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Buyout Performance

the aggregation of transaction-oriented M&A

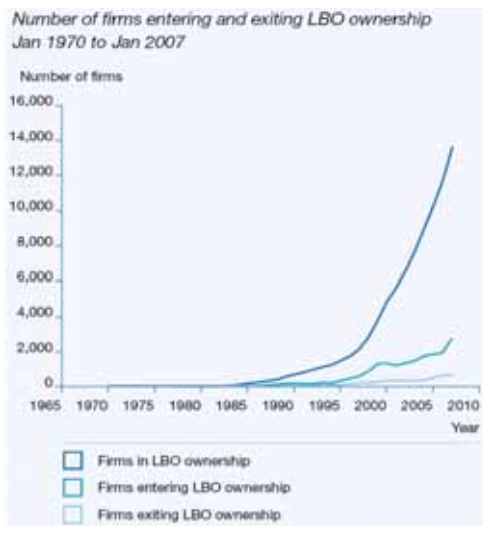


Private Equity Research - May 2008

BUYOUT PERFORMANCE: THE AGGREGATION OF TRANSACTION-ORIENTED M&A

The scale of buyout investments has changed over the last ten years, as reflected in the statistical data. If the total invested in 2006 is assessed at US\$350 billion, then private equity investment in buyouts would be equivalent to 0.8% of world GDP.

Number of companies under buyout ownership in the world



Source: Per Strömberg, *The new demography of private equity*, WEF, *Globalization of Alternative Investments*, 2008

At the request of the World Economic Forum (WEF), a team of academics analysed a sample of 21,397 deals around the world carried out between 1970 and 2007¹. Their report (table opposite) monitors the role of buyouts in the economy by tracking the number of companies acquired through buyout deals worldwide.

The WEF's interest in buyouts is representative of the interest shown by academics, the media and politicians. The number of publications covering buyouts and the number of speeches referring to them have grown considerably.

The intellectual, media and political passions stirred up by buyouts have their own history. They follow a first wave of interest (between 1985 and 1991) when the business first started in the USA. After this they were forgotten for some time.

The buyout universe has changed, but the arguments for and against are still nearly the same. Academics and finance professionals praise buyouts for making corporate governance more efficient, while journalists and politicians condemn them. Buyouts are generally represented as part of a universe of extreme risk, as being capitalism for "speculators" rather than for "entrepreneurs". These representations still hark back to "Barbarians at the Gate"².

The financial crisis that emerged in July 2007 has obviously underpinned such imagery. Its reliance on debt means that buyout investment could suffer a lasting downfall, or at least slower growth. Much emotionally-charged literature has been written about the subject³.

Therefore, it is helpful to look at the rational arguments in the debate over buyouts as an asset class, which primarily means the prospects for investment returns.

This report is based on an analysis of the returns generated by a sample of 2,145 European deals in the BNP Paribas Private Equity (BNPP PE) database, between 1988 and 2003, which have all been exited (i.e. either sold or written off).

¹ P. Strömberg, *The new demography of private equity*, report commissioned by the World Economic Forum, *Globalization of Alternative Investments*, Working Papers Volume 1: *The Global Economic Impact of Private Equity Report 2008*.

² Bryan Burrough & John Helyar: *Barbarians at the Gate: The Fall of RJR Nabisco*, New York, 1990.

³ The general press does not have the monopoly on overemotional prose: see for example, the Financial Times of 1 April 2008 ("The private equity boom was a clumsy trick"). Such commentary could eventually have negative repercussions by triggering political demand for regulation, but this demand would be hard to satisfy.

This analysis leads to two conclusions:

- (i) Buyout returns depend on the managers' ability to make outperforming deals year after year. These returns offset losses on bad deals. In this respect, the period from 2003 to 2007 seems exceptional, because of the small proportion of non-performing deals. On the other hand, the historical constitution of performance figures shows that buyouts, like private equity as a whole, suffered high failure rates in the past. The aggregate performance is still good thanks to outperforming deals;
- (ii) It is difficult to establish a clear link between macroeconomic data and the proportions of non-performing deals or deals delivering outperformance in an annual sample of buyout deals. Buyout performance results from the aggregation of individual deals. Each deal has its own explanation for its performance.

These conclusions lead back to the debate over the role of buyouts in the economy. We cannot conclude that they generate lasting returns without acknowledging that they contribute to the efficiency of the overall economy. But we must define the terms of the debate properly and take another look at the place of buyouts in the history of mergers and acquisitions.

In this case, it looks as if buyouts are defined as an aggregation of transaction-oriented mergers and acquisitions that can work under different macroeconomic configurations because each deal has its own justification. Taken together, these deals are not a system that is likely to take over the entire economy. They are instead an efficient means of periodically reallocating assets between capital holders. Because they do not use the assets of good companies to shore up bad ones, buyout fund managers help to customise each deal and thus make the capital reallocation mechanism more efficient.

Therefore, unless there is a widespread systemic crisis as a result of a massive credit crunch or unless world growth collapses, private equity should be able to continue providing high returns in absolute terms, while coping with losses on bad deals, in keeping with its historical pattern. From the asset manager's point of view, diversification of investment programmes should still be the rule in our opinion, because an analysis of the composition of returns also shows that the specific features of each deal result in a diversity of returns.

This article deals with (in order):

- (1) the current situation on the buyout market and the possible consequences of the financial crisis;
- (2) the composition of returns on the asset class, based on the study of a sample taken from the BNPP PE database;
- (3) a new look at the economic function of buyouts and their place in the history of mergers and acquisitions.

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1. THE END OF THE BOOM

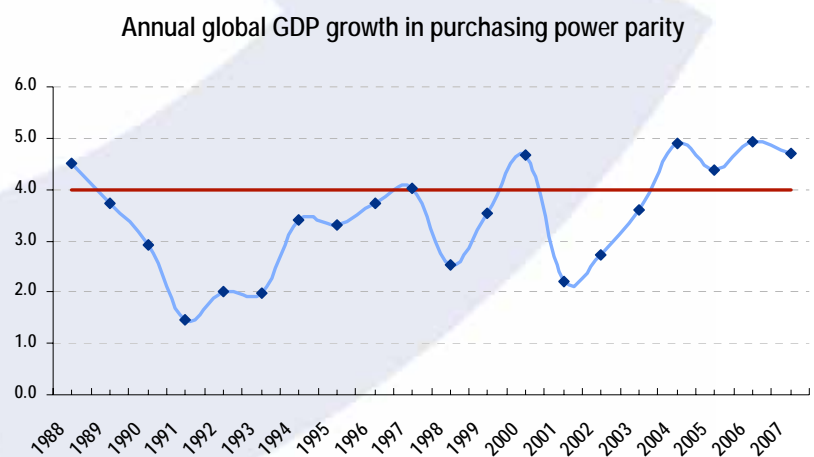
The buyout market started to grow rapidly in 2003, when a credit boom and strong world growth (1.1.) drove default rates to all-time lows (1.2.). Hardly surprising, therefore, that questions have arisen about the possible consequences of a lapse in managers' attention to risk during this period (1.3.), as well as the profitability of portfolios and the future of the buyout business (1.4.).

1.1. THE CREDIT BOOM FROM 2003 TO 2007

The credit market grew rapidly from the beginning of 2003 until July 2007. This growth was the result of an accumulation of worldwide liquidity in the coffers of oil-producing countries, governments of emerging Asian countries, pension funds, foundations, and super-wealthy private investors.

The expansion of liquidity was primarily due to rapid world economic growth. This growth reached historical highs starting in 2003. From 1988 to 2007⁴, there were only six years where world GDP growth (measured in PPP) topped 4.0%.

A succession of four years in a row with such high growth between 2003 and 2007 has not been seen since the period of strong, steady growth between 1950 and the first oil shock in 1974.



Source: International Monetary Fund, *World Economic Outlook Database*, October 2007

The accumulation of liquidity resulting from world growth boosted buyout activity in three ways.

- (i) It triggered a new wave of mergers and acquisitions, putting potential buyout targets on the market at attractive prices for vendors.
- (ii) It gave investors an appetite for alternative investments, including private equity⁵.
- (iii) Securitisation techniques enabled large numbers of investors to invest in debt securities.

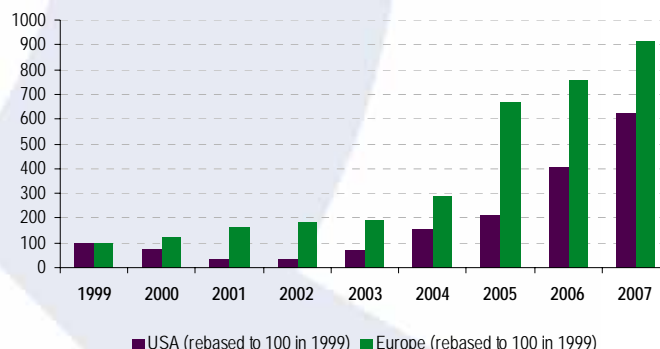
This means that a direct link was established by the increase in the world's wealth and the growth of the credit market.

⁴ This chart gives global growth figures in terms of purchasing power parity for the period from 1988 to 2007, which corresponds to the period covered by the sample of deals analysed below.

⁵ A report by BCG and IESE (*The advantage of persistence*, February 2008) states that a recent survey of fifty American pension fund managers shows their intention to make substantial increases in their allocations to alternative asset classes (up to 20% in 2010).

In the USA, where the buyout market and the credit market are more mature, and where business cycles are more pronounced, leveraged loans posted spectacular growth. This started in 2003 and followed a depression in 2000 and 2001, which stemmed from the high default rate on loans to the telecoms industry. Growth in Europe was steadier. It primarily paralleled the development of European buyouts⁶.

Growth of leveraged loans in the United States and Europe since 1999 (base: 1999=100)



Source: S&P (figures cited by David Rubenstein, *Ten Key Questions Facing the Private Equity World*, Superinvestor Conference, February 2008)

The credit boom that started in 2003 was sustained by the development of syndicated loans. A large share of these loans were syndicated with investment funds through structured products such as collateralised loan obligations (CLOs), or with hedge funds that were also leveraged. These hedge funds had a large appetite for high-yield mezzanine and second lien debt, which is senior only to equity⁷. Buyouts create debt and they naturally contributed to the production of debt securities. Non-bank institutions are reported to have absorbed 60% of the leveraged buyout loans in the USA in 2005, in the buyout market as well as in the other credit market segments (these statistics are still uncertain, however)⁸.

1.2. DEFAULT RATES ARE STILL AT HISTORICAL LOWS

Corporate defaults since 1981



Source: S&P (*2007 Annual Global Corporate Default Study*, Ratings Direct, 5 February 2008)

The credit crunch that hit in July 2007 was not due to leveraged loans. On the contrary, it started when leveraged loans had been posting very low default rates for a long time.

Long-term statistics show that all forms of corporate defaults have been at historical lows since 2003.

S&P published statistics⁹ on speculative grade bonds, showing that the trend which started in 2003 continued in 2007 despite the financial crisis.

The 2007 default rate is the lowest since 1996. This rate has always been more volatile in the USA than in Europe.

⁶ Source: S&P statistics cited by David Rubenstein, *Ten Key Questions Facing the Private Equity World*, Super Return Conference, 27 February 2007.

⁷ S&P, *A guide to the Loan Market*, October 2007.

⁸ Viral Acharya, Julian Franck, Henri Servaes, *Private equity: boom and bust?*, *Journal of Applied Corporate Finance*, Fall 2007.

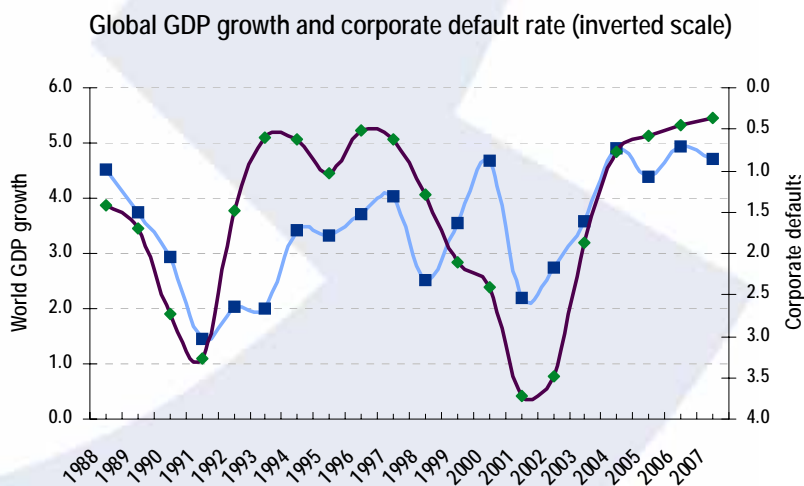
⁹ These statistics count the "first occurrence of a payment default on any financial obligation" by companies tracked by S&P (*2007 Annual Global Corporate Default Study*, Ratings Direct, February 5, 2008).

The default amounts also need to be considered. They were spectacularly small in 2007, compared to their peak in 2002. This means that lenders had been enjoying a feeling of security for five years.

Defaults on leveraged loans obviously follow the same trends. The analysis of performance composition in our database shows that the buyout market has seen a low default rate since 2003.

This low default rate since 2003 is no mystery. We know that there is a simple historical correlation between default rates and world economic growth¹⁰. The chart opposite compares corporate default rates (inverted scale) and world economic growth rates.

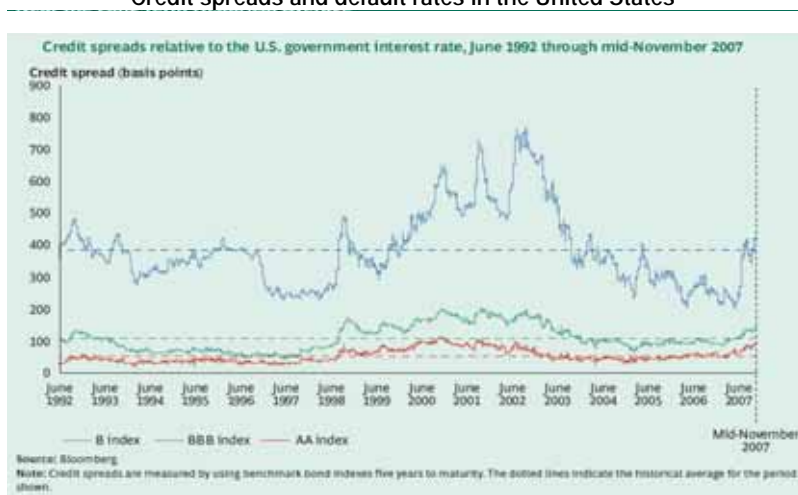
There is another historical correlation between default rates and credit spreads in the USA. The credit boom featured low borrowing costs. Given this background, the credit boom looks less like irrational exuberance more like the natural consequence of a period of strong economic growth.



Sources: IMF and S&P (see charts above)

This means that buyout deals in portfolios since 2003 could obviously suffer from higher corporate default rates, as an indirect result of the financial crisis of the summer of 2007, if this crisis triggers or exacerbates a slowdown in world growth.

Credit spreads and default rates in the United States



Source: BCG & IESE, *The advantage of persistence*, February 2008

¹⁰ A recent study on the determination of default rates and credit spreads: Dragon Yongtun Tang and Hong Yan, Market Conditions, *Default Risk and Credit Spreads*, University of Hong Kong and Kennesaw State University, January 2008

1.3. A LAPSE IN ATTENTION TO RISK?

One natural consequence of economic conditions over the last five years may have been a lapse in the attention paid to risk by buyout fund managers and lending banks.

Determining the debt levels of buyout deals seems to involve factors that are very different from those used to determine the debt levels of publicly held companies. A recent study of a sample of 153 buyout deals involving companies worth more than €1 billion between 1980 and 2006¹¹ found that the main determining factor for the aggregate level of leverage was the cost of borrowing, rather than the individual characteristics of the target companies. It comes as no surprise, therefore, that leverage increased in recent years: low borrowing costs made it possible to meet higher repayments with the same EBITDA.

All the buyout fund portfolios and published statistics in recent years show a steady increase in debt/EBITDA ratios since 2001.

For example, initial debt for European buyout deals in 2007 averaged 74% of the value of the company in deals worth more than EUR 250 billion, and 76% in deals worth less than EUR 250 billion. These percentages are similar to those since in the USA from 1985 to 1989 (77%)¹². Yet, this period came before a substantial increase in default rates on buyout debt in the early 1990s.

Average debt/EBITDA ratio for major buyouts, with debt issues of more than 50 billion US dollars



Source: S&P (figures cited by David Rubenstein, *Ten Key Questions Facing the Private Equity World*, Superinvestor Conference, February 2008)

Increased leverage is not the only sign of lapsing attention to risk. Other factors may have come into play during the boom, as a result of keener competition on the buyout market, especially in Europe. These include generous incentives for company managers, a lack of scrutiny of the business plans drawn up by managers and vendors, systematic use of current data to calculate the value of companies instead of past data, and cursory due diligence.

These factors are a matter of professional practice: they cannot be measured. Furthermore, it is neither certain nor proven that recent changes in practices have all been negative, because competition has made the market more efficient. It has led to standardisation of practices for fund managers, bankers, lawyers and consultants. It may have pushed some of the longest-established players to forsake routine practices that, in all probability, were not all of a very high standard.

¹¹ U. Axelson, T. Jenkinson, P. Strömberg, M. Weisbach, *Leverage and Pricing in Buyouts: An Empirical Analysis*, Swedish Institute for Financial Research (SIFR), Stockholm School of Economics, University of Oxford, University of Illinois, July 2007.

¹² Ratios for 2007: S&P, European buyout review, Q42007, ratio for 1985 to 1989: V. Acharya, J. Franck, H. Servaes, *Private equity: boom and bust?*, *Journal of Applied Corporate Finance*, Fall 2007.

1.4. CONSEQUENCES OF THE END OF THE BOOM

The sub-prime crisis of July 2007 brought the credit boom to an end. It led to a lack of confidence in the quality of all debt securities, causing a slide in values and attrition on the secondary market and the market for syndicated debt securities. This has led to losses on banks' and financial institutions' balance sheets, stemming from mark-to-market valuations, and liquidity problems for funds and banks, even though the underlying loans are still backed by sound assets. The combined consequence is a form of credit crunch.

These circumstances have led many observers to make dire predictions for all types of leveraged investment, including buyouts. These predictions refer to:

- the risk of poor returns on portfolios put together during the boom,
- as well as the future of buyout funds and the buyout economy.

1.4.1. Poor returns on recent portfolios?

It is easy to predict that the end of the credit boom will lead to poor performance for some of the deals put together between 2003 and 2007. These predictions are based on similarities between the current situation and the situation in the early 1990s in the USA, when there was a wave of defaults and a high number of non-performing deals¹³ following a period of strong growth for buyouts.

Today, as in the early 1990s:

- Lenders' lack of attention to risk during the boom has led to high debt levels (see above).
- Deals may be fairly poorly monitored by lenders because the lenders are no longer banks, but the managers of the funds holding the securities. As was the case for holders of high yield bonds in the 1990s, fund managers have a poor understanding of the companies borrowing money. If problems occur, it will be complicated to bring the lenders together to work out new terms for the deals¹⁴.
- As is the case for any market, the market for buyout debt is based on confidence. Under the current conditions, lenders are likely to overreact to bad news, such as default or bankruptcy in a high-profile deal.

The lenders' overreaction could exacerbate conditions for more tenuous buyout deals, especially in countries where the bankruptcy laws favour lenders, such as the USA, the United Kingdom and Germany. The number of cases where companies enjoy good business conditions, but are in financial distress could increase, providing opportunities for turnaround funds¹⁵.

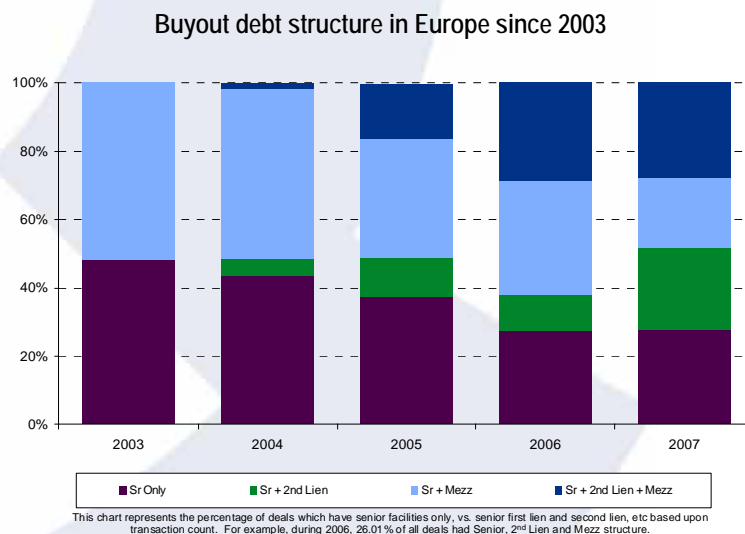
¹³ The pattern was similar in Europe, as can be seen in the rate of non-performing deals in our sample (analysed below) from 1988 to 1991.

¹⁴ An excessive number of LBOs in the 1990s ended in bankruptcy in the USA, even though their debt could have been restructured (see V. Acharya, J. Franck, H. Servaes, *Private equity: boom and bust?*, *Journal of Applied Corporate Finance*, Fall 2007).

¹⁵ Viral Acharya, Julian Franck, Henri Servaes, *Private equity: boom and bust?*, *Journal of Applied Corporate Finance*, Fall 2007.

However, there are several differences between the current situation and the situation in the USA in the early 1990s, which should limit the risk of a substantial deterioration in the risks associated with buyouts.

- The first difference stems from the nature of the deals. The level of debt is high, but since 2003, buyout deals have used structures relying on products that lie between debt and equity, such as mezzanine debt and second lien debt. The table opposite shows the increasing share of complex debt structures using such products since 2003, as the total prices paid have increased.



Source: S&P (*LCD European Leverage Buyout Review, Q4 2007*)

- The consequences of lenders' lack of attention to risk include:
 - Less rigorous default clauses in loan contracts. Senior debt is often entered into on the basis of covenant-lite loan contracts. These have less restrictive clauses than before concerning early repayment of the loan in the event of default or failure to comply with financial ratios.
 - Longer contractual terms for repaying debts. Deals in sectors with stable cash flows, which are seen as especially reassuring for lenders, were wholly financed using bullet loans repayable at maturity.

This means that a large portion of debt is not sensitive to deterioration in the borrowers' financial ratios or indexed to their business performance.

- Mezzanine debt is held by a small number of professional investors. If problems occur, restructuring this category of debt should be easier than it was in the USA in the 1990s.
- Finally, bankruptcy laws are now more effective on the whole. In most countries, such laws now do more to promote negotiations prior to bankruptcy.
- The combination of these technical factors shows that debt structures put in place between 2003 and 2007 are not likely to lead directly to a substantial increase in the number of non-performing deals. The problem needs to be seen in the light of the impact that the financial crisis has on world economic growth. The increase in defaults in the USA in the early 1990s was primarily due to the economic recession, since the rate of world economic growth is the primary determinant of default rates (see above).

In addition to a higher failure rate, the new credit environment could affect returns on recent buyout portfolios in three ways.

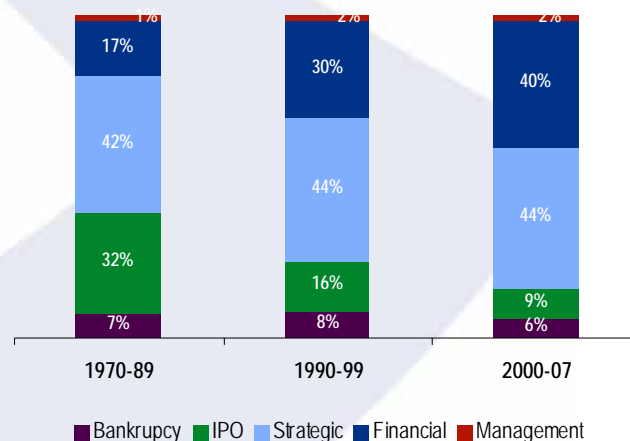
(i) There is the impact of new capital contributions, which will be needed each time buyout funds have to renegotiate their debt. Such renegotiations will take place either for contractual reasons, to ensure repayment of short-term debt, for example, or to finance new acquisitions under leveraged build-up plans. This would mean that fund managers would suffer the consequences of greater attention to risk by lenders. The result would be new capital contributions, which funds that have kept aside some reserves could easily finance.

(ii) Then, there is the impact of the smaller number of recapitalisation deals¹⁶ and secondary buyout deals, where companies are sold to other buyout funds. Both types of deals obviously flourished during the credit boom. The table opposite shows the breakdown of the sample of 21,397 deals around the world made between 1970 and 2007 by exit type. This analysis was performed for the WEF¹⁷. We have combined secondary buyouts and sales to other companies held by buyout funds in the "Financial" category.

The recent increase in this type of exit is plain to see. The possible attrition of such exits could mean that exits take longer and are more hazardous.

(iii) Finally, there is the impact on the internal rate of return (IRR) of the longer holding period caused by the combination of the other factors.

Distribution by exit type of a sample of 21,397 buyout deals from 1970 to 2007 studied by the World Economic Forum



Source: P. Strömberg, *The new demography of private equity*, report commissioned by the World Economic Forum, *Globalization of Alternative Investments*, Working Papers Volume 1: *The Global Economic Impact of Private Equity Report 2008* (categorisation by exit type by BNP Paribas Private Equity)

1.4.2. Adjustment of new deals to the new environment

The end of the credit boom could lead to several adjustments in deal structures in coming months.

(i) Large buyout funds will be less interested in public-to-private deals, because conditions on the debt market, and especially the time needed, could make it more difficult to arrange such deals.

But there is nothing to suggest that such deals will disappear for good. They are still valid when there are differences between market valuations at a given time and the funds' valuations based on their business plans. In historical terms, public-to-private transactions account for some 30% of the amounts invested by buyout firms¹⁸. If the credit crunch triggers a recession that requires publicly held groups to restructure, public-to-private deals could continue to be an effective tool for reallocation.

(ii) Greater use will be made of equity in deal structures. For the next few years, buyout financing will include a larger portion of equity than that seen in deals made between 2003 and 2007. Acquisition multiples are likely to be lower, in 2008 and 2009 at least. There is a general consensus in the industry on these predictions.

¹⁶ Renegotiation of debts in order to pay an exceptional dividend to buyout funds. Such deals have not totally disappeared since July 2007, despite the direst predictions.

¹⁷ P. Strömberg, *The new demography of private equity*, report commissioned by the World Economic Forum, *Globalization of Alternative Investments*, Working Papers Volume 1: *The Global Economic Impact of Private Equity Report 2008*. We have classified exits by type ("trade sales" are sales to companies).

¹⁸ 28% in the historical sample analysed by the World Economic Forum, see note 1 above.

These adjustments could have favourable consequences for returns on deals. If we are convinced that portfolios of recent deals will produce lower-than-average returns, the logical inference is that the coming months, or even years, will be very favourable. But such reasoning soon bumps up against its limits. Determining the constitution of buyout returns in the real world is more complex in our opinion (see below).

(iii) There will be less financing through securitisation. The outlook for securitisation of debt is uncertain. This issue is not only a concern for buyouts. However, it is highly unlikely that this mechanism for diluting risk will disappear for good. The credit crunch could even give rise, in the short term, to an active and profitable market for downgraded debt securities.

1.4.3. Is there a future for buyouts?

In addition to the technical impact of the end of the credit boom on portfolios of recent deals, there are two types of questions about the future of the buyout business.

- Is a lasting decrease in the activity of buyout funds likely, following the slowdown seen since July 2007¹⁹?
- Does the bursting of the credit bubble undermine the principle of buyouts and their role in the economy?

Naturally, there is a great gulf between the views of buyout professionals, who are used to thinking in the long term, and media commentators. The professionals see the sub-prime crisis as a return to normal, which they all claim to welcome²⁰, whereas media commentators and some academics gleefully depict a buyout apocalypse.

We think that the historical analysis of the constitution of buyout returns that follows sheds light on both:

- the impact of the end of the credit boom on returns on portfolios of recent deals, by examining how well buyout funds have been able to cope historically with a large portion of non-performing deals.
- and the debate about the future of buyouts.

¹⁹ Recent statistics on funds' activities show a slowdown and not a collapse of the market. The slowdown primarily affects large-scale deals and it stems not from defaults on leveraged loans, but from more restricted access to credit markets.

²⁰ Especially in Europe, where all managers say that they maintained more reasonable leverage practices during the boom than their American counterparts did.

2. ANALYSIS OF THE HISTORICAL PERFORMANCE OF BUYOUTS

Any analysis of past and future returns on private equity must consider the way the constitution of the performance of this asset class is determined. It does not depend on markets to set prices, unlike conventional asset classes. The return on a private equity fund is the aggregation of returns on individual deals. These deals are not made at the same time. Their results do not depend on market valuations of the underlying companies, even though there is a link with the movements of stock market indices. This means that the link between returns on private equity and macroeconomic factors, or the performance of conventional assets, is a complex one.

We analysed the historical performance of buyouts on the basis of 2,145 European deals in the BNPP PE database, which have all been exited (meaning either sold or written off). These deals were taken from the track records of eighty-two European funds set up since the mid-1990s. The sample covers investments initially made in the 15 years from 1988 to 2003. The sample contains a minimum of 50 deals from each of these years²¹.

We used this sample for three investigations: (2.1.) analysis of the constitution of performance of the whole sample each year, (2.2.) analysis of changes in two key data over time: the failure rate and the rate of super returns, and (2.3.) analysis of the constitution of performance of sub-series corresponding to different funds, rather than the performance of the whole sample.

2.1. ANALYSIS OF THE ANNUAL PERFORMANCE OF THE WHOLE SAMPLE

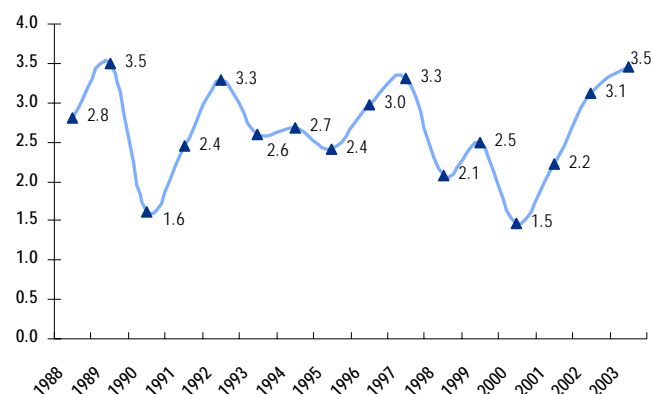
2.1.1. Performance of the whole sample by year

The whole series, made up of 2,145 European deals, shows an aggregate multiple of 2.5 for an IRR of 36.4%, or a duration of 2.6 years²².

The analyses that follow focus on the multiple, because the multiple is both the management target for private equity funds and the simplest measurement unit.

The chart opposite shows details of the variations in annual multiples (the multiples of the annual sub-series of deals making up the sample, by year in which the initial deal was made).

Multiples of the annual subseries of deals from the sample of 2,145 deals taken from the BNPP PE database



Source: BNPP PE, April 2008

²¹ We eliminated deals in our database from before 1988 and after 2003 because there were not enough of them.

²² This is the aggregate multiple of capital invested (total inflows/total outflows). The IRR includes all of the inflows and outflows from the date of the initial investment (first outflow) to the date of the last sale (last inflow). Duration is the theoretical length of a given investment with two flows (cash outflow and cash inflow) that would produce the investment multiple under consideration at the IRR of the investment under consideration.

There was no year where the multiple was less than 1.0. On the other hand, the standard deviation of the annual multiples is high, since they range from 1.5 to 3.5.

2.1.2. Analysis of aggregate performance by deal

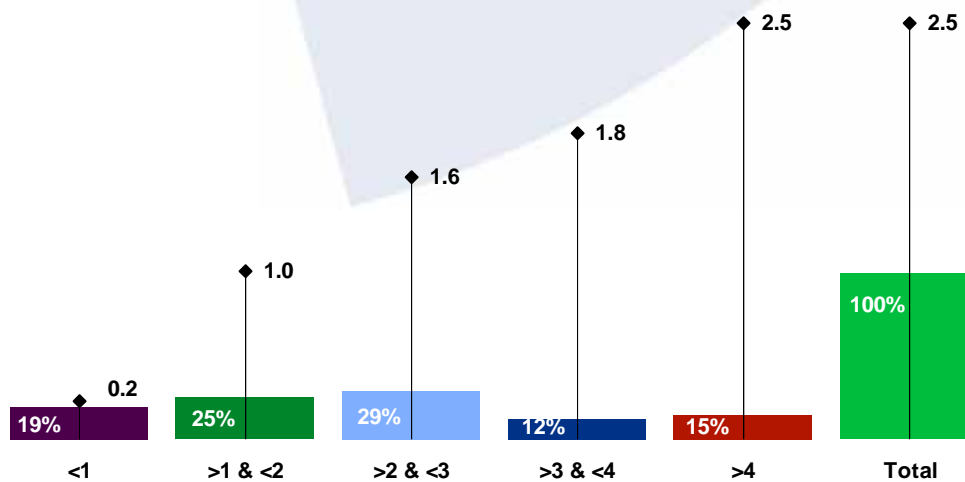
The aggregate data (multiple of 2.5 and IRR of 36.4%) are not meaningful in themselves, because they relate to a long series that is diverse in terms of the amounts invested.

On the other hand, the breakdown of multiples by deal is very instructive. It shows how private equity produces the expected returns. The chart below shows the breakdown of the performance of the whole sample.

Deals are classified into four multiple intervals: less than 1.0, 1.0 to 2.0, 2.0 to 3.0, 3.0 to 4.0, and more than 4.0.

The size of the bars reflects the share of each interval in the amount invested. The aggregate multiple for the series is associated with each interval. This is reached by adding the interval in question to the accumulated performance of the lower intervals.

Breakdown of performance (distribution of amounts invested by multiple intervals and aggregate multiple found by adding each multiple interval) of the whole sample of 2,145 deals done from 1988 to 2003 taken from the BNPP PE database



Source: BNPP PE, April 2008

This analysis measures the contribution that the deals in each interval make to the aggregate performance of the sample:

- Non-performing deals are deals that produce a return of less than 1.0 times the investment and they account for 19% of the total amount invested in the sample. In aggregate, they produced a capital loss equal to 80% of the amount invested, which explains the multiple of 0.2 shown.

- Deals with mediocre performance (multiples of 1.0 to 2.0 of the investment) account for 25% of the total amount invested in the sample. In view of the capital losses incurred in non-performing deals, the aggregate multiple for the series, after adding these two categories representing 44% of the total amount invested in the sample, is equal to 1.0.
- Deals with good performance (multiples of 2.0 to 3.0 of the investment) account for 29% of the total amount invested in the sample. In view of the performance of the first two categories of deals (non-performing deals and mediocre deals), the aggregate multiple for the series, after adding these three categories representing 73% of the total amount invested in the sample, is equal to 1.6.
- Deals with very good performance (multiples of 3.0 to 4.0 of the investment) account for 12% of the total amount invested in the sample. In view of the performance of the first three categories of deals (non-performing deals, mediocre deals and good deals), the aggregate multiple for the series, after adding these four categories representing 85% of the total amount invested in the sample, is equal to 1.8.
- Deals with exceptional performance (multiples of more than 4.0 of the investment) account for 15% of the total amount invested in the sample. Adding in these exceptional deals increases the aggregate multiple from 1.8 to 2.5.

This distribution is bound to vary depending on the samples, which are constituted at random. However, we feel that our sample is sufficiently broad-based and representative to draw three general conclusions.

- (i) Private equity investment is an aggregation of individual deals with disparate performance.
- (ii) Non-performing deals have historically accounted for a large share of buyout investment. This should not come as a surprise, given that below average equity investment performance rarely means that the underlying company goes bankrupt or disappears; it simply means the company is sold (to creditors in most cases), at a price that results in a capital loss for the buyout fund. The share of non-performing deals varies over time and cannot be eliminated entirely²³.

This means that the portion of exited deals producing multiples of less than 1.0 is practically nothing in our database of deals from 2003 to 2006²⁴. This is because the deals exited in this period still account for a small portion of all deals and because business conditions were very favourable (see above).

- (iii) The expected performance of an allocation to private equity and, more specifically, the higher returns compared to conventional asset classes, results from individual deals that produce exceptional returns. It is the addition of these deals that enables the whole sample to produce the expected performance. Without such exceptional deals, investors are not sure to obtain a return that offsets the uncertain liquidity of their investments.

The diversity of buyout deals stems from the nature of the business and portfolio diversification constraints.

²³ We estimate the long-term rate of non-performing deals at about 15% of the amounts invested. This estimate is consistent with other research (for example Mike Wright, from the Centre for MBO Research, on the deals made in the United Kingdom and put into receivership, which is different from the notion of non-performing deals. Mike Wright, The Benefits of Private Equity, Superinvestor Conference, 2007, Paris.

²⁴ The chart above does not include the years from 2004 to 2006 because we do not have a sample of more than 50 exited deals for those years.

2.1.3. Why does deal performance vary so greatly?

The buyout business consists in making investment decisions based on business plans. Such plans may be drawn up by the management of the target company. They may be subject to major corrections by the fund managers or reviewed by consultants. Regardless of who makes them, forecasts of return on investment, based on the operating income of the target company, are the primary basis for the investment decision. The debt level for the buyout deal is determined at the outset, because of the players, including fund managers, mezzanine debt holders and bankers, deem that the "baseline case" of the business plan can cover the debt service.

This means that the investment decision in a buyout is like any other investment decision based on prospects for future profits. The success or failure of the deal depends on the validity of the business plan defined at the outset. Yet, anyone knows that empirical data, backed up by abundant academic literature, shows that outturns are different from forecasts in most cases²⁵. Most of the business plans drawn up when investment decisions are made do not turn out as expected. This means the diversity of buyout deal performance is no mystery.

In some cases, unexpected events disrupt the implementation of business plans. BNPP PE empirical experience leads us to distinguish between three types of serious deviations from business plans that lead to failed buyout deals:

- The disappearance or a big reduction in the company's market following the realisation of a risk that had been identified but deemed unlikely, such as the loss of a key client, faster-than-expected technological change that makes the company uncompetitive or unexpected changes in regulations.
- The response from the competition when the company operates in a competitive market with strong competitors, and where its negotiating power, which had already been weak, is further undermined by the buyout. A cut in prices and margins, which may have been expected in most cases, turns out to be so large that it ruins the buyout deal.
- Implementation of a poorly managed growth plan at the initiative of the buyout fund managers, a failed takeover of a competitor in industry or services, and over-expansion in poor locations for retailers are other events that can ruin a deal.

Exactly the opposite factors come into play in exceptional deals: faster-than-expected market growth, landing excellent contracts, successful implementation of a growth plan worked out in advance by management. The target company management team seems to play a key role in every successful buyout, mostly because it has in-depth knowledge of the company and its business sector. Company management is also strongly motivated to make the buyout succeed.

These findings are in line with other research into the factors of buyout funds' success or failure, which highlights the critical role that management quality plays. Management practices (management networks, micro-expertise in the target industries, quality of relations with company management) are more important for performance than strategies regarding sectors and geographical markets, or the size of the deals²⁶.

²⁵ J. Kotzen, C. Neenan, A. Roos, D. Stelter, *Winning Through Mergers in Lean Times, The Hidden Power of M&A*, Bain, July 2003.

²⁶ BCG & IESE, *The advantage of persistence*, February 2008.

Therefore, findings drawn from macroeconomic analyses of buyout performances need to be interpreted with care. In the real economy, buyouts produce high returns when there are few deals with below-average returns and many deals with exceptional returns, but it is not possible to rely on a macroeconomic approach to predict success for any given combination of deals. Analysis of changes in failure and exceptional return levels for the deals in our sample over time bears out this hypothesis.

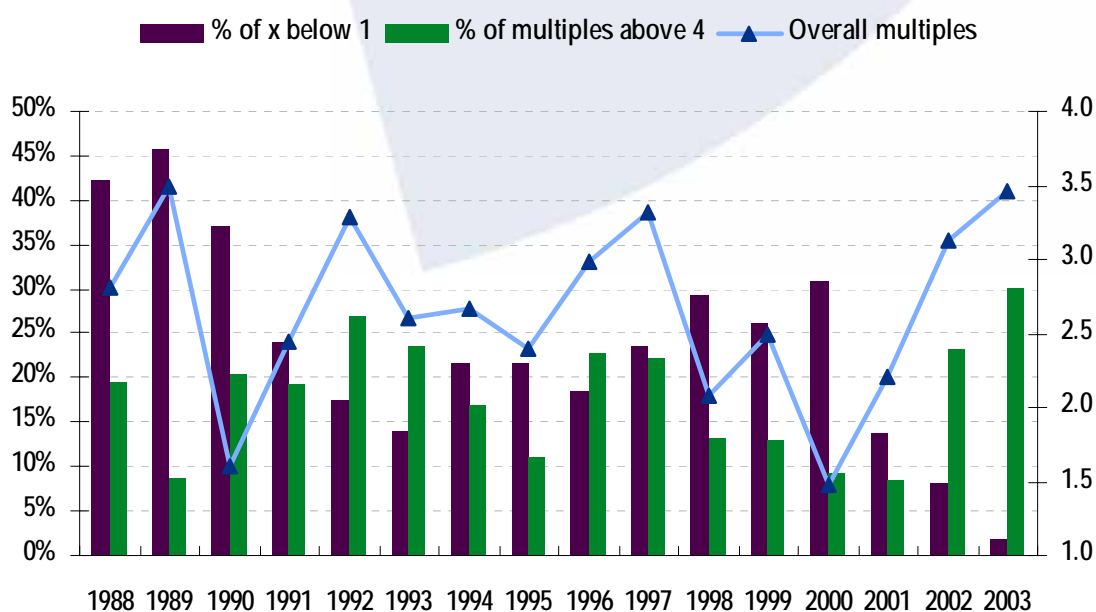
2.2. CHANGES IN FAILURE RATES AND OUTPERFORMANCE RATES OVER TIME

We have tracked the constitution of the annual multiples generated by buyout investment in the sample (multiples of the annual subseries of deals are presented in detail in the chart above) on the basis of two key pieces of data:

- The **failure rate**, meaning the percentage of deals generating multiples of less than 1.0 in the total amount invested in the annual subseries of the sample,
- The **outperformance rate**, meaning the percentage of deals generating multiples of more than 4.0 in the total amount invested in the annual subseries of the sample,

The chart below gives details of changes in the failure rate and the super return rate each year.

Failure rates and outperformance rates (in % of amount invested) of the annual subseries of deals in the aggregate sample of 2,145 deals taken from the BNPP PE database



Source: BNPP PE, April 2008

The situations change from year to year; the constitution of annual multiples does not follow a normal distribution. In most years, the annual failure and outperformance rates deviate substantially from the rates for the sample as a whole (failure rate of 19%, outperformance rate of 15%).

None of our attempts to show correlations of the failure and super return rates of the annual subseries from our sample with market data, or macroeconomic data (such as default rates, volume and value of mergers and acquisitions, and average equity percentages in buyouts) produced satisfactory results.

Our attempts also raise methodological issues, because we are analysing a sample. However, any private equity investment is an aggregation of a series of individual deals in the form of investments in funds rather than an investment in a vehicle that tracks a representative index. This means that constituting a sample is more in line with real private equity investment than compiling an index.

A closer examination of the data, however, could lead us to distinguish between four periods:

- (i) 1988-1991 during these four years, which correspond to the pioneer days of European buyouts, failure rates were high. Annual multiples varied greatly according to the performance of other deals. Few deals delivered outperformance, but some of them were exceptional. The peak was reached in 1989, when outperformance in the subseries produced an average multiple of 6.7. Therefore, highly dispersed individual deals were a feature of this period.
- (ii) 1992-1997, during these five years both the failure rate and outperformance rate were more in line with the rates for the whole sample. Annual performance was fairly stable and high, ranging between 2.5 and 3.5.
- (iii) 1998-2000, these three years once again saw a high level of non-performing deals, which were offset by exceptional deals in 1998 and 1999, but not in 2000.
- (iv) 2001-2003, these three years saw a decrease in the failure rate, which was virtually nil in 2003²⁷. In terms of multiples, 2002 and 2003 were very good years, marking the start of the credit boom. They featured low failure rates and high super return rates.

This breakdown by period leads us to two empirical conclusions. We feel that these conclusions are sounder than establishing uncertain macroeconomic correlations:

- During the period under review, European buyout professionals were gaining experience. They improved their risk-prevention expertise. The cluster of non-performing deals at the beginning of the period reflects a lack of maturity, when the European buyout business did not yet have the right tools to do its job properly (poorly structured debt, poor negotiation of credit terms, inadequate reporting methods, etc.),
- In any given year, the concentration of non-performing deals or, on the contrary, deals generating outperformance, was the result of the combination of factors specific to each deal and market and macroeconomic factors, such as the economic recovery from 1994 to 1997, the stock market bubble that boosted exit valuations, or overconfidence in the prospects for certain industries, such as telecoms in the late 1990s. Market factors play a complementary role that can enhance or disrupt the individual aspects of each deal.

²⁷ This was also the case for 2004 and 2006 with regard to the deals in our database, which are relatively few because the database covers exited deals only.

2.3. IMPACT ON FUND PERFORMANCE

2.3.1. Dispersion of fund multiples

A private equity fund is an aggregation of a series of deals carried out by the same team over a period of three to five years.

We have simulated theoretical funds by aggregating all the series of seven or more deals made by the same management team over a five-year period. We have used years where we have a sample of at least 10 theoretical funds managed by 10 different management teams.

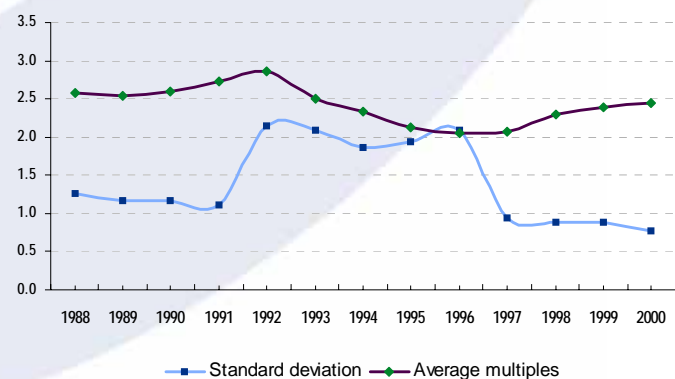
On this basis, we have a sample of 525 simulated funds over the period from 1988 to 2000. The chart below plots the funds' average gross multiples per year (meaning at the level of the portfolios, not including management fees and carried interest) and the standard deviation of these multiples.

The standard deviations seem to be high. Our sample, therefore, shows what is already well known, that the funds' returns are highly dispersed, because of the highly dispersed returns on deals.

The dispersion of the funds multiples make it even more difficult to predict their performance on the basis of macroeconomic considerations.

Even so, there seems to be a strong link between macroeconomic data and the multiples generated by the industry as a whole (meaning the aggregation of a large number of deals), however, establishing this link at the level of a given fund, representing about 10 of these deals, is still a very hazardous undertaking.

Average multiples of 525 simulated buyout funds and standard deviation of the multiples, by year of initial investment by each fund: simulation based on the sample of 2,145 deals taken from the BNPP PE database



Source: BNPP PE, April 2008

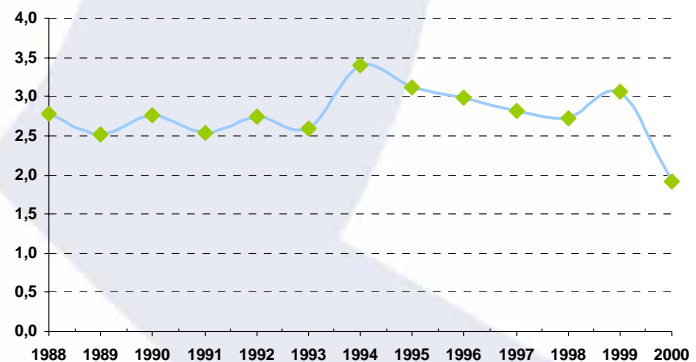
2.3.2. Diversity of portfolios within each fund

Another consequence of the broad dispersion of returns on individual deals is that the return on a given fund is highly dispersed by deal.

The chart opposite shows the average standard deviation of deal multiples in the simulated funds drawn from our sample. It seems that the average is always high.

The chart shows that the multiple of each fund is, in turn, the result of adding up the multiples of very diverse individual deals, despite the small number of deals making up each fund. The returns on individual deals within each fund are highly dispersed.

Average standard deviations of the multiples of 525 simulated buyout funds: simulation based on the sample of 2,145 deals taken from the BNPP PE database



Source: BNPP PE, April 2008

2.3.3. The difficulty of putting together more uniform portfolios

The diverse and random factors dictating the failure or success of deals explain why it is hard for a fund manager to put together a uniform portfolio of deals and why it is hard for a private equity investor to put together a portfolio of homogeneous funds.

A buyout fund manager promises to put together about 15 deals over a five-year period for investors. Various management styles are used to reach this objective, but they all have two points in common.

- All managers base their capacity to reduce risks (by avoiding failures) on three factors. These are their individual experience, the quality of the analysis process and collegial decision-making.
- All managers differentiate themselves from the competition by defining the resources that they have in a given market that enable them to generate outperforming deals.

This means that the primary differentiation between funds stems from the resources that the managers use to deliver outperformance. These resources fall into three categories.

- (i) Pre-emption of “proprietary” deals. Managers think that they can make such deals with the best prices and timing because they have special relationships with the vendors.

This type of deal is characteristic of immature and very inefficient markets. In such markets, deals rely on the managers’ networks in given sectors or areas. Managers are still able to negotiate deals on an exclusive basis²⁸.

- (ii) An understanding of particularly complex deals (with turnaround deals representing the most extreme cases), where the managers think that they are able to understand deals better than others.

²⁸ This is the case in countries, regions or sectors with very distinctive features, or where private equity has not yet developed to any great extent. The maturity of private equity in a given country or sector does not constitute a factor for efficiency on its own. For example, the energy sector, which is the focus of activity for many funds around the world, still follows its own specific patterns. Similarly, the mid-market in Northern European countries, despite its age, is now relatively uncompetitive compared to other European markets.

(iii) Speed and efficiency of execution, which are the keys to success for fund managers in mature markets²⁹. In these markets, deals are handled by intermediaries, investment banks or merger and acquisition firms. Many fund managers can spot deals with the potential to deliver super returns, because of the price or the obvious quality of management. Such deals are made by managers who beat the competition by convincing vendors and managers sooner.

For this purpose, each manager tries to establish close relationships with intermediaries. These relationships are based on personal contacts. Consequently, intermediaries learn what types of deals fund managers like, whether their tastes run to more or less complex deals, deals in specific sectors, deals with hands-on or hands-off management of the target companies, etc.

The types of deals define the managers' management styles. Their relationships with intermediaries make it possible to promise speedy execution of deals and, consequently, an efficient process.

However, differentiation approaches have obvious limitations. No fund manager, regardless of the market, can promise investors fifteen deals of a specific type over a five-year period. Their strategies are fairly vague. The need to diversify portfolios means a diverse mix of deals for each fund.

Diversity of returns, deals and funds is the rule in private equity. Historical returns on European buyouts, as tracked through our sample, show the learning curve, but do not enable us to identify macroeconomic factors that determine the performance of the different combinations of deals that make up the funds.

²⁹ Today, the United Kingdom, the east coast of the USA and France are examples of mature markets.

3. DEAL ECONOMICS AS THE SOURCE OF BUYOUT PERFORMANCE

Historical analysis of buyout performance factors brings us back to the old debate about the role of buyouts in the economy. The debate was revived by the hypothesis that buyouts could disappear with the end of the credit boom (3.1.). However, we think that our analyses above uphold the old academic hypotheses about the economic function of buyouts (3.2.). Buyouts are defined as “transaction-oriented” mergers and acquisitions that lead to a reallocation of capital resources in the economy. Their effectiveness relies on the quality of managers in target companies and the efficiency of the corporate governance introduced by the buyout. Therefore, we think a buyout “eclipse” is unlikely.

3.1. THE OLD RECURRING DEBATE ABOUT BUYOUTS

Ever since they first appeared in the USA in the 1970s, buyouts have been the focus of academic research. This research concentrated on the efficiency of buyouts as a governance mode to such a degree that this issue has monopolised the discussion. It has led its advocates to predict its widespread development and its critics to predict its disappearance, if it is unable to take the place of the governance system for publicly held companies.

In 1989, Michael Jensen published an article that was the first in a long series of research papers on the efficiency of corporate governance by buyout operators. The title of his article was “*The Eclipse of the Public Corporation*”³⁰, which was seen as a somewhat provocative proclamation that major publicly held companies no longer represented the only efficient operating model for “managerial capitalism”. The article was part of a wave a criticism of conglomerates as large diversified bureaucratic organisations.

The debate died down in the 1990s, when research into techniques for aligning the interests of managers and shareholders in publicly held companies made significant advances. The bursting of the tech bubble in 2001, and the Enron scandal, highlighted the negative impact of market behaviour on the decision-making of corporate managers. Buyouts, once again, appeared to be one way of getting managers to focus on the long-term interests of companies³¹.

Then the credit boom and the emergence of larger and larger buyout funds led to mega buyout funds, especially in the USA, which used the under-valuation of publicly held companies to buy major corporations in high-profile public-to-private deals of the style seen in the 1980s³². At the same time, buyout funds arranged IPOs for the companies in their portfolios after they had been streamlined, energised and reorganised by private equity funds.

These high-profile deals have helped to revive the debate about buyouts. The pessimists’ arguments often focus solely on the future of public-to-private deals, which brings us back to the debate about private equity as an alternative to public equity as a governance method³³.

³⁰ M. Jensen, *The Eclipse of the Public Corporation*, Harvard Business Review, September-October 1989.

³¹ J. Fuller & M. Jensen, *Just say no to Wall Street. Courageous CEOs are putting a stop to the earnings game and we will be better off for it*, Journal of Applied Corporate Finance, winter 2002.

³² Public-to-private deals account for 28% of the amounts invested by buyout firms, according to the sample analysed by the World Economic Forum (see note above).

³³ B. Cheffins & J. Armour, *The Eclipse of Private Equity*, European Corporate Governance Institute & University of Cambridge, April 2007.

According to their analysis, several factors could lead to the “eclipse” of private equity:

- (i) changes in credit terms following the end of the boom³⁴,
- (ii) lack of transparency in the business vis-à-vis companies’ partners (compared to publicly held companies),
- (iii) business growth: this growth will lead management companies to become bureaucratic conglomerates and even publicly held companies (e.g. Blackstone), thereby losing the benefit of the veil of secrecy that surrounded them before,
- (iv) tighter regulation (on disclosure, managers’ compensation or the deductibility of interest)³⁵.

3.2. ECONOMIC FUNCTIONS OF BUYOUTS

It is still highly unlikely that buyouts will disappear from the economic landscape. We find that the preceding analysis of factors determining buyout returns, which highlights the individuality of each deal, upholds two conclusions of academic research. These are that: (3.2.1.) buyouts are defined as sets of transaction-oriented mergers and acquisitions, (3.2.2.) are in industries where there is little technological change over the long-term, and that buyouts do not undermine corporate performance if they are handled by effective managers, whose interests are more in line with those of the shareholders (3.2.3.).

3.2.1. Buyouts defined as transaction-oriented mergers and acquisitions

We think that the best definition of the role of buyouts in the economy can be found in the work of economic historians looking at their place in the history of mergers and acquisitions.

Back in 1994, Alfred Chandler³⁶ analysed buyouts as an element in the movement to restructure the American economy in the 1980s³⁷. His research focused on the competitiveness of the American economy, its restructuring after the 1970s, and the changing role of large publicly held companies in the economy.

Despite the disappearance of conglomerates, which used to be seen as a model of efficient organisation and then fell into disgrace with the markets after the late 1970s, Chandler concluded that the model of the large publicly held company would subsist³⁸. He saw this model as the only one with the capacity for investing in the long term. Therefore, Chandler did not envisage “the eclipse of the public corporation”.

³⁴ This could be foreseen at the time of the publication of the study cited above in April 2007.

³⁵ See note 25 and Viral Acharya, Julian Franck, Henri Servaes, *Private equity: boom and bust?*, *Journal of Applied Corporate Finance*, Fall 2007.

³⁶ Alfred Chandler (1918-2007) was a professor at the Harvard Business School and the historian of Dupont de Nemours, and of the formation of large American corporations, which he considered to be a model for efficient organisation (*The Visible Hand: The Managerial Revolution in American Business*, Cambridge Mass., 1980).

³⁷ Alfred Chandler, *The Competitive Performance of US Industrial Enterprises since the Second World War*, *Business History Review* (Harvard Business School), Spring 1994. This research provides a good account of American concerns at the time, both about the role of the American economy in the world, and about the future of the model of the large publicly held company.

³⁸ See the conclusion of the article: “First, the USA is not going the way of the United Kingdom in terms of long-term competitive strength. (...) Today American companies remain powerful competitors in the most dynamic and transforming industries of the late twentieth century. (...) Second, these industries will continue to be operated through large publicly held companies, not only in the USA, but also in Europe and Japan.”

Yet, he did not deny that buyouts were bound to play a continuing role, because global competition constantly requires reallocation of resources to large companies. Such reallocations create opportunities. This means that buyouts are defined as mergers and acquisitions that are justified by the transaction per se (transaction-oriented mergers and acquisitions) rather than by strategic considerations. They produce both a reallocation of resources by large publicly held companies and a more efficient mergers and acquisitions market³⁹.

These conclusions are in line with other research on the function and the history of mergers and acquisitions, which play the role of ensuring optimum reallocation of resources among different types of technology⁴⁰. The conglomerates of the 1950s can then be seen as the precursors of buyout funds since they bought companies in the hope of improving their management. Their approach was based on the mergers and acquisitions market and they too were surrounded by political controversy. The strategic justifications given for their deals sometimes failed to obscure the opportunistic nature of some acquisitions and disposals, which could be described as “transaction-oriented”.

Yet, buyout funds were indeed the sign of a new phase in the history of mergers and acquisitions, since there were real differences between them and conglomerates on one key point: buyout funds paid for companies in cash and not in shares. This makes them much more sensitive to the timing of each individual deal, rather than stock market considerations. They do not use the resources of good companies to shore up bad companies. Consequently, the risk of a systemic deterioration of the performance of the buyout business as whole resulting from one or two failures is much lower⁴¹.

One particularly favourable study of buyouts even goes so far as to establish a positive link between the growth of buyout deals in Europe and the growth rate of European economies⁴². The conclusion of this study in terms of the place of buyouts in the economy is in line with that of previous research: buyouts fill the gaps that appear at times in financing for reallocation of resources among publicly held companies and for the development of privately held companies.

This conclusion underpins our analysis of the sources of profitability in buyouts, highlighting the individuality of deals, the diversity of returns on deals and funds, and the weak overall correlation with macroeconomic data. Buyouts are an efficient means of reallocating capital in the economy, because they represent an aggregation of transaction-oriented mergers and acquisitions, where each deal has its own justification that can work under different macroeconomic configurations.

3.2.2. Efficiency of buyouts in different sector configurations

Chandler’s examination of buyouts in the USA in the 1980s led him to distinguish three types of sectors in 1994 with regard to the impact of a buyout.

- In “low-tech” sectors, where technological competition is not very intense, buyouts were made at the initiative of the subsidiary managers and the fund managers. The funds could take advantage of the opportunity to manage relatively well-protected assets more efficiently.

³⁹ Of course there were historical precedents for the transaction-oriented deals of the 1980s, such as the raids led by the great investment bankers at the end of the nineteenth century, some of whom used leverage even back then to carry out their deals. (see B. Cheffins & J. Armour, *The Eclipse of Private Equity*, European Corporate Governance Institute & University of Cambridge, April 2007).

⁴⁰ T. Barkoulas, C. Baum, A. Chakraborty, *Waves & Persistence in M&A Activity*, Louisiana Tech University & Boston College, 2001, B. Jovanovic, P. Rousseau, *Mergers as Reallocation*, NBER Working Paper 9279, October 2002. L. Capron, *Les vagues de fusions et acquisitions aux Etats-Unis*, in *Entreprises et Histoire*, No. 10, December 1995.

⁴¹ B. Cheffins & J. Armour, *The Eclipse of Private Equity*, European Corporate Governance Institute & University of Cambridge, April 2007.

⁴² T. Meyer, *Private Equity, spice for European economies*, Deutsche Bank Research, November 2007.

- In “high tech” sectors, such as pharmaceuticals, electricity, information technology, aeronautics and space, where large long-term investments in research and development were needed, large companies were still the best model for making the necessary reallocation among different types of technology.
- In “stable tech” sectors, such as industrial equipment, metallurgy, plastics, construction and materials, where companies were able to make the best use of technological assets, as long as they continued to invest in research and development, buyouts could have negative effects. But this was not always the case, since companies’ success depended on their ability to maintain a long-term perspective.

We feel that later research seems to uphold and produce a subtler view of these hypotheses in two ways.

- First, the growth of buyouts did occur in all sectors of the economy, but primarily in the “low tech” and “stable tech” sectors.

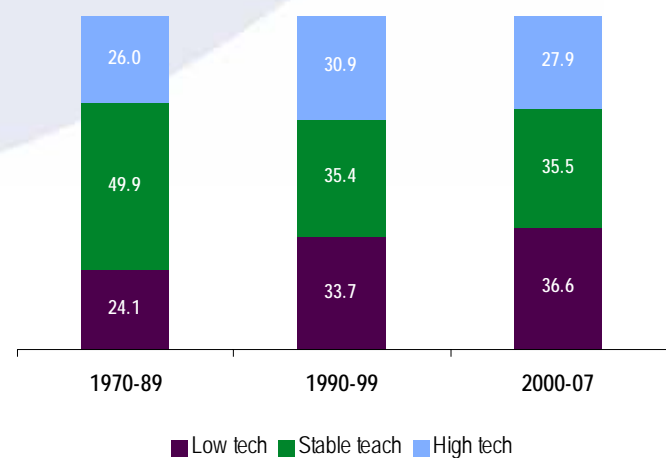
We have taken the 21,397 buyout deals made around the world between 1970 and 2007 and analysed them, at the request of the WEF, and we have classified them according to these three categories of sectors⁴³.

We see that the “low tech” and “stable tech” sectors are predominant and that the share of deals in the “low tech” sectors increased during the credit boom from 2000 to 2007.

In addition, an analysis of the business performance of buyout targets shows that these companies continue to grow, invest and create jobs at a slightly faster pace than their industry averages.

A study on this subject, which was also commissioned by the WEF, concludes that job creation by buyout targets tends to decline in the year before and the years immediately after the buyout, compared to industry averages. They then pick up again. Job creation therefore seems to be equivalent to that of other companies in the same sector under different forms of governance⁴⁴.

Decomposition in % by sector category of a sample of 21,397 buyout deals from 1970 to 2007 analysed by the World Economic Forum



Source: P. Strömberg, *The new demography of private equity*, report commissioned by the World Economic Forum, *Globalization of Alternative Investments*, Working Papers Volume 1: *The Global Economic Impact of Private Equity Report 2008* (categorisation of sectors by BNP Paribas Private Equity)

⁴³ P. Strömberg, *The new demography of private equity*, report commissioned by the World Economic Forum, *Globalization of Alternative Investments*, Working Papers Volume 1: *The Global Economic Impact of Private Equity Report 2008*. Our categorisation is as follows: “High Tech” = Software & Internet, Advanced Industrial Equipment, Media & Publishing, IT & Data Services, Healthcare, Computer, Biotech & Pharmaceuticals, Energy, Telecom, Movies; “Stable tech” = Retail, Industrial Machinery, Construction Materials, Engineering, Chemical & Agricultural, Metal & Mining, Automotive, Transportation, Household Durables, Utilities; “Low Tech” = Hotels & Leisure, Industrial & Commercial Services, Other Services, Trading, Food & Beverage, Financials, Household, Healthcare Services, Conglomerate, Real Estate, Education.

⁴⁴ S. Davis, J. Haltiwanger, R. Jarmin, J. Lerner, J. Miranda, *Private equity and employment*, report commissioned by the World Economic Forum, *Globalization of Alternative Investments*, Working Papers Volume 1: *The Global Economic Impact of Private Equity Report 2008*.

Another study, focusing on research and development by buyout targets and based on patent filings, reaches a similar conclusion: a buyout does not depress a company's ability to file patents, but it does not stimulate it either. Patent filings actually depend more on sector-specific factors⁴⁵.

These conclusions provide a subtler take on the arguments that industry associations make in favour of the economic efficiency of buyouts. They tend to confirm that the form of governance has relatively little impact per se on employment and on research and development, which actually depend on sector-specific factors and the efficiency of management.

3.2.3. Key role of management and the efficiency of governance

Buyouts are an instrument to promote the reallocation of resources in an economy that is dominated by large publicly held companies. Consequently, buyouts rely on good company managers to seize opportunities. Efficient managers preserve the acquired companies' assets and their capacity for innovation.

This conclusion brings us back to a point that has been well established in research on buyouts and is born out by empirical investigations: the quality of management is the key to the success of an individual deal. If this quality is acquired, then the buyout delivers a return for the investor, because the investors' interests are aligned with those of company management.

Following the initial research by Michael Jensen and Josh Lerner, a great deal of academic research has analysed the efficiency of buyouts as a form of corporate governance.

- Managers' power to use company cash for investments in diversification is reduced.
- Managers' interests are aligned with those of shareholders.
- Activity is concentrated on the company's core business⁴⁶.

The persistence of this form of governance for some companies, when there are successive buyouts of the same company, should be seen as proof of efficiency, rather than a negative element, according to Josh Lerner⁴⁷.

Therefore, the buyout business could undergo some adjustment in the short term (see above), but buyouts will continue to play their role in the overall economy, delivering high returns in absolute terms, and investors will consequently continue to allocate capital to buyouts⁴⁸.

⁴⁵ J. Lerner, M. Sorensen, P. Strömberg, *Private equity and long-run investment: the case of innovation*, report commissioned by the World Economic Forum, *Globalization of Alternative Investments*, Working Papers Volume 1: *The Global Economic Impact of Private Equity Report 2008*.

⁴⁶ Two recent studies: Ernst & Young, *How Do Private Equity Investors Create Value*, 2007 et Mike Wright, *The benefits of Private Equity*, Superinvestor Conference, 2007, Paris.

⁴⁷ J. Lerner & A. Gurung, *Executive summary* of the report commissioned by the World Economic Forum, *Globalization of Alternative Investments*, Working Papers Volume 1: *The Global Economic Impact of Private Equity Report 2008*. J. Lerner stresses that 40% of the buyout targets in the sample still had this "form of organisation" ten years after the initial buyout.

⁴⁸ For recent allocation intentions, see BCG & IESE, *The Advantages of Persistence*, February 2008.

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