

Slowing prepayments in European CMBS

Securitisation Research

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Wide variation among conduits

- Prepayments provide valuable information to investors as they affect returns and can lead to unexpected re-investment requirements. Indirectly, these risks are an obstacle to trading in the secondary market, which makes the notes less liquid. Overall, prepayments have declined to approximately half their highs of 2005. As an issue facing investors, reinvestment risk has clearly been eclipsed by the significant spread widening of recent months.
- For the first time, we compare prepayment rates among conduit programmes. On average, Taurus and White Tower stood out with the highest CPRs at 39% and 31% pa respectively after eight months of issuance. On the other hand, Eclipse and Opera loans had the lowest CPRs at 4% and 2% pa respectively.
- On aggregate, redemptions have remained relatively stable over the past year at approximately 17%. In single-borrower transactions, however, redemptions have increased steadily over the past 12 months from 8% to 13% a year. Over the same period, multi-borrower redemptions have fallen from 25% to 21% a year. Finally, redemptions in UK and continental European transactions over the past 12 months were stable and of similar magnitude at approximately 17% a year.
- By vintage, 2006 transactions have had significantly lower prepayments than the 2004 and 2005 vintages. In the 2007 vintage, prepayments appear to be even lower, although this is based on limited data. After six quarters, cumulative prepayments in 2006 transactions were 16% on average, compared to 25% in the 2005 vintage and 34% in the 2006 vintage.
- This is our third annual review of prepayments in European CMBS, and our findings remain consistent with previous reports, despite including more data and refining our methodology. We considered a sample of 243 European CMBS transactions issued between 1998 and H1 07 totalling €180.4bn. This is a significant increase from our 2006 report, which considered 146 transactions totalling €93.7bn.

Methodology

This report updates our *European CMBS prepayments update*, September 2006. In our analysis, we have included floating rate European CMBS transactions with synthetic, single or multiple-borrower structures. We did not include credit tenant lease (CTL) because prepayments seem to be driven by corporate rather than property decisions in these cases. We also excluded housing association and government-sponsored transactions.

We analyse 243 transactions totalling €180bn

In total, we considered 243 transactions that issued from 1998 to H1 07. This sample represents issuance of €180.4bn. For comparison, our previous report captured transactions totalling €93.7bn. The difference equates to those transactions included since December 2005, which was the cut-off point for our previous report.

Figure 1: Included transactions by issue date

Type	1998-2001	2002-2003	2004-005	2006	2007	Total
Multi-borrower	11	12	43	33	19	118
Single-borrower	10	14	37	25	9	95
Synthetic	5	9	5	4	7	30
Total	26	35	85	62	35	243

Source: Barclays Capital.

Changes to our methodology and dataset

Our methodology has changed slightly from last year. In terms of our dataset, we have redefined several transactions as *corporate* or *whole business* and so have not included them this year. These tended to be older deals, which at the time were a significant part of the market. Their omission makes our pool of older deals smaller, which makes the CPR in earlier years appear more volatile compared to last year's report.

Another change is that this year we have calculated CPR based on a six-month rather than three-month period as used previously. This change has the benefit of smoothing prepayment rates, which appear more volatile than is realistic because of the dynamic nature of our pool and the fact that Servicers only report prepayments quarterly rather than monthly. A side effect of this change was that the magnitude of prepayments appears to have increased by approximately 50% due to the greater emphasis given to larger CPRs in the pool calculation. Regardless, the direction and relative size of changes in prepayment levels is consistent with the previous analysis.

By using note repayments rather than loan prepayments, we have captured scheduled bullet redemptions. As a result, our figures will exaggerate slightly prepayment rates in CMBS, although we consider this method a useful proxy. However, since there has been a marked increase in IO loans, and scheduled amortisation has been less common in the pools, this exaggeration is probably not that significant.

For the sections *Prepayments by Conduit* and *Prepayments by Vintage* our analysis is based on loan-level prepayments rather than note-level redemptions. This involved manually entering this data from the quarterly investor reports.

Repayment rates over time

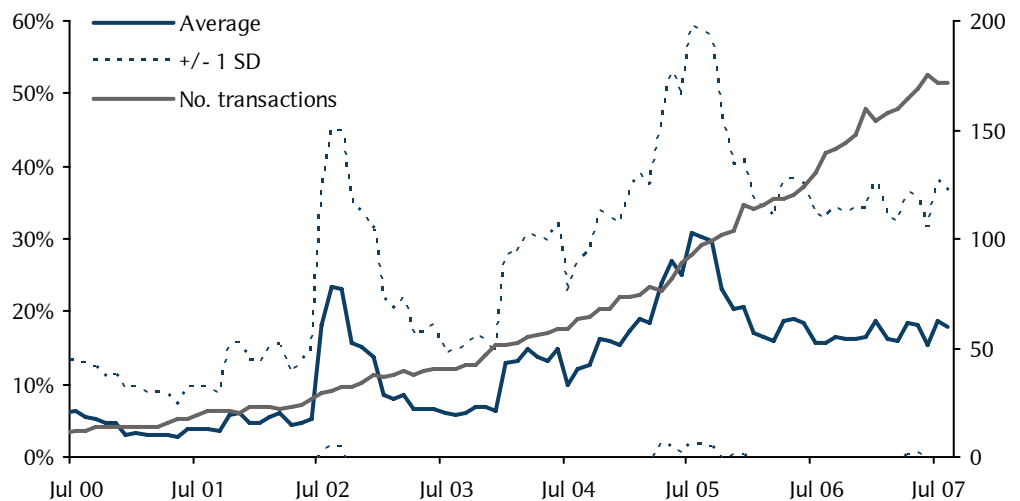
In this section we include all 243 transactions referred to in the methodology and measure total payments, rather than explicit prepayments, because total payments are readily available from Bloomberg in the form of note principal redemptions. For clarity, we refer to *repayments* in this section, which include prepayments and scheduled amortisation.

Stable and lower repayment rate at c.17% a year since 2006 and expected to remain low through 2008

The repayment rate in European CMBS has decreased since the highs of 2005 on the back of higher borrowing costs and slowing capital appreciation in property values. Since peaking at 30% in July 2005, the repayment rate has remained relatively stable through 2006 and 2007 at approximately 17%. We expect initial yields to widen through 2008, especially in the UK, and commercial property values to fall as a result. This is likely to cause prepayments to remain low as borrowers may have less incentive to refinance.

A repayment rate of 17% a year corresponds to a WAL of approx 5.9 years, which seems reasonable given that notes in European CMBS tend to have average lives of between four and seven years at issuance.

Figure 2: Chronological repayment rate for all CMBS studied, 2000-2007



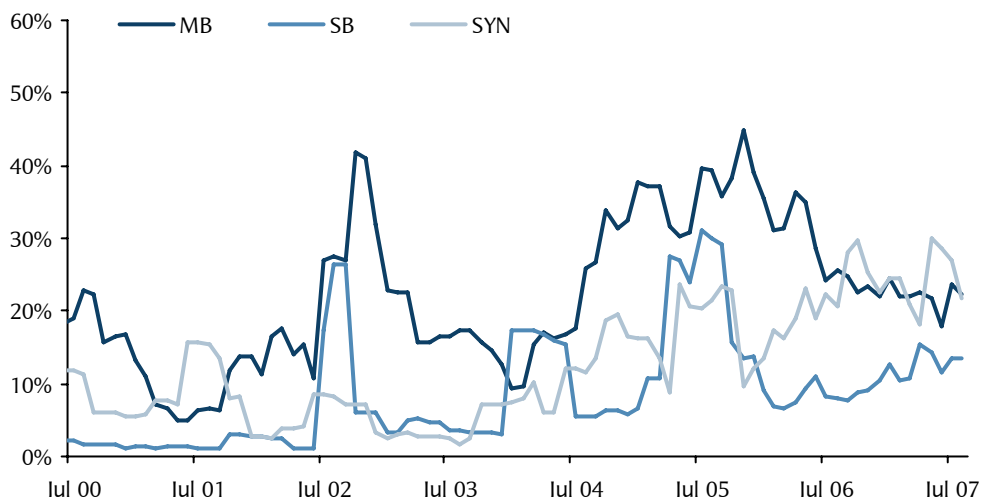
Source: Barclays Capital.

Repayment rates in single- and multi-borrower transactions have converged

In the next step of our analysis, we decompose the curve in Figure 2 to reveal how each constituent transaction type contributed to the total. In this way, we see that multi-borrower transactions have repaid considerably faster than single-borrower or synthetic transactions over time, as shown in Figure 3. This difference has largely closed now, however. Since the beginning of 2006, the rate of repayment in multi-borrower transactions has nearly halved from 36% to 20% a year, while in single-borrower transactions, it has doubled from 7% to 14% a year. Synthetic transactions have been more volatile since 2006 but are currently repaying at 20% a year, in line with multi-borrower transactions.

Overall, we see that repayments are highest in multi-borrower transactions but more volatile in single-borrower transactions. This is not surprising given the binary nature of single-borrower prepayments.

Figure 3: Chronological repayment rate by deal type



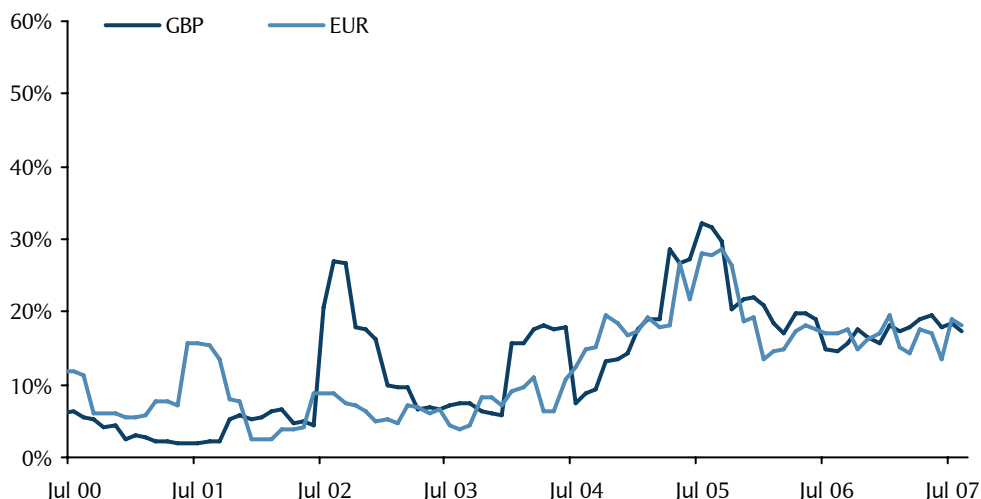
Source: Barclays Capital.

Another way to decompose the repayments is by jurisdiction. We use currency as a proxy for region, where Sterling-denominated deals tend to have UK-based collateral and Euro-denominated deals tend to have collateral in continental Europe. Historically, it appears that loans in the UK have tended to repay faster than loans in Europe, and have also been more volatile, as Figure 4 shows.

Stable repayments at c.17% a year since 2006 in both UK and European transactions

Since 2005, however, borrower behaviour appears to have converged in the UK and Europe, and in 2005 both regions have contributed approximately equally to the high repayment rates. Since then, repayments in both regions have fallen together and remained relatively stable since 2006 at around 17% a year.

Figure 4: Repayment rate by currency



Source: Barclays Capital.

Prepayments by conduit

Comparison of prepayments among conduits

In H1 07, 70% of European CMBS issuance came from conduit programmes. As this is now the dominant source of supply in the market, we believe it is interesting for investors to compare prepayment rates among these programmes.

In this analysis, we refer to prepayments rather than repayments. That is, we read through all the publicly available quarterly investor reports for 10 of the largest European CMBS conduit programmes and recorded the loan principal prepayments, while excluding scheduled amortisation. These conduits are listed in Figure 5, ranked in order of highest to lowest CPR, based on prepayments over the first eight quarters. A detailed list of the transactions included for each conduit is included in the Appendix.

Figure 5: Conduit programmes included, ranked by CPR

Conduit name	Arranger	No. transactions included	Total issuance (€ mn)	Average CPR pa (over 8 qtrs)
Taurus	Merrill Lynch	2	774.5	39%
White Tower	Société Générale	5	3,927.0	31%
Talisman	ABN Amro	4	2,527.4	20%
Windermere	Lehman	7	6,305.5	20%
Titan	Credit Suisse	10	6,377.7	14%
DECO	Deutsche Bank	11	10,286.4	7%
EPIC	Royal Bank of Scotland	5	3,495.5	7%
ELoC	Morgan Stanley	9	6,222.0	6%
Opera	Eurohypo	11	6,977.1	4%
Eclipse	Barclays Capital	9	7,295.0	2%
Total		73	54,188.2	20%

Source: Barclays Capital.

Unfortunately, the investor reports were not publicly available in all cases, and we were unable to include the following transactions in our analysis:

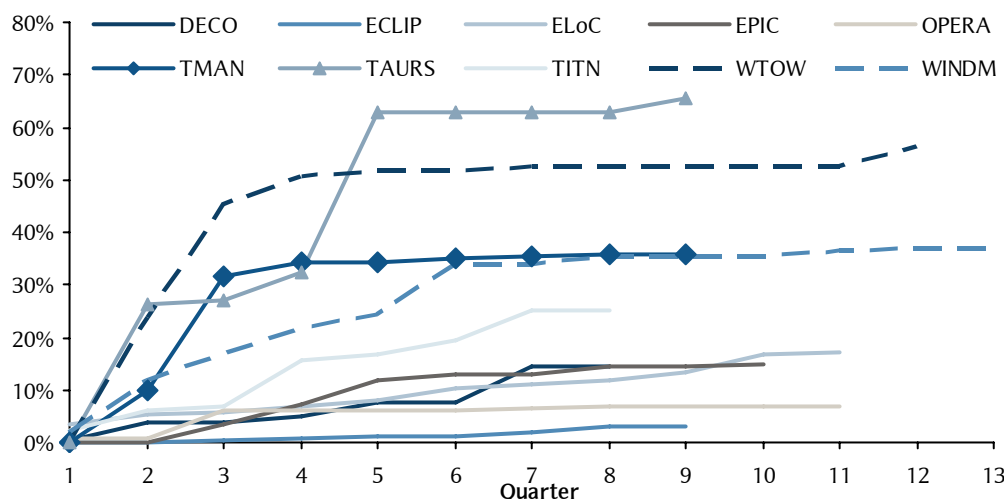
- Epic (Brodie) plc
- Epic (More London) plc
- Taurus CMBS (UK) 2006-2 plc
- Taurus CMBS (UK) 2006-3 plc

CPRs were highest in Taurus and White Tower; lowest in Eclipse and Opera

Of the 10 programmes, two stand out with particularly high prepayments, Taurus and White Tower, as illustrated in Figure 6. In the case of White Tower, half the loan principal was prepaid within the first year on average across the five transactions analysed. Two transactions in particular, White Towers 2006-1 and 2006-2, completely prepaid after two and three quarters respectively.

In the Taurus programme, on the other hand, no transaction has prepaid in its entirety. Rather, the transactions have experienced numerous significant partial prepayments since issuance. After five quarters, two-thirds of the loan principal backing these transactions had been prepaid. Again, these figures exclude scheduled amortisation, which would increase redemptions further.

Figure 6: Cumulative prepayment profile by conduit programme



Source: Investor reports, Barclays Capital.

Next, the Talisman and Windermere programmes have experienced slightly lower prepayments. In both programmes, approximately 35% of loan principal had prepaid after six quarters. This is a cumulative amount, as opposed to the CPRs in Figure 5, which are annualised.

Finally, several programmes stand out with consistently low prepayments. Eclipse and Opera had prepayments totalling just 3% and 7% respectively after eight quarters. Similarly, after eight quarters ELoC, Epic and Deco all had total prepayments below 15%.

Prepayments stabilise after four to six quarters

In general, we observe a trend for prepayments to stabilise after four to six quarters. This may lead us to favour transactions with at least six quarters of seasoning in the secondary market, although these are not very common yet.

Prepayments by vintage

We analyse the trend in prepayments by vintage using the same subset of 73 conduit transactions shown in Figure 7.

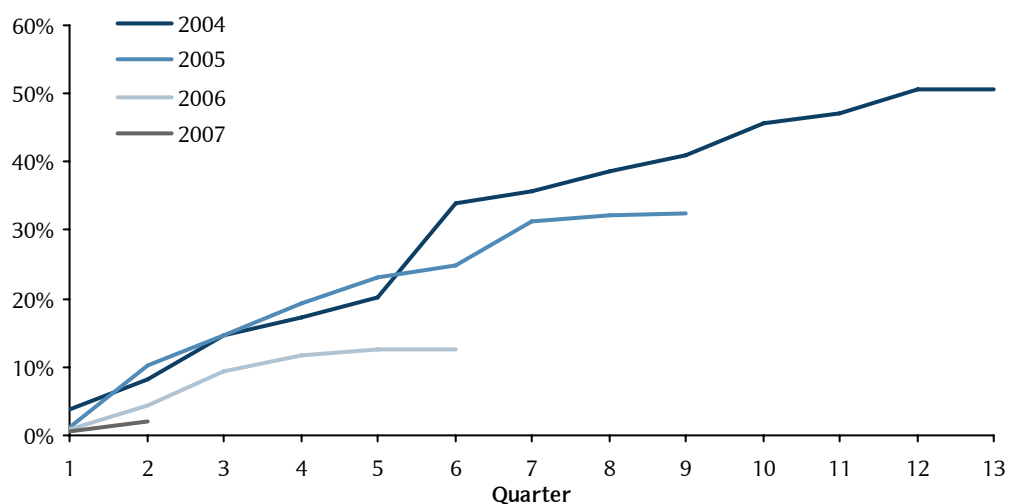
Recent slowing observed in all vintages

The vintages 2004 and 2005 behaved similarly with prepayments of approximately 20% after four quarters in both. In the 2004 vintage, over half the total principal had been prepaid after three years. Recently, the rate of prepayment appears to have slowed in both the 2004 and 2005 vintages.

Prepayments in 2006 vintage below 2005

This slowdown continued into subsequent vintages, with 2006 clearly lagging 2004 and 2005. After six quarters, prepayments in the 2006 vintage were just half that of 2004 and 2005 at 13%. Finally, prepayments in 2007 have been slower than in all of the previous vintages, although this is based on very limited data.

Figure 7: Cumulative prepayments by vintage



Source: Investor reports, Barclays Capital.

**Results from our sample
are consistent with
similar rating
agency analysis**

These results closely mirror those of S&P reported in its 19 July 2007 publication, *European CMBS Performance Review H1 07*. Specifically, they show the same convergence of 2004 and 2005 vintages until the fifth quarter, at approximately 25%, when the 2004 prepayments accelerated quicker than those of the 2005 vintage. Similarly, they show the 2006 vintage lagging the 2005 vintage by 5% after four quarters. They do not include the 2007 vintage in their analysis. S&P has access to significantly more transaction data than we have, but our sample of conduit transactions clearly provides a close approximation.

Appendix: Included conduit transactions

Conduit	Issuer	Date priced	Issuance (€ equivalent)
DECO	DECO Series 2005-UK Conduit 1 plc	Jun 2005	349,316,607
	DECO Series 2005-Pan Europe 1plc	Aug 2005	897,015,000
	DECO 5 - UK Large Loan 1 PLC	Sep 2005	418,805,660
	Deco 6 UK Large Loan 2	Nov 2005	809,364,831
	DECO 7 - Pan Europe 2 plc	Mar 2006	1,556,098,000
	DECO 8 - UK Conduit plc	Apr 2006	911,989,515
	DECO 9 - Pan Europe 3 plc	Jul 2006	1,154,054,487
	DECO 10-Pan Europe 4 plc	Nov 2006	1,038,820,769
	DECO Series 2006-C3X plc	Dec 2006	656,538,734
	DECO 12 – UK 4 PLC	Feb 2007	1,003,404,183.88
	DECO 14 - Pan Europe 5 plc	Mar 2007	1,490,993,076
Eclipse	Aquila (Eclipse 2005-1) Plc	Mar 2005	631,407,385
	Bellatrix (Eclipse 2005-2)	Aug 2005	569,275,740
	Centaurus (Eclipse 2005-3) plc	Dec 2005	651,586,000
	Draco (Eclipse 2005-4) plc	Dec 2005	419,972,079
	EQUINOX (ECLIPSE 2006-1) PLC	Jun 2006	587,521,626
	Fornax (Eclipse 2006-2) plc	Sep 2006	545,134,000
	Gemini (Eclipse 2006-3) plc	Oct 2006	1,368,644,949
	Hercules (Eclipse 2006-4) plc	Nov 2006	1,204,903,575
	Indus (Eclipse 2007-1) plc	Mar 2007	1,316,569,254
EPIC	Epic (Ayton)	Dec 2005	796,870,370
	EPIC (Caspar) PLC	Sep 2004	782,845,865
	EPIC (Culzean) p.l.c.	Feb 2007	820,122,020
	Epic (Industrious)	Sep 2006	730,345,000
	Epic Unite	Feb 2005	365,324,603
ELoC	European Loan Conduit 18	Jun 2004	419,350,000
	European Loan Conduit 19	Aug 2004	813,236,850
	European Loan Conduit 20	Aug 2004	340,200,000
	Odysseus (European Loan Conduit No 21) FCC	Nov 2005	326,800,000
	Perseus (European Loan Conduit No. 22) plc	Dec 2005	760,229,156
	Quirinus (European Loan Conduit No. 23) plc	Jun 2006	700,819,601
	Radamantis (European Loan Conduit No. 24) plc	Aug 2006	727,702,613
	SILENUS (European Loan Conduit No. 25) Ltd.	Feb 2007	1,245,500,000
Triton (European Loan Conduit No. 26) PLC	Apr 2007	888,202,827	
Opera	Opera Finance (CMH)	Jan 2006	375,000,000
	Opera Finance (CSC3) Plc	Apr 2005	1,043,416,000
	Opera Finance (Fosse) Plc	Apr 2005	345,121,000
	Opera France One FCC	Jul 2006	379,900,000
	Opera Germany (No. 1) GmbH	Sep 2006	254,000,000
	Opera Germany (No. 2) plc	Dec 2006	560,000,000
	Opera Finance (Lakeside)	Aug 2004	824,890,000
	Opera Finance (MEPC)	Nov 2005	691,370,000
	Opera Finance (MetroCentre) Plc	Jan 2005	865,500,000
	Opera Finance (Scot) Plc	Apr 2005	628,961,000
	Opera Finance (Uni-Invest) Plc	May 2005	1,008,900,000

Conduit	Issuer	Date priced	Issuance (€ equivalent)
Talisman	TALISMAN-1 Finance plc	May 2005	554,300,000
	Talisman-3 Finance PLC	May 2006	689,850,000
	TALISMAN-4 FINANCE PLC	Jul 2006	739,000,000
	Talisman-5 Finance plc	Dec 2006	544,250,000
Taurus	Taurus CMBS 1 Plc	Feb 2005	370,628,265
	Taurus CMBS 2 Plc	Nov 2005	403,900,000
Titan	Titan Europe 2004-1 Plc	Nov 2004	282,093,072
	Titan Europe 2004-2X	Dec 2004	267,969,441
	Titan Europe 2005-1X	Jun 2005	348,803,075
	Cornerstone Titan 2005-1	Sep 2005	873,204,589
	Cornerstone TITAN 2005-2 plc	Dec 2005	587,462,152
	Titan Europe 2006-1 plc	Mar 2006	723,303,029
	Cornerstone Titan 2006-1	Jul 2006	826,819,645
	Titan Europe 2006-2 plc	May 2006	863,368,457
	Titan Europe 2006-3 plc	Jun 2006	943,750,559
	Titan Europe 2006-5 PLC	Dec 2006	660,968,755
Windermere	Windermere IV CMBS Plc	Oct 2004	609,970,120
	Windermere V CMBS Plc	Apr 2005	641,645,000
	Windermere VI CMBS Plc	Oct 2005	1,011,502,800
	Windermere VII CMBS Plc	Apr 2006	782,250,000
	Windermere VIII CMBS plc	Jul 2006	1,499,814,108
	Windermere IX CMBS (Multifamily) SA	Nov 2006	1,300,150,000
White Tower	White Tower 2004-1 PLC	Mar 2004	306,504,000
	White Tower 2005-1 PLC	Apr 2005	814,872,740
	White Tower 2006-1 plc	Mar 2006	774,519,500
	White Tower 2006-2 plc	Jun 2006	330,755,110
	White Tower 2006-3 plc	Nov 2006	1,700,390,000

Source: Barclays Capital.

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