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## Leveraged Buyouts in Poland

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## **Leveraged Buyouts in Poland\***

### **Summary**

The dynamic transformation of the Polish economy from a centrally planned to market economy is by now well advanced. The transformation has also contributed to a rapid development of the capital market. However, the leveraged buyout market has hardly been developed yet.

The leveraged buyout technique allows investors to take companies over with little of their own capital. Most of the total value of a transaction is financed with debt, which is secured by assets and cash flow of a company being taken over rather than a buyer.

Companies bought through leveraged buyouts (LBOs) substantially increase their return on equity (ROE) thanks to an increase in operating efficiency, higher debt leverage and better allocation of assets. In consequence of the substantial improvements in companies' performance, LBO transactions can yield extraordinary benefits to both existing shareholders and LBO investors.

A case study of a hypothetical leveraged buyout of a Polish public company listed on the Warsaw Stock Exchange highlights the extraordinary returns available to existing shareholders as well as buyout investors. The case study also analyzes the whole process of a leveraged transaction in order to prove its feasibility in the Polish market. Finally, it speculates on the improvements to the company's performance in the wake of the leveraged buyout.

Microeconomic improvements at the leveraged firm level translate into large benefits to the whole economy. On a macroeconomic level, leveraged buyouts contribute to better allocation of capital and higher efficiency of the economy. Leveraged buyouts through replacement of equity capital in post-LBO companies with debt, contribute to freeing scarce equity capital away from declining, low-value added industries into high-risk, high-value added emerging industries, which could not be otherwise financed with debt.

Leveraged buyouts can be successfully used in post-socialist countries as a potent tool for acceleration of their economic restructuring. Since efficiency of companies in post-socialist countries as measured by ROE is much lower than in the developed countries, LBOs offer higher benefits to post-socialist countries than to developed countries.

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## INTRODUCTION

The dynamic transformation of the Polish economy from a centrally planned to market economy in the 1990's, initiated by the political breakthrough in 1989, is by now well advanced. Most of the economy is in private hands, market prices are driven by the forces of supply and demand (versus the central plan as it used to be), internal and foreign trade is almost entirely liberalized, and state subsidies were severed long ago. The advanced state of the Polish transition has been confirmed by its accession to the OECD in 1996 and approaching integration with the European Union, which is expected to materialize by 2005 at the latest.

The transition also had a dramatic impact on the local financial and capital markets. From a state of virtual non-existence at the beginning of transformation, today's financial and capital markets have become vital elements of its market economy. The Polish capital market has been rapidly developing since 1990's as best embodied by the successful growth of the Warsaw Stock Exchange. The capital market, although still small by western standards, is starting to play as important a role in the economy as it is in the most developed countries.

However, despite the phenomenal growth of the capital market, it has not yet developed all financial instruments and transactions prevalent in the developed markets. Leveraged buyouts (LBOs) are one of those transactions, which have hardly been carried out so far. The essence of a leveraged buyout comprises in the purchase of assets or shares of a company in which a buyer uses debt and external equity as the major means of financing the buyout. Debt is incurred against the collateral of assets of the purchased company; the company's cash flow is used to pay back the debt. The share of total investment provided by a buyer of the company usually represents only a small portion of the total financing, which never exceeds 50 per cent of the total. After the transaction, the purchased company assumes the debt incurred to finance the buyout.

So far the Polish market has witnessed a very limited number of leveraged transactions. Most of them were of very small value or did not exactly comply with the definition of a leveraged buyout. Because of a high share of one's own capital in the financing of the buyout some of the transactions already completed resemble more the traditional buyout with major use of one's own equity rather than a debt-driven transaction as in leveraged buyouts.

Likewise, paragons of the leveraged buyout market like leveraged buyout funds or aggressive individuals buyers (corporate raiders), which in developed markets play the major role of initiators of leveraged transactions, have not yet encroached on the virgin Polish territory.

The obvious objective of employing debt leverage in buyout transactions is to increase return on investor's own investment (ROI). The LBO leverage works – the average return on equity in LBO funds in the U.S., which specialize in leveraged buyouts, exceeds 30 per cent annually, much higher than most mutual funds or even hedge funds. Yet, leveraged buyouts do not only benefit the buyer; they also bring substantial benefits to the company's shareholders and the economy and the society at large. According to various research (more about it later in the paper), companies, which have been bought with the use of debt leverage, tend to significantly improve operating efficiency, increase debt leverage and re-allocate non-core or redundant assets. All this translates into increasing return on the company's equity (ROE), which directly positively impacts the overall efficiency of the economy.

The use of debt in financing the buyout, which is after the LBO assumed by the purchased company, allows substitution of existing equity capital with virtually unlimited supply of bank financing (by virtue of the mechanism of monetary multiplication). Thus, the investor's scarce equity can be put to work in those parts of the economy where bank financing is unavailable – start-up companies and other high-risk business ventures. The freed capital leads to financing of investment projects in emerging industries, thus contributing to improvement of the economy's efficiency of capital allocation.

Leveraged buyouts can bring substantially higher benefits to transition countries than to developed countries. Low quality of management, lacking corporate governance, high overhead costs, and low productivity all contribute to overall low efficiency measured by ROE. All of these shortcomings, which beset still large numbers of state-owned companies as well as some private companies in transition economies can be remedied through utilization of LBOs. Not less importantly, in light of insufficient supply of local capital for participation in privatization of state property, purchase of companies by local investors with the help of debt may considerably enhance the speed of the privatization process in the whole economy.

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As an introduction to the topic of conditions for emergence of leveraged buyout transactions in transition countries and corresponding benefits, this paper will argue that the Polish capital market is mature enough for successful completion of leveraged buyout transactions, particularly as regards takeover of public companies listed on the Warsaw Stock Exchange (WSE). The paper takes Poland as a proxy for the more developed post-socialist countries. Yet, to some extent the results for Poland could be valid for the majority of transition countries especially in terms of general benefits of LBO transactions to the economy.

The paper will also strive to prove that leveraged buyouts in the Polish market can yield significant returns to both incumbent shareholders and LBO investors. It is argued that leveraged buyouts represent a very appealing alternative to buyouts with majority share of own capital financing.

Although more research on this topic is needed, the paper argues that leveraged buyouts through an increase in operating efficiency, higher leverage, and better allocation of assets in the purchased companies may also considerably contribute to the acceleration of the restructuring process in Poland and in other post-socialist countries. This in turn would increase the macroeconomic efficiency of the whole economy as represented by higher productivity, enhanced competitiveness, and better returns on capital. Consequently, leveraged buyouts may have a potent contribution to the increase in the rate of economic growth.

The first part of the paper will paint the general picture of the LBO market, its participants, and sources of financing, in both a worldwide and Polish context.

The second part deals with the LBO process – from structuring the buyout through the buyout business plan to exit strategies and legal, tax, and accounting implications.

The third part presents a step-by-step case study of a leveraged buyout of the Polish State Mint (Mennica Państwowa S.A.), a public company listed on the Warsaw Stock Exchange (WSE). The paper will highlight potential extraordinary economic viability (represented by ROI) of leveraged transactions in Poland for LBO investors. The case study will analyze the whole process of LBO buyout in Poland in order to prove the feasibility of the transaction.

The fourth part of the paper will discuss contribution of leveraged buyouts to microeconomic efficiency and its implications for overall macroeconomic performance.

The concluding part of the paper will summarize the findings of the paper as well as elaborate on the prospects for emergence and development of LBO transactions in Poland and, per proxy, other transition countries.

## **THE LEVERAGED BUYOUT**

### *Definition*

Leveraged buyouts (LBOs) represent transactions where a buyer utilizes external financing (bank debt, bonds, third party equity) to finance a purchase of a company. Share of external financing represents the majority part of the total value of the purchase; buyer's own capital constitutes the minor portion of the total purchase price. Assets of the purchased company along with its cash flow provide collateral and a source of repayment for the incurred debt in the transaction<sup>1</sup>. In the case of a LBO of a public company, quite often the purchased company is delisted from the stockmarket in what is called as „taking it private”. Yet, delisting is not necessary.

### *Transaction rationale*

The discrepancy in value of a transacted company to a seller and a buyer lie behind the obvious rationale for the transaction. Higher value of a company to a buyer creates economic incentives to a seller to engage in the sale transaction. But why would the two valuations differ? Multiple factors may explain lower valuation of the company for a seller: a need to sell the non-strategic company in order to focus on priority business areas, inability to improve the performance of the company because of a lack of business acumen in a specific industry, low quality of management, lack of credible business plans for future, or finally simple inability or unwillingness to structure a leveraged transaction.

The buyer's higher valuation of the company is based on a belief of being capable of extracting additional value from the company through an increase in operating efficiency, higher debt leverage and better allocation of assets in the purchased company. The improvements can be achieved through enhanced ownership control, better quality of management conditioned by salary incentive programs, cost cutting, sale of non-core assets, utilization of surplus in the company's cash holdings (which otherwise might have been used to promote 'empire building' with no attention to economic returns), and finally decreased tax payments due to the tax shield of interest payments on the debt.

The discrepancy in the value of a company on both sides will stimulate the transaction - the final price in the transaction will be normally found in the middle ground between the seller and buyer's valuations.

Although leveraged buyouts can be used as a tool for purchase of companies for strategic reasons, the potential for extraordinary returns on capital (ROI) is nonetheless the main driver behind the leveraged transactions. For financial investors the large use of debt leverage in the buyout transaction (more than 50% of the total value of transaction) additionally increases the value of the company. Thanks to leverage, return on own capital invested in the company's purchase may be significantly higher than when financing the purchase only with own capital.

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<sup>1</sup> According to the definition by Stephen C. Diamond, leveraged buyouts are all buyout transactions which increase the leverage (defined as total debt to total equity) of the purchased company – Diamond, S.C., ed. (1985). 'Leveraged buyouts', Dow Jones Irwin.

### *Market players*

The ranks of buyers in leveraged buyout transactions include strategic and financial investors.

Strategic investors are represented by:

- (1) incumbent management (the so-called management buyout – MBO),
- (2) employees (mostly through Employee Share Ownership Programs - ESOP),
- (3) external management (management buy-in – MBI), and
- (4) other corporations.

Interest of strategic investors in LBOs is driven by strategic considerations aimed at expanding business activities, increasing market share, maintaining current managerial and work positions, or simply pleasing one's ego. An interest in LBOs of purely financial investors, which include specialized financial institutions - LBO funds – and individual entrepreneurs (called customarily corporate raiders), is stimulated by a potential for significant financial reward. Financial investors merely look for sufficient return on their capital invested in the transaction – strategic reasons play a minor role, if any.

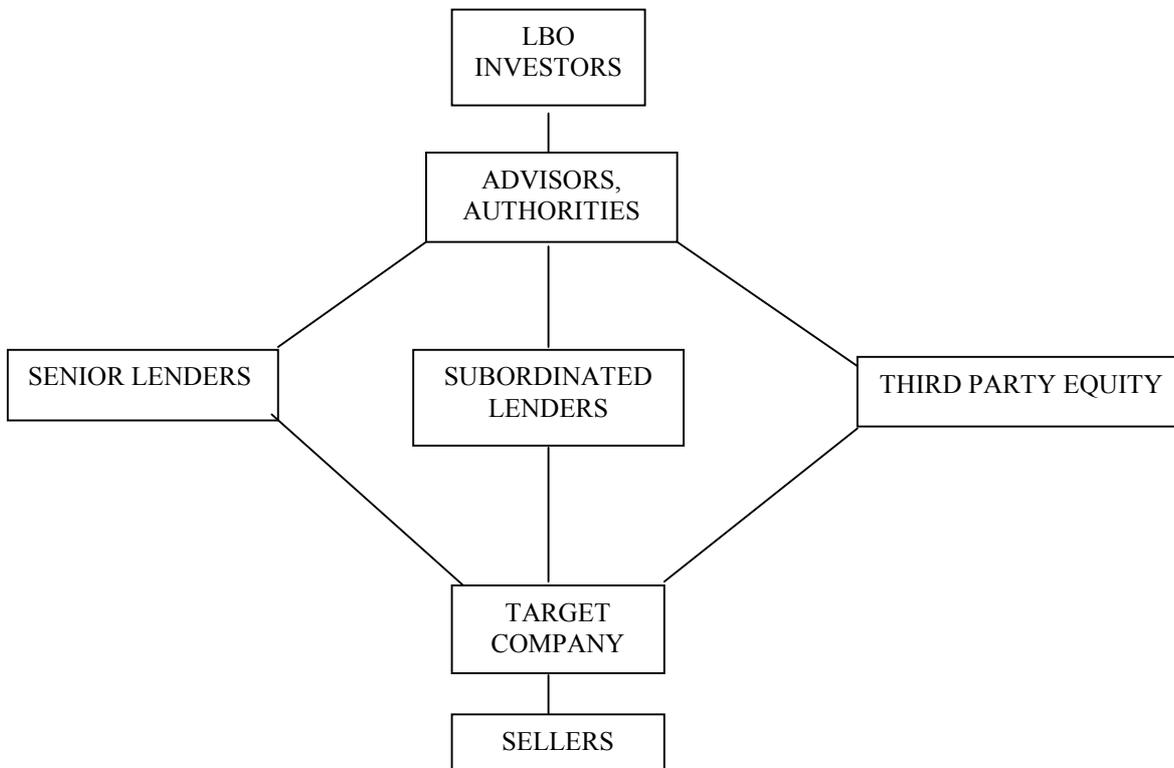
Sellers are comprised of three main groups:

- (1) private, family-owned companies willing to share business with new investors or quit entirely because of retirement, desire for liquidity or problems with management succession;
- (2) corporations, which spin-off their non-core, non-strategic assets, which do not fit the business strategy or do not meet criteria on return on equity or market potential;
- (3) and finally shareholders in public companies, which want to sell their stakes in return for some premium over the prevailing market stock price.

Financing for leverage transactions is provided by various financial institutions: commercial banks, insurance companies, and pension funds, which usually assume the role of secured debt lenders, and venture capital and private equity firms along with investment banks, which primarily position themselves as providers of subordinated debt or equity.

Various sorts of consultants complement the array of different parties in the LBO market. Those include investment banks, which help with structuring the financing, legal firms, tax firms, PR firms, and specialized advisory firms of various other hues. State and local authorities complete the buyout scene.

Figure 1. LBO market players<sup>2</sup>:



### *Financial investors*

This paper will be concerned only with the performance of purely financial investors in buyouts - the role of strategic investors in LBO will not be discussed.

LBO funds and individual corporate raiders represent the core of financial LBO investors. The former is specialized investment funds, which focus on leveraged transactions as their main investment purpose. LBO funds are managed by LBO firms, which take form of private partnerships (like Kohlberg, Kravis and Roberts Co.) or limited liability companies (like Hicks, Tate and Muse). Investors in the fund, in return for fund management, pay to the LBO firm an annual management fee on the total amount of invested money. The fee ranges from 1.5 to 2.5 per cent<sup>3</sup> and is levied irrelevant of the fact if the money has been invested or not. On top of the management fee, the LBO firms usually have a right to a 20 per cent cut on a profit made on a leveraged buyout beyond an agreed minimum return of 5 to 8 per cent. Additional fees may apply for final sale of the company, extraordinary return and other reasons.

In 1996 and 1997 only American LBO funds received investors' money of the total amount of USD 70 billion. Applying a usual leverage of 4:1 used in leveraged transaction (20% of one's equity committed to the buyout), the funds were able to finance LBOs of the total value of some USD 280 billion! No wonder that back in the glory days of leveraged buyouts in the 1980's American LBO funds were able to finance multibillion-dollar takeovers like the buyout of RJR Nabisco in 1988 for USD 25 billion.

<sup>2</sup> Altered version based on Michel, A. and Schaked, I. (1988). 'The Complete Guide to a Successful Leveraged Buyout', Dow Jones-Irwin, p. 179

<sup>3</sup> Schiffrin, M. 'LBO Madness', *Forbes*, March 9, 1998, p. 131

LBO funds do not concern themselves with day-to-day management of purchased companies. This is left to the management team, which is given strong financial incentives in the form of share options in order to insure their optimal performance. LBO funds as purely financial outfits focus on structuring the deal: from finding the right target company, agreeing to its purchase with the use of debt leverage, through control over post-buyout performance and payback of debt, to final sale to another investor within a few years from the original purchase (which usually happens within up to 5 years from the buyout).

The worldwide market sports thousands of LBO funds, yet only the biggest get the limelight. A good illustration of the size of the largest funds in this game is a fact that in 1999 a leveraged fund managed by Thomas H. Lee & Co. took in USD 7 billion of investors' money; KKR's fund received for its transactions some USD 5.7 billion<sup>4</sup>. Those significant amounts of money, when additionally leveraged, allow LBO funds to set their sights on very big companies.

Table 1. Investment in largest LBO funds in 1997 (in USD billion):

LBO Fund	Investment received
Kohlberg, Kravis, Roberts & Co. (KKR)	5.8
Blackstone Group	3.8
Forstmann Little	3.2
Thomas H. Lee Company	3.5
Hicks, Muse, Tate and Furst	3.5
Texas Pacific Group	2.5
<b>Total</b>	<b>22.3</b>

Source: Schiffrin, M. 'LBO Madness', *Forbes*, March 9, 1998, p. 131

As opposed to LBO funds, individual investors (called corporate raiders for their business aggressiveness) use their own money as seed capital in leveraged transactions. It certainly limits their scope of activities (in spite of the leverage). However, it does not limit their aggressiveness – no recourse to outside equity investors allows them full liberty with the choice of transactions undertaken. Corporate raiders like Carl Icahn or Kirk Kerkorian were able to play with huge companies – the former bought TWA Airlines (end of 1980's), the latter only by a thin margin was prevented from taking over mighty Chrysler Corporation (early 1990's).

*Target companies*

The spectrum of target companies in leveraged buyouts is very broad, including virtually every industry. Since financial profit is often the only consideration behind a company's buyout, the nature of its business is not a predominant factor in a buyout as long as the transaction can bring sufficient return on invested equity.

An ideal target company would represent the following characteristics: large positive cash flow, clean balance sheet with large debt capacity, little or no debt, liquid and undervalued assets, excess cash, strong market position, low capital intensity, low-technology product lines, abundant possibilities for cost reductions, a strong brand name, and finally a high-quality management team. In short, ideal target companies should be cash cows, operating in no-thrills industries, with little or no debt.

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<sup>4</sup> 'LBO Madness', op.cit., p. 131

## Financing

In most LBOs, the buyer's own equity does not exceed 20 to 30 per cent of the total value of the buyout. The rest of financing is sourced from external sources like venture capital funds, bank debt or loans from other financial institutions (mutual funds, investment banks, and insurance companies). In some cases of LBO's completed in the 1980's in the U.S., the own equity portion in the total buyout financing hovered close to 5 per cent. In one of the leveraged buyouts commissioned by Kohlberg, Kravis & Roberts partnership (KKR), the investors bought in 1986 a supermarket chain, Safeway, for a total price of USD 4.25 billion, of which the equity portion of the buyer amounted to USD 100 million, that is only 2.35 per cent of the total value of the transaction! This transaction was then leveraged 43:1!<sup>5</sup>

LBO financing may comprise of up to four layers:

- a) secured debt collateralized on the company's assets and cash flow (hence called 'secured'; alternatively also called "asset based lending"),
- b) subordinated (unsecured) debt, mezzanine financing – debt and quasi-equity (like convertible bonds) subordinated to secured debt in the case of the company's bankruptcy. In the case of a bankruptcy, holders of subordinated debt would be paid back only after holders of secured debt (also called 'senior debt' due to its seniority over other debt claims) are fully repaid.
- c) external investors' equity – LBO funds, venture capital,
- d) investor's own equity.

Table 2. LBO financing sources and its structure in American market:

Type of financing	Per cent in total financing	Source
Secured debt	5-20%	Commercial banks
Subordinated debt (long-term debt, junk bonds, convertible bonds)	40-80%	Commercial banks, insurance companies, pension funds, investment banks
Third-party equity	10-20%	insurance companies, investment banks, venture capital funds, LBO funds
Own equity	1-20%	LBO investors

Source: based on Gaughan, P, (1996). 'Mergers, Acquisitions and Corporate Restructuring', John Wiley & Sons, p.276

### Polish LBO financing market

(a) Secured debt - due to low risk and relative lack of complexity, which plays well with the commercial banks' risk aversion and relative lack of sophistication in handling high-risk financing, secured debt lending is by far the easiest to obtain for leveraged buyouts. In effect, in most cases secured debt financing in LBO transactions would not differ from regular day-to-day commercial banking. Hence, a wealth of bank financing sources is available – most of big local and international banks would be likely to finance LBO transaction.

<sup>5</sup> 'LBO Madness', op.cit., p. 131

This is all the more true since Polish banks are gripped by constant overliquidity. The median capital adequacy ratio of Polish banks as of the end of 2000 equaled 14.6 per cent<sup>6</sup>, which blatantly proves that there is a lot of bank financing available before banks reach the minimum capital adequacy ratio of 8 per cent. Overliquidity is due to three main factors: (1) high interest rates, which on the one hand dissuade borrowing and on the other hand promote investment in risk-free government bonds; (2) relative insufficiency of financially sound investment projects, which could be financed with debt, and (3) bank's risk aversion, which often reflects their lack of sophistication in credit risk analysis. Leveraged buyouts could then provide a welcome venue for banks to increase their asset base

Under an assumption that Polish banks would decrease the capital adequacy ratio to 8 per cent from the current 14.6 per cent, roughly an additional USD 50 billion<sup>7</sup> would be available for debt financing (of course, this is a simplified scenario). Some portion of it would be also available for LBO transactions.

Secured funding can also be sourced from a rapidly growing pension fund market. As of the end of April 2001, the total assets of the Polish pension funds amounted to some USD 3.2 billion; the assets are expected to grow by some USD 2.5 billion annually<sup>8</sup>. Pension funds already play a significant role in the stock market – it was estimated that in April 2001 pension funds were responsible for 10 per cent of the stockmarket free float<sup>9</sup>. With more billions to come every year, the stock exchange (total market capitalization as of May 31, 2001 amounted to PLN 113,112 million or some 16.2 per cent of the Poland's GDP in 2000) will be more and more unable to cope with growing pension funds' investment – the size of pension funds will overwhelm the stockmarket.

In order to find new investment opportunities, pension funds will look for new venues for investments – financing leveraged buyouts can be one of them. Pursuant to regulations, pension funds can not invest more than 5 per cent of their assets into shares of non-public companies – even in spite of this requirement, as of the end of April 2001, pension funds could invest up to USD 160 million in buyouts. However, as opposed to non-public shares, the maximum threshold for investment into public shares is at 40 per cent of total assets – available financing for leveraged buyouts of public companies should be then already counted in hundreds of million of dollars. The available pool of financing will rapidly grow – pension funds will soon offer billions of dollars ready to finance leveraged transactions!

Funds of insurance companies complement the pool of low risk, secured financing. Polish insurance companies can invest up to 15% of their technical reserve funds into non-public investments. As of the end of 1998 the available financing hovered around USD 550 million<sup>10</sup>.

**(b) Subordinated, unsecured debt** – due to its higher risk profile, subordination in repayment, and relatively low sophistication of local banks, the Polish financing market for unsecured debt is much less developed than in the case of plain vanilla secured debt. Venture capital and equity funds, National Investments Funds (NIFs) along with specialized investment banks would be the only likely source of financing.

Development of the unsecured debt market is, however, supported by a rapid growth of bond market. Although most current bond issues are only short-term (tenor of up to 12

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<sup>6</sup> own calculations for 49 largest Polish banks based on *Rzeczpospolita*, 'Banki 2000', April 6, 2001. The median of the ten largest banks amounted to 13,35%.

<sup>7</sup> Own approximate calculations based on *Rzeczpospolita*, „Banki 2000”, op.cit.

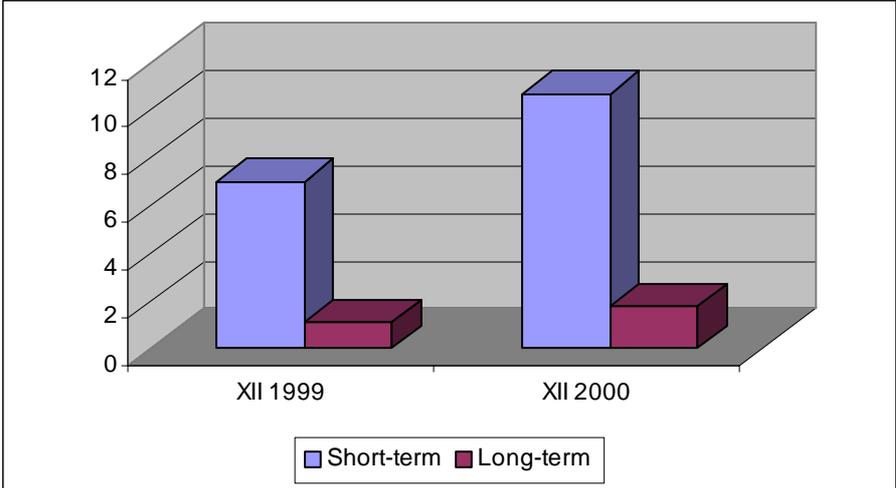
<sup>8</sup> All PLN/USD calculations are based on an exchange rate of PLN/USD = 4.0.

<sup>9</sup> *Rzeczpospolita*, May 29, 2001, p. B1, B5.

<sup>10</sup> Based on Wrzesiński, M. (2000). 'Fuzje i przejęcia. Wykup lewarowany (LBO) i menedżerski (MBO). Uwarunkowania rozwoju w Polsce', K.E. LIBER s.c., p. 134

months), market for longer term issues, which usually finance LBOs (junk bonds), is steadily developing.

Figure 2. Polish short- and long-term corporate bond market (in PLN billion):



Source: based on 'Rzeczpospolita', May 18, 2001, p. B3

The above graph does not take into account long-term issues of bonds of Polish companies (currently worth a couple of billion dollars), which were sold in the international financial market. Yet, since all of these bonds were issued by blue chip companies like Polish Telecoms (Telekomunikacja Polska S.A.) mobile telephone companies (PTC, Polkomtel) or Elektrim, this sort of financing would not be available for high-risk leveraged transactions.

Foreign financial institutions have not yet shown interest in financing the Polish LBO market. This is, however, due to change with the growing importance of the Polish market, improving regulatory climate and the positive effects of the integration with the EU, which should materialize by 2005.

In spite of quick growth of the local bond market, its current size is still very small (total value of the local corporate bond market in 2000 corresponds to some 1.7 per cent of Poland's GDP in 2000). This state of matters is due to low market liquidity, lack of institutional bond clearing, and still cumbersome regulations (although significantly improved after the enactment in 2000 of the new Bond Law). Prospects for the bond market are nonetheless bright – the growing sophistication of market players and increasing competition among financial institutions should stimulate further growth of the bond market, high-yield bonds (junk bonds) that finance LBOs included.

National Investment Funds (NIFs) are a specific feature of the Polish transformation. NIFs were created in 1995 to manage 512 companies, whose shares were distributed to the Polish public in what was the Polish version of a mass privatization program. In the beginning, all fifteen NIFs were assigned majority ownership in some 30-35 companies; the funds would also have minority shareholdings in other companies in the program. Since 1995, NIFs have significantly restructured their portfolio of companies through sales, mergers, consolidations and liquidations. The funds have also consolidated with one another. During their seven years of operation, NIFs have transformed into de facto venture capital/private

equity funds, which actively manage their investment portfolio through not only restructuring of their original companies and disinvestments but also through acquisition of companies from beyond the original program and financing of start-up ventures.

The original mass privatization program had then transformed into a Polish breed of venture capital. Although this effect was not the objective of the program planners, its implications are very positive – NIFs now constitute a sizeable investment potential, which is being utilized to promote high-risk, high-value added projects. This clearly contributes to better prospects for economic growth.

NIFs are very suitably positioned to engage in LBO transactions both in debt and equity financing. As of the end of May 2001, the market value of NIFs, which are all listed on the Warsaw Stock Exchange, amounted to PLN 1,497 million. The market value however does not correspond to the financial power of NIFs. Under an assumption that NIFs can handle financing equal to the book value of their portfolio, which is approximately equal to double their market value, the total available financing would hover around PLN 3,000 million or some USD 750 million.

(c) Third party equity: possible sources include venture capital/private equity funds, NIFs, and investment banks. LBO funds are not included since they do not yet exist in the local market. Foreign LBO funds have not so far participated in any local transaction.

This leaves us with investment banks, NIFs and venture capital/equity funds as main potential sources of third-party equity.

Local investment banks are quite active in the local M&A market. Yet, the customary role of investment banks is to act as a financial intermediary between lenders and debtors. No merchant banking activities were developed, which could provide equity for leveraged transactions. Coupled with limited capital, the role of investment banks as providers of equity is limited.

As discussed in point (b), NIFs are well positioned to contribute to the development of the LBO market. NIFs are quite likely to be able to extend equity financing – there are no major regulatory obstacles to engage in high-risk financing. NIF's financing potential of USD 750 million can be counted as a very likely source of LBO financing.

Local venture capital/equity funds represent the second most potent source of equity financing for LBOs. These institutions possess both necessary know-how and capital necessary to engage in leveraged transactions. The Polish venture capital/private equity market is quite well developed – at the end of 2000 the total estimated value of funds managed by venture capital firms amounted to more than one billion dollars.

Table 3. Ten largest venture capital funds in Poland in 2000 (in USD million):

Name	Capital invested until the end of 1998	Planned investments until the end of 2001	Investment in Poland only
1. Enterprise Investors	371.0	134.0	134.0
2. The Danish Investment Fund for Central and Eastern Europe	110.0	n.a.	n.a.
3. Innova Capital/Poland Partners	54.0	160	106.0
4. Pioneer Investment Poland	40.0	90.0	61.0
5. Capital International Research	30.0	n.a.	n.a.
6. International UNP Holdings Ltd	30.0	n.a.	n.a.
7. PGF Management	30.0	130.0	n.a.
8. Oresa Ventures Polska	24.0	50.0	26.0
9. Renaissance Partners	20.0	n.a.	40.0

10. Caresbac Polska S.A.	14.8	15.0	16.0
The rest in aggregate	34.3	156.9	190.2
<b>TOTAL</b>	<b>758.1</b>	<b>735.9</b>	<b>573.2</b>

Source: Warsaw Business Journal, 'Book of Lists 2000', Warsaw 2000, p. 46

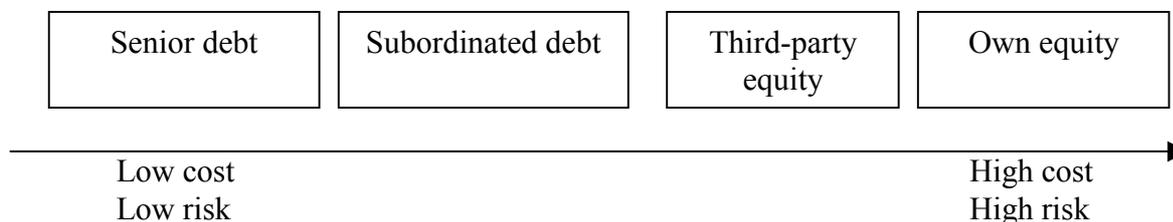
Assuming that 20 per cent of combined funds of NIFs and venture capital funds could be used for LBOs and applying a 3:1 leverage, the third-equity market could finance leveraged transactions of the total value of approx. USD 900 million<sup>11</sup>.

(d) Investors' own equity is to be provided by the transaction initiators themselves: specialized LBO funds and private individual entrepreneurs. LBO funds do not yet exist in the Polish market. They are however likely to be developed by both local financial institutions, which in search of increased returns will turn to the LBO market, and foreign LBO funds, which will soon enter the growing Polish market in search of investment opportunities.

Supply of private individual entrepreneurs ready to engage in LBO transactions will be increasing in step with growing available capital of local entrepreneurs (it is estimated the personal wealth of the first 100 of the most wealthy Poles amounts to a couple of billion dollars), decreasing returns from regular business activities coupled with lower market interest rates, and growing sophistication of private investors and their advisors alike.

#### Cost of financing

Costs of all sources of LBO financing are directly related to the risk involved. In short, as shown in the below graph, the higher the risk, the higher the cost of financing.



Source: author's

#### History

The leveraged buyout market, which emerged in the 1970's, in the following decade became one of the most often utilized methods for purchase of companies, particularly in the US. The growth of the LBO market had been galvanized by the flourishing of new financial instruments, the famous high yield bonds otherwise known as junk bonds, which in the hands of Michael Milken and his investment bank Drexel Burnham Lambert provided an abundant source for financing risky transactions of LBOs. Furthermore, the dynamic growth of the American economy in the 1980's provided another potent stimulus for the LBO market – companies purchased in leveraged transactions during the economic boom did much better and consequently were quickly increasing in value. Finally, high inflation in that period had devalued the value of incurred debts, thus the companies were able to pay their debts back

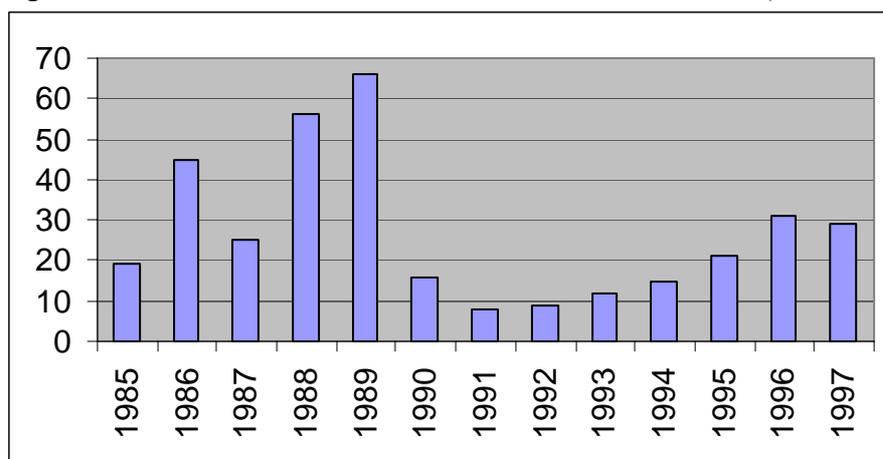
<sup>11</sup> calculation - (NIF 750.0+ VC 735.9) \* 20% \* 3 = USD 902 million

much faster. In 1987, LBO transactions in total value of M&A transactions represented an astonishing 23 per cent<sup>12</sup>.

The beginning of the 1990's spelled the end of the LBO boom: the collapse of Michael Milken and his bank coupled with an economic recession led to the downturn in the junk bond market, the main financing source for LBO, and subsequently, a significant dip in LBO activity.

The end of the 1990's in the US witnessed a surge in the leveraged buyout market buoyed by economic prosperity, low cost of debt, and overliquidity in the fund market, which was scrambling for new investments. Figure 3 provides a handy illustration of the trends in the LBO market.

Figure 3. Value of LBO transactions in USA in 1986-1997 (in USD billion):



Source: Kaiser, K. (1995). 'Corporate Restructuring and Financial Distress', INSEAD, p. 6, and 'LBO Madness', Forbes, March 9, 1998, p. 129-131

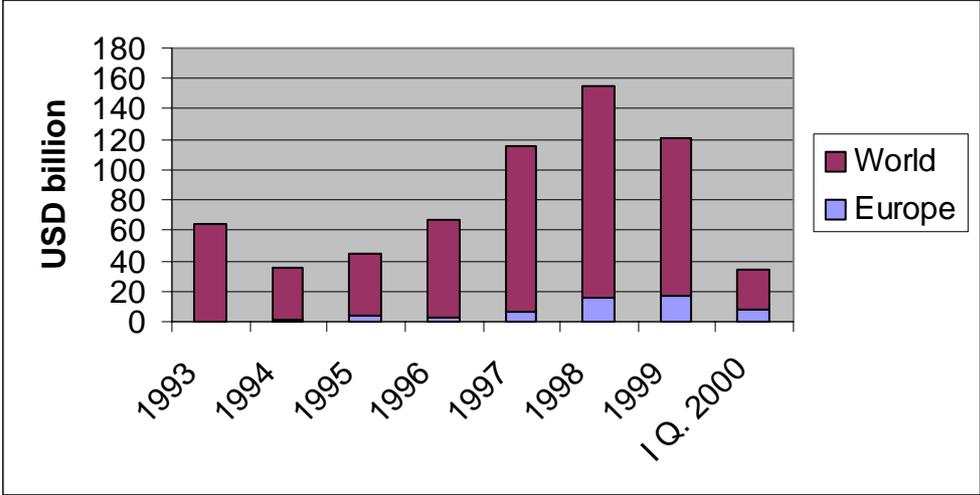
The European LBO market has been much slower to develop. The American example and increasing competition for returns among financial institutions in the 1990's has stimulated sustained growth in the buyout market. The introduction of the EURO, which helped in the development of a pan-European source of buyout financing and provided necessary price transparency, coupled with regulatory reforms within the EU, has further accelerated the LBO growth trend. The leveraged buyout of Telecom Italia by Olivetti in 1999 for EUR 31.5 billion (interestingly, the market value of Olivetti at the time of transaction was six times lower than Telecom Italia's – David yet again won against the Goliath!) represents one of the most compelling examples of the on-going market development<sup>13</sup>.

Despite robust growth, the European LBO market still significantly lags behind the US market. The value of issued European junk bonds, which usually finance leveraged buyouts and therefore can be used as a good proxy for the size of the LBO market, still represent a relatively small part of the worldwide market, which is by far dominated by the USA. Figure 4 presents the relevant data.

<sup>12</sup> Gaughan, P.A., (1996). 'Mergers, Acquisitions and Corporate Restructuring', John Wiley & Sons, New York, p. 261

<sup>13</sup> Source: the Olivetti's web site at [www.olivetti.com](http://www.olivetti.com)

Figure 4. Issues of junk bonds in Europe and worldwide between 1993 and IQ of 2000:



Source: internal data of Schroeder Salomon Smith Barney, an investment bank, based on Bloomberg market information.

*Polish LBO market*

In light of the fact that no significant LBO transactions have been completed so far in the Polish market, one can only speculate about the market potential for leveraged transactions.

The Polish market has not yet developed specialized LBO funds; neither has it witnessed an emergence of corporate raiders. This state of affairs is due to a limited understanding of the nature of LBO transaction among buyers, sellers and financing parties, underdeveloped market for LBO advisors and investment banks, risk aversion of local banks, insufficient amounts of available local equity capital, and often unclear legal and tax regulations. Lack of precedent-setting leveraged transactions has added to the slow growth of the market.

The Polish market for corporate control, however, has its specific characteristics: (1) significant role of State-led privatization, (2) venture-capital-like activity of National Investment Funds (NIFs), and (3) on-going heavy restructuring of both State-owned and already privatized companies. All these three sources provide abundant supply of target companies for leveraged buyouts.

State-led privatization supplies a significant number of target companies for LBO buyouts. Most privatization deals, though, require major contribution of buyers' own funds (not debt driven), and impose restrictions on reductions in the labor force, sale of assets and final re-sale to new investors. Furthermore, buyers have to negotiate separate contracts with employees, which often guarantee increases in salaries and bonus payments. Finally, the State Treasury also imposes investment obligations on investors – they have to invest additional

capital into the equity increase of the purchased company. All of these constraints considerably limit the appeal of state-led privatizations for LBO investors.

The supply of companies by National Investment Funds (NIFs) has, however, much fewer strings attached. Since the beginning of the mass privatization program in 1995, NIFs have been energetically restructuring their portfolios of companies. This was done through mergers, acquisitions, public IPOs, and sales to strategic investors or liquidations. Out of the original 512 companies, almost half has already been sold or liquidated. This process has in its wake produced a steady stream of target companies for buyouts. However, leveraged buyouts have not been utilized yet in any of those transactions.

Still there are more than 300 companies to be sold. In recent years the activity of NIFs evolved from an active operating management of portfolio companies to pure venture-capital investment. This evolution has had an impact on the NIFs approach to selling their companies through leveraged transactions. Coupled with the funds' growing financial sophistication, prospects for leveraged buyouts of NIF's companies are very attractive. It is only a matter of time when first big transaction will be concluded.

State-owned and already privatized companies are now undergoing a process of very deep restructuring. Market liberalization, the lifting of trade barriers, and growing market power of foreign companies, have led to rising competition in the local market. In order to survive, uncompetitive State-owned companies had to downsize their operations and focus on core competencies. Former sprawling conglomerates like Elektrim, Rolimpex, Animex or Mostostal Export, that before, in spite of their partial privatization, were unable to restructure themselves, finally had to abandon "empire building" strategies and engage in a reversal process of disinvestment. For example, Elektrim, which in the mid-1990's possessed control over almost one hundred companies (involved in as varying activities as power generation and yogurt making) at the end of the 1990's had to unwind its empire and focus on its core business of telecommunication, power generation and cables.

The process of downsizing and disinvestment has still a long way to go. Many non-core companies are waiting for their buyers. Scarce amounts of available local capital and often lack of interest from foreign strategic investors creates great potential for leveraged transactions.

Privatization is also producing in its wake a steady offer of companies for sale. Strategic investors, that buy the major part of the privatized companies, quickly rearrange the companies' activity away from non-core businesses to core competencies. As with the State-owned companies, these restructuring efforts result in increasing the supply of companies available for sale. Growing unemployment from approximately 10 per cent in 1997 to current 16 per cent that occurred in spite of positive GDP growth bears proof to the magnitude of the restructuring efforts.

All the three sources of supply of target companies for LBO should stimulate the growth of the leveraged buyout market. The growing sophistication of local financial and advisory institutions will provide further boost to the market's development. Mounting competitive pressure on commercial banks, investment banks and consulting firms, should result in moving away from plain vanilla, low margin debt financing (straight loans, bond issues) and less complex consulting services into higher value-added and riskier transactions of leveraged financing and advisory. This will provide additional stimulus for the LBO market.

An increasing number of completed takeovers of public companies listed on the Warsaw Stock Exchange, confirms the growing sophistication of the Polish capital market.

Local entrepreneurs had successfully taken over a number of public companies<sup>14</sup>. Although the size of the completed transactions is still small, and one's own equity is the predominant source of financing, leveraged transactions are only one step ahead.

The Polish capital market developed in the 1990's a peculiar type of the buyout market – employee leasing buyout. Enacted in the early 1990's as one of the instruments of privatization, the employee leasing buyout may be interpreted as a close type of transaction to a leveraged buyout. In an employee leasing buyout, employees of a company could buy their company from the state on installments payable within up to ten years. The financing would be incurred against the assets of a company, not by the employees, which would supply funds for at least 20 per cent of the total price (just like in leveraged buyouts). Employees would take a complete control over the company. However, since up until the final payment of the last installment the state remains the legal owner of the company and thus may decide over the final fate of the company, the employee leasing buyout does not qualify as a leveraged buyout. Nevertheless, employee leasing buyouts have laid the foundation for the emergence of the real leveraged market.

## **THE LBO PROCESS**

### *Structuring the transaction*

As said before, assets of the purchased company along with its cash flow provide the collateral for the debt financing of the buyout. Thanks to the contribution from the external financing, the buyout may be completed with only a small portion of the investor's own equity. Collateralization of the debt on the assets of the target company also substantially decreases the risk of the transaction for the buyer – should anything go wrong, lenders would have to rely on the target company's assets only, rather than those of the investor.

There are two main structures of the leveraged buyout depending on what is bought: (1) assets of the company or (2) its shares. In both cases, the economic result is the same: the investor assumes control over the company. Yet, financial, tax, accounting and legal implications may largely differ depending on the chosen transaction structure. Why would then one buy assets instead of shares or vice versa?

### Asset purchase

The leveraged buyout of the company based on the purchase of its assets offers some benefits versus the purchase of the company's shares. In short, the purchase of assets considerably limits the legal risk associated with the buyout – the buyer assumes the liabilities, which are directly related to the assets being bought. Almost none of the remaining liabilities of a target company are conveyed. Hence, the buyer is not liable for any of the selling corporation's undisclosed or unknown liabilities (“skeletons in the cupboard”). Thanks to clear identification of the assets being purchased, lenders can secure themselves on identifiable pieces of assets rather than the total company's property including both assets and liabilities. Consequently, the purchase of assets allows easier access to secured debt financing.

### Share purchase

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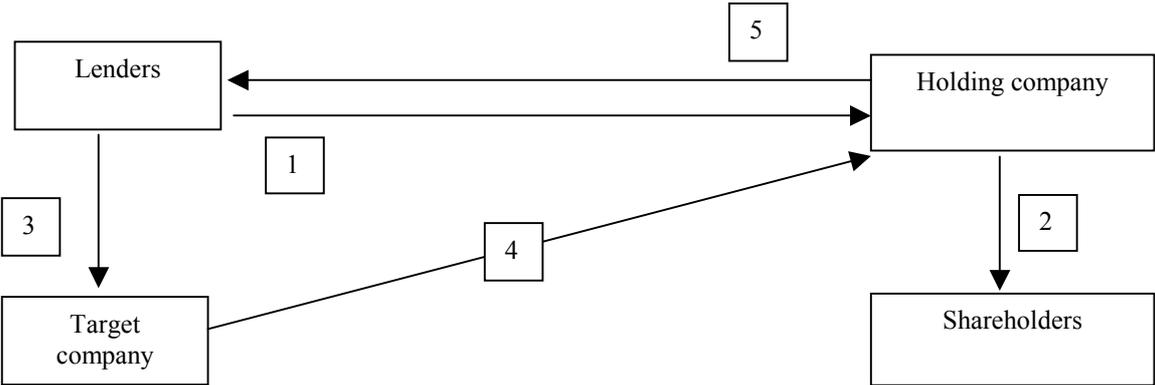
<sup>14</sup> Some examples: takeover of Paged S.A., a wood manufacturer and distributor, by Yawal S.A., a metal manufacturing company; purchase of Wistil S.A., a textile company by an individual investor – Zenona Kwiecień, assumption of control over Ferrum S.A., a steel processor, and Energomontaz Polnoc S.A., a power plant subcontractor, by private company “Collosseum”; buyout of Krosno S.A., a glass manufacturer, by Zbigniew Sawicki.

The purchase of shares rather than assets can be accomplished much faster. In addition, the purchase of shares allows automatic and complete takeover of all assets of the company, including those, which due to their nature are not transferable and can not be sold (contracts, administrative permits, licenses etc.). Those advantages are mitigated by the higher risk of buying a company with potential unreported liabilities (“skeletons”), and the higher cost of debt financing due to less clearly identifiable debt collateral (for more on legal aspects see the “Legal, tax, and accounting aspects” section of the paper).

Despite some disadvantages, the purchase of shares is the most widely used structure for leveraged buyouts, particularly takeovers of public companies quoted on stockmarkets. Buyout of a company based on a purchase of shares may be structured in multiple ways. The quality of credit collateral remains the cardinal factor in the choice of the buyout structure. For the lenders, there are two important conditions for extension of financing: (1) the enforcement and validity of provided collateral (direct or indirect collateral on target company’s assets), and (2) the particular moment when debt is collateralized on the assets of the target company (the sooner, the better). Too low credit quality of collateral may dissuade lenders from financing the buyout and consequently bring about the collapse of the transaction.

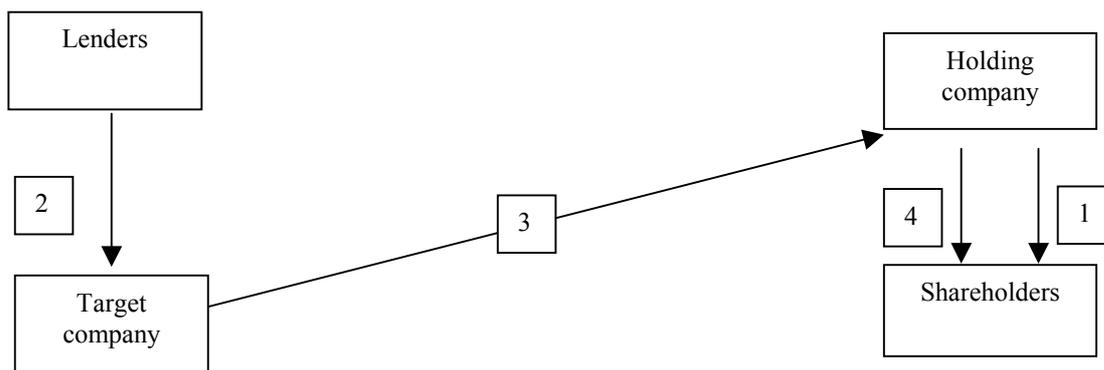
Each of the below presented buyout structures, that have been successfully utilized in the US, present different ways of securing lenders’ credit approval<sup>15</sup>:

1. Lenders extend unsecured credit to a holding company (step 1), that enters into purchase agreement with a seller. With borrowed money, the holding company buys shares from current shareholders of the target company (step 2). Immediately after the purchase, lenders yet again extend credit, this time directly to the target-company (step 3). The target company through dividend payouts or extension of inter-company loan, transfers the financing to the holding company (4), which then pays back its lenders (5). The debt of the holding company is paid back; the target company assumes the whole debt involved in the transaction.

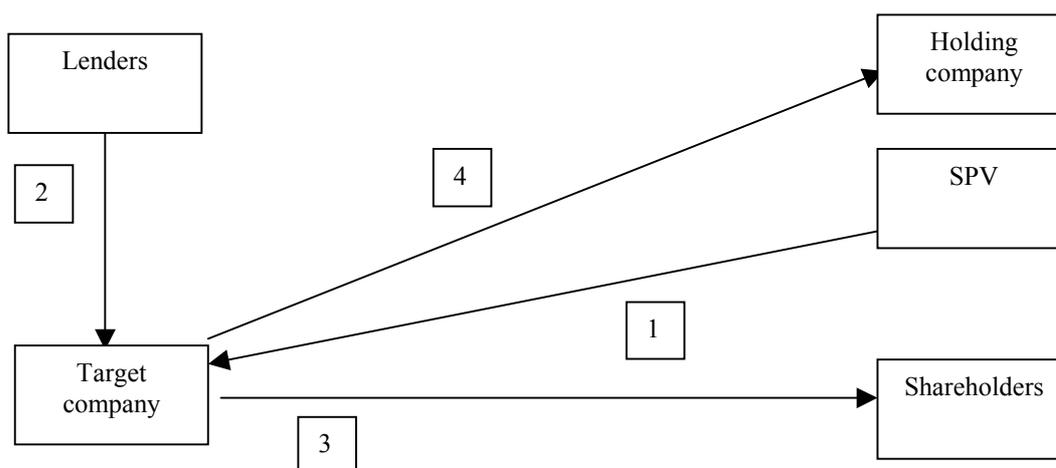


2. After the signing of the purchase agreement between a holding company and a seller, the holding company pays for the company’s shares with a promissory note payable at a specified future time (1). After the purchase, lenders extend credit to the target company, its assets serving as loan collateral (2). The target company in turn funnels back the financing to the holding company through an inter-company loan or dividend payout (3). The holding company then pays back the promissory note (4).

<sup>15</sup> based on Diamond, S.C. (1985). ‘Leveraged buyouts’, op.cit., p. 119-124



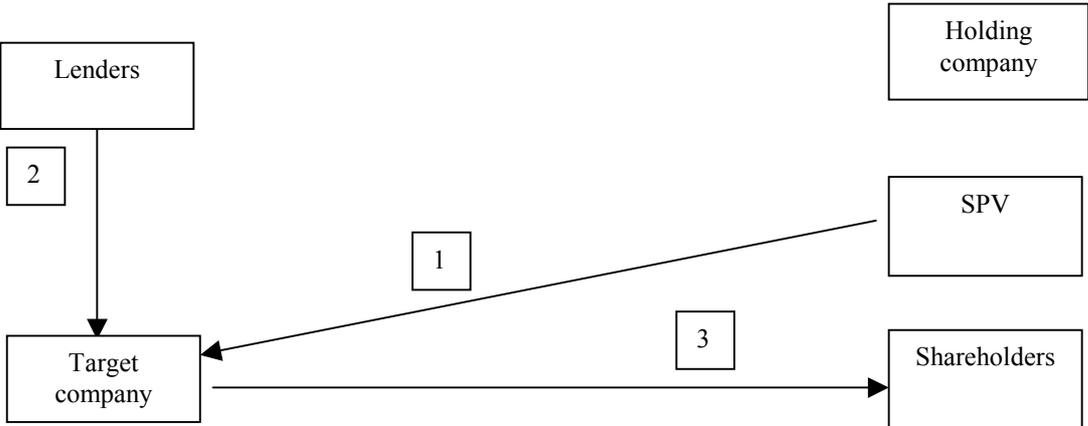
3. The structure of a cash merger consists in merging a special purpose vehicle company (SPV) with a target company (1). The merged entity normally retains the target company's name. After the merger, the target company proceeds with conversion of its shares into financial liabilities due to current shareholders. Subsequently, lenders finance the target company against collateral of its assets and cash flow (2). The received financing is then used to pay back liabilities towards shareholders (3). In the final stage, the target company may be merged with the holding company (4).



Due to legal and tax issues, this buyout structure is most often utilized in the US in buyouts of publicly listed companies.

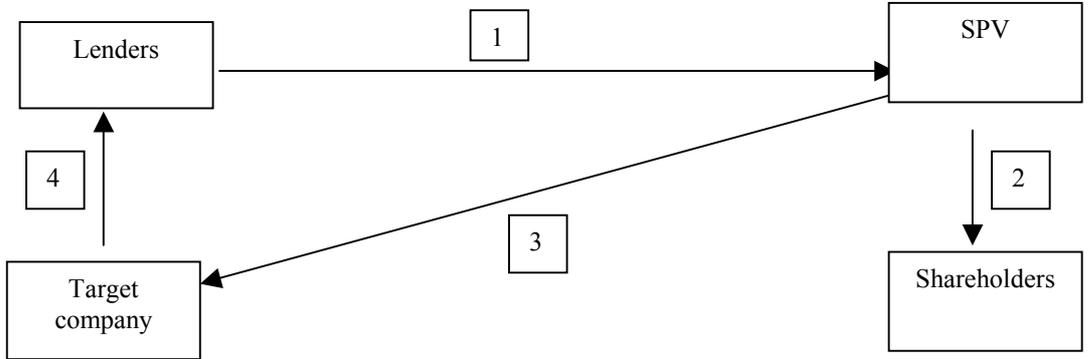
4. Public tender – a shell company announces a tender offer for shares of a target company (1). Pursuant to the tender announcement, a shell company obliges itself to buy shares at some specified price subject to two conditions:
- Purchase in the tender of at least 80% of company's shares, and
  - Successful merger with the target company after the tender offer
- Should any of these two conditions not be met, the tender offer is annulled. The additional condition may allow buyers to vote for the merger even before the final payment for the purchased shares in the tender. This structure allows assumption of complete control over the target company without a need for the purchase of 100% of outstanding shares (1). This solution also limits risk for lenders, who would finance the purchase of shares only after the

consummation of the merger with the target company (2). Assumed debt is used to buy back shares from current shareholders (3).



All of the above buyout structures limit financing risk for lenders since the credit is extended directly to the target company and thus it is collateralized on its assets and cash flow.

- 5. The last of the presented structures presents a situation in which lenders first extend unsecured credit to a SPV (1). The loan is then used to finance the purchase of shares of the target company (2). After the purchase, the SPV merges with the target company (3). The merged company provides additional collateral (again, assets) for the lenders (4).



*Leveraged buyout structures in the Polish market*

Local legal and tax regulations will have a predominant impact on the feasibility of the above outlined buyout structures.

In buyouts, that entail the merger of a shell company with a target company, the issue of the protection of rights of the target company’s minority shareholders presents a significant risk to success of the transaction. With a view to protecting rights of small shareholders, the brand new Commercial Code, which came into force in January 2001, endows small shareholders with quite powerful rights of contesting the company’s mergers with other entities. Those rights when utilized may become a serious hurdle on the way to the merger. Although contesting the merger may finally prove unsuccessful, the opposition of small shareholders may significantly delay the whole transaction. In the instance of a planned merger of two Polish banks, BRE S.A and Bank Handlowy S.A. as well as an attempted takeover of BIG Bank Gdański S.A. by Deutsche Bank, the opposition of small shareholders

resulted in a collapse of both merger projects. It is very important to mention, though, that both transactions were attempted during the rule of the old Commercial Code – the new Code, although less favorable for small shareholders, nonetheless did not change minority rights vis-a-vis mergers in any tangible manner.

Furthermore, due to often unclear tax regulations concerning merger and acquisition activity, mergers may be quite easily contested by tax authorities. This may further derail the buyout's prospects. Finally, merger transactions require a seal of approval from the Competition and Consumer Protection Office (Polish State anti-monopoly authority), which may decide to oppose the merger on the grounds of the prevention of monopoly powers or "important interests of the State".

Hence, in order to steer clear of problems with merger-driven buyout transactions, the preferred buyout structure in the Polish market does not entail any mergers. For that reason, structure 1 and 2 outlined above, should represent the most preferred solution. In addition to lack of merger risk, in both structures lenders' financing is being extended directly to the target company. This fact, while decreasing the credit risk, allows for easier and cheaper access to financing. Also from the tax point of view, structure 1 and 2 is much less risky than merger buyouts since inter-company financing involved in this structure resembles a regular loan agreement (important to note that inter-company bond financing as opposed to straight loan financing is not subject to a stamp duty of 2 per cent).

#### *Business plan of LBO*

Having structured the transaction, the business plan for the leveraged takeover is the next important part of the deal. The business plan of a buyout has three dominant objectives: (1) prove that the transaction will bring sufficient return on invested capital to the buyer, (2) assure lenders of the credit risk feasibility of the buyout (prove target's company ability to service debt), and (3) present a detailed strategy of the takeover from the purchase financing to the exit along with tools for performance monitoring.

The LBO business plan would normally comprise the following elements:

- a) Executive summary of the transaction,
- b) Information memorandum on the target company,
- c) Valuation of the target company,
- d) Financing of the purchase,
- e) Exit strategies (ways of selling back the purchased company),
- f) Calculations of investor's ROI for different scenarios,
- g) Analysis of tax, legal and accounting aspects.

#### *Post-LBO process*

What happens to the company after it has been taken over in a leveraged buyout transaction? In most cases, the new owners aim to exit the investment in the company within the 3-5 year period. The exit may be performed through sale of the company to strategic investor, its flotation on the stock exchange through initial public offering (if the company was private), liquidation or significant curtailment of the company's activities and sale of its assets (a strategy known as asset-stripping). During the 3 to 5 year period, new owners restructure the company, pay back the debt incurred by the company in the buyout, and sale redundant assets in order to amass liquid cash for debt prepayment.

#### *Return on investment*

Thanks to the use of debt leverage, returns on invested equity (ROI) in LBO transactions may indeed be significant. In the U.S. market, ROI of leading LBO funds exceeds 30 per cent

per annum. The mechanism of the leverage is quite obvious: let's assume that an investor purchases a company and subsequently sells it at a price 20 per cent higher. Now, if the purchase is in 100 per cent financed with own money, the ROI on the transaction is still 20 per cent; however, if the buyer puts up only one fourth of the total value of the purchase, whereas the rest is financed with debt, then the total ROI for the buyer would not be 20 per cent only but a whopping 80 per cent!<sup>16</sup>

### *Legal, tax and accounting aspects*

Selection of the most suitable legal, tax and accounting structure of the LBO has great impact on the final results of the transaction. The chosen type of legal structure, sequence of buyout actions or takeover strategy may have decidedly different implications for the feasibility of the buyout.

#### **(1) Legal aspects**

There is a whole wealth of legal issues concerning the leveraged buyouts. Yet, they are not the focus of this paper. Hence, only some most seminal legal aspects of the LBO will be highlighted. Other aspects of the buyouts can be then studied in relevant bibliography (see also this paper's bibliography for reference).

Insufficient regard to legal implications may easily endanger the feasibility of the buyout and thwart its expected economic benefits. Moreover, breach of the buyout governing law may even result in criminal prosecution.

Takeover of a company may take different forms.<sup>17</sup> Yet, as already mentioned in the "Structuring the transaction", purchase of assets or shares of a target company represent the two main buyout scenarios. These two forms have considerably different legal implications for the buyer.

#### **Asset purchase**

The leveraged buyout of the company based on the purchase of its assets offers some benefits versus the purchase of the company's shares. First of all, purchase of assets only limits the legal risk associated with the buyout – the buyer assumes only liabilities, which are specified in the purchase agreement and directly related to the assets being bought. Hence, except for accounts payable, none of other liabilities are conveyed. The buyer may thus avoid the possibility of becoming liable for any of the selling corporation's undisclosed or unknown liabilities (like environmental and employee claims, income taxes, lawsuits, contract liabilities, and other possible "skeletons in the cupboard"). Secondly, purchase of assets allows easier access to secured debt financing – lenders can secure themselves on identifiable pieces of assets rather than total company's property, which includes both assets and liabilities. The enhanced credit security for lenders results in higher amounts of available financing, better financing terms and lower debt covenants as compared to financing based on the company's total property.

Purchase of assets, however, also has disadvantages – high costs of asset evaluations (independent appraisals of building, equipment etc.), complex documentation and consequent time delays. In addition, purchase of assets only rather than shares means that the buyer may not be able to take advantage of existing contracts, patents, administrative permits, quality marks, licenses, and other more or less tangible assets of the company, that due to their nature can not be sold and therefore have to remain with the selling company.

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<sup>16</sup> For sake of simplicity the cost of debt has been ignored.

<sup>17</sup> for full analysis see Frąckowiak, W. (1998). 'Fuzje i przejęcia przedsiębiorstw', Polskie Wydawnictwo Ekonomiczne, Warszawa, p. 99.

Buyout of the company through purchase of its assets is normally conducted by a special purpose vehicle, a SPV, which is brought into the transaction by the ultimate buyer, which in turn is represented by a holding company. The introduction of the SPV in the buyout further limits the liabilities of the ultimate buyer.

Therefore, the usual process of asset purchase would entail the following succession of steps:<sup>18</sup> incorporation of a shell company, signing of the asset purchase agreement, that would detail price, payment conditions, evaluation of purchased assets and enumeration of liabilities, advance payment for purchased assets by the holding company, which then are being transferred as an asset input to the SPV, subsequently becoming the owner of the assets. This fact allows lenders to step in and disburse financing to the shell against the collateral of its newly acquired assets. In a final step, the SPV pays back the holding company, which then pays the remaining portion of the asset purchase price. In consequence of this process, the target company's assets are transferred to the SPV, the new sole owner. After the transaction, since cash represents most of its assets from the sale, the target company becomes a cash institution. In most cases, the company is then liquidated and the cash is disbursed to its remaining owners.

### Share purchase

Buyout of the company through the purchase of its shares can be done much faster than in the asset purchase scenario. Furthermore, purchase of shares allows automatic and complete takeover of all assets of the company, including those, which due to their nature are not transferable and can not be sold (as mentioned above, these include contracts, administrative permits, licenses etc.).

Disadvantages of share-based buyouts are a mirror reflection of benefits of asset-based transactions – there is a risk of finding unreported liabilities (“skeletons”) and higher cost of debt financing. Providing for the buyer's indemnification and the right to offset future payments due to the seller can minimize the risk of inheriting undisclosed debts of the seller in a share transaction.

### (2) Tax aspects

We will pinpoint some main points on the tax implications of leveraged buyouts:

(a) The main tax rule says that all income generated from sale or purchase of shares is not taxed until the receipt of cash. Because of that rule, sellers in LBO transactions have an incentive to postpone the moment of the cash receipt. This may be achieved through receipt of other than cash sources of value – shares, debt instruments, and other assets. Only the final sale of those assets for cash will result in tax liability.

(b) In most countries all purchase and sale transactions (including shares) are taxed with a stamp duty. In the Polish tax code the stamp duty amounts to 2% of the total value of transaction. Shares of public companies listed on the stockmarket are however exempted from the stamp duty.

(c) Loss carry forwards – ability to take advantage of the accumulated losses of a target company to offset income of the merged companies in a buyout may represent a very significant source of value for the LBO investors.

### (3) Accounting aspects

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<sup>18</sup> altered version based on Michel, A. and Shaked, I. (1988). ‘The complete guide to a successful leveraged buyout’, Dow Jones-Irwin, page 252.

Accounting for LBO takeovers will be conditioned by the chosen LBO structure: either (a) involving the merger of a SPV with a target company or (b) not.

In the first scenario, where the merger is a part of the buyout strategy, the purchasing company has to choose between the two accounting methods for mergers: (a) pooling of interest method and (b) acquisition method.

The pooling of interest method is more attractive for merging companies since the balance sheets of both merging companies are being added to each other at their book rather than market values. Consequently, goodwill is not accounted for, which otherwise would have to be amortized against the net income of the merged companies. From the cash flow point of view, the amortization of goodwill does not mean anything - it is purely an accounting standard with no repercussions for cash generation (amortization of goodwill is not tax deductible). Amortization of goodwill decreases the accounting net income, but not the cash.

In the acquisition method of accounting for mergers, the two companies have to merge on the basis of the market value of the balance sheets. If the price paid for the merging company (in cash or in shares) differs from the market value of assets of the merging company, one has to account for goodwill (or capital reserve if the price paid is less than the market value). Acquisition method is then, at least from an accounting point of view, a less attractive option than the pooling of interest method – in acquisition the net income of the merged companies will be lower than in the pooling method.

Not surprisingly then, investors want to use the pooling of interest method for mergers in order to show better net income. However, the accounting conditions for using the pooling method are quite stringent - most mergers do not qualify and have to be accounted for under the acquisition method.

Yet again though, from LBO investors' point of view, both accounting methods are quite irrelevant – from an economic point of view, that mostly looks at the cash generation, both methods are the same. Focus of LBO investors is entirely centered on the cash generation rather than accounting income. The success of a buyout is not judged on the basis of the net income of purchased companies – it is purely judged on their cash performance.

In the second scenario, where the merger is not consummated, accounting implications will depend on the apparent objective of the transaction: either (a) purchase of a company with an intention to re-sell it or (b) long-term investment. In the former situation, investment in shares of a target company in the balance sheet of the buyer will appear as short-term investment.

In the latter situation, where buyers arbitrarily decide that they would regard purchase of shares as a long-term investment, accounting implications are much more complex. If LBO investors buy more than 10% of total shares of a target company, they will have to prepare a consolidated balance sheet report for both the buying and purchased company. In addition, if share purchase price exceeds market value of the assets of a target company, the dominating company (SPV) is bound to account for generated goodwill or capital reserve. These are then gradually amortized against income in the next years<sup>19</sup>.

## A CASE STUDY

For the purpose of the case study, the paper will analyze the potential leveraged buyout of Mennica Państwowa S.A. (Polish State Mint Plc, “Mint”, [www.mennica.com.pl](http://www.mennica.com.pl)) a public

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<sup>19</sup> For more information of merger and acquisition accounting see Helin, A. and Zorde, K. (1998). ‘Fuzje i przejęcia’, Fundacja Rozwoju Rachunkowości w Polsce, p.193-240.

company based in Warsaw, listed on the Warsaw Stock Exchange (WSE at [www.wse.com.pl](http://www.wse.com.pl)). The company engages in minting production (coins, medals, decorations, seals, date markers), precious metal processing (gold, platinum, palladium, iridium, rhodium) for the needs of optics and electronics, and production of gold and platinum paints for glass and porcelain decoration.

The choice of the Mint for the case study was based on its almost perfect suitability for leveraged buyout, as illustrated by the following characteristics:

- a) undervaluation

Table 4. Stockmarket ratios of Mennica based on share price as of 31.05.2001:

	Mennica
Price/Earnings	5.9
Price/Book Value	0.78

Source: quotes based on 'Rzeczpospolita', June 1, 2001.

The valuation of the company based on the discounted cash flow method (DCF) returns a value of PLN 414,000 thousand, this is 135% more than the current market capitalization of PLN 175,800 thousand<sup>20</sup>.

- b) large cash flow generation

Table 5. Mint's operating cash flow 1998-2000 (in PLN thousand):

	1998	1999	2000
Operating cash flow	13,550	53,742	30,128

Source: the company's annual reports<sup>21</sup>

- c) large holdings of cash and marketable securities of PLN 19,309 thousand as of the end of 2000
- d) low leverage - as of December 31, 2000, the company's total leverage (total debt to equity) amounted to 24%; bank debt-to-equity ratio was, however, much lower and amounted to only 18.2%.
- e) shareholding structure – no shareholder with majority ownership.
- e) established market position – the Mint is almost a complete monopolist in its main activity: production of coins, metal badges, and numismatic accessories. The company is the only supplier of coins to the National Bank of Poland.
- f) significant value of assets - fixed capital investments in the last four years amounted to roughly PLN 120 million; in the same period, the company in addition spent PLN 36 million on long term financial investments. Finally, last year the company completed construction of a new business office center, at a total cost of some PLN 60 million. In aggregate, Mint has recently spent PLN 216 million, alone 23% more than the current market capitalization!
- g) sale of assets - most of the recent investment, both fixed and financial, could be sold at prices close to their book values (depreciation in fixed assets would be counterbalanced by increase in value of long-term financial investments and the real estate project). In addition to that, the company could relocate its production away from Warsaw's downtown to suburbs. This would allow a sale of the existing office centers and land worth an additional PLN 70 million. All in all, the sale of the

<sup>20</sup> for all calculations in USD the exchange rate of PLN/USD = 4.0 has been used.

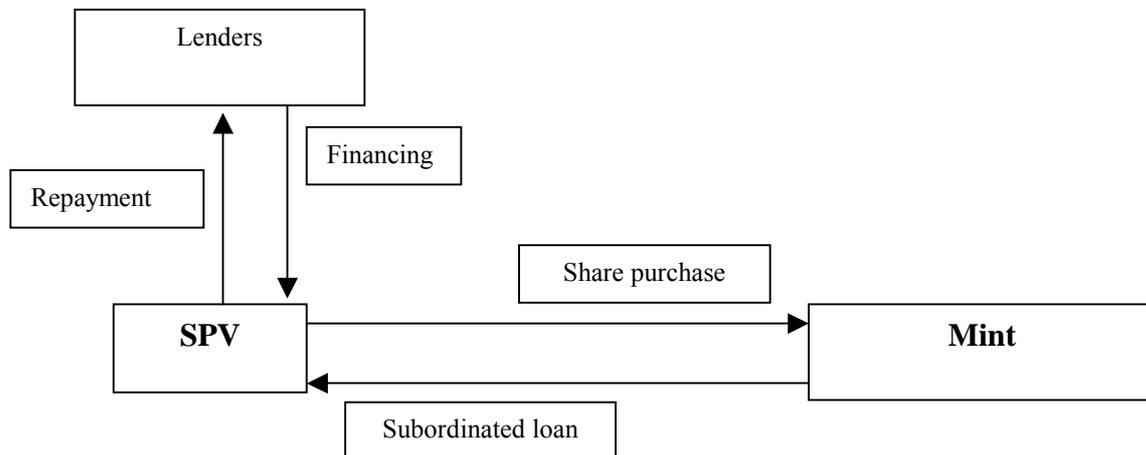
<sup>21</sup> all data unless otherwise stated is based on Mint's financial reports.

company's assets might bring some PLN 286 million of gross revenue, that is 63.4% more than the current market capitalization.

- g) stable and mature technology - the minting production is in a very mature technological stage – no major technology upgrades are required. For that reason, the company in recent years has been able to funnel generated cash flow into real estate projects rather than technology investments.
- h) stable and experienced management - most of the incumbent management has spent, on average, thirteen years with the company.
- i) high product quality as confirmed by ISO 9001 quality mark

### *The structure of the leveraged buyout*

Figure 5. The structure of the leveraged buyout of Mint:



### *Transaction stages*

#### 1. Financing

We will assume that the buyer's own equity will represent 30% of the total value of the transaction. The balance will be financed with a bridge loan, tenor of up to 12 months, secured on all purchased shares of Mint. The 30% share of the investor will limit the risk for lenders of the collapse in Mint's share price.

#### 2. Permissions

The buyer needs to obtain permissions for purchase of 50% of total shares of the Mint from the anti-monopoly office<sup>22</sup> ("UOKiK, <http://www.uokik.gov.pl/>) and the Securities Commission ("KPW"). Purchase of Mint by a special purpose vehicle (SPV), not by competing corporations, does not endanger the market competition. For KPW "important interests of the State or the country"<sup>23</sup> should not prevent it from issuing permission. In the last three years both institutions have accepted all applications for purchase of shares of stockmarket companies. This should also be the case in a takeover of Mint.

#### 3. Public tender

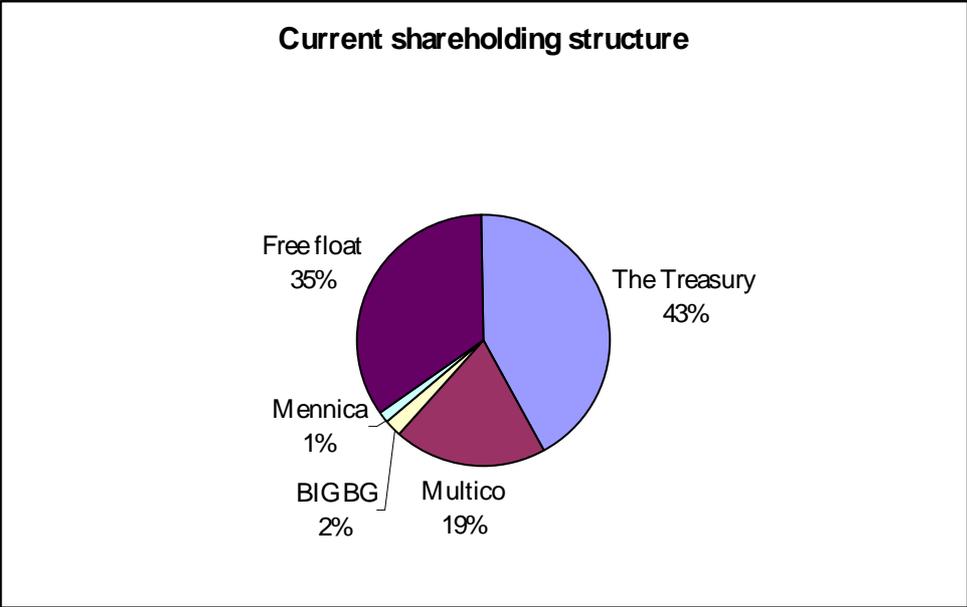
<sup>22</sup> UOKiK competences are regulated by a Anti-monopoly Bill enacted on 24.02.1990.

<sup>23</sup> Art. 149 of the Securities Law.

The buyer calls a public tender for 50% of outstanding shares of Mint at a price of PLN 39.0, a 30% premium over prevailing share price. The total value of the tender would amount to PLN 130,650 thousand. Investor's total capital invested would amount to PLN 43,500 thousand, one-third of the total. The tender offer for more than 50% of shares of Mint would require announcement of an offer for all outstanding shares, which would significantly increase the value of the transaction. It does not have to be done, though – 50% of shares will be sufficient to assume a complete control over the company.

The offered 30% premium over the prevailing share price is very likely to assure shareholders' response to the tender offer (out of 79 tender offers in Poland announced in the period of 1998 through the first half of 2000, premium in 55 tenders hovered between 0% and 20%; in the same period, average premium in all tenders amounted to 5%<sup>24</sup>).

Figure 6. Shareholding structure of Mint as of the end of May 2001<sup>25</sup>:



4. Assumption of control

After completion of the tender offer resulting in a purchase of 50% of outstanding shares of Mint the buyer will ask the Management Board to summon the Extraordinary Meeting of Shareholders<sup>26</sup>. During the meeting, the buyer will assume control over the Supervisory Board of the company.

5. Extension of a subordinated loan to SPV

At the behest of the Supervisory Board, the company's management will incur a loan from external lenders of the value equal to the value of the bridge financing incurred by the SPV (with low leverage, large cash flow generation and unencumbered assets the company would have no problems with securing financing - see Appendix 1). The new debt will be

<sup>24</sup> M. Lewandowski 'Przejęcia i fuzje w Polsce na tle tendencji światowych', WIG Press 2001, p. 33  
<sup>25</sup> Multico Ltd. is a private company; BIG BG, a bank, maintains shares on behalf of the Mint management (this is a part of a management incentive program). In reality then, BIG BG's shares belong to Mint's management. There are no privileged shares – all shares give a right to one vote. In the total shareholdings we have also included the issue of new shares in exchange for convertible bonds in the value of PLN 25 million. The conversion will take place in June 2001.  
<sup>26</sup> According to the Commercial Code, shareholders with at least 10% of the total share capital are authorized to call the Extraordinary Meeting of Shareholders.

used to extend long-term loan to the SPV (it could be, for instance, market priced long-term zero-coupon bonds, which pay no interest until final repayment).

#### 6. Repayment of bridge financing

In the final step, the SPV pays back the full amount of the outstanding bridge financing. With the repayment of the bridge loan, the SPV assumes full control over Mint; its long-term debt towards Mint is payable in some specified future (5 years or more).

#### 7. Merger

Optionally, Mint may decide to merge with the SPV. This would solve the question of the payment of the long-term loan (it would become Mint's liability). Yet, as mentioned before, mergers can quite easily be contested by remaining shareholders. In addition, decisions on the merger have to be taken by at least 75% of the present shareholders at the Meeting of Shareholders (Commercial Code). Hence, the merger option may not be the most attractive. Otherwise, the loan may be repaid only at the time of a sale of the stake in the Mint by the SPV. Alternatively, the loan can be paid back in installments with the Mint's dividend payouts.

#### *Valuation of Mint*

The valuation of the Mint was calculated on the basis of three methods:

- (1) Net asset value,
- (2) Simplified valuation based on the company's ability to service debt, and
- (3) Discounted Cash Flow method (DCF).

The three methods returned the following results (current market value of PLN 175,800 thousand)<sup>27</sup>:

Table 6. Value of Mint for various valuation methods:

	Book value	Simplified	DCF
Total value	215,446	693,390	414,000
Total value to current market value	122.5%	394.4%	235.4%

#### *Financing of the buyout*

The total value of the buyout at a 30% premium will equal PLN 130,650 thousand (half of the total value of the company since only 50% is purchased). At one-third of own capital in the total financing, the needed amount of debt amounts to PLN 87,100 thousand. As shown in Appendix 1, the company has an ability to service even larger debt. The bridge financing would be available from a wide variety of financial institutions, from commercial banks, insurance companies, and investment banks to venture capital firms.

#### *Legal, tax and accounting aspects:*

Successful tender offer for 50% of shares will have the following implications:

- a) legal – SPV will become a controlling entity for Mint. SPV will be liable for all liabilities of Mint up to the value of its investment in the company (limited liability then).
- b) tax – no tax payable until sale of purchased shares. At the moment of sale of shares for cash or other assets, the positive difference between the value of cash or assets and the

<sup>27</sup> All calculations in Appendix 2

cost of purchased shares of Mint (together with all ancillary costs) will represent a taxable income for the SPV.

- c) accounting – depending on the short- or long-term character of the investment in Mint, investment in Mint’s shares will either be displayed in the SPV’s balance sheet as short-term or long-term financial investment. In the latter scenario, financial results of Mint will be consolidated with that of the SPV.

*Exit strategies*

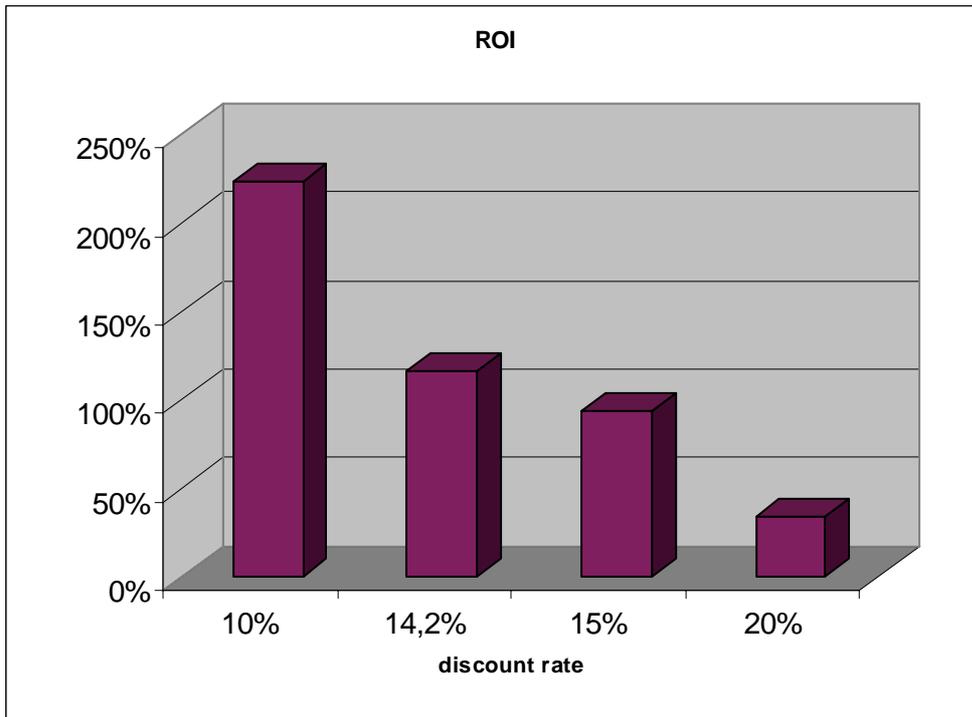
The LBO buyer may choose to exit the investment in Mint in the following ways:

- (a) Sale to strategic investor,
- (b) Public offering of shares,
- (c) Management buyout by existing management,
- (d) Dividend payouts,
- (e) Share buybacks by the company,
- (f) Liquidation.

*Return on Investment (ROI) in the LBO of Mint*

Assuming that the Mint could be sold to new investors within a year from its purchase and at the sale price equal to its DCF valuation, the return on invested capital for the buyer (ROI) for various discount rates would be the following (calculations in Appendix 3):

Figure 7. ROI in LBO of Mint for various discount rates:



**Conclusions: At the 14,2% real discount rate, the leveraged buyout of the Mint would have yielded a ROI of 117% per annum! Even for a 20% discount rate, the buyout of**

**the Mint would return ROI of 34%, which highlights the extreme attractiveness of this investment opportunity<sup>28</sup>.**

## **ECONOMIC IMPLICATIONS OF LEVERAGED BUYOUTS**

Leveraged buyouts improve performance of companies owing to three effects:

1. Higher operating efficiency due to:
  - a) reduction in agency costs (conflicts of interests between management and shareholders) due to closer control of shareholders over the management,
  - b) higher commitment of management due to salary incentive programs focused on the performance of a company rather than its size (share options etc.)
  - c) disciplinary impact of the debt burden, which prompts the management to conserve cash and pursue investment projects with undoubted positive returns (NPV)
2. More efficient financial structure with higher debt leverage, which, while decreasing the overall cost of a company's capital, increases a company's ROE. Tax deduction of debt interests (tax shield) decreases tax payments and consequently results in larger free cash flow, which is an another source of value for shareholders.
3. Better allocation of assets achieved through the sale of non-core or redundant assets and rigorous assessment of all investment projects aimed at selection of the investment projects with high net present values.

The improved performance of leveraged companies brings benefits both on a micro (shareholders and investors) as well as on a macroeconomic level of the whole economy.

On the microlevel, substantial premiums paid to shareholders in buyout transactions increase the shareholders' wealth, thus positively impacting the well being of the society. Wealthier shareholders are likely to save more – additional savings increase the national saving ratio. This in turn translates into a higher investment rate in the economy at large. Furthermore, wealthier shareholders spend more, which promotes growth in production and consequently yield higher tax revenue for the state (through, for instance, VAT tax on increased spending).

Extensive research on the benefits to shareholders in LBO transactions has shown that in the 1980's in the US shareholders in companies taken over in LBOs recorded returns of between 27.0 and 56.0 per cent above the average expected return in shares of the given risk<sup>29</sup>. According to results of other research done by M.C. Jensen, average premium for shareholders of American companies in the 1980's ranged from 40% to 56% per annum<sup>30</sup>. These results confirm the extraordinary returns of shareholders in leveraged buyouts.

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<sup>28</sup> The ROI calculations were based on very conservative assumptions. The final ROI could be much higher due to the following reasons:

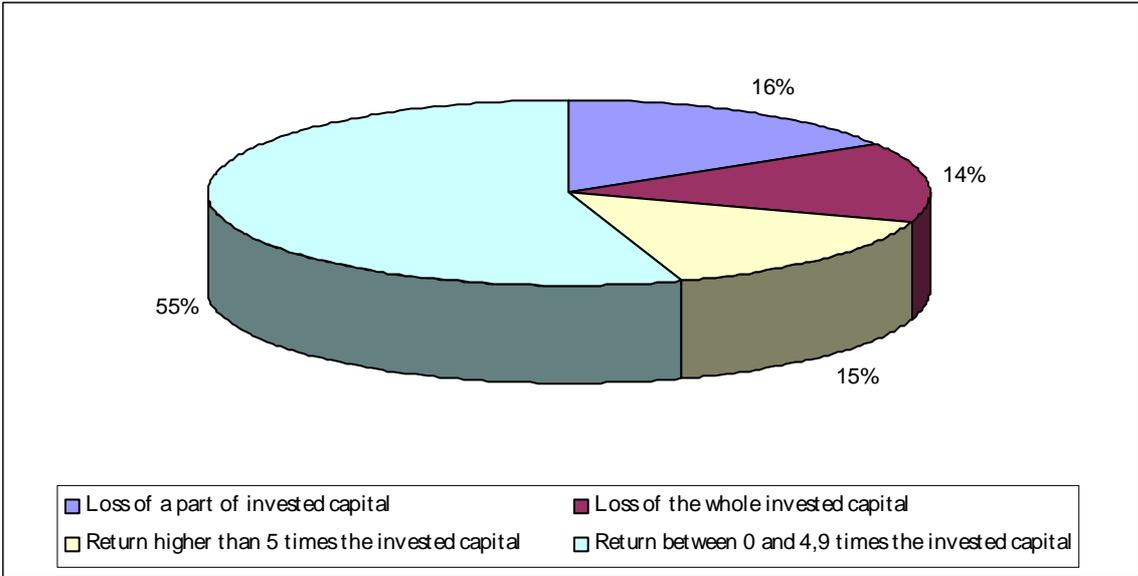
- a) There is a high likelihood for the sale of attractive real estate assets at a price higher than their book values,
- b) Lower discount rate could be applied to the DCF valuation due to an expected decrease in Polish interest rates, which are now exorbitantly high (some 14% in real terms!) and lower risk premium for the Polish stockmarket (much less than assumed 10% in real terms),
- c) The calculations assumed no growth in cash generation after 2006 – this is clearly very conservative. Residual value of the company might be then much higher,
- d) There is no tax on capital gains on sale of shares by individuals in the Polish market – hence, if the company was bought by an individual, rather than a company, the 28% tax rate on the gain would not apply.

<sup>29</sup> Called CAR - Cumulative Average Residuals. Wrzesiński, M. (2000). 'Fuzje i przejęcia...', op.cit., p. 44, based on various authors.

<sup>30</sup> Jensen. M.C., 'Eclipse of the Public Corporation', *Harvard Business Review*, September-October 1989, p.69.

Likewise, leveraged buyouts bring substantial returns to LBO investors. The average ROI of the LBO fund KKR, in the period of nine years in the 1980's, amounted to 47 per cent annually<sup>31</sup>. Most existing LBO funds produce annual returns exceeding 20 per cent annually. Those significant returns are brought about thanks to the increased value of the leveraged companies. The increase in value of the leveraged companies comes through generation of larger cash flows, sale of redundant assets, decrease in cost base and better management, which all finally show up in increased efficiency (ROE) of the LBO companies. According to M. Jensen, average annual ROI for LBO funds between 1979-1985 with assets of more than USD 50 million mounted to 125%!<sup>32</sup> And American LBO fund managed by Leon Plack boasts of 41% ROI per annum<sup>33</sup>; Charterhouse Development Capital, a European LBO fund, in the last ten years recorded average returns of 80% per annum<sup>34</sup>.

Figure 8. Return on investment in LBOs:



Source: Khoylian, R. (1988). 'Venture Capital Performance', Needham, MA, Venture Economics, Inc., p. 9, after Wrzesiński, M. (2000). 'Fuzje i przejęcia...', op.cit., p. 49.

Higher ROE of companies directly impacts the economy: should all companies in a country increase their ROE, the whole economy would react by a decrease in unemployment, higher productivity, and faster economic growth. Increase in the economy-wide efficiency is also achieved through improvement in corporate governance, which results in a decrease in the agency costs, that is, costs of conflicts of interest between incumbent management and

<sup>31</sup> Lewandowski, M. (2001). M. Lewandowski 'Przejęcia i fuzje w Polsce na tle tendencji światowych', WIG Press, p. 103.  
<sup>32</sup> Jensen, M.C. 'Eclipse of the Public Corporation', op.cit., p. 69.  
<sup>33</sup> 'The cutting edge of venture capital', Euromoney, July 1998.  
<sup>34</sup> Ibidem.

the shareholders. According to M. Jensen<sup>35</sup> between 1977 and 1988 the average premium in LBO transactions amounted to 50 per cent - this is how much value of purchased companies was lost by incumbent management teams. Despite this large premium, LBO investors nonetheless made sufficient returns on their investments. Furthermore, according to Jensen all LBOs in the analyzed period generated total value of USD 500 billion, more than 50 per cent more than all dividends paid by those corporations in that period! Since most pre-LBO management teams are remunerated on the basis of the size of the company (explicitly – based on the revenue or profits, or implicitly – the bigger the company, the bigger the pay), they have a strong incentive to engage in “empire building” strategies, irrelevant of their economic sense. This “empire building” syndrome is confirmed by again M. Jensen – in 1988 one thousand of the largest American companies paid out only USD 108 billion in dividends and a further USD 51 million in share buybacks out of a total of USD 1,600 billion of net profits. Clearly, management teams, unless forced by strict ownership control, have not incentive to return cash back to the shareholders. This is because dividend payouts decrease the size of the company and thus limit the power and remuneration of the management<sup>36</sup>. In consequence of the “empire building” syndrome, the allocation of capital suffers. LBO transactions, however, remedy agency problems through close ownership supervision and improved management incentive strategies based on cash flow generation and ROE.

Leveraged buyouts also redirect capital from mature industries with bleak growth prospects into projects with much more attractive expected returns. This is achieved through replacement of equity capital in leveraged companies with bank debt. As opposed to equity capital, amount of available debt is only limited by the size of the capital base of the financial system. Banks, thanks to the monetary multiplication effect, can create additional liquidity without a need to increase the underlying capital base – available amount of debt is then only constrained by banks’ capital adequacy ratios. Hence, replacement of equity with debt contributes to a more efficient allocation of existing scarce equity (amount of equity capital, *ceteris paribus*, increases roughly in step with an increase in national income – GDP).

Replacement of scarce equity “shackled” in declining industries with a virtually unlimited supply of debt and its subsequent investment into, for instance, high-value added information and communication technologies, where the high risk involved would not allow for the use of debt, may clearly contribute to the acceleration of economic growth.

The 1980’s LBO boom in the U.S. has resulted in extensive economic research on the economic and social implications of LBO transactions. A number of studies were carried out, which analyzed the impact of LBOs on operating cash flow generation, taxes, value of investment in fixed assets and R&D, and finally LBOs impact on employment. Table X sums up the results of various research done in the US in the 1980’s:

Table 7. Economic implications of leveraged buyouts:

	Opler	Kaplan	Kaplan and Stein	Kitching	Long, Ravenscraft	Muscarella, Vetsuysence	Smith	Average
Operating cash flows to revenue	16.5	11.9	12.1	55.0	9.0	23.5		<b>21.3</b>
Taxes	-89.1			-43.0%				<b>-66.1</b>
Investment to revenue	-42.2	-31.6				-11.4	-31.5	<b>-29.2</b>

<sup>35</sup> Jensen, M.C. ‘Eclipse of the ....’, op.cit., p. 61

<sup>36</sup> Jensen, M.C. ‘Agency Costs of Free Cash Flow, Corporate Finance and Takeovers’, *American Economic Review*, May 1986, p. 323.

No. of Employees	0,3	0.9				0.6	2.0	<b>0.7</b>
R&D outlays	-7.2							<b>-7.2</b>
Period analyzed	1985-89	1980-86	1980-89	1980-87	1981-87	1976-87	1977-86	
Cases analyzed	42	37	66	110	198	35	37	

Source: Opler, T. 'Operating performance in leveraged buyouts. Evidence from 1985-1989', *Financial Management* 1992, p. 37-41, after Wrzesiński, M. (2000). "Fuzje i przejęcia...", *op.cit.*, p. 51.

All the studies clearly show that LBOs had very positive impact on cash generation. This is due to the aggregate impact of higher operating efficiency and asset re-allocation. From the point of view of the shareholder value, cash generation, next to ROE (although the two are not comparable – the former is based on real, economic value, the latter reflects accounting results), is the most important driver of the value of the company (as in DCF valuation). Hence, an increased cash generation is the most important reflection of increase in shareholder value.

Interestingly and counterintuitively, the research also showed that LBOs had no impact on the level of employment. It seems that most post-LBO companies were not firing people – instead they focused on moving the workforce away from administration and back-office into marketing and production.

The observed decrease in tax payments has ambivalent implications. On one side smaller tax payments increase cash generation, which in turn enhance the shareholder value. On the other hand, though, lower tax payments mean smaller revenue for the state. One may argue which is better. Yet, even if it is true that the State is losing on lower income tax payments of post-LBO companies (because of the debt-driven tax shield), one can however strongly argue that in the long run the higher efficiency of post-LBO companies will more than make up for the lost tax. This would be due to higher VAT tax revenue on increased sales, tax on dividend payouts, and capital gain tax revenue paid on share purchases and sales. In addition, debt interests paid by leveraged companies are considered to be a source of revenue for financial institutions, on which they pay tax, too. According to research by M. C. Jensen and S. Kaplan, LBO transactions in the U.S. in the 1980's, instead of decreasing tax revenue it increased it by 60%!<sup>37</sup>

The results of the studies also pinpoint the negative side of performance of post-LBO companies: decrease in investment in fixed assets and R&D. At first glance this seems to be very worrying: lower capital expenditure and R&D outlays may contribute to long-run loss of competitiveness. Yet, this does not have to be always true: if companies were spending so much on investments before the LBO, why then was their performance (ROE) so miserable? Perhaps then those investments were not earning the required return on capital. If this is true, then lower investments may increase rather than decrease the long-run competitiveness. For sure, though, a cut in low-return investments increases shareholder value.

Likewise results as given in the table were also obtained by M. C. Jensen. In his research he found out that companies taken over in LBO transactions increase their operating efficiency without significant cuts in the workforce and R&D outlays. Furthermore, during the first three years following the LBO, companies were able to increase operating profits by on average 42% annually. In the same period annual cash flows had increased by 96%<sup>38</sup>.

<sup>37</sup> Smith, A. 'Effects of Leveraged Buyouts Transactions', 4/1990, *Business Economics*, p. 20

<sup>38</sup> Jensen, M.C. 'Eclipse of the Public Corporation', *Harvard Business Review*, September-October 1989, p. 69

Finally, according to research done by Steven Kaplan, companies involved in LBOs in the U.S. in the 1981-86 period „had significantly (about 14 per cent) higher rates of productivity growth than other companies in the same industry (...). Among MBOs – the subset of LBOs in which the acquirer includes the managers of the acquired unit – the productivity growth differential was even larger – about 20 per cent”<sup>39</sup>. And further on the employment in LBO, he argues that „LBOs appear to be production-labor-using, non-production-labor-saving, organizational innovations”<sup>40</sup>. Thus, LBO organizations tend to cut costs of administration overheads, but there are no cuts in the number of production workers.

Higher risk of bankruptcy of the leveraged companies is nonetheless a real concern. According to Jensen, leveraged companies are more likely to experience financial difficulties than non-leveraged companies. However, only a few leveraged companies finally go bust. Thanks to concentrated ownership, companies in financial distress are quickly and successfully restructured; the improvement in financial health and prevention of bankruptcy is achieved at much lower cost than with non-leveraged companies<sup>41</sup>. Nonetheless, higher risk of financial distress is real. There is no free lunch – higher benefits of LBO come with higher financial risk.

#### *Economic implications of leveraged buyouts in Poland*

Leveraged buyouts in Poland and per proxy in other post-socialist countries can bring even higher benefits to shareholders, investors and the economy than in developed countries. This is due to the prevailing in post-socialist countries low quality of corporate governance, insufficient use of the financial leverage, low operating margins, and inadequate utilization of assets. All those shortcomings result in insufficient return on assets and equity and ensuing destruction of the shareholders’ value.

The case of study of the Mint provides a useful illustration of the potential of the leveraged buyout transactions for rapid restructuring of the economy and corresponding increase in economic efficiency.

The Mint’s ROE in the last three years (1998-2000) ranged between 3.3 and 14.8% per cent in nominal terms. **Assuming that the company’s ROE in real terms in those three years should have been equal to American S&P 500 average of 21.3%**<sup>42</sup> (Mint’s nominal ROE would then have to equal roughly 26.0% to compensate for differences in inflation rates in Poland and the U.S.), **the company would have produced roughly PLN 100 million of additional value to shareholders!** But it has not. Due to wrong management of the financial structure of the company, which resulted in extremely low leverage, the company has destroyed an amazing value to its shareholders and consequently to the whole economy and society.

Projecting forward, the wealth produced for shareholders (30% premium over prevailing share price) and investors (a dazzling 117% ROI) in the case of the LBO of Mint reflects the magnitude of the value, which would be compromised by the company if it maintained its current performance. In other words, the extraordinary ROI is a measure of how much value has been locked in the company. If the company were not going to change its performance, all of this value would be lost.

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<sup>39</sup> Kaplan, S. ‘The Staying Power of Leveraged Buyouts’, *NBER Working Paper Series*, Working Paper No. 3653, March 1991, p. 32, available at [www.nber.org](http://www.nber.org)

<sup>40</sup> *Ibidem*, p. 34

<sup>41</sup> Jensen, M.C., ‘Eclipse of the Public Corporation’, *op.cit.*, p. 63

<sup>42</sup> Data on S&P 500 ROI average in 2000 available at [www.morningstar.com](http://www.morningstar.com)

In the table below the author projected two scenarios for performance of Mint in the 2001-2006 period: (a) sustaining *status quo* and (b) post-LBO performance<sup>43</sup>.

Table 8. Two scenarios for projected financial results of Mint in 2001-2006:

	Ratio		2001	2002	2003	2004	2005	2006
Efficiency	ROE	<i>Status quo</i>	<b>10.7%</b>	<b>11.3%</b>	<b>11.9%</b>	<b>12.5%</b>	<b>12.7%</b>	<b>12.8%</b>
		Post-LBO	<b>6.6%</b>	<b>15.1%</b>	<b>20.1%</b>	<b>25.9%</b>	<b>31.8%</b>	<b>38.3%</b>
Leverage	Equity-to-total assets	<i>Status quo</i>	78.0%	79.0%	80.0%	81.0%	82.0%	83.0%
		Post-LBO	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%
Ability to service debt	Interest coverage	<i>Status quo</i>	5129%	5899%	6783%	7801%	8971%	10317%
		Post-LBO	170.0%	197.0%	228.0%	265.0%	309.0%	360.0%

In the projected period, post-LBO company would have increased ROE from 14.6 per cent in 2000 to 38.3 per cent in 2006 versus *status quo* result of 12.8% ROE only. Throughout the whole post-LBO period, in spite of substantially higher leverage, the company would have no difficulty with servicing debt. **Most importantly, during the five-year period the post-LBO Mint would have returned to shareholders an aggregate value (in dividend payments) of some PLN 140 million versus zero in the *status quo* scenario!** The LBO of Mint would have not only substantially increase the company's efficiency – the buyout would also have freed substantial capital, which when returned to shareholders could be used for financing companies in emerging industries.

**The example of insufficient performance of Mint holds true for the major part of the Polish economy. In 2000 the median ROE of companies listed on the Warsaw Stock Exchange (WSE) equaled meager 4.99%<sup>44</sup> in nominal terms. In real terms, after having calculated for an inflation rate of 8.6% in 2000, most of the Polish public companies had a negative return on their equity! Hundreds of million of dollars of shareholders' value has been thus destroyed!**

Companies listed on the WSE are by far the blue chips of the Polish economy – only the best companies are able to enter the stockmarket. Since those companies are supposed to be better than not listed companies, one could then safely assume that ROE's of non-listed companies are still lower than WSE's companies. How much more value have they destroyed?

As proved above, leveraged buyouts can significantly improve performance of companies. Should LBO transaction be then promoted as a way to restructure companies, the implications for the economy could be indeed extraordinary!

Of course, not every company can be purchased in a LBO – as said before a suitable target company needs to generate large free cash flows, require only little capital investment, and holds surplus cash. **Under an assumption that 5 per cent of the Polish companies (in terms of equity capital as a share in total GDP) would qualify for an LBO and after restructuring would be subsequently able to increase their ROE from current 4.99 per cent to the level of S&P 500 average, post-LBO companies would have generated an**

<sup>43</sup> Assumptions: increase in debt leverage, no change in operating performance. For detailed assumptions see Appendix 1.

<sup>44</sup> Own calculations based on Onet Supertabela available at [www.onet.pl](http://www.onet.pl)

**additional value of USD 2,035 million or a whole 1.2 per cent of the Polish GDP in 2000!**<sup>45</sup>

The increase in ROE can be achieved through an increase in operating efficiency, higher leverage and re-allocation of assets. Restructuring of the Poland's economy requires improvement in all three aspects.

Next to the low operating efficiency, financial structure of the Polish companies, which exhibits a very low use of debt, needs a lot of improvement in order to increase ROE to the levels recorded in the developed countries. According to data, average leverage (debt to equity capital) of Polish companies in the 1993-97 period amounted to only 31 per cent versus 84 per cent on average in developed countries<sup>46</sup>.

**Replacement of equity with debt, assuming that the leverage of the Polish companies could be increased to the average level of the developed countries, would release equity capital to the tune of USD 8.5 billion dollars<sup>47</sup>, this is some 4.9 per cent of GDP in 2000. The released capital would finance the much needed high-risk investments, which can not be financed by debt.**

There is a lot of available debt in the Polish market. Polish banks are significantly overliquid as shown by high capital adequacy ratios, which averaged 14.6 per cent in 2000. The current low use of debt in the Polish economy hovering around 40.0 per cent of GDP, as opposed to, for instance, the U.S. where the total debt to GDP ratio amounted to 181 per cent in 2000<sup>48</sup>, leaves a lot of room for debt expansion.

Consequently, apart from a role in restructuring the economy, leveraged buyouts would also play the important role of an intermediary between low leveraged companies and overliquid banks.

Despite some risks, leveraged buyouts can clearly play a very important role in the restructuring of the Polish economy. Since there were no LBO transactions in Poland, of course no research could have been carried out on the effects of leveraged buyouts. Yet, one may safely assume that results in Poland would be at least as good as those in the US. Low efficiency of Polish economy leaves much more space for improvement.

## **SUMMARY AND CONCLUSIONS**

Leveraged buyouts can substantially increase return on equity (ROE) of the purchased companies through increase in operating efficiency, higher debt leverage and better allocation of assets. The increase in operating efficiency is achieved through closer ownership control, reduction in conflict of interests between management and shareholders (agency cost), salary incentive programs based on the company's performance, and finally cost cutting. Higher debt leverage results in increased free cash flow generation due to the tax shield effect of tax deductible debt interests. Sale of non-core and redundant assets contributes to the increase in returns on existing assets.

The substantial improvements in performance of enterprises taken over in LBO transactions contribute to the extraordinary benefits accruing to both pre-LBO shareholders and LBO investors.

The case study of a hypothetical leveraged buyout of Mint, a Polish public company listed on the Warsaw Stock Exchange, highlights the extraordinary returns available to

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<sup>45</sup> Calculations: 23.6% difference in ROE multiplied by GDP in 2000 of USD 172.5 billion and 5%.

<sup>46</sup> Wrzesiński, M. (2000). "Fuzje i przejęcia...", op. cit., p. 148-149

<sup>47</sup> Ibidem, p. 159 based on data for 1997.

<sup>48</sup> *Rzeczpospolita*, December 11, 2000, based on data of the Moody's Investors Services for the III quarter of 2000.

existing shareholders as well as buyout investors. The analyzed transaction resulted in 30% increase in Mint's share price to the pre-LBO shareholders. Under an assumption that after the LBO Mint could be re-sold at a price equal to its valuation, and that the debt leverage in the buyout would equal 3.3 to 1, the LBO investors would stand to achieve returns on their invested capital to the tune of a dazzling 117 per cent! This proves the viability of debt-driven buyouts versus alternative of own equity financing.

The case study also analyzed the whole process of a leveraged transaction. The step-by-step analysis proves that the Polish market is mature enough for a successful introduction of leveraged buyouts.

Finally, the case study speculated on the size of shareholder value destroyed due to the insufficient use of leverage. It transpired that Mint during the last couple of years have destroyed substantial value to the shareholders. Should the *status quo* continue in the future, the company is likely to compromise still larger value.

It was shown that debt leverage of Polish companies is much lower than in developed countries. The insufficient leverage results in lower-than-otherwise possible ROE. There is plenty of available debt financing, which could contribute to the increase in economy-wide leverage. Polish financial sector is significantly overliquid – low sophistication and risk aversion of local banks coupled with high interests rates have contributed to the very low utilization of the banks' balance sheets as illustrated by an average capital adequacy ratio of 14.6 per cent in 2000, considerably higher than the recommended 8 per cent ratio. Leveraged buyouts could then stimulate the higher use of debt leverage to the benefit of both the companies and the financial sector.

Microeconomic improvements conditioned by the leveraged buyouts translate into large benefits to the whole economy. On macroeconomic level leveraged buyouts contribute to better allocation of capital and higher efficiency of the economy.

Leveraged buyouts through replacement of equity capital of leveraged companies with debt contribute to freeing scarce equity capital away from mature, low-value added industries into high-risk, high-value added industries, which could not be otherwise financed with debt.

The paper showed that there is enough of supply of target companies for leveraged buyouts in Poland. LBO financing sources are also available. It seems that only lack of LBO investors limits the development of the leveraged buyout market.

Leveraged buyouts can be successfully used in post-socialist countries as a potent tool for acceleration of the economic restructuring. Since efficiency of companies in post-socialist countries as measured by ROE is much lower than in the developed countries, leveraged buyouts offer higher potential benefits to the post-socialist countries than to the developed countries. Peer pressure resulting from actual LBO transactions would also impact other companies, which in fear of being themselves purchased in LBO transaction, would restructure themselves with a view to increasing their own efficiency. However, for the lack of any major LBO market activity any analysis of economic effects of LBOs in post-socialist countries is premature.

Leveraged transactions could not be used for restructuring of all companies. Only those companies with large cash flows, surplus assets, low leverage and little investment needs qualify. In short, LBOs are best for companies in mature industries with slow growth prospects. LBOs may not be then favorable to high-growth industries with large investment needs, where more long-term management can bring more benefits<sup>49</sup>.

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<sup>49</sup> Leuhrmann, T. and Kester C. (1996). 'Rehabilitating the Leveraged Buyout'. *Harvard Business Review*, No. 5-6, p. 129

LBOs can also benefit the economy through the impact of a peer pressure. Inefficient companies will have a strong incentive to restructure themselves in the face of the threat of a their buyout. Thus even small LBO activity can have large spillover effects on the other parts of the economy.

Leveraged buyouts should be then promoted as a restructuring tool for the Polish economy. Economic policies should emphasize fast development of capital markets, which contribute to the growth in the market for corporate control. Specifically, the accelerated development of the Warsaw Stock Exchange should be supported – for instance in the form of creation of a pan-European stockmarket alliance, which would expose Polish companies to the European capital markets. The stockmarket alliance would be much more attractive to companies since it would offer larger financing pools and recognition. Larger stockmarket would provide higher supply of companies for buyouts, thus benefiting the LBO market. A pan-European stockmarket would provide a welcome exit for investment of LBO funds as well as venture capital and private equity funds. Easier exit from investments would contribute to faster development of high-risk investments. Finally, a large stockmarket would also increase share price transparency, which provides relevant economic information for free to the whole economy thus lowering transaction costs.

What are the prospects for the leveraged buyout market in Poland? There are strong signs that the LBO market will quickly develop in Poland. This will be due to the following factors:

- a) Increasing sophistication of financial and consulting institutions as confirmed by significant rate of growth of the local M&A market.
- b) Increasing market competition for returns – financial institutions in quest for higher margins and away from standard products will look for new transactions, including LBOs.
- c) Expanding base of financing sources – overliquidity of the banking system and growing assets of pension funds will guarantee substantial financing even for higher risk transactions. Furthermore, ever-growing bond market will represent yet another potent source of LBO financing.
- d) Decreasing market interest rates – current horrendously high interest rates can only go down: it will result in a decrease of cost of debt, higher incentives for lenders to shift investments away from government bonds, and finally lower discount rates in valuations, which will in turn increase the NPV value of LBO target companies.
- e) Pending integration with the EU coupled with globalization and growing market transparency due to information technologies will lower barriers of entry into the Polish capital market, which will subsequently stimulate development of the LBO market.

The author of the paper hopes that this paper will contribute to the growth of the LBO market in Poland to the benefit of shareholders, LBO investors, and the economy at large.

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## APPENDIX 1

Projected financial results of Mint in 2001-2006 for two scenarios:

- (a) sustaining *status quo*, and
- (b) post-LBO performance.

Assumptions:

- Annual growth in revenue - 15% (versus 37.8% in nominal terms in 2000, approximately 29.2% in real terms)
- Operating margin - 15% (versus 20.2% in 2000)
- Tax rate – decreasing from 28% in 2001 to 22% in 2006 (28% in 2002, 24% in 2003, 22% in 2004, 2005, 2006)
- Cost of debt – 13.4% over the period (based on quotes on 5-year IRS swap transaction as of 31.05.2001)
- Increase in assets – equal to increase in working capital, which would be equal to 10% of increase in annual sales. Investment in fixed assets to equal annual depreciation.
- All projections based on prices in real terms.

a)

- Debt leverage – we will assume that throughout the whole period the company will maintain its interest-bearing debt at the level of current PLN 5,000 thousand<sup>50</sup>
- Increase in equity – no dividends paid - equal to annual net income.

b)

- Debt leverage – equity to assets ratio equal to 0,33 throughout the whole period.
- Increase in equity - all net income paid out in dividends – equity to assets to always equal 0,33.
- Non-interest bearing debt – to increase from 2000 level by an amount equal to 10% of annual increase in revenue. In 2001 decrease in equity would result from extraordinary dividend payout or share buyback. The freed equity would be replaced with interest-bearing debt

## APPENDIX 2

Valuation of Mint:

a) Net Asset Value method:

Book value of the company is equal to a difference between the value of the company's assets and its total liabilities. On December 31, 2000, Mint's total book value amounted to PLN 215,446 thousand, 22.5% more than current market capitalization.

b) Simplified valuation based on the company's ability to service debt:

Earnings before Interest and Taxes (EBIT) for Mint in 2000 accounting year amounted to PLN 47,865. Applying minimum ratio of debt interest coverage of 1,5 (EBIT to debt interests), Mint is capable of paying PLN 31,910 thousand of debt interests annually. Assuming current cost of debt in PLN at the level of 13.4% p.a. (5-year fixed rate loan with bullet payment), the company could incur debt in the total amount of PLN 238,134 thousand. For the purpose of the LBO, at the leverage ratio of 3,3:1, Mint would be worth PLN 785,842 thousand. Deducting value of outstanding debt, the enterprise value to shareholders would amount to PLN 693,390 thousand.

c) DCF method:

The value of the company is a sum of:

- + discounted projected free cash flows (NPV)
- + present value of residual value (RV)
- + non-operating assets
- non-operating liabilities

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= Value of the company

Calculation of *NPV and RV*

1. Projection of free cash flow

Table 9. Projected free cash flows for Mennica in 2001-2006 (in PLN thousand):

	2001	2002	2003	2004	2005	2006
Total revenue	229 108	263 474	302 995	348 444	400 711	460 817
<b>Operating profit</b>	<b>34 366</b>	<b>39 521</b>	<b>45 449</b>	<b>52 267</b>	<b>60 107</b>	<b>69 123</b>
- Tax	9 623	10 275	10 908	11 499	13 223	15 207
+ Depreciation	9 000	9 000	9 000	9 000	9 000	9 000
- Increase in working capital	2 988	3 437	3 952	4 545	5 227	6 011
- Capital expenditures	9 000	9 000	9 000	9 000	9 000	9 000
<b>Free cash flow</b>	<b>21 755</b>	<b>25 809</b>	<b>30 589</b>	<b>36 223</b>	<b>41 656</b>	<b>47 905</b>

Assumptions: the same as in Appendix 1

2. Discount rate:

$$WACC = k_{(e)} * E/A + k_{(d)} (1-t) * D/A$$

$$WACC = 21,3\% * 0,50 + 9,4\% * (1-0,24)*(0,50) = \underline{\underline{14,2\%}}$$

where,

$k_{(e)}$  – cost of equity (see calculation below)

$k_{(d)}$  – cost of debt before tax - estimated for 2001-2006 at 13,4% per annum (based on current 5-year swap transactions). Average inflation in 2001-2006 period - 4%. Debt interests in real terms will then amount to 9,4% per annum<sup>51</sup>

$t$  – average tax rate in 2001-2006 estimated at 24%

$E/A$  – market value of equity to total market value of assets - after LBO projected weight at 0,5

$D/A$  – market value of debt to market value of total assets – after LBO projected weight at 0,5

$$K_{(e)} = R_{(f)} + \beta_{\text{leveraged}} (R_{(m)} - R_{(f)})$$

$$K_{(e)} = 8,9\% + 1,17 * (18,9\% - 8,3\%) = 21,3\%$$

where,

$K_{(e)}$  – cost of equity

$R_{(f)}$  – current nominal interest in 52-week Treasury bills equal to 15,5%; in real terms at a current 6,6 % inflation, real interest rate amounts to 8,3% per annum.

$R_{(m)}$  – average return on the stockmarket – in light of the lack of statistically viable measurement of returns on the the WIG index resulting from short 9-year history and high volatility, we will assume the risk premium over the risk-free asset to equal to 10%, almost 4% higher than risk premium for the US market of 6,05%<sup>52</sup>. Hence, the expected return on the stockmarket will equal 18,9% (risk-free rate plus the 10% risk premium)

$\beta_{\text{leveraged}}$  – 1,17<sup>53</sup> (calculation see below)

3.

Table 10. Mint's non-operating assets and liabilities as of 31.12.2000 (in PLN thousand):

<b>(+) Value of non operating assets</b>	<b>125,022</b>
- Office Business Center Aurum	65,000
- Long-term investments in subsidiaries	40,813
- Cash and marketable securities	19,309
- Loan to the SPV	87,100
<b>(-) Value of non-operating liabilities</b>	<b>92,452</b>
- Increase in debt	87,100
- Debt	5,352*

\* takes into account conversion of outstanding PLN 25 million of convertible bonds into equity.

<sup>51</sup> Real interest rate = (nominal rate – inflation rate)/(1 + inflation rate)

<sup>52</sup> For the U.S. market premium see [www.stern.nyu.edu/~adamodar](http://www.stern.nyu.edu/~adamodar)

<sup>53</sup>  $\beta_{\text{unleveraged}} = \beta_{\text{unleveraged}} * [(Equity+Debt)/Equity]$   
 $\beta_{\text{leveraged}} = 0,39 * [(94,828+ 189,656)/94,828] = 1,17$

where,

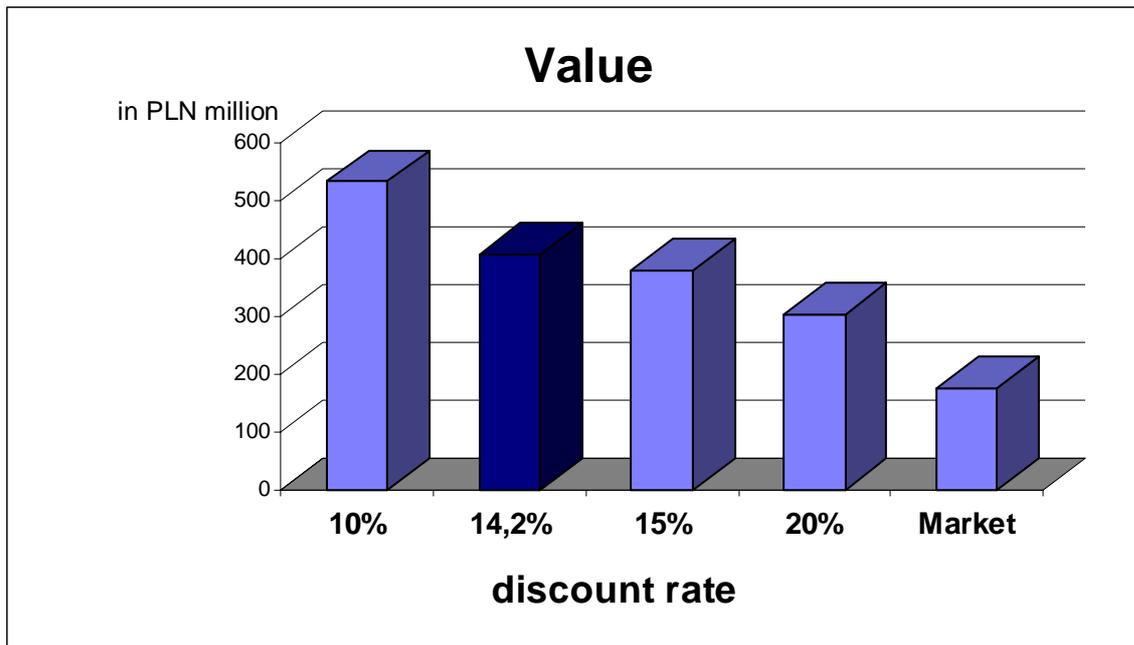
$\beta_{\text{unleveraged}}$  – 0,39 for the Mint as per Internet service of Reuters 3000.

Equity – projected value of equity after LBO

Debt – value of debt after LBO

4. Total value of the company for various discount rates

Figure 9. Total value of Mint for various discount rates:



\* Market – Mint’s market capitalization as of the end May 2001

### APPENDIX 3

ROI calculation:

$$R = \frac{[(DCF * X\%) - \{t * (DCF * X\% - S)\}] - D - I_o}{I_o}$$

where,

R = ROI in %

DCF – value of the company as per its DCF valuation

I<sub>o</sub> – buyer's own capital

t – capital gain tax in %

S – original purchase price for the shares

X % - share of the buyer in total financing (one-third of total in this exercise)

D – value of the debt due by the SPV to Mint.

Assumptions: 28% tax on capital gains, transaction costs not included due to their marginal value (brokerage commission, costs of the public tender offer, costs of the bridge financing), 12 months projected deadline for sale – otherwise, the proceeds from the sale should be discounted to its Net Present Value (NPV).