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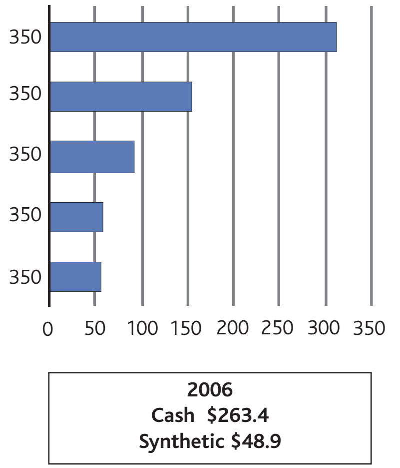
Global CDO market: overview and outlook

Anthony Thompson, Elen Callahan, Conor O'Toole and Ganesh Rajendra
Deutsche Bank

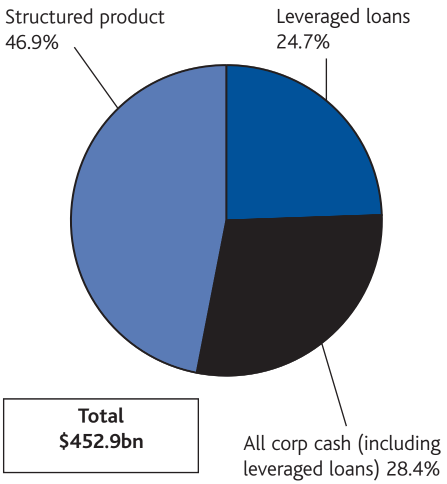
The year 2006 was a banner year for the global collateralised debt obligation (CDO) market. In the United States, issuance reached a new high of $312 billion, an increase of 102 per cent on 2005 (itself a record year). In 2006 CDOs represented the second largest asset-backed securities (ABS) sector in the United States, second only to home equity ABS (the total ABS market size in 2006 was $1.2 trillion; home equity ABS accounted for $630 billion of that). As has been the case for the past few years, new issue volume has been led by structured product CDOs and corporate collateralised loan obligations, and 2006 was no exception. Cash and synthetic US structured product CDOs (backed by residential mortgage-backed securities, commercial mortgage-backed securities and/or ABS collateral), at $170 billion, comprised 54 per cent of the market, while collateralised loan obligations, at $88 billion, accounted for 28 per cent. These two sub-sectors witnessed robust growth as demand for yield products continued. Despite housing market woes and slower home equity ABS origination, demand for structured product CDOs was bolstered by a synthetic market, innovations to the cash-flow structure (with CDO vehicles taking both long and short positions on the mortgage market) and an increase in commercial mortgage-backed securities CDOs, offering investors various alternatives to housing market exposure. Indeed, the issuance of US commercial mortgage-backed securities CDOs grew more than 100 per cent over 2005 to $18 billion. In addition, synthetic commercial mortgage-backed securities CDOs, which were not available previously, contributed another $2.8 billion to the commercial mortgage-backed securities CDO total. Demand for corporate collateralised loan obligations continued unabated, encouraged by still-strong corporate balance sheets and the continuation of a

Figure 1: US CDO market (US $bn)



Source: Thomson Financial Securities Data, Deutsche Bank

Figure 2: US CDO issuance (2006)



Source: Thomson Financial Securities Data, Deutsche Bank

benign credit environment. Compared to 2005, issuance of structured product CDOs increased by 150 per cent, while collateralised loan obligations issuance increased by 91 per cent (see Figure 1). Growth in the European CDO market mirrored that of the United States, with leveraged loan collateralised loan obligations and bank balance sheet securitisations driving total issuance up by 54 per cent to €87.4 billion. Collateralised loan obligations of leveraged loans grew by a staggering 182 per cent as an influx of debut managers entered the market, attracted by an asset class still offering very attractive risk reward opportunities. Large cap bank balance sheet collateralised loan obligations experienced a renaissance, growing from €4 billion to €15.4 billion for the full year, with issuance motivated to a large extent by regulatory capital relief on bank corporate loan portfolios (see Figure 2).

Innovations

The year 2006 brought innovation to the CDO market. Driven primarily by concerns about the US housing market, high-grade structured product CDO products, which appeared in 2003, proliferated in 2006 and have grown to represent nearly two-thirds of the structured product CDO market. These deals are backed by higher-rated residential mortgage-backed securities collateral (assets are usually rated single-A or better) and rely on considerable leverage in order to generate competitive expected returns. For example, while a typical mezzanine structured product CDO (backed by triple-B residential mortgage-backed securities) would have a 4 per cent equity tranche (25 times leverage), a high-grade structured product CDO could have an equity tranche of 1 per cent to 0.5 per cent, resulting in leverage of 100 to 200 times. Since this level of leverage gave pause to some investors, there was also interest in mid-grade CDOs. Although they still comprise only a handful of structured product CDO vehicles, mid-grade CDOs targeted investors concerned about mezzanine residential mortgage-backed securities risk who did not want to take on the high levels of leverage in high-grade structured product collateralised buy-outs. Mid-grade

CDOs are typically backed by single-A prime, mid-prime and/or subprime mortgage-related collateral.

Another structure that has gained some headway in the past year is the market value/credit opportunities fund structure. Issuance of this product type in the US CDO market came to $10.3 billion in 2006, three times its volume in 2005. The product also took some tentative first steps in the European market, with four managers either launching or tapping funds, collectively representing some €2.9 billion of issuance in aggregate. Interest in credit opportunity funds has been driven by a combination of the changing investment environment (ie, historically tight credit spread levels) and the current focus on the potential benefits of active management. Market value CDOs offer managers significant trading flexibility compared to the possibilities offered by cash-flow CDOs. With the focus on liquid asset classes, relatively modest leverage and investment flexibility, credit opportunity funds offer interesting advantages to debt investors and fund managers alike.

In addition to innovations regarding the market value structure, structural innovations included structured product CDOs (backed primarily by residential mortgage-backed securities) that have curtailed or no coverage tests. The impact of eliminating coverage tests on the risk profile of various bond classes depends not only on the seniority of the class, but also on the timing of collateral deterioration.

In the European CDO market, notable structural innovations included the introduction of *pro-rata* type structures to access senior term A revolving loans (previously the preserve of banks) and the greater proliferation of alternative currency hedging strategies, including multi-currency term notes and revolvers as well as macro hedging rather than perfect, asset-specific swaps.

On the corporate side, Moody's launched its new 'loss given default' rating methodology. Although the methodology affects high-yield bonds, its main impact is on senior secured loans rated non-investment grade (see Deutsche Bank's May 2006 report, "New Developments in the Leveraged Loan and CLO Markets", for a more detailed discussion). After applying the methodology to over 1,000 US and Canadian-based speculative grade-rated companies in the 3Q, Moody's upgraded about 70 per cent of its existing high-yield loans. Furthermore, the ratings of first-lien leveraged loans have been raised one level on average. This methodology has been automatically applied to new issuers.

Corporate collateralised loan obligations

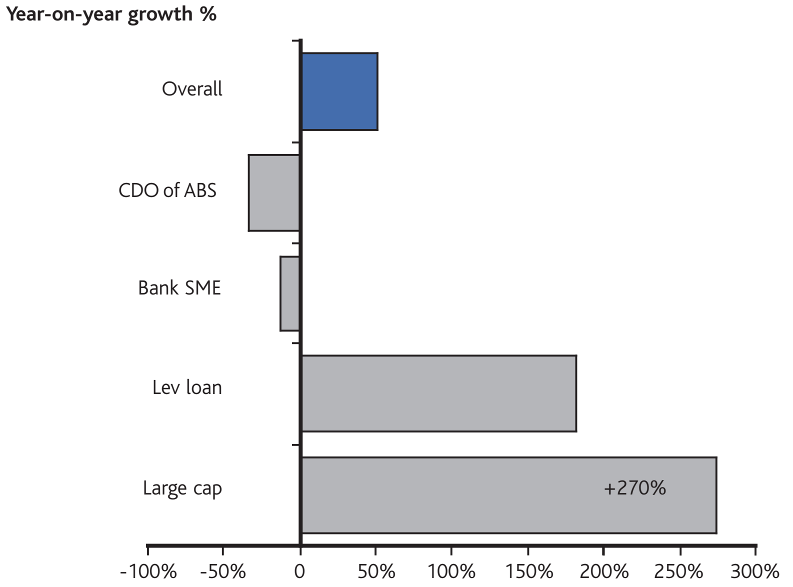
In the face of record issuance levels, investor demand for collateralised loan obligations has kept pace with increased issuance volume. Buoyed by strong corporate balance sheets and credit fundamentals, US collateralised loan obligation spreads tightened steadily in the year:

- Triple-A collateralised loan obligation spreads ended the year 1 basis point (bp) tighter at 25bp;
- Single-As ended 12bp tighter at 70bp;
- Triple-Bs ended 32bp tighter at 150bp; and
- Double-Bs ended 110bp tighter at 365bp.

In Europe, despite evidence of asset side-spread compression in the wake of unprecedented demand from collateralised loan obligation managers, the collateralised loan obligation arbitrage remained compelling. Liability spreads continued to tighten across the capital structure with the weighted average cost of debt contracting by as much as 10bp for the more established managers. Subordinate European paper outperformed yet again as, on average, triple-Bs priced at 35bp tighter at 135bp and double-Bs at 115bp tighter at 335bp at the end of 2006, compared with the same period in 2005.

The CDO market's appetite for corporate loans as collateral for CDO vehicles continues to be fuelled by solid performance due to better recovery levels relative to bonds, low borrowing costs and an abundance of collateral. According to Standard and Poor's leveraged commentary and data group, as of December 14 2006 the US institutional leveraged loan market totalled $336 billion, up 83 per cent on 2005. Despite record issuance levels, historically tight spreads and an increase in loans with fewer financial covenants, the supply was easily absorbed, helped in no small way by the strong

Figure 3: European CDO growth by asset type, 2006

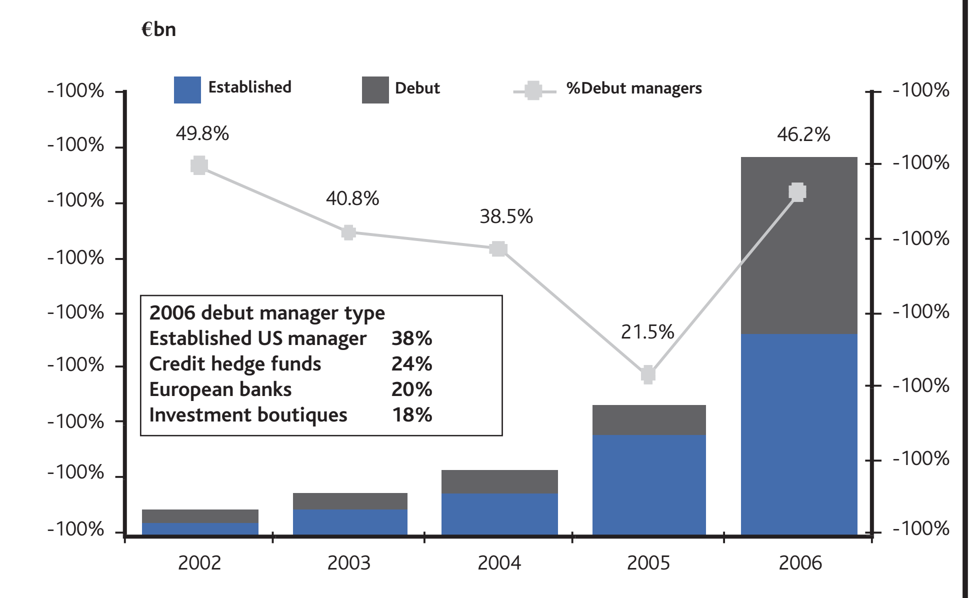


Source: Deutsche Bank Global Markets Research

collateralised loan obligations bid. In Europe, although underlying institutional leveraged loan issuance increased only fractionally on the previous year, ending at around €131 billion compared to €119 billion in 2005, the non-bank institutional share of this once entirely bank-dominated market grew to almost 50 per cent, with collateralised loan obligation managers representing the lion's share of this institutional money (see Figure 3). Indeed, the maturing collateralised loan obligation market has fuelled the acceleration in the pace of bank disintermediation in the European leveraged loan market. No less than 27 leveraged loan collateralised loan obligation managers made their European debut in 2006, and 2007 should bring more of the same.

The heady activity in the collateral markets has been driven by strong corporate balance sheets, strong liquidity and an impressively low default rate. Whether considered from a European or a US perspective, speculative grade defaults remain near record lows. US leveraged loan default rates remain near the all-time lows as measured by principal amount (1.07 per cent compared to a two-year average of 1.91 per cent) and by number of issuers (1.15 per cent compared to a two-year average of 1.5 per cent) (figures from Standard & Poor's Leveraged Loan Index). Although no precipitous deterioration in corporate credit quality is expected, these historically low default levels cannot be sustainable. The benign credit environment and robust domestic economy have whetted investment appetites for riskier, higher-yielding products. The result has been an increase in aggressive loans that carry potentially higher credit risks. The implications of this shift in credit quality could be problematic for collateralised loan obligations. However, there is some way to go before collateralised loan obligation begin to feel the effects.

Figure 4: Established v debut managers in European CDO market



Source: Deutsche Bank Global Markets Research

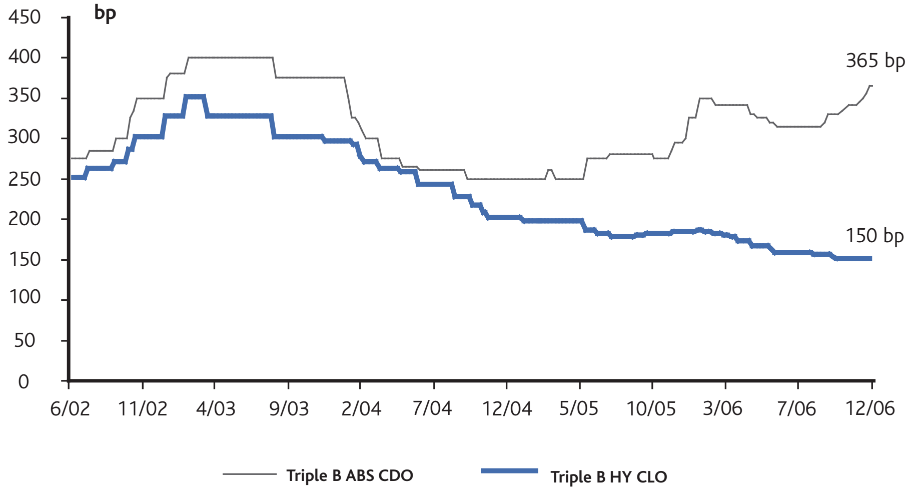
Standard & Poor's leveraged commentary and data group expects the default rate of US leveraged loans to increase to 2.61 per cent by November 2007, which is still well below the long-term historical average of 3.4 per cent.

Structured product CDOs

On the consumer side, the market continues to price in significantly greater risk in US structured product CDOs, reflecting heightened concerns about the impact of a softer US housing market on consumer behaviour and CDO collateral. Although spread widening has been incremental in higher-rated structured product CDOs, triple-B structured product CDOs, arguably a more immediate indicator of market sentiments, ended the year 15bp wider at 365bp and double-Bs widened from 45bp to 660bp. Year-over-year triple-A structured product CDOs have widened by 2bp, ending the year at 31bp, while single-A structured product CDOs closed the year flat to 2005 after tightening 15bp mid-year, then widening out in sympathy with the movement of lower-rated structured product CDO tranches.

And the concerns are not without warrant. A softer housing market and, ultimately, softer consumer credit could put more pressure on residential mortgage-backed securities ratings, compromising US structured product CDO ratings. According to records, 90 per cent of all the consumer-related asset-backed securities impairments in 2006 (ie, bonds with ratings downgraded to double-C or lower) were attributable to home equity asset-backed securities. In addition, for the first time in seven years there has been an increase in downgrades of home equity asset-backed securities. Although upgrades still outnumber downgrades, downgrades are now starting to occur faster than upgrades. At the end of 2006 $12.5 billion of home equity asset-backed securities had been

Figure 5: US structured product CDO v corporate CLO spreads (bp)



Source: Deutsche Bank

upgraded, while $6.6 billion had been downgraded. Although there was a 40 per cent increase in upgrades between 2005 and 2006, there was a 135 per cent increase in downgrades. However, newer single-asset structured product CDOs backed by mortgage-related products have yet to experience downgrades.

The approach of the step-down dates of many three-year seasoned home equity transactions (ie, vintage 2003/2004) has also raised some red flags among CDO investors. The step-down date refers to the date on which a home equity loan transaction is permitted to release accumulated overcollateralisation and begin amortising mezzanine and subordinate bonds. Given the loss curve for home equity asset-backed securities, most home equity losses occur towards the end of a home equity transaction, leaving the mezzanine and subordinate classes of some home equity transactions undercollateralised just as losses are starting to ramp up. Although the effect on senior home equity classes is minimal, bonds at the triple-B level and below (popular collateral for mezzanine CDOs) could incur the risk of downgrade and/or writedown if not called by the 10 per cent call date (see Figure 4).

In Europe, structured product CDO issuance remained very modest as funding economics proved ever more challenging in the face of continued asset spread contraction.

Outlook

Continued nervousness in the US housing market and its effect on consumer performance will place pressure on the mortgage-related structured product CDOs, which could effectively dampen supply in 2007. However, some of the supply should be picked up by alternative structures such as the market value/credit opportunities fund, which satisfies investors looking for more active management during periods of higher market volatility. On the corporate side, barring any sudden negative exogenous shock to the economy, there is no reason why the popularity of corporate loans should change in the short term. Although corporate defaults are expected to continue their upwards trend as the market accommodates riskier financing strategies, and thus weaker loans, strong corporate balance sheets, robust liquidity and attractive financing levels should keep collateral volume plentiful. Given the strong credit performance of CDOs over the past few years, interest should remain healthy as investors continue their search for yield in the current environment. In 2007 overall CDO issuance is expected to increase by 10 per cent on volume in 2006. In Europe, despite increased gearing in the leveraged loan market and the risk of a reversion to the mean corporate default rate, collateralised loan obligations credit performance should continue to be generally stable. However, an increased frequency of defaults in the leveraged loan market is expected in the short term, leading to more noticeable asset impairments in collateralised loan pools. This should lead to a greater degree of price tiering based on manager quality, as investors become more selective in the face of heavy supply. From a volume perspective, European CDO deal flow is expected to continue to be dominated by leveraged loan products, but volumes are likely to be driven by fewer, but larger, bank balance sheet securitisations.

This chapter is taken from previously published Deutsche Bank research.