Leveraged buyouts: the role of financial intermediaries and aspects of financial stability

The number of acquisitions involving financial investors and financed predominantly by debt (leveraged buyouts, or LBOs) has recently also gone up sharply in Germany. The combination of special financing structures, a favourable economic environment and a large demand for alternative investments are enabling acquisitions to be financed with an ever-growing percentage of debt. Although the German banks involved in LBOs mostly retain only a small percentage of the credit risk in their own balance sheets and have generally engaged in sound risk management practices,[1] the risk to which they are exposed before they can ultimately pass it on to investors is considerable. At the same time, it is questionable whether this rapidly growing market segment can provide a sustainable source of income. In terms of financial stability, moreover, the diversification and spreading of risk associated with LBOs are also offset by the disadvantage that the ultimate distribution of passed-on credit risks is not transparent and that there is an increasing danger of inappropriate risk pricing. The heavy indebtedness of the target companies is likewise associated with increased risks.

1 According to the results of a survey conducted among German banks in 2006

Definition and basic principles

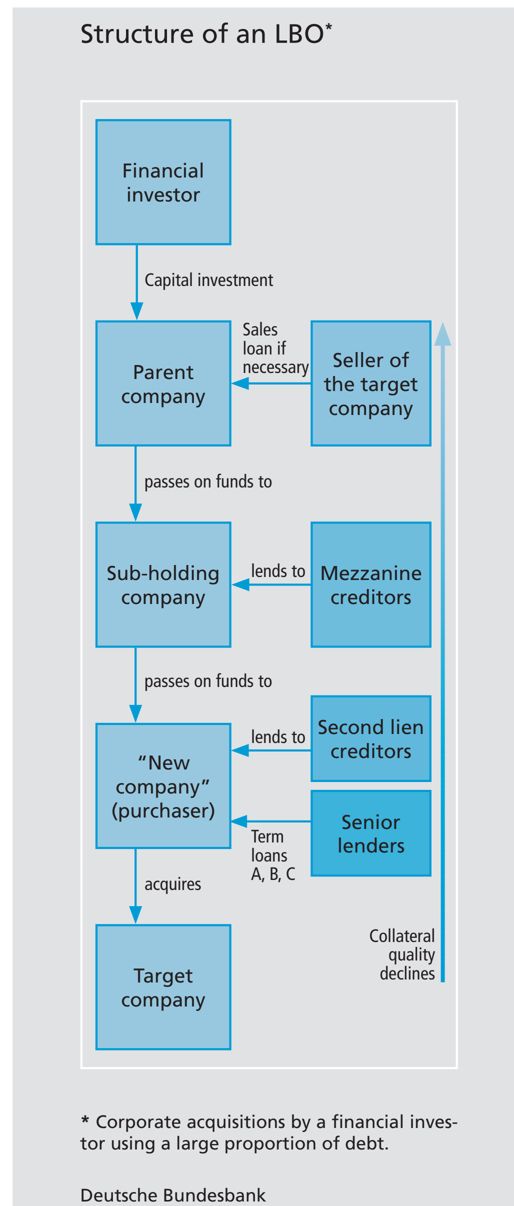
Private equity denotes, in the narrower sense, equity raised by an enterprise privately, ie not on a stock exchange. This is done by a financial investor – also known as a private equity firm – collecting capital from wealthy individuals[2] and institutional investors and using it to purchase equity shares in firms. A venture capital fund is created when a financial investor provides funds for target companies that are either newly established or are refining products which are not yet ready for the market. An LBO fund, by contrast, uses these funds for leveraged buyouts, ie usually for purchasing an established company outright using a large proportion of debt.[3] This report addresses such leveraged buyouts because they are the main drivers behind the rapid growth of the private equity market and because the high leverage poses particular risks to the parties involved.

Structure of a leveraged buyout

A certain structure for financing and performing these transactions has developed over time. In a first step, the resources collected by the LBO fund are invested in a new "parent company" as shares or partners' loans. This parent company then purchases a 100% stake in a "sub-holding company", which, in turn, takes over the "new company" that has been formed for the sole purpose of acquiring the target company.

The transaction structure and financing structure are closely correlated since the positions taken by creditors at certain points in the transaction and the contractual relationships determine the quality of protection. Senior

Structure of an LBO*



* Corporate acquisitions by a financial investor using a large proportion of debt.

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loans are granted to the "new company", which makes it easier to gain access to cash flows and collateral. Within the category of senior loans, the tranche denoted "Term loan A" is usually an amortising loan, whereas the other tranches (term loan B and term loan C)

2 Listed funds which provide a wider range of investors with the opportunity to invest directly in private equity have also existed for some time.
3 Bank financing of the debt used to buy a company is called "LBO financing".

are usually redeemed through a "bullet payment" at maturity. "Second lien loans" are increasingly being sought by "new companies", too. Although of equal rank to term loan tranches in respect of cash flow, second lien loans entitle their holders only to subordinated claims to collateral. As they are less well secured and therefore exposed to greater risk, second lien loans pay much higher yields than senior tranches. Subordinated loans or "mezzanine" instruments deliver even higher yields. However, they are also the least protected, especially as they are typically raised by the "sub-holding company". Moreover, loans which are usually unsecured can be provided by the seller at the "parent company" level; these loans can be regarded as a deferred claim to the payment of the purchase price.

Example of the structure behind financing an LBO

Tranche	%	Spread (in basis points)	Maturity
Term loan A	11	200	7 years, amortising
Term loan B	31	250	8 years, bullet
Term loan C	31	300	9 years, bullet
Senior debt	73	–	–
Second lien	11	475	9.5 years, bullet
Senior debt and second lien	84	–	–
Mezzanine	16	9 % cash/PIK (pay-in-kind)	10 years, bullet
Total debt	100	–	–

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Using the leverage effect

The aim of extensively using debt is to take advantage of the "leverage effect".[4] For the LBO fund's investors, this provides returns in excess of those obtained by subordinated lenders. However, they are also exposed to a correspondingly high risk as they can also expect to lose their entire capital investment if the transaction fails.

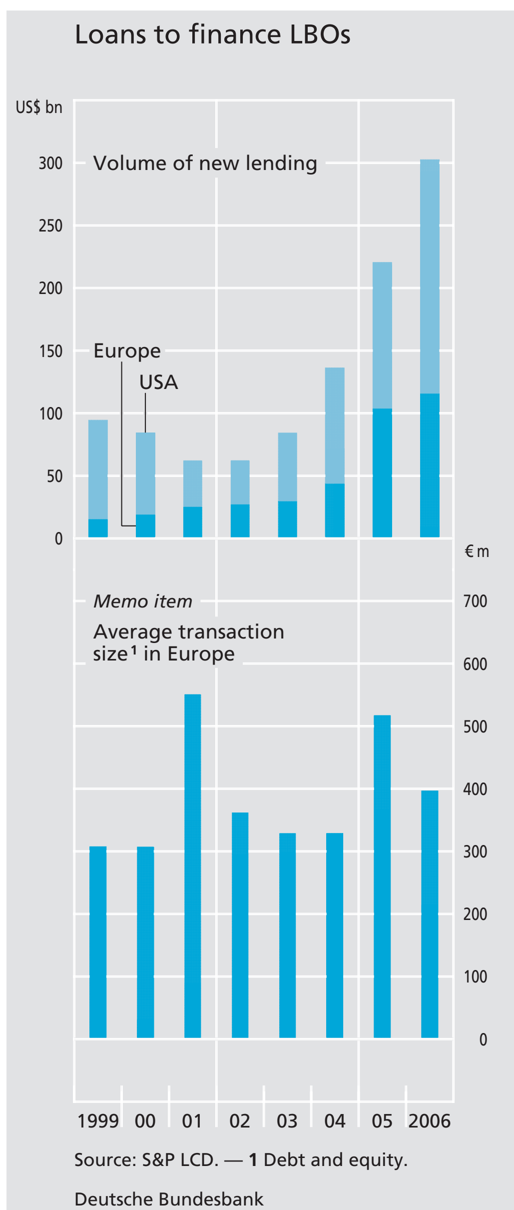
Role of financial investors

The entry of a financial investor can offer major advantages from the point of view of the target company. The transaction can provide the necessary funding for projects such as investment. The investor's vested interest in raising the company's value provides incentives for sustainably increasing the company's profitability by improving operations and optimising the financing structure. To achieve these goals, the funds usually exert an active and, from a business standpoint, often positive influence on the corporate management of the target company.

Exit

An LBO transaction ends when the financial investment of the LBO fund is terminated, also known as "exiting". Exit strategies may include taking the company public or selling it to another financial sponsor (secondary or tertiary) or to a strategic investor. A recapitalisation is another conceivable option. In this case, the financial investor collects part of the target company's equity as a dividend and borrows additional funds. The aim of all exit strategies is to obtain a high selling price or

4 This term denotes the leverage effect of the ratio of debt to equity. This leverage effect occurs if the interest on debt is lower than the return on investment.



Source: S&P LCD. — 1 Debt and equity.

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large dividends in order to ultimately maximise the return for the LBO fund's investors.

Developments in the global and European LBO market

Dynamic volume growth

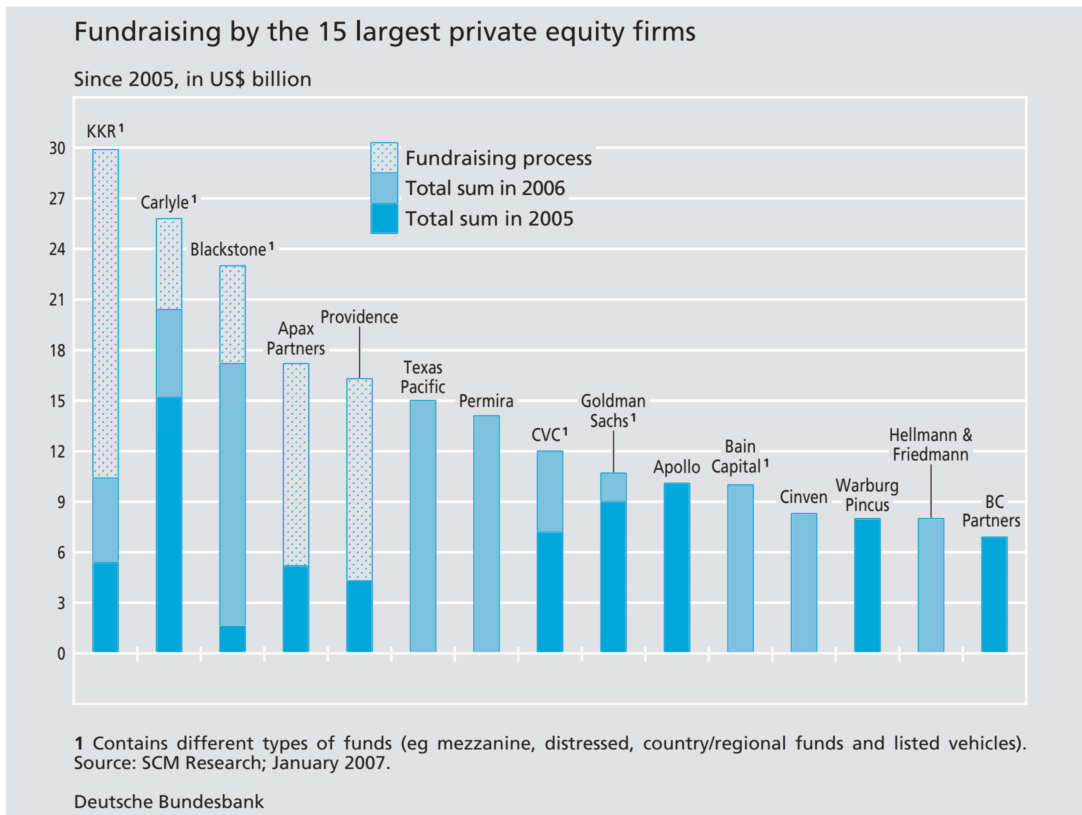
The volume of new loans to finance LBO transactions has grown dynamically in the past few years. The European market reached a sizeable US$116 billion in 2006; however, the US market, at US$187 billion, is still considerably larger.

The average size of LBO transactions in Europe has hardly increased over time. One reason is the relative absence of "megadeals" comparable with those in the United States.

Reasons for growing volume

Reasons for the growth in volume include the favourable economic situation, low inflation and strong competitive pressure on financial intermediaries. These factors have led to falling yield spreads on financial markets and to an increase in investors' appetite for risk. Private equity companies have seen large sums of money flow into the funds they have created, thus laying the foundation for the rapid market growth. A few Anglo-Saxon private equity firms at the top of the league have been able, since 2005, to acquire equity worth tens of billions of US dollars.

This has created new opportunities for the structured acquisition of equity and debt; these financing forms are typically based on the increased use of "leverage". Innovative financial instruments are simultaneously enabling liabilities to be structured in such a way that the risk-return profile can be tailored specifically to investors' particular needs. This has sharply expanded the ability of the financial markets to finance LBOs. These developments have also led, on the whole, to companies being better able to align their borrowing to their expected cash flow, thereby enabling them to obtain more debt.



1 Contains different types of funds (eg mezzanine, distressed, country/regional funds and listed vehicles). Source: SCM Research; January 2007.

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Rising leverage multiples

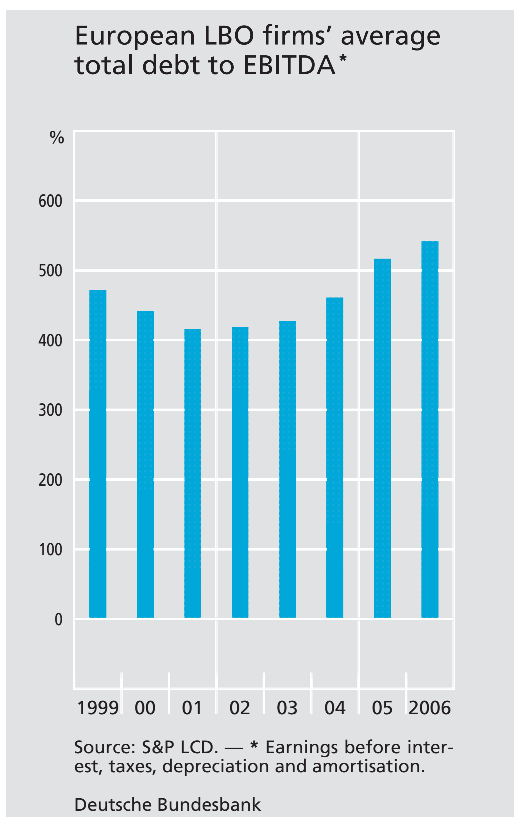
The riskiness of transactions rises commensurately with the use of debt to increase the return on equity. Leverage multiples – usually defined as the ratio of debt to earnings before interest, taxation, depreciation and amortisation (EBITDA) – therefore represent an important measure of risk. EBITDA is used to estimate the available "cash flow" needed to service the debts. Leverage multiples have been continuously rising since 2001. Target companies have been coming under an ever-increasing debt burden relative to their ability to repay their debt, measured as EBITDA. In 2006, leverage multiples in Europe averaged 5.42 times EBITDA; in the fourth quarter of 2006, however, they were down slightly to 5.36.

The increase in the volume of LBO financing is therefore a reflection not only of a growing number of transactions but also – in the light of rising leverage multiples – of financing with an increasingly large percentage of debt. The amount of equity provided for LBO transactions has dropped correspondingly. The equity share of LBO financing came in 2006 to an average of only 34%[5] following values as high as just under 40% at the beginning of the decade.

Recapitalisations ...

The rising percentage of debt has been accompanied by two market developments: the increasing number of recapitalisations and the resale of target companies to other financial investors (secondary or tertiary buyouts).[6]

5 Source: S&P LCD.
6 According to information from S&P LCD, 19% of all transactions in Europe in 2006 were recapitalisations; secondary and tertiary buyouts accounted for 45%. See LCD EuroStats, January 2007, p 3.



Source: S&P LCD. — * Earnings before interest, taxes, depreciation and amortisation.

In the case of recapitalisations, LBO funds withdraw equity from the target company and replace it with additional borrowed funds.[7] This makes it possible for the LBO fund and its investors to recoup the original investment, or at least a part of it, prior to the actual exit. In order to distribute a special dividend, the target company might possibly have to incur more debt; on the other hand, the fact that a company can recapitalise in the first place could also indicate that the target company is performing strongly in economic terms.

... and secondary, tertiary buyouts

In secondary and tertiary buyouts, the LBO fund sells the company to other financial investors. Such transactions usually lead to a renewed rise in the leverage multiples. Exits of this kind have recently been occurring at shorter and shorter intervals.[8] In this connection, it seems justified to ask whether secondary buyouts really lead to further improvements in the operational ability or the efficiency of the capital structure – which are at the heart of the macroeconomic utility of LBO-financed acquisitions – or whether there is only a significant increase in risk through the increased use of debt to finance the company.

However, secondary buyouts are important for individual LBO funds because these funds have been created to exist only over a given lifespan and therefore have to sell their shares after no more than a few years (usually five to seven years). A drying-up of this exit channel[9] could therefore pose problems for the financial investors. With leverage multiples at their current high levels, however, it would appear that this strategy cannot be continued *ad infinitum*.

Use of pay-in-kind bonds

Pay-in-kind bonds are also being increasingly used in the financing structure. These instruments give the issuer the option of meeting the resultant obligations (eg interest payments) either in cash or through the issuance of new bonds. An advantage of this construct

7 There were 63 recapitalisations in the USA and Europe in the first half of 2006, leading to dividend payments of US$25.4 billion. US$24.1 billion of this was financed by bank loans and US$1.3 billion by bonds. See S&P Ratingsdirect, The Dividend Recap Game: Credit Risk vs the Allure of Quick Money, 7 August 2006.
8 In the UK, the average time to exit for secondary buyouts dropped from 84 months in 2003 to 71 months in 2005. See Centre for Management Buyout Research (2006): Exit, Issue 7.
9 The Centre for Management Buyout Research estimates that over 50% of exits in Europe are already secondary buyouts. See CMBOR, Record Start to the Year for Continental European Buy-out Market but UK Stalls; press release of 29 August 2006.

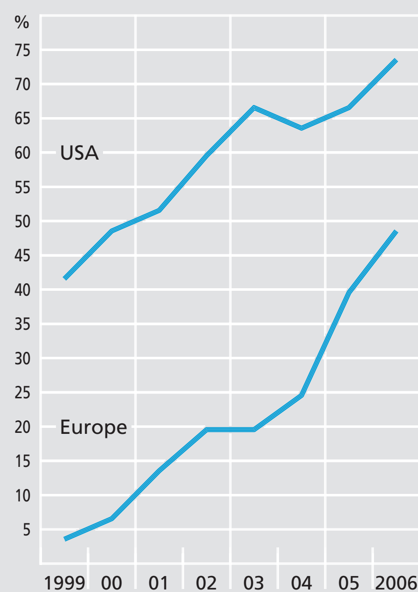
for the target company is that, during the lifetime of the bond, there are no obligatory payments and therefore no strain on liquidity. However, unless the bonds are replaced before reaching maturity by new and more favourable loans, the interest balance outstanding has to be paid at the end of the lifetime. It is of paramount importance that the parties to the deal be made aware that the payment obligations are only deferred.

Increasing use of bullet payments

The occurrence of financing through "bullet loans" (ie the entire principal is paid on a single date at the end of the term) is on the increase. However, this involves significant risk, especially to the creditors of subordinated loans, because they cannot claim repayment until more senior creditors' claims have been satisfied. In the event of payment difficulties, this will at least reduce the subordinated creditors' recovery rate.

Financial covenants watered down

Innovative agreements on the borrower's contractual obligations (financial covenants)[10] likewise affect the risk profile of LBO transactions. For one thing, cash sweep agreements[11] can stipulate a reduced volume of unallocated cash that has to be used for repayment purposes. The liquidity that is freed up by these cash sweep restrictions is increasingly being used for dividend payments. The introduction of "covenant cures" which allow LBO funds to provide companies with additional liquidity in the event of a violation of the agreed provisions contained in the financial covenants represents a further worsening of the terms for lenders. This undermines lenders' ability to take control of a company that is temporarily in arrears.[12]

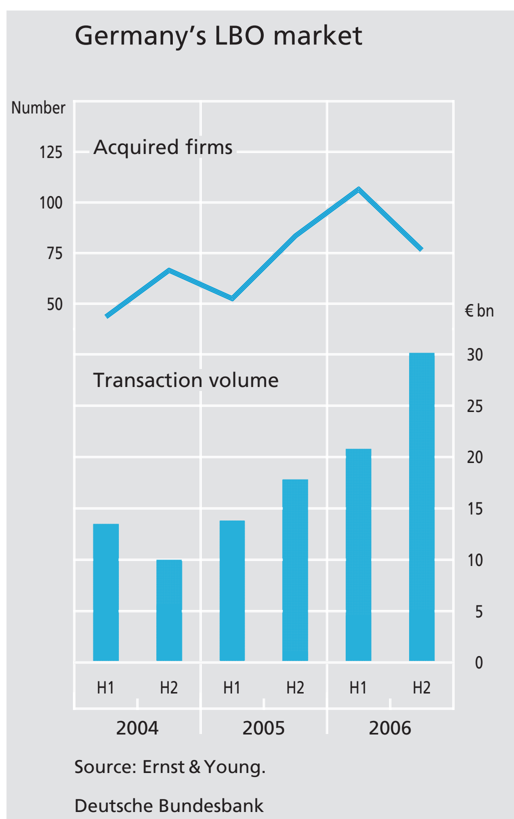


All in all, the changes in the structure of transactions and of the financial covenants indicate that financial investors have improved their bargaining position. This means at the same time that the risk to lenders has increased.

Role of institutional investors

Institutional investors have become increasingly important as lenders in the past few years. Their position as buyers of leveraged

10 Financial covenants are rules in lending agreements designed to protect creditors. For instance, they may require the target company to comply with certain ratios. In the event of a violation of these provisions, creditors have the right to terminate the loan or other extended creditor rights.
11 Under cash sweep agreements, an idle cash flow must be used to a certain defined extent to repay or redeem outstanding obligations. In this manner, even bullet loans are, in some cases, repaid during their lifetime.
12 See Standard & Poor's, Ratcheting up the risk: European LBO loan documentation gives borrowers an easy ride, 27 September 2006.



loans in the European primary market has jumped from negligible (approximately 4%) in 1999 to a share of just under 50% at the end of 2006. In the United States, they already account for just under 75%.[13]

Significant institutional investors include insurance corporations, CLO (collateralised loan obligations) funds[14] and, in increasing measure, hedge funds. A defining characteristic of institutional investors is their willingness to invest in riskier (second lien and mezzanine) tranches.

The German LBO market

The volume of published transactions in the German LBO market[15] continued to grow in the second half of 2006 to €30.1 billion. This represents a 44.7% increase from the first half of 2006 and a 69.1% increase from the second half of 2005, and thus a continuation of the growth trend. The number of enterprises acquired through LBOs has gone up from 139 in 2005 to 186 in 2006.[16]

Significance of LBOs in Germany

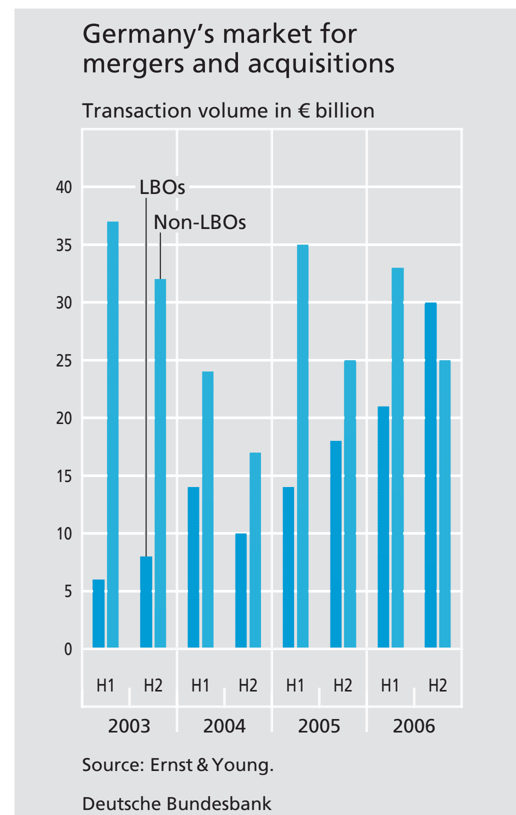
The German LBO market is still dominated by non-resident financial investors. According to figures from Ernst & Young, they accounted for €48.6 billion worth of the total volume of published transactions (€50.9 billion) in 2006, ie just under 96%. Of the 23 known buyouts of at least €500 million per individual transaction, 20 were by foreign investors.

German financial investors, by contrast, have been relatively successful in the SME segment, which is apparently of comparatively little interest to major foreign funds. Although they accounted for only about €2.1 billion (or just under 4%) of the entire volume of transactions in Germany in 2006, they made up just over 40% of the total number of transactions (76 out of 186).[17] Just under one-third of the entire volume of transactions in Germany, however, was attributable to one single LBO.[18]

13 Source: S&P LCD.
14 CLO funds are companies that buy loans for the purpose of issuing, in most cases, structured bonds. The debt service payments are then used to ensure that the bonds can be redeemed.
15 Transactions in which German companies are the target companies.
16 See Ernst & Young, German Private Equity Activity 2006, January 2007.
17 See Ernst & Young, German Private Equity Activity 2006, January 2007.
18 See Ernst & Young, German Private Equity Activity June 2006, July 2006.

The leverage used for LBO financing has also continued to rise in Germany over the past few years, following the international trend. As a case in point, in 2006 the average leverage multiple[19] rose further to 5.03 times EBITDA, compared with 3.86 times in 2003.[20]

The clearly growing importance of LBOs in Germany is being reflected in their growing share of the total German market for mergers and acquisitions. In the second half of 2006, the volume of LBOs surpassed the amount of non-LBOs for the first time.



Source: Ernst & Young.
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Financial intermediaries: their role and the risks

Role of credit institutions

Credit institutions can take on a variety of roles in the LBO market: granting loans, buying their own shares of LBO funds and performing various other services in the course of a transaction. The Deutsche Bundesbank and the Federal Financial Supervisory Authority (BaFin), under an initiative by the Banking Supervision Committee (BSC) of the European System of Central Banks, asked six banks that are particularly active in this line of business about the associated risks. The survey included all lending by these banks to finance LBOs, not just loans in connection with German target companies.

Lending

The most significant source of potential risk to banks in this business line is likely to be in the provision of credit for LBO transactions.[21] The surveyed institutions indicated an overall credit volume (including commitments) of €22 billion for the month of June 2006. In the course of LBO transactions, individual banks can enter into underwriting positions[22] before passing them on to the actual investors; these represent a significant source of "warehousing risk".[23] Weeks or even months can pass following the transaction before a bank has reduced its initial stock of risk to its desired level. The survey showed that each

19 Calculated as total debt divided by EBITDA.
20 See Standard & Poor's, LCD European Leveraged Buyout Review 4Q06, January 2007.
21 A question arising in this connection is how an LBO will affect those old creditors who were already involved prior to the sale of the company to the financial investor. Thus, the increased use of borrowed funds for buyouts could mean that, upon closure of the transactions, such creditors would bear a greater risk. However, a buyout normally creates a completely new financing structure for the target company. The old creditors are therefore usually "bought out". It is only if this does not happen that the old creditors could see their risk increase.
22 Here, the banks commit themselves to lend a certain amount at pre-defined terms and conditions.
23 The risk that the exposure will depreciate in value before it is passed on.

credit institution, for its five largest transactions (for which detailed information was available), had reduced the lending volume by just under 80% within 120 days.

Liquid markets for syndicated loans

The existence of liquid syndication markets and of secondary markets gives credit institutions the opportunity to manage their credit portfolios actively. Banks are making widespread use of this option. With regard to their five largest transactions, all surveyed institutions indicated that, in more than 90% of transactions, they were members of a loan syndicate. They set limits for their entire LBO financing portfolio and for individual credit exposures, taking borrowers' credit ratings into account. Some institutions also indicated that they attach importance to senior and secured positions when lending.[24] The risks from the individual transactions are allocated among the banks and to other market participants. Credit institutions therefore usually have relatively well-diversified portfolios which, for the most part, are composed of senior claims.

Due diligence and credit analysis

The banks' responses show that, in the area of LBO financing, they usually have more comprehensive and meaningful information at their disposal than in other types of corporate credit business. Through the due diligence review (an intensive review of the target company's economic and legal situation), the results of which are used not only by the LBO fund but also by the other banks involved, a deep insight into the enterprise can be obtained. The target company's business plan, probable market development, competitive situation, investment needs and, above all, ability to generate cash flows are analysed. The maximum amount of debt that can be incurred to purchase the target company hinges, in particular, on the lattermost feature, namely the ability to generate cash flows. It is important to assess whether and, if so, to what degree the debts can be serviced even in a faltering economy. Another important factor in the credit analysis is the LBO fund's track record. A number of quantitative ratios (eg the ratio of cash flow to interest costs) are also factored into the decision. What the survey results also show is that all surveyed institutions perform their own analysis as a complement to the due diligence check-up prior to making their lending decisions. Some banks pointed out that they also talked directly to the target company and the due diligence experts.

Ongoing monitoring of exposures

Along with the comprehensive initial analysis described above, the surveyed banks monitor their exposures on an ongoing basis. At intervals of less than a year (in some cases monthly), credit institutions receive information on the target company such as cash flows, business evaluations and (interim) balance sheets. Reports (at least one a year) on the development of the LBO portfolio are also prepared for presentation to the bank's management.

Stress tests

In the context of LBO financing, institutions also run stress tests to improve their assessment of the impact of adversity (eg changes in interest rates or an economic downturn)

24 The safety net for LBO transactions is always the company's ability to generate cash flow that can be used to repay the incurred debt. In addition, the LBO fund pledges its shares of the target company, and the assets of the target company are pledged to the lender.

on the company's ability to service its debts. Even though such stress tests are subject to certain limitations, they are still a key complementary tool for risk analysis.

Banks as investors/ service providers

Own investments in private equity funds played only a minor role among the German banks surveyed. In June 2006, the capital invested by these institutions in LBO funds was less than €2 billion. This line of business is therefore likely to harbour only a limited risk of losses. Through their role as arrangers, agents or advisers to LBOs, the banks in question obtain commission income; through the strong growth in this business line, such income has reached a considerable volume. This also entails income risks, which could be significant owing to the potentially high volatility and cyclical sensitivity of LBO business.

Insurance corporations as private equity investors

Insurance corporations are among the most active institutional investors in Germany. In a recent survey by Feri Rating and Research[25] in November 2006, 93% of all insurers surveyed said that they had invested in private equity funds, 13% of them doing so with more than 2% of their entire assets. By contrast, only 31% of the surveyed banks said that they had been active as private equity investors, yet as many as 23% of these banks had invested more than 2% of their total assets. Investor interest in this form of investment is continuing to grow. For instance, 80% of the insurance corporations and 31% of the banks surveyed had declared their intent to invest in private equity funds in the following six months. Although German insurers held only €2.9 billion in private equity holdings at the end of 2005, ie no more than 0.3% of the sum total of their capital investment,[26] there is a tendency, particularly among the major companies, to continue to enlarge their share.

Impact on financial stability

Influence on risk distribution not clear

The impact of LBO financing on financial stability needs to be examined from several angles. On the one hand, the refinancing structure that is typical of LBOs can lead to a relatively broad dispersal of credit risk within the financial system, and this is a positive aspect. On the other hand, it is becoming increasingly difficult to determine who ultimately bears the risk. It is therefore impossible to say precisely whether such transactions can ultimately bring about a sustainable allocation of risk within the financial system.

Banks pass on risks ...

The credit institutions involved in initiating LBOs usually keep only a small percentage of the risk on their own books. Through syndication, a large percentage of credit risk is passed on to other market players (other banks, but increasingly also institutional investors). Thanks to an increasingly liquid secondary market, assumed or retained risks can be passed on even after a transaction has been concluded.

... but are subject to warehousing risk

The survey of German banks also shows that 90% of the loans retained to finance LBOs are senior claims and that the credit institu-

25 The 89 institutions surveyed were providers of old-age provision, cooperative banks and savings banks, as well as industrial enterprises and insurance corporations managing assets worth a total of €385 billion.
26 Source: BaFin, Annual Report 2005, p 88.

tions usually have only small shares of individual transactions, creating granular portfolios. The idea behind this conservative approach to financing LBOs is that the failure of an enterprise acquired by financial investors should have only a minimal impact on the individual lending bank. All banks active in this segment, however, are temporarily exposed to a considerable risk until the risk is ultimately passed on ("warehousing risk"). In addition, if there are no options for further placement, those banks that, in this case, unintentionally hold more shares of LBO financing in their own hands will see the emergence of concentration risk.

Because banks hardly invest directly in LBO funds, there is no material risk. The potential impact of the altered debt structure on old creditors is also limited because, in the vast majority of cases, their loans are repaid during the transaction, which means that the liabilities side of the target company's balance sheet can be reconstructed from scratch.

Potential risks for the acquired companies ...

The acquired enterprises themselves, however, may be potentially more vulnerable to a difficult economic environment and rising interest rates owing to their higher level of debt. This distinct rise in financial leverage over the past few years – a development that is borne out by both market data and banks' own statements – represents one of the LBO market's main risks. At the same time, the typically short time horizon within which financial investors seek to achieve their desired yields may lead to the predominance of more short-term-oriented corporate decisions. If a target company plunges into crisis, the involvement of an increasing number of investors with different interests (a development which is being encouraged by the way the loans are structured) may also make it more difficult to find a solution.

... for institutional investors and ...

Another remaining question is whether some investors are too eager to take on risks, given that default rates have been low over the past few years. This could be indicated by trends such as the clear rise in leverage multiples. At the same time, the creeping erosion of the financial covenants has probably exacerbated lenders' exposure to risk. There is also the fundamental danger of mispriced risks. Another danger that cannot be ruled out is that investors that have purchased structured products underestimate the risk profile of their portfolio, leading to the existence of hidden risk concentration that, in the event of the default of a target company, could unleash a domino effect.

... for banks

In a crisis situation, the emergence of second-round effects would also be likely. Risks that banks would have assumed to have been definitively transferred could strike back as legal risk or as poorer credit quality in other business relationships. Moreover, the defaulting of individual borrowers could also jeopardise the liquidity of the secondary market and thus hamper the banks' prospects for transferring risk.

Primarily as a result of the quality of banks' risk management techniques revealed by the survey, the German market for LBO financing is therefore highly unlikely to pose any increased risk to the stability of the financial

Risks to stability of financial system limited but acid test yet to come

system. This financing segment, however, is benefiting in particular from the currently favourable economic environment and the secondary market's great ability to absorb risk. The acid test is therefore yet to come for the fledgling LBO financing market.