a concern as the number of delinquent loans has increased dramatically recently. We focus on six single borrower deals, where we expect the greatest impact. The swap breakage costs depend on the remaining balance, the maturity and the swap rate at default. These costs vary at 5-13% for each of our deals, with the weighted average at 7%.

Figure 1: Current swap breakage costs for selected deals, as % of balance



Sources: Bloomberg, Barclays Capital

However, there are three factors that are likely to soften the effect of swap breakage costs on loss severity. First of all, the swap default is unlikely to take place immediately. In fact, we expect special servicers to continue to avoid foreclosure as long as possible (partly to avoid the swap breakage). A one year delay in default reduces the swap breakage costs 25% for our sample. Secondly, if rates increase from where they are now, breakage costs will be reduced – ie, a 20% increase in swap rates reduces costs by 47% Finally, we note the high level of uncertainty around loss severity regarding property value declines (especially in the UK), forced sale discounts and legal and sales costs.

Before we get into the analysis of swap breakage costs, we answer a few basic questions to provide some background.

Why do we need swaps in European CMBS?

Interest rate swaps are needed to match fixed rate loan assets with floating rate bond liabilities

The main reason for having interest rate swaps in European CMBS deals is to allow the issuer to match the fixed rate interest income it receives from the loan assets to the floating rate interest obligation it is required to pay on the bonds. In some instances, there might also be a floating rate loan that has been swapped to a fixed rate on the borrower level. Lenders have traditionally insisted that borrowers take loans with fixed rates (or floating rate loans swapped to fixed) to avoid exposing the loan to interest rate fluctuations. This is especially useful since the income stream is coming from long-term leases and cannot be increased if interest rates increase. The maturity of the swap should be similar to each of the loan maturities to avoid being maturity mis-matched. This is generally the case in most CMBS deals, as far as we can determine.

If there are loans in pan-European transactions denominated in currencies (such as CHF or SKR) different from the bonds (euro), there might be a need for a currency swap. In some cases, if the lease is indexed by an inflation factor, there might also be an inflation swap in the transaction. Finally, there might be a basis swap that allows the issuer to have different interest payment dates on each of the individual loans on the one hand and the bonds scheduled payment dates on the other. For the purpose of this report, we disregard currency, inflation and basis swaps because these are less material and/or less prevalent in European CMBS deals.

What are swap breakage costs?

Swap breakage is a default under the swap contract

Swap breakage costs are the costs affiliated with a default under a swap agreement. An interest rate swap is a contractual agreement between two parties in which the issuer pays fixed and receives floating. At the same time, the counterparty (typically a bank) receives fixed and pays floating. There could be a number of reasons for either the issuer or the swap counterparty to stop meeting its obligations (or default) on the swap. If there are significant loan defaults and/or foreclosures in the pool, the issuer might not receive interest on some of the loans. If the counterparty is in administration, it might not financially be able to meet its obligations, thereby triggering a default.

Swap breakage costs are meant to make the non-defaulting party whole for the default

In order for the non-defaulting party to get compensated, both parties agree in the original documentation that the defaulting party will have to pay for the other party to put in place a new swap in the current market with similar economics. Therefore, the swap breakage costs are effectively a mark-to-market of the swap. Because the current swap rates are generally lower than the locked-in fixed loan rates of most CMBS deals done in 2006 and 2007, the swap counterparty's position is in the money. Breaking the swap will require the issuer to make the swap counterparty whole and pay the swap breakage costs to the swap counterparty. It should be noted that if interest rates had increased, there would not be any breakage costs if the issuer defaults on the swap because it was not in the money for the swap counterparty. We will return to this point later.

Historical counterbalance of increasing property values when rates decline is currently not working

Under normal market circumstances, we would expect initial yields for property to come down when interest rates decline, triggering an increase in values. So, while an interest rate decline will likely result in a large potential swap breakage cost, this should in a normal market be offset by increased property values in any loss severity. In the current market, we have unfortunately not seen this trend. We have seen a decline in rates, but at the same time values have come down as well. In the long term, however, we would expect this causal relationship to return, once banks sort their problems out and are able to lend at lower margins again.

Why does swap breakage matter?

Swap breakage costs are senior to bondholders in the priority of payments, if due to issuer default

The reason we care about swap breakage costs is the potential effect on the payment waterfall. If the swap break is due to the counterparty's default, it will be junior in the waterfall. However, more important, if the swap breakage is due to the issuer's default, the costs to the counterparty (called the swap breakage costs) will be senior to the bondholders in the priority of payments waterfall.

Swap breakage costs from B-notes could pose extra complexity

An additional complexity could be provided when there is a B-note or subordinated loan. In that case, a default and enforcement of the B-note (and it's associated swap) could trigger a swap breakage cost that might rank senior to the bondholders' securitised A-loan.

In general, investors should expect additional loss severity from the swap breakage costs, in the case of a loan event of default.

Problem loans in European CMBS

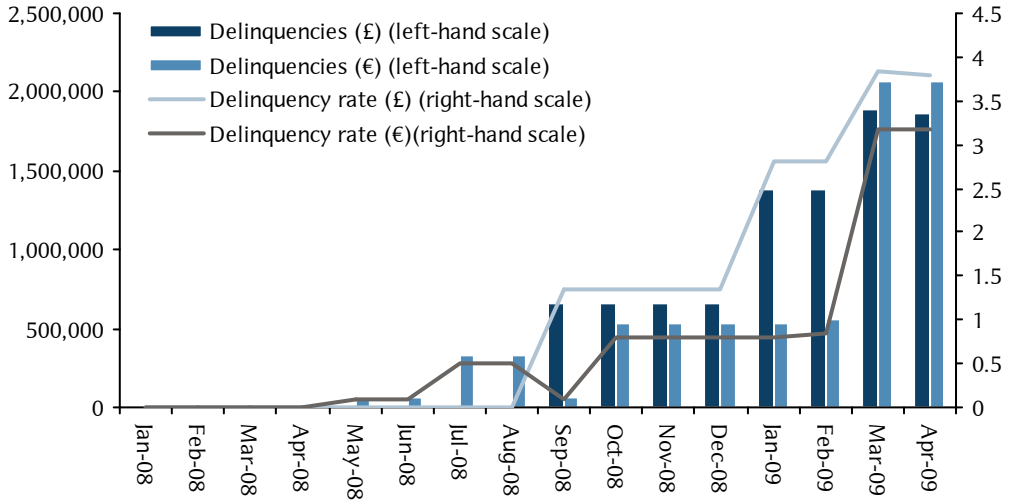
Issuer expected to default on the swap especially if loan cannot cover fixed interest

In general, we would not expect an issuer to default on a swap unless the underlying loan(s) are experiencing problems. In fact, only when the loan has a prolonged shortfall and is unable to cover the interest due would we expect the loan to go into enforcement and the issuer to default under the swap.

Number of delinquent loans increased dramatically in Q1 09

This has become more of an issue since the number of problem loans in European CMBS increased from low levels in the first quarter of 2009. In fact, in S&P's latest (April 2009) European CMBS monthly bulletin reports 22 delinquent loans across the sector. We expect a trend of increasing delinquencies to continue for the next year or so. Of course, more delinquent loans will lead to more defaults and, ultimately, losses. However, as highlighted previously in *CMBS extension risk identified by deal*, 27 March 2009, we do expect some delay in defaults filtering to enforcements and losses. We will return to this point a bit later in more detail.

Figure 2: Delinquent loans in European CMBS



Source: Standard & Poor's

We found 30 loans that were either delinquent or in special servicing

Since we do not generally anticipate swap breakage without a loan default and subsequent acceleration or enforcement, we start by identifying CMBS deals with loan delinquencies. This is because these delinquent loans are the most likely candidates to experience enforcement in future. If we use Bloomberg as an alternative data source, we can identify 30 loans that are either delinquent or in special servicing (Figure 3). Please note that there is a wide range of loan sizes in this list, ranging from the single loan backing the CMBS deal to loans that are less than 1% of the transaction's loan pool. We will focus on the larger loan exposures in our later analyses, since we expect the biggest impact of any swap breakage in transactions with a single loan (and swap) exposure. In multi-borrower deals, we would not expect all loans (and swaps) to default at the same time. This should limit the overall impact of swap breakage in multi-borrower deals, with potential swap breakage costs to differ per loan as they each have different rate fixing dates and maturities.

In some situations, we can see material swap breakage for smaller loans in deals that have not defaulted

But, before we do so, we highlight the fact that swap breakage can also be relevant for smaller loans. In fact, the disclosure from Eclipse 2007-1 on 21 May 2009 showed that swap breakage can come about when a loan is not in default (yet). The circumstances for the GBP4.6mn swap breakage costs to be paid to the swap counterparty from property sale proceeds are pretty complicated. The Agora Max portfolio loan consists of a one-third interest in a senior A tranche loan (GBP63.3mn), secured by three shopping centres. A compulsory purchase order was served on one of the centres by the Birmingham City council and an agreement was reached to sell the property, resulting in a GBP27.4mn loan pre-payment. As a result, a pro-rata portion of the hedging has been terminated at a cost of GBP4.6mn. If we assume the swap breakage is in fact the entire cost to the loan, the loss due to swap breakage is just over 5%.

Figure 3: Delinquent and special serviced loans in European CMBS

	Loan Name	Deal Ticker	Property Type	Loan Status	SS Date	Mth Late	Crncy	Curr Loan Balance	Curr Bal as % of Deal
1	Coeur Defense	WINDM XII-X	Office	Del >12 mo ss	12/17/2008	0	EUR	1,519,000,000	100.0%
2	Four Seasons	TITN 2006-4FSX	Health Care	Del >12 mo ss	09/01/2008	0	GBP	598,300,596	99.7%
3	More London	EPICP MLDN	Mixed Use	Del >12 mo ss	01/30/2009	0	GBP	665,938,889	99.4%
4	LIBRA	TITN 2007-1X	Health Care	Del >12 mo ss	11/24/2008	0	GBP	626,768,504	98.2%
5	Woodlea Ltd	URSUS 2-X	Retail Un	Late 2-3 Months		2	GBP	341,230,336	97.0%
6	Gemini	ECLIP 2006-3	Warehouse	Del >12 mo ss	10/17/2008	0	GBP	850,362,550	92.5%
7	DIVA Multifamily	TITN 2006-5X	Multi Family	Del >12 mo ss	09/15/2008	0	EUR	240,700,059	36.4%
8	KWG	ECLIP 2005-3	Multi Family	Late 7-12 Months(w)		11	EUR	163,811,318	25.1%
9	GAB	ECLIP 2005-3	Multi Family	Late 7-12 Months(w)		11	EUR	129,424,416	19.9%
10	Bremische	ECLIP 2005-3	Multi Family	Late 7-12 Months(w)		11	EUR	112,865,826	17.3%
11	BBG	ECLIP 2005-3	Multi Family	Late 7-12 Months		11	EUR	109,109,629	16.7%
12	Mangusta Portfolio	TITN 2006-1X	Mixed Use	Del >12 mo ss	01/18/2009	0	EUR	120,360,200	16.6%
13	Karstadt Kompakt	DECO 7-E2X	Retail Un	Del >12 mo ss	08/01/2008	0	EUR	238,884,281	15.4%
14	GEWG	ECLIP 2005-3	Multi Family	Late 7-12 Months(w)		11	EUR	99,823,414	15.3%
15	Portier	TITN 2007-2X	Multi Family	Del >12 mo ss	10/22/2008	0	EUR	133,971,341	8.0%
16	Loews	TITN 2007-CT1X	Multi Family	Special		6	EUR	99,109,376	7.5%
17	Monnet Portfolio	TITN 2006-3X	Office	Late 2-3 Months(w)		2	EUR	69,005,400	7.3%
18	Cherry	TMAN 6	Mixed Use	Special		14	EUR	59,288,625	5.5%
19	Metro	TITN 2007-3X	Retail Un	Special		11	GBP	39,299,218	5.0%
20	Labrador Portfolio	TITN 2006-2X	Multi Family	Del >12 mo ss	06/24/2008	0	EUR	42,518,381	4.9%
21	Ostend	ECLIP 2007-2X	Retail Anch	Del >12 mo ss	11/20/2008	0	EUR	26,691,000	3.1%
22	Amadeus Portfolio	WINDM VIII-X	Office	Del >12 mo ss	12/08/2008	0	GBP	30,007,007	2.9%
23	Holmewood Chesterfield	TITN 2007-3X	Warehouse	Special		8	GBP	18,317,500	2.4%
24	Peacock Place SC	TITN 2006-CT1X	Retail Anch	Special		2	GBP	13,136,500	2.3%
25	Market Way	ECLIP 2005-2	Retail Anch	Del >12 mo ss	01/19/2009	0	GBP	7,670,000	1.9%
26	Paladru Services Corp	DECO 2006-C3X	Retail Anch	Del >12 mo ss	04/28/2008	0	GBP	5,895,471	1.3%
27	Jubilee Way	TITN 2005-CT1X	Retail Anch	Del >12 mo ss	04/22/2009	0	GBP	6,681,884	1.1%
28	LMG Overseas Invst Ltd	DECO 2005-C1X	Warehouse	In Foreclosure		0	GBP	1,448,500	0.6%
29	Apex	ECLIP 2007-1X	Office	Del >12 mo ss	07/25/2008	0	GBP	4,370,500	0.5%
30	Kashani Invst Ltd	DECO 2005-C1X	Retail Un	REO	12/05/2006	0	GBP	1,117,911	0.5%

Source: Bloomberg

How big can the swap breakage costs be?

The size of the swap breakage costs depend on the following three parameters at the time of swap default:

- The size of the loan
- The maturity of the swap and/or loan
- The difference between the loan's fixed rate and the current swap rate

Swap breakage costs are significant, but vary at 5-13% in our six deal sample, with the average at 7%

To make our discussion more relevant, we have looked at an unrepresentative sample of six large single borrower deals with loans in breach of covenants or in payment defaults. As the current swap rate is lower than the locked-in fixed loan rates, the swap counterparty is in the money – breaking the swap will require the issuer to make the swap counterparty whole. To calculate the breakage costs involved with this, we discount the difference between the fixed rate and the current swap rate for the remaining maturity of the swap. We used a 1.25% rate, based on current 3mth Libor, to discount the cash flows to arrive at the swap breakage costs. We also double-checked our own calculations on the swap breakage cost for one of the loans backing one of the CMBS transactions in our sample on a no-name basis with JC Rathbone, a reputable third party swap advisor. We present the results of this analysis in Figure 4. The bottom line is that swap breakage costs are significant, but vary widely between each of the deals and amount to 5-13% of the current loan balance. On a weighted average basis, this is almost 7% for the six deals in our sample.

Figure 4: Potential swap breakage costs for six large single borrower CMBS, assuming current swap default

Deal name	Loan name	Current loan balance	(Est.) loan interest rate	Loan origination date	Current remaining maturity	Current swap rate	NPV of breakage costs at 1.25% discount	breakage cost as % of curr balance
URSUS 2-X	Woodlea Ltd	341,230,336	5.44%	02/03/2006	8.4	3.70%	44,935,041	13.2%
TITN 2007-1X	LIBRA	626,768,504	4.81%	01/15/2007	7.9	3.70%	52,794,731	8.4%
EPICP MLDN	More London	665,938,889	4.90% *	04/27/2006	5.1	3.25%	52,938,331	7.9%
ECLIP 2006-3	Gemini	850,362,550	4.62% **	08/04/2006	7.1	3.55%	60,623,338	7.1%
TITN 2006-4FSX	Four Seasons	598,300,596	5.50% *	08/31/2006	1.3	1.65%	29,490,994	4.9%
WINDM XII-X	Coeur Defense	1,519,000,000	4.05%	07/10/2007	3.1	2.45%	71,126,475	4.7%
Total/Wght Avg		4,601,600,875	4.67%		4.9	2.93%	311,908,911	6.8%

*Note: * The fixed rate on the More London and Four seasons were not disclosed, as far as we could discern and have been estimated based on historical swap rates for the relevant maturities. ** Please note that this swap exceeds the loan maturity by 10 years, with the swap counterparty having an option to cancel at the loan maturity. As we do not find sufficient details to price this, we have assumed this option is exercised at loan maturity with no costs to the issuer. This is because we expect the counterparty to take a commercial view in case of any significant losses to the bondholders. If this is not the case, the breakage costs could be significantly higher. In fact, in a February 2009 report from the servicer, these costs were estimated at GBP120mn and mentioned as one of the factors considered in the servicer's decision on loan enforcement.*
Source: Bloomberg, Barclays Capital

The lack of disclosure of swap details makes breakage costs estimates difficult, but not impossible

As indicated in our note to Figure 4, in some cases the fixed rate on the loan is not (explicitly) disclosed. In general, we believe that the lack of public disclosure of the full swap details makes it difficult for investors to calculate the mark-to-market (or breakage costs) on the swaps. However, with the convenience of Bloomberg offering historical swap rates, this can in most cases be addressed.

So, if we recap for a moment, we have concluded that swap breakage costs can be a significant factor in CMBS loss severity. However, there are three factors, which we will discuss in more detail, that can limit the damage for bondholders and place the breakage costs in a broader context:

- Timing of swap default
- Swap rate changes
- Overall uncertainty of loss severity

Timing of swap default

Timing of swap default is the most important assumption

Of course, the biggest assumption in the swap breakage cost estimate is the timing of the swap default. In our calculation, we have assumed there is a current swap default. This is in fact not the case in any of these loans and brings us back to the issue of possible loan maturity extension.

Special servicers will continue to avoid foreclosure as long as possible, partly to avoid the swap breakage

Special servicers will take any potential swap breakage into account in their decision making. Given the significant (5-15%) additional loss severity that swap breakage costs can trigger, it provides an additional reason for servicers to avoid loan enforcement and focus instead on waiving covenant breaches, (partial) loan restructuring and/or loan maturity extension. In fact, we expect special servicers to continue to avoid foreclosure as long as possible (partly to avoid the swap breakage). Apart from avoiding enforcement in a historically weak commercial property market, keeping the loan (and swap) going will reduce the potential swap breakage costs. Depending on the remaining maturity of the swap, each year the loan is not enforced and the swap not broken will mean lower swap breakage costs, assuming all else to be equal. If swap rates increase in the future, to be closer to the fixed loan rate originally put in place, this would further reduce the potential swap breakage costs.

One year delay in swap default reduces swap breakage by 25% to an average of 5%

In fact on our sample of six single borrower CMBS deals, we note that the potential swap breakage costs reduce 25% if we assume the loan (and swap) has not defaulted for another year. On a weighted average basis, swap breakage costs are almost 7% of the remaining outstanding loan balance, without any extensions. When we do take the one year extension into account, the weighted average loss goes down to 5%. If we extend this to two years, the costs reduce 44%. Of course, there are significant differences between the deals. On a weighted average basis, the swap breakage is below 4% after two years, with a range of 0-10%.

Swap rate changes

Swap rate changes also impact the breakage costs

As previously mentioned, swap breakage costs can go both ways. In other words, depending on how rates have moved, the swap could be in or out of the money for the swap counterparty in case of an issuer default. If swap rates were to increase from where they are now, this will reduce the swap breakage costs.

20% swap rate increase across the curve reduces the swap breakage costs by 47%

In fact, on our sample of six single borrower CMBS deals, we note that the potential swap breakage costs reduce 47% if we assume that swap rates increase by 20% across the curve (ie, a 2% rate would increase to 2.4%). On a weighted average basis, swap breakage costs are almost 7% of the remaining outstanding loan balance, without any change in swap rates. The weighted average loss goes down to 3.6%, when we increase rates by 20%. If we increase by 40%, the costs reduce 79%. Of course, there are significant differences between the deals. On a weighted average basis, the swap breakage is only 1.4% if we assume a 40% increase, with a range of 0-3.2%.

Overall uncertainty regarding loss severity

There is a high degree of uncertainty regarding the other elements making up the loss severity

In addition to the softening effect of loan extensions on swap breakage costs, we also highlight the high degree of uncertainty surrounding the loss severity assumptions. In case of enforcement, loss severity will be determined by the options available to the special servicer at that time. These include enforcing the collateral and selling the properties in the open market. The sales price will, in turn, be dependent on the availability of both debt and equity capital in the investment markets at the time, any forced sale discount and legal and sales costs.

These uncertainties make additional swap breakage potentially less relevant…

Given the high degree of uncertainty surrounding market values at the moment, it seems that an additional 5-15% loss severity due to swap breakage costs is perhaps less material in all cases as certain opportunistic buyers would like to make distressed CMBS sellers believe. UK commercial property values have already come down approximately 35-40% from their peak and are generally expected to have another 5-10% to go. Evidence of forced sale discounts remains scarce, but could well be 10-25%, with legal and selling costs of 5-10% as well.

… especially given the big differences on the loan and property level

This general market uncertainty is further amplified by the large differences in the loss that can be realised on individual loans depending on the specific properties underlying these deals, which range from the highest to below average quality. The values of individual properties can materially deviate from market trends on the upside as well as the downside. Forced sale discounts will depend on the property type and location as well as the timing of the default, with secondary property sales close to the bottom of the cycle expected to have the biggest possible forced sales discount.

All of this serves to put the swap breakage costs into the overall context of the loss severity estimate. If many of the other elements are worse than expected, an additional 5-15% hit from the swap breakage might not have as big of an effect.

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