Deutsche Bank Research

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Private Equity

Opportunities in turbulent times

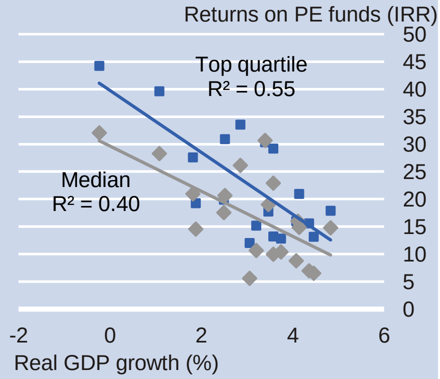
PE business model proved its worth during the crisis. The private equity (PE) industry was not immune to the financial and economic crisis. Portfolio companies were adversely affected during this period. However, their losses were, on average, smaller than those of comparable firms. The rates of return achieved on PE funds also held up well compared with other asset classes.

The first half of 2011 was marked by a sense of optimism – especially in Germany. This confidence was borne of the strong performance of the corporate sector to date, the increasing availability of debt financing, and the cash flows from successful exits during that period. However, the plunge in share prices since the beginning of August triggered a more sceptical assessment of general growth prospects.

Weaker economic activity makes future lucrative exits more difficult but may reduce entry valuations. PE funds launched when the economic cycle is at a low point typically yield the highest returns. This is true of top-quartile funds even more than it is of median funds. This means that new PE funds with well-constructed portfolios may benefit from a weak economy – for example because the valuations of buyouts are more affordable. This assessment is, of course, subject to the proviso that the sovereign debt crisis does not escalate into a general flight from risky assets. Private equity investments are strongly influenced by the debt markets. New issuances of leveraged loans and high-yield bonds have plummeted since August indicating a challenging lending environment.

Funds are looking for new investment targets – increasingly in emerging markets. High growth rates and considerable need for modernisation on the part of companies in these regions are attracting PE funds and their investors: some 23% of the capital raised in the second quarter of 2011 was attributable to funds that focus on emerging markets. However, different rules apply in these regions: majority buyouts are less common in emerging markets, therefore conflicts often have to be resolved using cooperation and soft power.

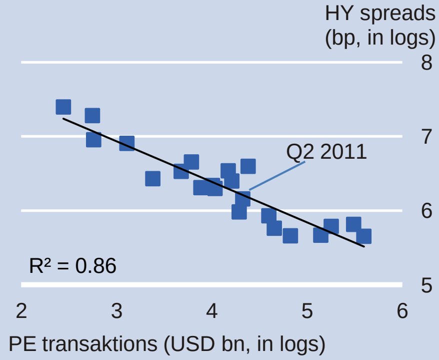
Weak growth, high returns



Returns by vintage year of PE fund, 1986-2005, USA

Sources: CA, DB Research, Global Insight, 2011

PE depends on credit market



Q1 2006 - Q2 2011

Sources: DB Research, Preqin, 2011

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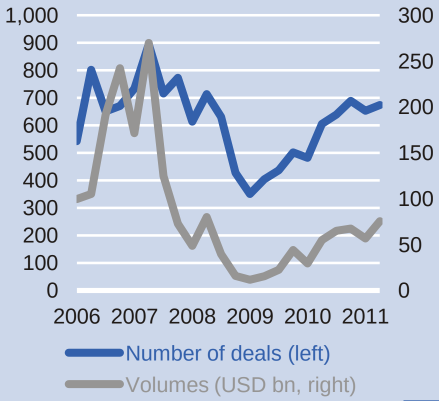
Slump during the crisis

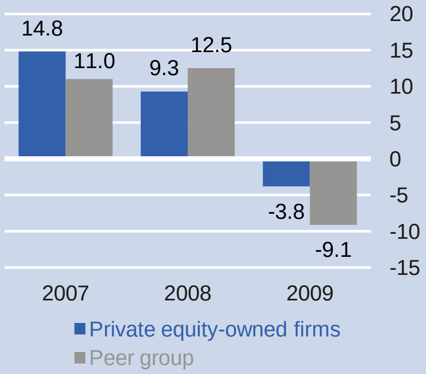
Private equity transactions worldwide per quarter



Source: Preqin, 2011 **1**

Business model proves its worth

Revenue growth (%)

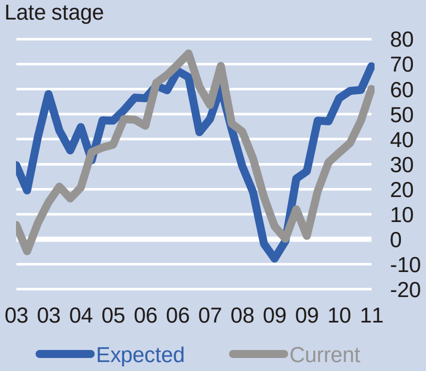


Based on 109 private equity-owned firms in Germany, Austria and Switzerland and a peer group of 309 companies.

Source: A.T. Kearney, 2011 **2**

Great expectations

German Private Equity Barometer, Late stage



As at Q2. Source: BVK/KfW, 2011 **3**

Business model proved its worth during the crisis

The private equity industry suffered heavily during the financial and economic crisis. When the credit markets experienced a sudden reversal in the summer of 2007, risk aversion rose sharply and the loan securitisation market dried up. It was subsequently much more difficult to conduct new PE transactions, and the total value of deals plummeted from USD 639 bn in 2007 to USD 184 bn in the following year.

In addition, private equity funds had to accept substantial write-downs on the value of some of their portfolio companies; in the United States the price of leveraged loans in the secondary market fell by 35% at times relative to their value at the beginning of 2007.

Without being able to borrow cheaply, argued many critics, the private equity business model would collapse and the former kings of capitalism would have to vacate their thrones. As far back as a study that we published in 2009 – at the height of the crisis – we contended that this view was exaggerated. The typical private equity business model revealed that it still offered a few strengths even in times of crisis: these included the ample capital reserves that the PE funds had collected while times were good (see below), the strength and quality of management expertise, and experience of restructuring.[1]

A recent study by management consultants A.T. Kearney now shows that the private equity industry did indeed hold up well during the financial and economic crisis. Although even private equity-owned firms were not unaffected in this environment, their revenues fell by much less during the 2009 crisis than those of a peer group of comparable firms (see chart 2). The study is based on an analysis of 109 portfolio companies in Germany, Austria and Switzerland and on a peer group of 309 firms that are similar to them in terms of revenue, sector and region.[2]

The level of investment activity bottomed out in mid-2009. Since then both the number and volume of transactions led by private equity funds worldwide has been rising in line with the general economic recovery. One striking aspect of this trend is that the volume of buyouts contracted much more sharply and is recovering more slowly than the number of transactions. This is because business has shifted towards small and medium-sized deals, whereas particularly aggressively financed mega-buyouts have become much less common. Consequently, the average investment volume per buyout fell from over USD 200 million in 2007 to just under USD 100 million in the first half of 2011.[3]

New optimism and a wake-up call

The first half of 2011 in particular was marked by a sense of optimism in the private equity industry. The German Private Equity Barometer for this period reflected the level of confidence within the industry, with expectations exceeding the highest figure recorded during the boom years and the overall assessment of the current business situation mirroring this trend (see chart 3).

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1 Meyer, Thomas (2009). Private Equity: Obituaries are premature. E-conomics 71. DB Research. Frankfurt am Main.

2 A.T. Kearney (2011). Rating Operative Performance of PE Portfolio Companies. PE fund companies in Europe stage a post-recession comeback.

3 Data on PE transactions and fundraising has been obtained from Preqin. See Preqin (2011). The Preqin Private Equity Quarterly. April 2011. Preqin (2011) Preqin Investor Outlook: Private Equity and Preqin (2011). 2011 Preqin Global Private Equity Report. Preqin (2011). Q2 2011 Private Equity Fundraising Update.

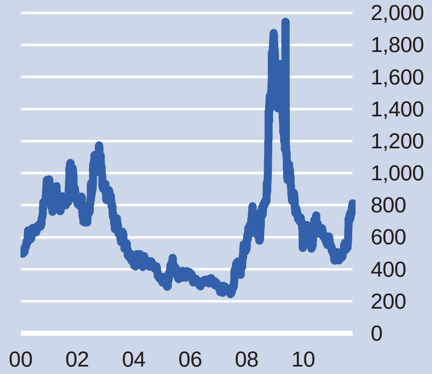
Wake-up call in August

Rebased: 2005=100

As at 30 September. Source: DB Research, 2011 **4**

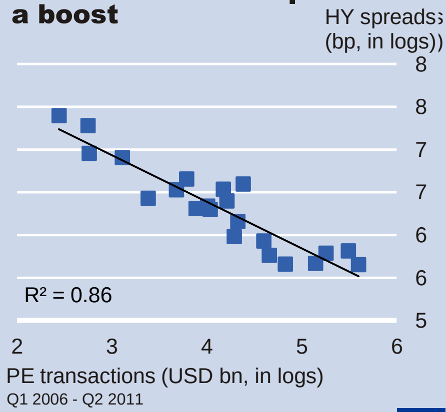
Appetite for the risk

High-yield credit spreads worldwide (bp)



As at 30 September. Source: Deutsche Bank, 2011 **5**

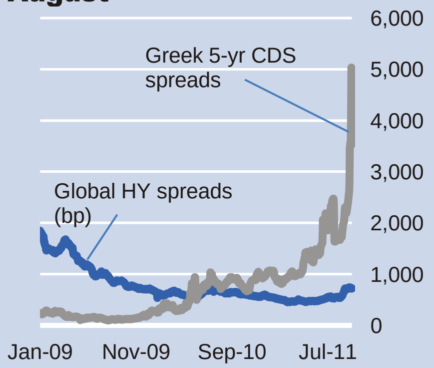
Low interest rates provide a boost



Sources: DB Research, Preqin, 2011 **6**

The equity markets initially led the way, almost offsetting the losses suffered during the financial and economic crisis. By June 2011 the DAX index had rebounded to around 80% of the all-time high that it had reached prior to the crisis, while the S&P 500 had achieved as much as 85% of its pre-crisis high. The wake-up call that finally ended this rally came when share prices fell sharply in August (see chart 4). High-yield spreads over benchmark government bonds are still much lower than they were during the financial and economic crisis (see chart 5). This is a sign that borrowing is also becoming increasingly available for private equity buyouts, which is having a positive impact on new deals (see chart 6). However, the volatility in the equity markets has spread to high-yield (HY) bonds, with credit spreads on these instruments widening by some 250 bp since the beginning of August.

HY spreads up 250 bp since August



Sources: Bloomberg, DB Research, 2011 **7**

Business activity and credit markets are fragile

The foundations underlying economic activity remain fragile. Growth forecasts around the world have been revised downwards. GDP in the euro zone may decline over the next two quarters and the US recovery remains sluggish. A weak economy ultimately hits portfolio companies' profits and – especially if the outlook is consistently negative – reduces the cash flows earned from exits. The sharp fall in share prices beginning in August provides a clear indication of how nervously investors are behaving in this environment.

The European sovereign debt crisis is fuelling additional uncertainty because, if it were to escalate, it might wreak havoc throughout the credit markets. So far the high-yield bond market has appeared to be largely unfazed by the growing risks emanating from Europe's periphery (see chart 7).

Risk of escalation

Sources: Bloomberg, DB Research, 2011 **8**

However, this situation could change suddenly if there were a general flight from risky investments because, for example, the sovereign debt crisis escalated out of control. High-yield spreads are still largely unaffected by the funding bottlenecks in Europe's peripheral countries. However, this state of affairs will not necessarily continue. The experience of the financial and economic crisis of 2007 to 2009 shows that a general flight from risky assets can affect both corporate and government bonds (see chart 8).[4] The up-tick in high-yield credit spreads since August is a warning sign. The assessments presented in this study are therefore subject to

[4] A similar pattern can be observed with Irish, Greek and Portuguese CDSs.

the proviso that the slowdown in growth is only moderate and the current sovereign debt crisis does not escalate further.

Refinancing wave approaching

Concerns about availability of capital were for many years virtually unheard-of in the private equity industry. Banks and other lenders were more than happy to grant loans on increasingly favourable terms and conditions. At the height of the boom in 2007, only one-third of the price of the average European buyout was financed by equity capital and two-thirds was funded by debt. The share of equity needed for such takeovers has now risen to over 50% (see chart 9). Many private equity funds have responded to this situation by realigning their business models and focusing more on making strategic and operational improvements to their portfolio companies instead of merely trying to borrow cheaply (see box).

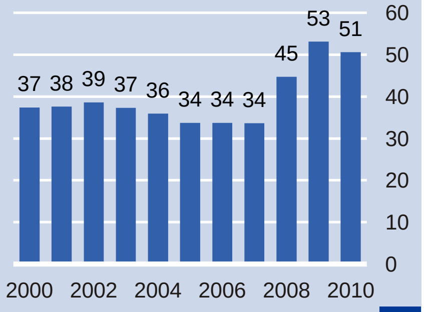
The debt capital that was raised during the boom years will need to be refinanced over the next few years. In addition, this period saw the execution of particularly large and aggressively financed buyouts that would be virtually impossible to carry out in this form in today's capital markets. If the credit lines granted at that time have to be funded on current terms and conditions, this will probably increase the interest burden on the companies concerned and impose tougher loan covenants on them. It can sometimes be difficult to find any lenders at all, which may then require fresh equity injections in order to reduce the amount of leverage.

It is estimated that some USD 814 bn worth of LBO loans[5] worldwide will fall due for repayment between 2011 and 2016. The amount of funding that this will necessitate will absorb a considerable portion of the credit markets' capacity. The levels of funding required in Europe – especially the United Kingdom – are particularly high (see chart 11). The volumes of loans outstanding in the emerging markets that will need to be refinanced are still fairly low by comparison because the overall market there has traditionally been smaller and buyouts have usually been less aggressively financed. The volume of loans and bonds falling due for repayment will peak in 2014 (see chart 10).

The credit markets have recently benefited from the robust recovery of the corporate sector to date. The default rates on leveraged loans fell to 0.3% in August 2011 – compared with more than 10% towards the end of 2009. The generally low level of interest rates has made higher-yielding assets more attractive to investors. The volume of

More equity capital needed

Proportion of equity capital in European buyouts (%)



Source: S&P, 2011

9

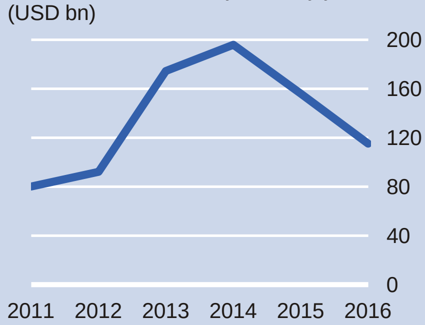
Cutting-edge management & control

The core competence of many private equity funds lies in the restructuring of their portfolio companies and in the related strategic and operational improvements that they make to these firms. Research has shown that private equity-owned companies typically use the best management practices. In addition, PE funds usually combine ownership and management and can therefore restructure firms more effectively.

For further information see:
Meyer, Thomas (2009). Private Equity: Obituaries are premature. E-conomics 71. DB Research. Frankfurt am Main

Refinancing wave approaching

LBO loans worldwide by maturity year (USD bn)

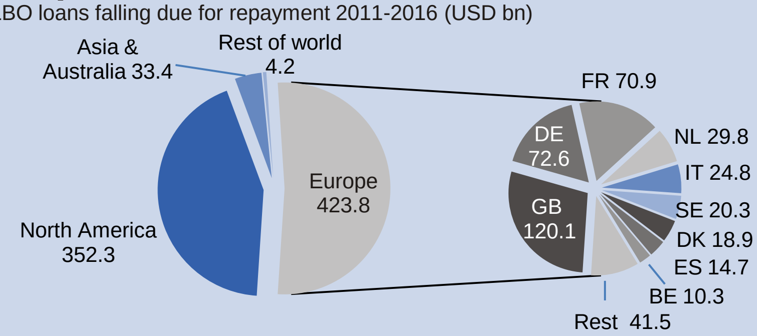


As at January. Sources: Dealogic, Freshfield, 2011

10

Europe's debt mountain

LBO loans falling due for repayment 2011-2016 (USD bn)

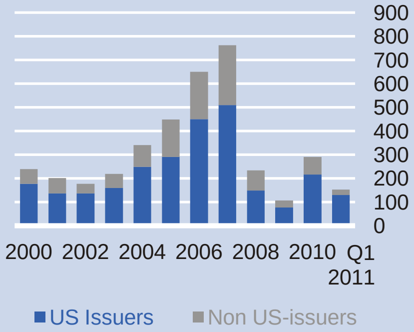


As at January. Sources: Dealogic, Freshfield, 2011

11

5 LBOs are leveraged buyouts, i.e. acquisitions financed by high levels of borrowing.

Fresh loans
New leveraged loans (USD bn)



Source: S&P LCD, 2011 **12**

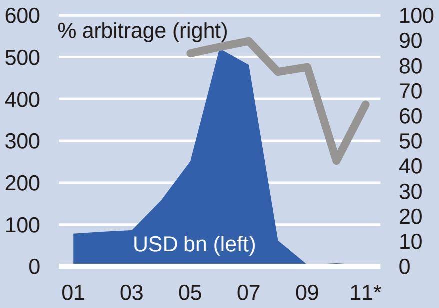
Once again!

Covenant-lite loans grant banks fewer rights than traditional loans. In particular, they usually remove banks' right to declare a default if a company's finances deteriorate, but is still able to service the debt. This provides companies with more flexibility and allows them, for example, to restructure their businesses without obtaining the lenders' formal consent. This aspect makes covenant-lite loans especially popular with private equity-owned firms.

It was not until the boom years of 2006 and 2007 that covenant-lite loans achieved importance and were viewed as being symbolic of particularly lax lending policies. Research conducted by credit rating agency Moody's now reveals, however, that covenant-lite loans have defaulted less than other loans (which is partly due to their higher default hurdles) and have had slightly better recovery rates.

Moody's (2011). Covenant-Lite Defaults and Recoveries: Seeing Where It Hurts. Special Comment. 7 June.

Sudden stop
CDO issues worldwide



*As at July. Source: SIFMA, 2011 **13**

new leveraged loans worldwide topped USD 150 bn in the first quarter of 2011 (see chart 12), which was almost thrice the level achieved in Q1 of 2010. Competition between banks in the lending market has actually been intense, which is illustrated by the fact that they have occasionally loosened their lending criteria. The volume of so-called covenant-lite loans, i.e. loans that impose less stringent conditions on the borrower, had risen to over USD 40 bn by June 2011 (see box).

However, the heightened uncertainty and the fragile state of the economy are having an adverse effect on the outlook. The volume of leveraged loans issued since August plunged in the wake of the economic turmoil. While low levels of growth will delay any moves on the part of central banks to start tightening monetary policy, credit spreads on risky loans are likely to become more volatile.

Considerable reliance on loan securitisation

On the supply side, the financial and economic crisis saw the almost total disappearance of an important source of funding: collateralised debt obligations (CDOs). At the height of the boom, for example, European banks kept only around 30% of their LBO loans on their books. The rest were securitised and placed in the capital markets – typically in the form of either CDOs or collateralised loan obligations (CLOs), which specialise in leveraged loans. CDOs worth a total of approximately USD 1 trillion were issued in 2006 and 2007. Then came the market crash. The value of CDOs issued in the first half of 2011 came to only a little over USD 3 bn (see chart 13).[6]

Securitisation did, of course, fall into serious disrepute as a result of the financial crisis because the quality of assets packaged in such securitisations (such as subprime mortgage loans) was often over-rated by the credit rating agencies and investors. The structures involved were often so complicated that the risks (especially systemic risk) were opaque and conflicts of interest arose.[7]

However, CDOs are a means by which large groups of investors can participate in the debt financing of private equity deals, for example by subscribing for the senior tranches of CDOs. Senior tranches are the bonds of a CDO that are the first to be serviced and therefore present the lowest default risk in this structure. This also makes them appealing for investors who normally avoid riskier asset classes. Without CDOs and securitisations these sources of capital would not be available and market liquidity would decrease. Chart 14 illustrates the close correlation between CDOs and leveraged loans in the first decade of this century.[8]

A sizeable portion of the capital that used to be invested in CDOs might now flow into high-yield bonds. Having hit a low in 2008, the market for high-yield bonds has risen sharply over the last couple of years. Bonds with an aggregate value of almost USD 300 bn were issued in the first half of 2011 (see chart 15). High-yield bonds could therefore plug gaps created by the disappearance of CDOs. Consequently, the bond market is, in principle, becoming more

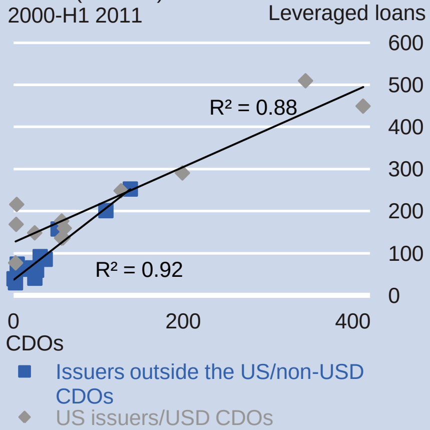
[6] Some of the CLOs launched during the boom years are still active in the market and are reinvesting cash flows from repaid assets. However, the reinvestment periods will expire in the next two to three years. See PwC (2011): Debt Market Update Q1 2011. p. 6.

[7] See, for example, Hamerle, Alfred, Thilo Liebig and Hans-Jochen Schropp (2009). Systematic risk of CDOs and CDO arbitrage. Discussion Paper No. 13/2009. Deutsche Bundesbank.

[8] This correlation also applies if the CDO boom years of 2006 and 2007 are removed from the sample.

Close correlation

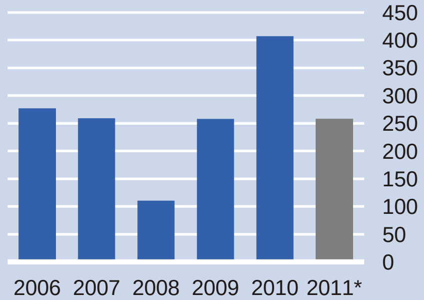
Issues (USD bn)
2000-H1 2011



Sources: DB Research, Dealogic, SIFMA, 2011 **14**

Bond market as substitute?

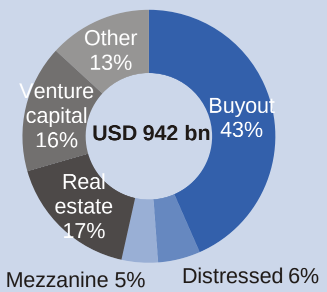
High-yield corporate bond worldwide issuance (USD bn)



*H1 2011. Source: Dealogic, 2011 **15**

Substantial capital cushion

"Dry powder", by type of fund (%)



As at March 2011. Source: Preqin, 2011 **16**

Lack of fresh money

Funding raised worldwide per quarter (USD bn)

Source: Preqin, 2011 **17**

appealing to a broader section of companies. However, the current turmoil has also affected the bond market. New issuances of HY bonds in August and September plummeted to only USD 8 bn reflecting rising risk aversion. Issuances of HY bonds contracted much stronger than those of investment grade bonds.

Nonetheless, even a strong bond market might not be able to fully replace CDOs. It is only worthwhile for large companies to issue their own bonds; smaller firms and companies from less capital market-based jurisdictions (e.g. in continental Europe) are more reliant on bank loans. However, banks will be more reluctant to lend if they cannot place their loans in the market.

Over the medium term, the willingness to invest in CDOs might return. The conditions imposed on such instruments will be more stringent. For example, new guidelines will require originators to keep a higher proportion of the assets on their own books. This scenario, which is commonly referred to as 'skin in the game', reduces conflicts of interest because the originators of such instruments cannot totally offload bad assets, so the risk is spread. In addition, investors are likely to insist that CDO structures be more transparent. The return of CDOs would make it easier to fund both old and new borrowing by private equity-owned firms – especially in continental Europe, where the alternative route via the bond markets is less well established.

Fundraising: lots of old money but not (yet) much fresh capital

Because – prior to the financial and economic crisis – private equity funds raised much more money than they could invest, many funds have a substantial capital cushion. PE funds worldwide have committed capital of roughly USD 942 bn at their disposal. Buyout funds in particular still have large reserves of 'dry powder' (see chart 16).

These capital reserves had a stabilising influence on the industry during the financial and economic crisis. They enabled the private equity funds to support their portfolio companies, offset shortages of debt capital for new transactions (the proportion of equity capital used in European LBOs rose from less than 34% in 2007 to more than 53% in 2009) and take advantage of opportunities that arose.

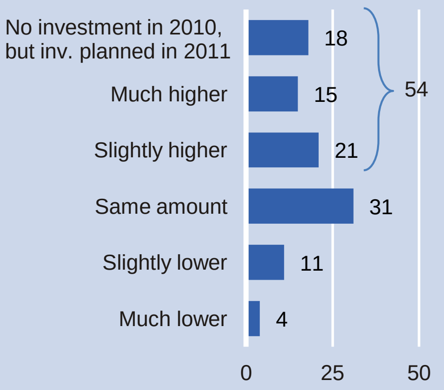
However, this money is not available to the PE funds indefinitely because a time-limited investment period is usually contractually agreed. Once this period has expired the capital can no longer be called (although the parties concerned can agree to extend the investment period). The substantial capital overhang therefore increases the pressure to invest fairly quickly. This fuels competition for attractive investment targets, the prices of buyouts rise and the rates of return fall.

Private equity funds are currently having difficulty raising fresh money. The USD 228 bn raised in 2010 (USD 71 bn of which was attributable to buyout funds) was very low. The volume of fundraising in the first half of 2011 remained modest at USD 148 billion, which was only slightly more than in the same period of 2010. In the wake of the economic turmoil, fundraising slowed again in Q3 2011 (see chart 17). The figure for the third quarter might eventually turn out to be higher because of data revisions, but is likely to remain relatively low.

The fundraising volumes quoted are, of course, always a lagging indicator because the statistics capture funds that reached a final close. The average fundraising period for private equity funds now

LPs are returning

PE investments in 2011 vs. 2010 (%)

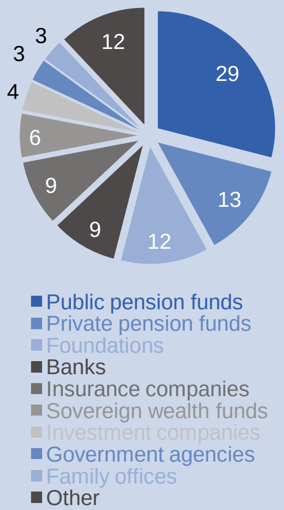


Based on 100+ institutional investors

Source: Preqin, 2011 **18**

Institutional investors predominant

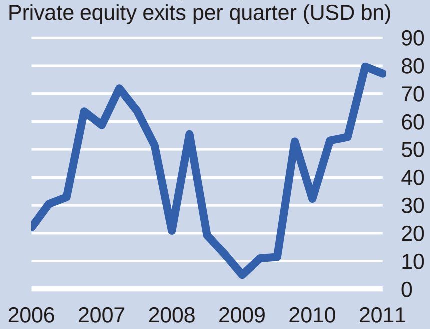
Volume of PE investment in 2010 (%)



Source: Preqin, 2011 **19**

Exits free up capital

Private equity exits per quarter (USD bn)



Source: Preqin, 2011 **20**

lasts 17 months, which means that the current figures also reflect the challenging conditions that have prevailed over the past one or two years. A trend reversal would only show up in future statistics once the funds that are currently raising capital have completed their fundraising period.

Investors (also referred to as 'limited partners', or 'LPs' for short) have been sending out positive signals. Most of the LPs who took part in a survey conducted at the end of 2010 stated that they wanted to invest more in private equity this year (see chart 18). This underlined the optimism prevailing in the first half of 2011 in particular. However, the market reversal in August is likely to make many potential LPs behave more cautiously (temporarily, at least).

What's more, the price losses suffered by other asset classes limit institutional investors' room for manoeuvre. Institutional investors provide most of the equity capital needed for private equity funds. Pension funds alone account for 42% of the total (see chart 19). They naturally only invest in private equity a proportion of the assets that they manage. Pension funds' target allocation, for example, averages some 6–7% of their assets under management (AuM) over the long term. This means, however, that the amount of capital invested in private equity is partly dependent on the performance of other asset classes. If the prices of other assets fall, this also reduces the investment limit available for private equity; after all, the investor concerned wants to avoid having too large a weighting in any one asset class. Whereas roughly one-third of LPs reported at the end of 2010 that the amount of capital they had invested in private equity was below their target allocation, the slump in share prices since August is likely to have limited their room for manoeuvre.

Exits free up capital

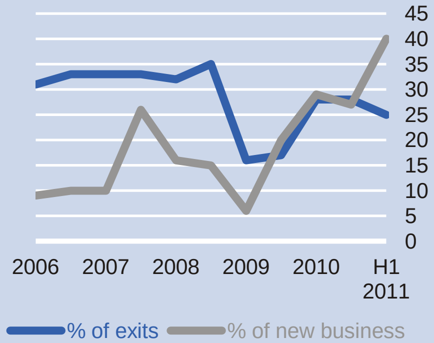
On the other hand, the cash flows from the sale of portfolio companies (exits), which initially accrue to the private equity funds and are then paid to the LPs in the form of distributions, free up capital for new investment opportunities. This is a normal part of the private equity cycle, given that the PE funds' investment is usually time limited. The distributions paid to the LPs reduce their exposure to private equity, thereby enabling them to invest fresh money without exceeding their target allocation.

The general economic recovery has boosted the numbers of private equity exits. The volume of exits has even surpassed the pre-crisis level (see chart 20). The lion's share of these exits are disposals to strategic investors (referred to as 'trade sales'), which accounted for some 50% of all exits in the first half of 2011. Initial public offerings (IPOs) accounted for roughly 20% of all exits, which was a slightly higher proportion than before the financial and economic crisis. However, the recently growing uncertainty is likely to reduce the share attributable to IPOs.

Secondary buyouts, which involve the sale of a portfolio company to another private equity fund, are on the increase. They are now responsible for approximately 40% of new business and around 25% of exits (see chart 21). The growing role played by secondary buyouts is probably partly due to the reluctance of other market participants to commit themselves because they tend to behave more cautiously during volatile periods. Private equity funds, on the other hand, have limited investment periods and are obliged to

Secondaries move up to the first division

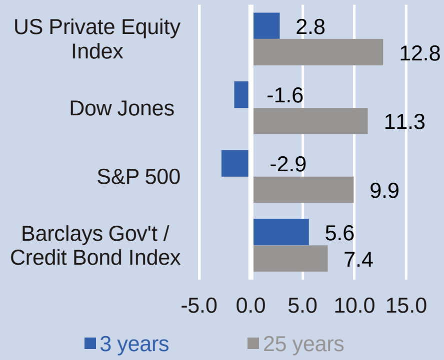
Secondary buyouts



Source: Preqin, 2011 **21**

Consistent returns

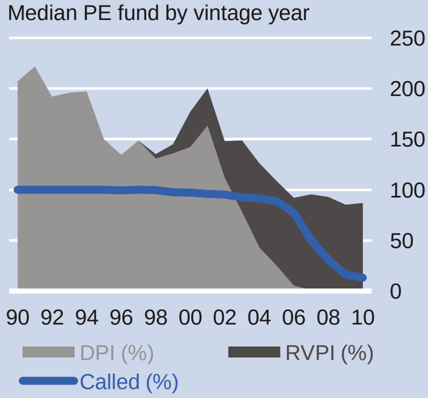
Rates of return as at 31 Dec. 2010



Source: Cambridge Associates, 2011 **22**

Payment profiles

Median PE fund by vintage year



Distributions to paid-in (DPI) are the distributions paid to investors as a percentage of the amounts paid in. The residual value to paid-in (RVPI) is the value of the portfolio as a percentage of the amounts paid in. "Called" is the amount of capital called by the funds as a percentage of the amounts paid in.

Source: Preqin, 2011 **23**

distribute money to investors on a regular basis, so they are often more active.

Performance is key

The private equity industry has traditionally delivered impressively high rates of return for itself and its LPs. Private equity is frequently one of the top-performing asset classes. Over the last 25 years PE funds have provided their investors with higher average returns than they could have earned from either equities or bonds. The rates of return generated by private equity even held up fairly well during the financial and economic crisis – in contrast to equities (see chart 22). However, a meaningful comparison of these asset classes is more difficult than it first seems.

— Because of its ownership structure, private equity is usually **less liquid** than other asset classes such as blue-chip stocks.[9] PE investors therefore bear a higher liquidity risk, for which they have to be compensated.

— The amounts paid in and distributed during the term of the private equity fund are determined by requirements and the proceeds earned (see chart 23). The internal rate of return (IRR) is the method regularly used to calculate a rate of return over the entire term of the private equity fund based on these cash flows. The so-called 'reinvestment assumption' presumes that distributed amounts can be reinvested at the same rate of return. **This reinvestment assumption can distort the total rate of return in a positive way, especially in cases where quick and large profits have been earned.**[10]

— **Average returns mask huge differences** between PE funds. Successful private equity companies consistently manage to generate above-average rates of return on their funds. It is surely not a coincidence that many of the top PE companies (also referred to as 'general partners', or 'GPs' for short) have been in this business for 20 years or so. It goes without saying that not all LPs can invest in the top funds. If these funds are heavily over-subscribed (existing investors are usually given priority), this presents opportunities for new PE companies to establish themselves in the market.

— The fortunes of the private equity industry are closely bound up with the performance of the economy. **Current rates of return mirror cyclical trends.**[11] There are some differences: the US recession in the early 1990s hardly affected private equity returns, whereas the bursting of the dot-com bubble hit the heavily invested venture capital funds particularly hard but had

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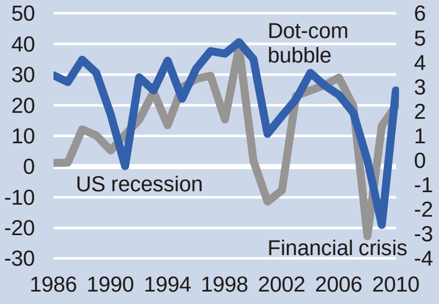
[9] The typical ownership structure of a private equity fund is a limited partnership. Shares in these partnerships can be traded in secondary markets. More liquid forms of investment are, for example, funds of funds, publicly listed private equity funds and publicly listed PE companies.

[10] Kaplan and Schoar (2005) have therefore calculated a 'public market equivalent' (PME), which discounts all cash flows from a large sample of private equity funds at the rates of return on an investment in the S&P 500 index over the same period. They arrive at an average PME of 1.05 for PE funds in aggregate, which means that private equity funds (buyout and venture) perform slightly better than an investment in the S&P 500 over the same period (excluding risk and liquidity). See Kaplan, Steven N. and Antoinette Schoar (2005). Private Equity Performance: Returns, Persistence, and Capital Flows. The Journal of Finance. Volume 60, Issue 4. pp. 1791-1823.

[11] It is interesting to note that 54% of the LPs who took part in a survey conducted by Coller Capital claimed that they had underestimated the extent to which private equity was correlated with the equity markets. See Coller Capital (2011). Global Private Equity Barometer. Summer 2011.

Performance affected by the real economy

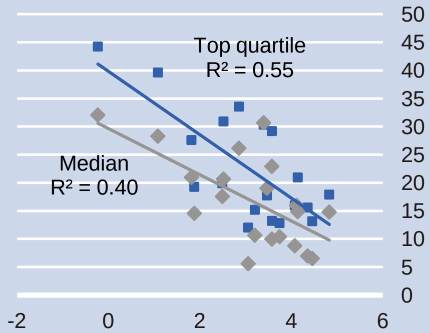
US private equity



Sources: CA, DBR, Global Insight, 2011 **24**

Rates of return vs. GDP

Returns on PE funds (IRR, y-axis)
Real GDP growth (%, x-axis) USA

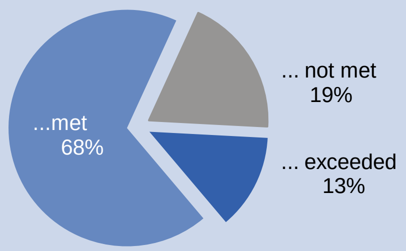


Returns by vintage year, 1986-2005

Sources: CA, DB Research, Global Insight, 2011 **26**

LPs' expectations met

Proportion of LPs who claim that their expectations of private equity have been ...



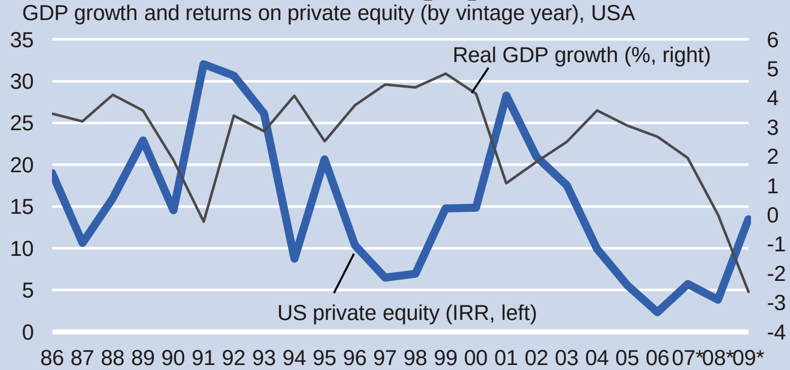
As at June. 2011. Source: Preqin, 2011 **27**

less of an effect on the economy as a whole. The financial crisis, of course, had a highly adverse impact on both private equity and the macroeconomy (see chart 24).

Investors are usually less interested in a PE fund's current rates of return than they are in the returns generated by its vintage year (the year in which the fund is launched), because this is when the fund's capital started to be committed. If we analyse PE funds' rates of return by vintage year, the picture changes completely: the worse the economic situation in the vintage year, the higher the funds' returns (see chart 25). This anti-cyclical correlation is even more pronounced for top-quartile funds than it is for median funds: the effect is stronger and has greater statistical significance (see chart 26). The gloomy current economic outlook might therefore offer opportunities for new PE funds with well-constructed portfolios – for example because the prices of potential buyout targets are falling.

Good investment in challenging times

GDP growth and returns on private equity (by vintage year), USA



IRRs represent the internal rate of return for amounts paid into and distributions paid from PE funds – net of fees, expenses and carried interest – since the fund was launched. The residual value of the fund is recognised as a final cash flow.
*PE funds launched in 2007 or subsequent years do not yet enable any meaningful analysis to be conducted.

Sources: Cambridge Associates, DB Research, Global Insight, 2011 **25**

Investors are satisfied; fundraising volumes will recover

There is much to suggest that fundraising volumes will recover in the long run. Investors are receiving the cash flows from successful exits, and many LPs are currently invested below their long-term target allocations in private equity. Moreover, private equity is delivering an impressive performance and offers competitive average rates of return – especially when LPs have access to top-quartile funds. Investors appear to be satisfied on the whole: 68% of the LPs who took part in a survey claimed that their expectations had been met, while 13% said that their expectations had even been exceeded (see chart 27). However, the current economic uncertainty will slow the pace of recovery.

Competition for capital will remain tough given that, taken together, the PE funds have highly ambitious fundraising targets. There are more than 1,700 private equity funds in the market looking to raise USD 700 bn in total – although, in actual fact, less than a third of this amount was committed in 2011 so far. It will therefore take some time to plug this gap.

There have been also signs of a recovery in terms of the transactions completed. In the first half of 2011 the number of private equity deals rose by 21% compared with the same period of 2010 while the value of these transactions jumped by 57%, which shows that larger buyouts are now being executed. PE funds' current favourites include manufacturing companies and service providers. Again, the current turmoil is likely to slow down this recovery.

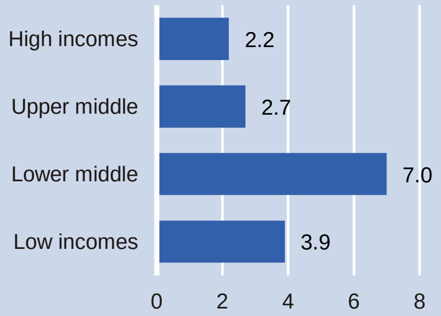
Investors are increasingly interested in private equity funds that focus on emerging markets. Whereas the volumes of funding raised worldwide fell by 23% between 2009 and 2010, the amounts subscribed for emerging-market funds rose by 9%. This seems like a good reason to take a closer look at these regions.

Investment focus is shifting towards emerging markets

Investors are bullish about emerging markets because of their dynamic growth, macroeconomic stability and new opportunities. The key questions here are not only whether emerging markets are attractive investment targets but also whether private equity is the right vehicle for this investment.

Emerging markets booming

Average GDP growth by income bracket for 1990-2009 (%)



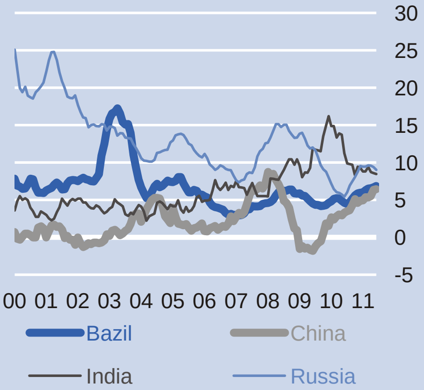
Sources: DB Research, World Bank, 2011 **28**

There is no doubt that the emerging markets have been achieving impressive economic growth. The group of countries with lower-middle incomes – which include China and India – have, on average, grown more than three times as quickly as the group of rich countries over the past 20 years. Also countries from the upper-middle income bracket (such as Brazil and Russia) have achieved stronger growth than the rich nations – although the gap here is smaller (see chart 28). There is more than just the catch-up effect at play here: after all, the group of poorest countries – where the catch-up potential is strongest – have also been unable to keep up with the emerging economies. Another interesting point to note is that emerging-market growth has accelerated significantly since the turn of the millennium, whereas the rich nations had to content themselves with lower growth. Countries such as China and India continued to deliver impressive growth rates even during the economic crisis. Although their growth slowed considerably as a result of the crisis, this effect was much less pronounced than in the developed markets.

Observers are worried that some emerging economies may be overheating. Rapid credit growth – such as in Brazil – is one indication of this.[12] Although the more sober economic outlook – even for emerging markets – is likely to allay these concerns to some extent, it will not totally eliminate them.

Concerns about inflation

Inflation rate (consumer prices, %)



Source: Global Insight, 2011 **29**

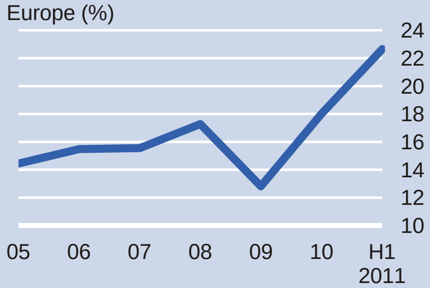
In June 2011, for example, consumer prices rose by 6% year on year in China and by 9% in Russia (see chart 29). Although these are not extreme levels by historical standards and volatile commodity prices account for at least some of these increases, there are fears that inflationary pressures might feed through into asset prices.

What is more, the emerging economies' strong economic growth is accompanied by heightened country and currency risks. Infrastructure, institutions and financial markets are less developed in these countries. Arbitrary state power, corruption and rent-seeking by public authorities and business partners are more widespread than in developed markets, and the legal protection afforded by laws and courts is less reliable. Greater uncertainty makes it more difficult to evaluate investment opportunities and imperfect markets exacerbate information asymmetries between insiders and outsiders.

[12] See, for example, The Economist (2011). Some like it hot. Which emerging economies are at greatest risk of overheating? 30 June 2011.

New targets

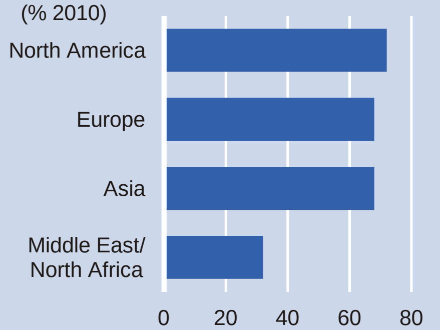
Funding raised for PE funds with investment targets outside the US and Europe (%)



Source: Preqin, 2011 **30**

Home advantage?

Proportion of SWFs investing in PE funds with the following geographical targets (% 2010)



Source: Preqin, 2011 **31**

Private equity may well offer advantages as an investment vehicle in challenging environments because the PE funds' close supervision of their portfolio companies and their experience in dealing with risk and uncertainty – especially in the field of venture capital – may prove to be valuable in emerging economies.[13] In contrast to more passive forms of investment such as equities and bonds, private equity funds exert an active influence over the management of their portfolio firms and can therefore react more swiftly and, sometimes, more effectively to potentially adverse developments. Even as minority owners they usually hold a significant influence.

Investors (LPs) have high expectations

The appeal of private equity funds that are primarily invested outside the United States and Europe has grown in recent years. In the second quarter of 2011 they attracted a record 23% of the total fundraising volume (see chart 30). Although even these funds are suffering from the current dearth of fundraising, they are not being affected to the same extent as funds with conventional investment objectives. Moreover, investors appear to be optimistic: virtually all LPs that are already invested in emerging-market PE funds are looking to either increase (66%) or at least maintain (33%) their level of exposure in future – possibly at the expense of conventional private equity funds.

These LPs are mainly interested in investing in fast-growing markets because they believe that these will generate higher rates of return: almost three-quarters of LPs think that existing PE funds in emerging markets will yield higher returns, and most of them believe that they will earn net returns of 16% p.a. or more.[14]

Part of the enthusiasm for emerging markets is, of course, a response to the sceptical outlook for the developed markets. This means, by implication, that the push into emerging markets is likely to lose some of its intensity once the situation in the industrialised countries has recovered.

Local investors are also increasingly investing in private equity. The regulatory authorities in China have, for example, in recent years enabled domestic pension funds and insurance companies to access private equity – within certain investment limits and in renminbi-denominated funds. This is one of the reasons why RMB-denominated funds account for some 80% of the funds raised in China.[15]

A special role is played here by government and supranational investors such as sovereign wealth funds (SWFs) and development banks. They are particularly important because they often prepare the ground for a self-supporting private equity landscape.

Many emerging economies have established substantial SWFs in recent years – often in order to manage revenue earned from commodity exports over the long term or to invest foreign-exchange reserves. Roughly 80% of all SWFs that currently invest in private equity are based in Asia or the Middle East. While SWFs generally aim to construct an internationally diversified portfolio, the considerable interest in PE funds with an investment focus on Asia or

[13] See Lerner, Josh, Felda Hardymon and Ann Leamon (2009). Venture Capital and Private Equity – A Casebook. 4th edition. John Wiley & Sons. p. 327 ff.

[14] See EMPEA (2011). Emerging Markets Private Equity Survey. Coller Capital/EMPEA.

[15] Status as at Jan.-Nov. 2010. See Ernst & Young (2011). Private Equity in China: Thinking global, acting local. p. 5 f.

the Middle East is striking (see chart 31). There is much to suggest that SWFs grant a certain preferential status to PE funds that invest at least some of their capital in their home region. After all, apart from pursuing investment objectives SWFs also occasionally take account of development policy considerations.[16]

Development banks preparing the ground

Other major players are international development banks such as the European Bank for Reconstruction and Development (EBRD) and the International Finance Corporation (IFC). The IFC is the arm of the World Bank Group that finances private-sector projects. It holds a portfolio of USD 2.1 bn in private equity and other investment funds (as at 30 June 2010) focusing on emerging markets and developing countries. This represents roughly 5% of its total assets under management. It claims to be – or to have been – invested in around 10% of the funds that are active in this region. Last year the IFC invested a further USD 400 million or so in this asset class. It also operates as a fund manager (through IFC Asset Management Company) for other government and private investors, which thereby gain access to co-investments in IFC transactions in emerging markets.

Investors such as the IFC perform a catalytic function in emerging economies because they promote the construction and development of a private equity infrastructure in what is otherwise a challenging environment. The IFC invests heavily, for example, in newly launched PE funds, thereby enabling GPs to prove themselves and establish a track record. This makes it easier for them to find private investors in future. In addition, the IFC supports the development of the private equity industry, for example by organising regular conferences and establishing trade associations.

Deal flow: new opportunities

Many LPs are primarily attracted by the high growth rates available in the emerging markets. However, strong growth is not necessarily synonymous with good investment opportunities. As explained above, there is a negative correlation – in the developed markets, at least – between economic growth and the rates of return on PE funds in their vintage year. Investing in a hot or even overheating market is risky because the competition for investment targets can drive prices up to excessive levels. However, emerging economies offer a few particular investment opportunities – for example as a result of privatisations or infrastructure projects – that increase the range of transactions potentially available. Furthermore, private equity has so far achieved little penetration in most emerging markets, which means that there is further upside potential.

Private equity investment in emerging markets is much lower than in the United States. India is the leading emerging economy here, with PE investment worth 0.4% of its gross domestic product (GDP) – largely thanks to its active venture capital industry, which invests in fledgling IT companies. It is followed by Brazil and China, which each have private equity investment amounting to 0.2% of their GDP. Brazil was very much in the focus of PE funds in 2010, with investments worth USD 4.6 billion.

It is, of course, hardly surprising that emerging economies have lower levels of private equity investment because they tend to have

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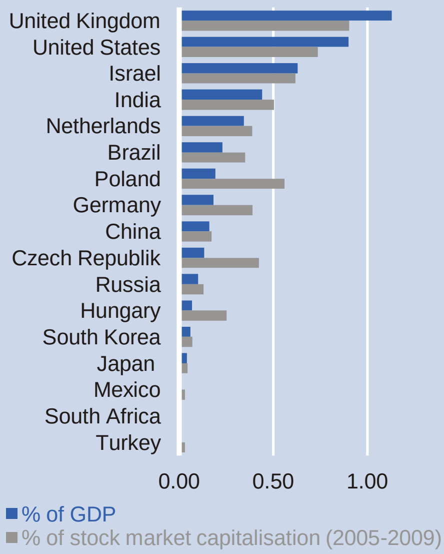
[16] Emerging-market interest in private equity is not restricted to funds; PE companies are also potential investment targets. The most famous transaction was when the Chinese sovereign wealth fund CIC acquired a stake in US private equity company Blackstone in 2007 (as part of its IPO).

Pent-up demand

PE investment in 2010

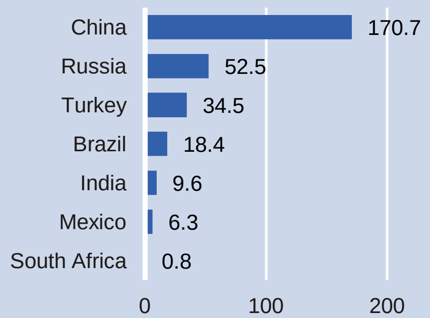


EVCA: CZ, HU, NL, PL; otherwise EMPEA

Sources: DBR, EMPEA, EVCA, World bank, 2011 32

Investors needed

Privatisation proceeds for 2000-2008 (USD bn)

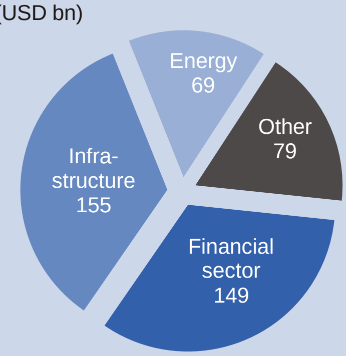


Full and partial privatisations (where figures on proceeds are available).

Sources: DB Research, World Bank, 2011 33

Lion's share invested in financial services and infrastructure

Privatisation proceeds for 2000-2008 (USD bn)



Sources: DB Research, World Bank, 2011 34

less developed financial markets. But even if these countries' less sophisticated capital markets are taken into account (in the form of the market capitalisations of publicly traded companies), emerging economies still have much less private equity investment than, for example, the United States (see chart 32). However, the gaps between the various countries in this analysis are inevitably getting smaller. The advanced eastern European countries of Poland, the Czech Republic and Hungary are gradually catching up with the leading group in this chart. It is also interesting to note investors' expectations. They are more attracted to locations that already tend to have higher levels of private equity investment. This suggests that LPs do not yet expect to see any general over-investment in these countries.[17] On the contrary: a critical mass of transactions boosts the development of the necessary private equity infrastructure of consultants, lawyers, investment banks etc. that facilitates business.

Privatisations are providing a steady flow of potential investment opportunities. Emerging economies and developing countries privatised companies and businesses worth a total of almost USD 500 bn between 2000 and 2008 (according to publicly available figures). The largest deals have included the (partial) privatisations of Industrial and Commercial Bank of China (2006, USD 22 billion), Bank of China (2006, USD 14 billion) and Russia's Rosneft (2006, USD 11 billion). China generated total privatisation proceeds of USD 171 billion, followed by Russia with USD 53 bn (see charts 33 and 34). However, this has not exhausted all the potential investment opportunities available. China, for example, still has more than 20,000 state-owned or state-controlled industrial companies, whose combined assets represent some 63% of GDP.[18]

Privatisations therefore replenish the pool of interesting investment opportunities – including, although not exclusively, for private equity funds. Investment opportunities arise not only in the form of the companies being privatised but also when non-core businesses and operations are spun off and sold in an attempt to align corporate strategies with the demands of a market economy. State-owned enterprises in particular tend to accumulate a diverse portfolio of eclectic businesses over the years which is eventually restructured.

Companies in emerging markets are in need of modernisation. The classic private equity business model involves acquiring badly run firms, implementing reforms and resolving any conflicts of interest. The firms are then re-sold at a profit. The more a company is in need of modernisation, the more value a private equity buyout can potentially add to its business. The average quality of management practices used in emerging economies is in many respects still well below that in developed markets.[19]

However, it is important to take account of the widely varying economic and business conditions prevailing; after all, it is only possible to apply certain methods in the right kind of environment.

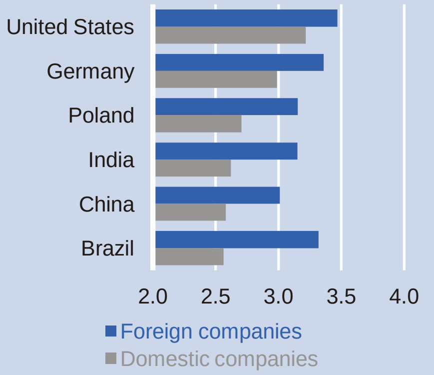
[17] Nonetheless, many LPs recognise that valuations of deals in China and India have reached – or could reach – a level that makes further investments unattractive. See EMPEA (2011). Emerging Markets Private Equity Survey. Coller Capital/ EMPEA. p. 9.

[18] Status as at 2009. These figures only include firms above a certain minimum size. The number of state-owned and state-controlled companies has fallen by around 11,000 in the past five years as a result of privatisations; the value of their assets in 2004 amounted to a full 74% of China's GDP.
Source: National Bureau of Statistics of China, 2011.

[19] Bloom, Nicholas and John Van Reenen (2010). Why Do Management Practices Differ across Firms and Countries? Journal of Economic Perspectives. Vol. 24. No. 1. pp. 203-244.

In need of modernisation

Ratings awarded for 18 management practices by country (scale from 1 to 5)



Scale from 1 (lowest rating) to 5 (top rating)

Source: Bloom et al., 2010 **35**

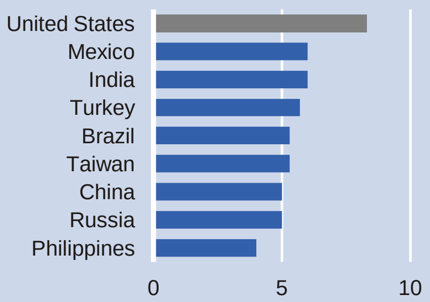
Minorities in the majority

Academics from the IESE Business School and the Boston Consulting Group (BCG) have analysed an IFC data set comprising investments in 176 emerging-market private equity funds. Minority holdings account for some 86% of all transactions in this sample.

Meerkatt, Heino and Heinrich Liechtenstein (2010) New Markets, New Rules. Will Emerging Markets Reshape Private Equity? BCG and IESE

Less protection for minority shareholders

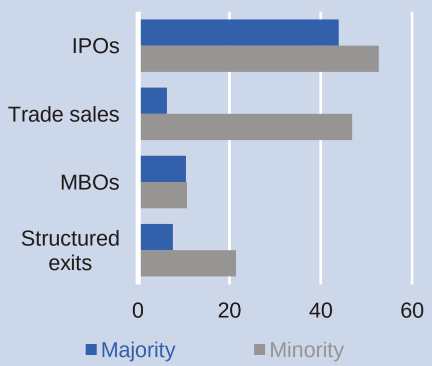
Investor protection index (0-10)



Source: Doing Business, 2011 **36**

Minority holdings yielding impressive returns

Internal rates of return (IRRs) by type of exit and investment (IFC portfolio)



Source: IFC, 2010 **37**

State-of-the-art lean management, for example, requires a sophisticated logistical and transport infrastructure. If the supply chains used are unreliable, more robust warehousing solutions are needed. It would therefore be naive to apply Western methods one-to-one in emerging markets. A better approach is to use the best firms in each individual country as a benchmark. Foreign multi-national firms with substantial management expertise and the necessary resources are typically among the best-run companies. The difference between the management ratings awarded to multinational firms and the scores achieved by domestic companies in a given country is therefore a more realistic indicator of the actual modernisation potential available. This also reveals that there is a larger difference between the management ratings for domestic and foreign companies operating in emerging markets and that these markets are therefore in greater need of modernisation. However, the difference between emerging economies and industrialised nations is less pronounced than the absolute figures suggest (see chart 35). Brazil is a particularly clear-cut example of the fact that domestic firms lag well behind foreign companies operating in the same country. This might be one of the reasons why Brazil is so popular with private equity investors.

Minority holdings require soft power

Private equity investment in emerging markets is governed by different rules than that in industrialised countries. This situation arises from the differing levels of financial market sophistication, differences in the relevant legal frameworks – both those governing the organisation of private equity companies and those applicable to buyouts – and a large number of other, regionally varying special factors.

One of the most important restrictions in many emerging markets is that PE funds are often only able to acquire minority stakes (see box). Existing owners are in many cases unwilling to surrender full control. What is more, foreign investors interested in completing majority buyouts are frequently faced by particularly tough regulatory hurdles – especially in politically sensitive sectors such as defence and media.

If private equity funds own minority interests, they cannot simply adopt majority resolutions to approve restructuring measures or other managerial decisions. Instead, they have to forge alliances with other owners and accept a certain loss of control. It should be noted here that the legal protection of minority investors against directors and other corporate insiders is weaker than, for example, in the United States (see chart 36). It is therefore particularly important to pursue a cooperative approach.

Is it possible to exert control through a minority stake? The IFC has had a positive experience in this respect. The average rates of return on minority interests held by the private equity funds in its portfolio are even higher than the returns on majority holdings (see chart 37).[20] The fact that minority interests account for the bulk of the sample may have distorted the comparison with majority holdings. However, the rates of return achieved are impressive even in absolute terms. In fairness we should qualify this statement by pointing out that the IFC is a major investor and part of the World Bank and, as such, can probably assert its rights more forcefully

[20] Wilton, David (2010). IFC's Experience in Emerging Markets Private Equity. In EMPEA Quarterly Review Vol. VI Issue 1, Q1. pp. 6-9.

than other investors in the event of conflicts. Yet, a similar effect can be observed in the case of privatisations. Many privatisations start with a partial sale, as a result of which the government does not initially surrender full control. Nonetheless, Nandini Gupta (2005), for example, has conducted a study of privatisations in India which shows that even partial privatisations have a positive impact on revenues, profits and research intensity – even employment rises as a result.[21] This illustrates that private investors can improve corporate performance and management quality even without owning a majority stake.

Local networks are important

To this end it is very useful to maintain local networks and contacts because they can be used to apply gentle pressure in cases where there is no clear-cut majority ownership. This is key not only to managing PE investments but also to generating deal flow and navigating one's way through what is at times a dense jungle of regulation and bureaucracy. It is therefore hardly surprising that 78% of North American LPs and as much as 90% of European LPs welcome local investors' involvement in emerging-market PE funds.[22]

Optimism despite risks

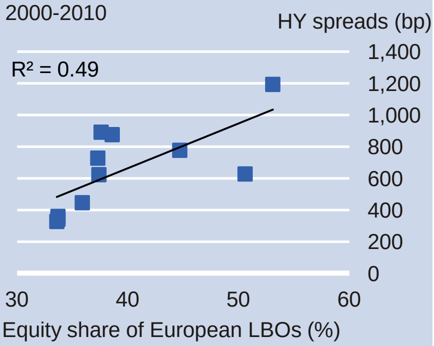
Catalyst for creative destruction

The global economy remains in rough waters as industrialised nations groan under the debt burden of their public finances and growth forecasts have been revised downwards. Meanwhile, there are fears of emerging markets overheating. However, tough times also offer opportunities for private equity funds. It is no coincidence that the weaker economic growth was in PE funds' vintage year, the higher their average rates of return – and this is true of top-quartile funds even more than it is of median funds.

There is now fairly extensive research literature showing that private equity performs a valuable function for the economy. PE funds often invest in firms at which poor management decisions have caused problems in the past. This means that the restructuring and adjustments that follow are not always without conflict. Private equity is thus a 'catalyst for creative destruction'.[23] A case in point is the fact that private equity helps improve the quality of firms' management.[24] The bottom line is that countries with greater PE activity enjoy higher growth on average.[25]

Everything depends on the credit markets

2000-2010



Sources: DB Research, S&P, 2011 38

The flip side is that private equity has a strong cyclical component. The excesses of the boom years illustrate this point well, although even before then there had been waves of sharp expansion and contraction.[26] The debt markets are of central importance. The lower the cost of borrowing, the more aggressively private equity deals can be funded (see chart 38) and the higher the prices that PE funds can pay for their buyout targets – thereby outbidding other potential buyers such as strategic investors. Past surges in private

21 Gupta, Nandini (2005). Partial Privatization and Firm Performance. The Journal of Finance. Vol LX. No. 2. pp. 987-1015.

22 EMPEA (2011). Emerging Markets Private Equity Survey. Coller Capital/EMPEA. p. 10.

23 Davis, Steven J., John Haltiwanger, Ron Jarmin, Josh Lerner and Javier Miranda (2009). Private Equity and Employment. p. 6.

24 Bloom, Nicholas, John Van Reenen and Raffaella Sadin (2009). Do private-equity owned firms have better management practices? In The Global Economic Impact of Private Equity Report 2009. World Economic Forum. pp. 3-23.

25 Meyer, Thomas (2006). Private Equity: Spice for European Economies. Journal of Financial Transformation. Vol. 18. November. pp. 61-69.

26 See Kaplan, Steven N. and Per Strömberg (2009). Leveraged Buyouts and Private Equity. Journal of Economic Perspectives. Vol. 23. No. 1. pp. 121-146. p. 137 ff.

equity investments have usually been accompanied by innovations in credit instruments that have made borrowing more readily available, such as junk bonds in the 1980s and CLOs during the most recent boom.

Nonetheless, the private equity business model proved its worth even during the financial and economic crisis. Although portfolio companies were adversely affected during this period, their losses were, on average, smaller than those of comparable firms. The rates of return achieved on PE funds also held up well compared with other asset classes.

Optimism in the first half of 2011

The first half of 2011 was marked by a sense of optimism in the private equity industry. The large volume of exits generated significant cash flows for the PE funds and their investors. These proceeds freed up capital for new investments and underlined the profitability of the PE sector, thereby enhancing its appeal for investors. The amounts of fundraising should therefore recover in the long run. Moreover, credit market conditions for private equity deals have improved since the financial and economic crisis. The funding required for financing provided during the boom years – somewhere between USD 90 bn and USD 200 bn per year – is unlikely to place too much of a strain on the capital markets at aggregate level, provided that the current debt crisis does not escalate further.

Wise investments and effective restructuring

Private equity is predicated on wise investment decisions and effective restructuring of portfolio companies. Although the volume of transactions has recovered slightly since the nadir of the crisis, competition from other investors – especially strategic investors – will remain tough. It is therefore hardly surprising that many PE funds and their investors are venturing into emerging markets, lured by the prospect of high growth rates and the considerable need for modernisation on the part of companies. However, different rules apply in these regions: the macroeconomic and institutional risks are greater and majority buyouts are less common. In-depth knowledge of local conditions and the ability to resolve conflicts through cooperation are therefore essential.

Questions raised in August

However, the events of August have raised many questions. Share prices plummeted and spreads on high-yield bonds widened, signalling an increasingly cautious stance on the part of credit markets. New issuances of leveraged loans and high-yield bonds plunged strongly since August. It remains to be seen whether this is a temporary effect in the wake of the current economic turmoil or a lasting change in trend. Consequently, although there are opportunities in the form of bargains for new investors, funding conditions and the exit environment remain quite challenging.

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