

# Why Companies Go Private in Emerging Markets? Evidence from Poland\*

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## Abstract

In recent years the number of going private transactions has sharply increased in emerging markets. The purpose of this study is to establish the financial characteristics of companies that have gone private using a dataset from Poland. We use a probit model to distinguish the difference between firms that went private and companies that did not. We find that the probability of going private grew with a rise in the concentration of foreign ownership, an increase in the relative level of free cash flows, a decrease in the level of long term debt, and a decrease in the liquidity of share trading. The results obtained are important both for investors wishing to identify entities characterized by a high likelihood of going private and for governmental authorities evaluating the methods and rationality of privatization mature state-owned enterprises.

*JEL Classification:* G32, G34

*Keywords:* Going Private, free cash flow, information asymmetry, ownership structure, emerging markets

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\* The article presents results of the research project 1 H02C 099 26 supported by the (Polish) Committee for Scientific Research.

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## **1. Introduction**

The Warsaw Stock Exchange (WSE) in Poland was recreated in 1991 after more than fifty years of inactivity caused by the Second World War and the introduction of a centrally planned economy thereafter (Czerniawski, 1992). Seven years after its reactivation the first going private transaction took place. Following this transaction, several dozens of going private transactions have been made to date. Thus a logical question arises in these circumstances as to the reasons for this phenomenon, considered typical of developed markets, occurring in such a young market. The answer to such a question is made more difficult by the fact that, due to the specificity of the post-communist economy, the usefulness of theories published in the literature explaining the reasons for going private should be perceived as limited. Given the very different nature in market characteristics and institutional background between developed and emerging countries, this study seeks to examine an interesting issue.

The outline of the paper is as follows. Section II provides a brief description of going private transactions in Poland. In Section III hypotheses are derived based on previous empirical research that explains the motives for and the characteristics of Polish going private companies. Section IV presents the data and methodology used. Section V provides empirical results of the financial profile of going private companies and their compliance with forecasts of the hypotheses verified. Finally, section VI presents a brief summary of the findings.

Empirical research conducted uses data on transactions of going private available through the end of 2004. Thus it broadens the scope of the analysis of previous empirical results based on data for a shorter period and published earlier in Polish (Jackowicz and Kowalewski, 2004).

This paper should enrich the findings of previous research in three ways. First, it adjusts explanations for going private transactions presented in earlier literature for the developing

markets to conditions in a post-communist economy. Second, it tests the formulated hypotheses using a data set that has not yet been analyzed. Third, it provides a unique illustration of the significance of foreign ownership in going private transactions and in some cases - the choices made by governmental authorities concerning the privatization method of state enterprises.

## **2. Going Private Transactions in Poland**

From the beginning of 1998 till the end of 2004, 33 companies have gone private. 31 did so as a result of so-called *regular delisting* and 2 did so as a result of *cold delisting* related to their transformation into limited liability companies. The number of going private transactions related to the total number of listed companies on the WSE in particular years is presented in Table 1.

### **[TABLE 1]**

Wedel S.A. was the first entity, which went private in Poland. This transaction took place, as we have already mentioned, in 1998. However, one had to wait, until 2002, for an increase in the number of transactions going private and for an impact on the total number of companies listed on the Warsaw Stock Exchange. Apart from factors having a microeconomic nature, that we attempt to identify in a section devoted to the presentation of research results, the following factors, a slowdown in the rate of economic growth, and a general decrease in the level of share prices, may have been conducive to the rise of going private transactions in Poland in 2001-2002.

When characterizing the going private transactions made in Poland we focus on: (1) characteristics of going private companies, (2) types of initiating entities, (3) efficiency of obtaining the goal, and (4) officially presented motives.

Companies that went private in Poland were, in the majority, mature business entities. When the stock market was recreated, they had operated for forty years on average. The

majority of them (27 out of 33) constituted state-owned enterprises before entering the stock market. Most of these companies were from the manufacturing sector (mainly food, drink, tobacco and machinery). Data on the structure of companies that went private using criteria resulting from the European Classification of Activities (EKD) are presented in Table 2.

**[TABLE 2]**

Entities initiating the processes in question may be divided according to country of origin and the type of relationship between them and the going private companies. Slightly more than 75% of going private transactions were made in Poland by foreign investors (see Table 3). It was assumed in Table 3 that the country where the registered office of the parent company is situated determined the geographic origin of the investor. In practice, a representative of the parent company in Poland initiated the transaction in a majority of cases. Hydrobudowa is a good example. This entity went private at the request of a Polish subsidiary – NCC Polska sp. z o.o. - of the Swedish company NCC AB.

**[TABLE 3]**

In the situation where going private transactions are initiated by entities that are stakeholders for more than a year, we have the so-called *insider buy-out*. In other cases one may talk about an *outsider buy-out*. In Poland 70% of the transactions in question were initiated by long-term strategic shareholders in the time period studied. This is illustrated in Table 4. It should be noted that on only two occasions investors were not the active entities. This was the case of the going private transaction of the company Zasada that was initiated by its founder and also the case of the company, Wafapomp, that was initiated by the employee company POWEN SA. Since the first company went private not a single transaction in Poland has been initiated by a financial investor.

**[TABLE 4]**

The main criterion for evaluating the efficiency of going private transactions is the time necessary to complete the operation. Analysis of the Polish experience shows that the period from the announcement of the intention of going private, until the moment a relevant resolution is adopted by the General Shareholders' Meeting, is approximately 2.18 months. From the moment the resolution of the General Shareholders' Meeting is adopted until the moment listings ceased 4.97 months elapsed on average. Therefore, going private transaction required slightly more than 7 months in Poland. For purposes of comparison, according to Zillmer (2002, pp. 494), going private transactions in Germany, from the moment a resolution of the General Shareholders' Meeting is passed until listings cease, took 12.5 months on average in the years 1996–2001. The relatively quickly conducted going private transactions in Poland are a testimony to the effectiveness of activities undertaken by the Securities and Exchange Commission, and a lack of serious objections from minority shareholders at the time of this analysis.

Initiators of going private transactions announce their official motives for the decision to the public. As a rule, several reasons are mentioned. Table 5 shows how often the most popular official justifications for going private transactions are given based on their order in lists included in the resolutions of the General Shareholders' Meeting, information forwarded to the Securities and Exchange Commission, or in the company's press announcements. In light of data included in Table 5, the following should be recognized as the most important reasons for the transformation of public companies into private companies in Poland: illiquidity of a company's shares and a desire to reorganize business activities. It is interesting that the unattractiveness of the stock market as a source of funding is rarely presented as the first motive, but often as the second one. It may be that the lack of enthusiasm for the stock market is related to its short period of operation. Presenting this motive as the most important one would call into question the rationality of listing the

company several years earlier. In general, official motives should be treated with considerable caution. In several cases the conduct of owners after going private showed that they had goals other than those that had been previously announced.

[TABLE 5]

### **3. Review of the Literature and its Applicability to Polish Conditions**

Possible explanations of motives for going private transactions offered in the previous literature can, in our view, be divided into three groups. In the first we include those theories that highlight the motives for activities undertaken by shareholders of going private companies, i.e. hypotheses related to agency problems associated with the occurrence of free cash flows, and wealth redistribution from different groups of stakeholders to shareholders. The second group consists of theories that mainly focus on managerial incentives. In this group, theories of information asymmetry and market inefficiency are highlighted, as well as are managerial motives to control and diversify the resources under their control. The third and last group of factors distinguished in the literature gives paramount importance to issues from the general sphere of rational management such as reduction of costs and a decrease in tax burdens.

The explanation of going private transactions, included in the first group in the form of the hypothesis of agency problems costs of free cash flows, is decidedly the most popular in the literature. It was first developed by Jensen (1989), who claimed that the publicly held corporation as an organizational form of business activity has outlived its usefulness in many sectors. This theory has been followed up by several works including Lehn et al. (1989), Rao et al. (1995), Weir et al. (2002), and Andres et al. (2004). According to this hypothesis, in the case of mature industries that develop slowly, there are few available investment projects with positive NPV, that give the company an abundant free cash flow. Therefore, the discrepancy between the interests of managers and shareholders becomes particularly acute. Shareholders

have a preference for the disbursement of this free cash flow, while managers may prefer to reinvest it to increase the scale of business activities and to improve their position on the labour market even if these steps result in decreasing shareholders' wealth (Denis, 1992). Going private transactions may mitigate the agency problem described above through an increase in the share of managers' ownership in a firm and the increased financial leverage that is particularly associated with LBOs. Increasing the level of debt puts pressure on managers to perform and reduces the cash flow available for spending at their discretion (Jensen, 1986). Thus, management incentives grow because of increased monitoring by stakeholders and active investors of the company, and by the growing threat of job loss in the event of poor performance (Gilson, 1989).

The mitigation of agency cost of free cash flows is one of the most often cited sources for going private transactions shareholders' gains. Going private reduce the possibility for managers to waste the free cash flows instead of distributing them to shareholders (Jensen 1986, 1989). This hypothesis assumes that entities active in the going private transactions act in accordance with general business ethics. The starting point of the hypothesis of transfer of wealth from different groups of stakeholders (employees, creditors) towards shareholders (Ippolito et al., 1992; Andres et al., 2004) is different. The previously mentioned transfer is possible owing to a breach of implicit contracts concluded with stakeholders during the course of a going private transaction. In the literature special attention is devoted to the transfer of wealth arising from the early termination of pension programs with a defined benefit and the appropriation by shareholders of excess assets (Ippolito et al., 1992). The empirically strong positive correlation between the likelihood of terminating a pension program with defined benefits and the fact of going private was not always interpreted with the same censoriousness. To illustrate, Chaplinsky, Niehaus, Van de Gucht (1998) perceive that gaining access to excess assets of pension plans in the transaction in question, if accompanied by an

increase in the share in employee ownership, as financial assistance in the purchase of shares is acceptable. Such an action helps decrease the scale of financial leverage and improve the ability of a company to service debt in the future.

A conviction about the undervaluation of shares may constitute an incentive for managers (but also for the dominant owner) to conduct the going private transaction. Potential reasons for the undervaluation of shares are as follows: the asymmetry of information and the inefficiency of the market. The most important area where the asymmetry of information is visible is the difference in the correctness of evaluating the value of assets by entities having access to inside information in a company and external observers. Inefficiency of the market in the area of valuation of a company most often results from the small scale of the so-called free float (Maupin, 1987; Lehn et al., 1989; Rao et al, 1995; Jansen et al., 2003; C. Andres et al, 2004).

Another explanation of the reasons for going private (besides one assuming the existence of the asymmetry of information), that focuses mainly on factors shaping the conduct of managers is the diversification – control hypothesis. (Elitzur et al., 1998). It assumes that managers who wish to maintain control over a company attempt to increase their share in the ownership structure. However, as a result of such conduct, there is a strong concentration of financial investment portfolios in the hands of managing personnel, and thus they are subject to serious exposure to non-systematic risk. Going private transactions create opportunities for the transformation of the capital structure of a company, so that the managers may maintain or increase their shareholding by utilizing financial leverage. At the same time, they may decrease the amount invested in the company. As a result, the degree of diversification of managers' financial investment portfolios improves.

Advocates of the motive for a decrease in costs stress that going private allows for a reduction both in costs directly related to public listings (e.g. the maintenance of investor



relationships, frequent preparation of financial statements, organizing and holding general meetings for a large number of shareholders) the and costs related to alack of flexibility in information policy, loss of business opportunities as a result of the necessity for supplying more information, and information asymmetry in a situation where the main competitors operate as non-public companies (Maupin, 1987; Jansen et al., 2003; Andres et al., 2004). The decrease in tax burdens, on the other hand, is associated with going private transactions mainly because of an increase in the role of liabilities in the capital structure of a firm during its course (Lehn et al. 1989; Andres et al., 2004).

The majority of empirical studies testing the above hypotheses use data from the US stock markets. However, the results obtained are not unequivocal. As an example, in the case of the hypothesis of agency problems costs of free cash flows most often subjected to verification, arguments in support of it are provided by: Lehn and Poulsen (1989), Denis (1992), Opler and Titman (1993) and Rao, Waters and Payne (1995). On the other hand, there is no such support in the research of Servaes (1994) and Kieschnik (1998). At the same time, work by Halpern, Kieschnik and Rotenberg (1999) underlines the need to exercise caution when interpreting the results of earlier investigations because of the heterogenic nature of going private transactions in the United States. However, a lack of consensus in conclusions resulting from the analysis of the US experience related to going private transactions does not constitute the main obstacle to utilizing this part of the literature in designing our study. The principal difficulty is connected with the incompatibility of the structure of the US economy and the characteristics of companies operating with the Polish reality at the break of 20<sup>th</sup> and 21<sup>st</sup> centuries. From this perspective, research based on data from the developed countries of Western Europe are of greater, although still limited, use. Andres, Betzer and Hoffmann (2004) observed that for European Union member states and Norway, companies that went private in the period 1996 – 2002 had relatively undervalued shares. Observed abnormal

returns were higher when there was a greater reduction in market monitoring as a result of share dispersion. Jansen and Klezmer (2003) confirmed agency problems connected with free cash flows for the German capital market in the period 1997-2001. They also noticed that in the estimated models, there was a strong positive relationship between concentration of ownership and the likelihood of going private. In the British capital market (Weir et al., 2002; Weir et al., 2003), on the other hand, going private companies differed from control samples of non-going private companies in the area of corporate governance in terms of the details of solutions as well as in future development prospects.

As for the Polish capital market, we do not know any results of formal investigations into going private transactions that were previously conducted. The phenomenon of the initial public offering of shares has recently been subjected to econometric analysis (Dudko-Kopczewska, 2004) in Poland. Because of the lack of previous research results for the motivation for going private, conducted in conditions comparable with the Polish ones from the 1998-2004, we are guided by theoretical reasoning in choosing the hypotheses to be tested. Our starting point will be defining the level of compatibility of the assumptions made in each hypothesis, prepared for developed financial markets, with the specificity of the functioning of the Polish economy and the Polish capital market.

At the heart of the hypothesis of agency problems costs of free cash flows are implicit assumptions that shareholding in public companies is generally dispersed and the role of foreign investors in comparison with home country investors is slight. These assumptions are fulfilled in the United States, but do not correspond to economic realities in other countries. In Australia, for example, foreign investors control approximately 32% of shares of companies listed on the Australian Stock Exchange (Poa et al., 2001). In Germany, we encounter a highly concentrated ownership structure (Jansen et al., 2003). Clearly, these assumptions cannot be regarded as valid in the Polish environment. Due to a high level of

ownership concentration and the considerable significance of foreign investors, the likelihood of the free rider phenomenon occurring in the area of monitoring companies decreases as does the inefficiency of internal control mechanisms for the utilization of free cash flows. As a result, finding of statistically significant higher levels of free cash flows, smaller developmental perspectives and smaller degree of financial leverage utilization in going private companies foreseen by the hypothesis in question may mean, owing to the development stage of the company, a lack of attractiveness of the stock market as a source of funding, rather than signal the occurrence of specific agency problems. However, it seems to us that it is not possible to totally exclude the hypothesis of agency problems costs of free cash flows from the area of our interest for two reasons. First, 30% of the going private transactions in Poland were conducted by groups of investors who were shareholders for less than a year. Second, overwhelmingly, entities entering the stock exchange in Poland as part of the privatization process were mature (Kowalewski, 2004).

The hypothesis of the transfer of wealth from employees or creditors as the explanation for the initiation of going private transactions in Polish conditions is seriously limited by two factors. First, in the period analyzed, employee pension programs were poorly developed. Second, banks still remain the largest capital provider for companies. In 2003, receivables from the non-financial sector constituted 27% of the GDP, whereas the value of bonds issued by companies equalled only 0.65% of the GDP (Jackowicz, 2004). The likelihood of a permanently profitable breach of implicit contracts concluded with creditors is inversely related to the level of their concentration.

We identified 33 cases of going private transactions in Poland from 1998 through the third quarter of 2004. Only one involved an employees' buyout and there were no cases of the process being initiated by managers (management buyout). This allows us to assume that, in the Polish environment, the significance of the hypotheses explaining going private

transactions from the angle of factors primarily determining the conduct of managers is more modest than in developed capital markets if we take into account the role of foreign investors. The conclusion applies primarily to the diversification – control hypothesis which requires considerable capital involvement from managers, and to a lesser extent, to the hypothesis of the asymmetry of information and the inefficiency of the capital market. Asymmetry of information may occur not only in the relationships of managers and dispersed external investors, but also in relationships between the dominant shareholder and other investors. In the latter case, the problem of company undervaluation by the stock market may be acutely felt due to its shallow nature.

Gains from going private could result from savings in direct cost, which are unique to a public company as opposed to a private company. Such costs include, but are not limited to, actual listing fees, analyst conferences, and the cost of annual general meetings. In addition to these direct costs there are also indirect costs of a public listing, such as cost resulting from the requirement to disclose information, which might lead to competitive disadvantages and the increase in regulatory constraints, which leads to reduced flexibility. In Polish conditions, it seems justified to extend the gains from going private to cover potential savings and benefits achieved thanks to the fuller integration of going private companies with their foreign owners. The desire to minimize tax burdens does not constitute, in our view, a rightful and intrinsic justification for the decision to go private. This view is supported by Opler and Titman (1993, pp. 1998) and Jansen and Klezmer (2003). The statistically significant correlation of the level of tax burdens and the likelihood of conducting the transaction in question would be a side-effect of the companies' having a considerable supplementary loan capacity resulting from not utilizing the opportunity to contract debts and generate high and stable cash flows, or may result from using debt to reduce agency problems.

In the following part of our paper, we will empirically test the three hypotheses explaining going private transactions: agency problems of free cash flows (bearing in mind objections made above as to other possible interpretations of the obtained results), the asymmetry of information and the inefficiency of the stock market as well as integration with the foreign owner and a reduction in costs. Owing to the weakening of the operation of the first two hypotheses, we expect to obtain confirmation for the superiority of the third explanation.

#### **4. Data and Methodology**

In order to analyze the determinants and motives for the likelihood of going private in Poland we used a probit model (Verbeek, 2000) like the one employed in the study of Rao, Waters and Payne (1995). Literature on the subject shows that other econometric tools are also used for this purpose: linear probability models (M. Poa et al., 2001); discriminant analysis (Maupin 1987); and logit models (Lehn et al. 1989; C. Weir et al., 2002; C. Weir et al., 2003).

The dependent variable (GP) is a qualitative attribute; it equals one if the company goes private in the analyzed period, and zero if the company remains public.

The set of independent variables was selected so as to create an opportunity to test the three hypotheses stated in the previous section describing the reasons for going private. In order to verify the hypothesis concerning agency problems of free cash flows, we introduced proxies describing: the level of free cash flows (FCFA); financial leverage (LTDA); and the dynamics of sales revenues (RSD). We approximated free cash flows, which according to Jensen, constitute an excess of cash flows over those required to finance projects with a positive NPV (a value which cannot be directly observed), using the sum of the cash flows from operating and financial activities. The occurrence of agency problems as well as a lack

of the need for funding via the stock market, lead us to expect a positive parameter for the FCFA variable and negative parameters for the LTDA and RSD variables.

We tested the asymmetry of information and the inefficiency of the capital market by adding the next three proxies to the model describing differences in the market and book value of equity (MVBV); the level of abnormal market returns from shares of the companies covered by the study (YIELD); and the number of days without shares trading for particular company (V0). Since the hypothesis analyzed predicts that companies undervalued by the stock market go private, we should obtain negative estimates of the parameters for the MVBV and YIELD variables and a positive estimate for the V0 variable.

To test the hypothesis of integration and the decrease in costs, we employed two proxies used separately in the estimated models (due to their high correlation). A dummy variable denoting whether the given entity belonged to a foreign entity (FOREIGN) prior to going private will take the value of 1 and 0 otherwise. The second variable is a product of the FOREIGN variable and an indicator of ownership concentration in the hands of the largest shareholder. We named it FORCON. A positive sign of the variables for both proxies would confirm the hypothesis.

Additionally, in all estimated models, we used a proxy for profitability which will be operationalized as a return on assets (ROA). We assume that the lower the effectiveness of operation, the greater the need to introduce organizational changes, including those made in conjunction with going private transactions.

All the proxy variables, with the exception of the binary variable, were computed as a mean over a period of three years immediately preceding the dates when the firms went private. Table 6 provides information about the variables, their operational definitions, and the predicted signs.

**[TABLE 6]**

The estimation of the probit model is based on a set of information concerning the going private companies and entities grouped in the control samples.

No systematic documentation is available in Poland concerning going private transactions, delisting, or merging of companies on the WSE. Therefore, in order to identify companies that should be covered by this study, we used annual reports of the Polish Securities and Exchange Commission and statistical yearbooks of the Warsaw Stock Exchange. Based on these documents we identified 33 cases of going private companies from the moment when the stock exchange was created in 1991 till the end of 2004. In accordance with the approach adopted in the literature we excluded an insurance institution. The elimination of another company was necessary because of the lack of data necessary for calculating the proxies. Thus, the final number in the original sample of 33 companies was reduced to 31, constituting the final going private sample of this study.

The issue of choosing the proper method for the selection of public companies in the control groups is not resolved in the relevant literature. Some studies use an industry adjusted sample as a control group (Maupin, 1987; Lehn et al., 1989; M. Poa et al., 2001; C. Weir et al., 2002), while other studies use the method of random sampling (Rao et al, 1995; Halpern et al, 1999; Jansen et al, 2003). One can also find studies where the entire population of publicly listed companies is used as a control group (Opler et al., 1993). If we take into account the diversity of solutions in the existing literature on the one hand, and the fact that it would require much effort to a mass financial data given Polish conditions. We decided to form three control groups of sample firms: an industry adjusted group according to the EKD code, a randomly selected group of listed companies and a group formed as a result of a merger of the two groups. The first two groups consist of 31 elements each and the third, clearly, of 62 elements. This will allow us to evaluate the extent to which the research results depend on the manner of constructing the control group.

The number of entities in a group, on the basis of which the models were estimated, is not large. In the previous literature, the number of cases of going private transactions ranges from 54, in the study by Maupin (1987), to 263 in the study of Lehn and Poulsen (1989).

The estimation of the model required a massing a large set of data on 93 business entities. We acquired it primarily from the database *IMS Emerging Markets* and *Notoria* services. Unavailable data concerning earlier accounting periods were taken from the annual statements of companies listed on the stock exchange SA-R. We created the missing information about listings of shares of the companies based on the official bulletin of the Stock Exchange „*Cedula*”. The necessary macroeconomic data came from statistical yearbooks published by the Central Statistical Office. The database constructed in this way contains approximately 3,800 items of data in total.

## **5. Empirical Results**

Table 7 below presents the results of research into the statistical significance of mean differences for independent variables selected in section 4 for the group of going private companies and three control groups.

### **[TABLE 7]**

In all cases where the rejection of the null hypothesis on the equality of means is possible, the test statistics have the expected signs. Indeed, companies that left the Warsaw Stock Exchange are characterized by a statistically significant greater number of days without trading in shares in the three years immediately preceding this event, a higher concentration of the shareholding structure, and the fact that they are more likely to constitute foreign property. Additionally, they have a lower return on assets in comparison with entities from the industry adjusted sample control group and a relatively higher level of free cash flows when compared with the randomly selected sample control group. The results obtained speak, in a preliminary manner, in favour of the explanations of the going private phenomenon in Poland as being



related to the integration of activities with the foreign owner and the lack of liquidity in shares trading.

The determinants to going private in Poland are described, in a more precise manner, by results of the estimation of probit models presented in Table 8. Apart from the values of parameter and the t-statistic estimates, the three tables contain elements of diagnostics of the models obtained, including information on the precision of the classifications of companies within the sample used.

#### **[TABLE 8]**

The six estimated specifications of the probit model for the phenomenon of going private transactions in Poland are characterized by good econometric properties. The sets of explanatory variables used in all cases significantly affect the likelihood of going private. The null hypothesis (about the lack of joint influence) in the appropriate test may always be rejected at the significance level of 1%. In specifications 1, 2 and 5, apart from the constant term, there are four individual statistically significant independent variables in each case and in the remaining specifications – three variables in each case. McFadden's  $R^2$  ratios range from 30.40% for the fifth specification to 56.37% for the fourth specification. In the case of models with a binary dependent variable, these are satisfactory values. They demonstrate that the estimated models are considerably better than the model containing only a constant as an explanatory variable. Additionally, it is worth noting that reaching convergence in the process of estimating model parameters required five (specification 1) to seven iterations (specification 5).

Of the three constructed models using the combined control groups, the random group, and the industry adjusted group, the third one is characterized by the poorest goodness of fit. It has relatively small values of McFadden's  $R^2$  ratio and relatively high values of the Akaike information criterion. It also offers a poorer precision of classification of companies making

up the samples. Specifications 5 and 6 identify correctly 74.19% and 77.42% of cases of going private companies and 83.87% and 80.65% of cases of maintaining shares in trading on the stock exchange until the end of the time subject to the analysis respectively. The estimated models for combined control groups classify correctly 83.87% and 87.10% of all companies included in the sample. Specifications 3 and 4 provide incorrect values in only 14.52% and 11.29% of cases.

In general, in models that used the FORCON variable, taking into account the degree of ownership concentration in the hands of the largest shareholder instead of the variable identifying the entities controlled by foreign investors, seems to be most beneficial. Additionally, the analysis of the values of McFadden's  $R^2$  ratios, the Akaike information criterion and the percentages of correct classifications of entities from the sample lead to this conclusion.

In the economic interpretation of the results obtained, the following three conclusions of a general nature may be formulated. First, in a situation of individual statistical significance of explanatory variables, parameters estimated for them always have the expected signs (Table 6). For non-significant variables, the signs of the parameters do not comply with the expected signs for all specifications for variables describing: the relation between the market and book valuation of equity (MVBV); and an above market rate of return from shares (YIELD). Second, results obtained confirm to a large extent the hypothesis of integration and decrease of costs, and to a lesser degree – the hypothesis of agency problems and the unattractiveness of the stock market as a source of funding. The most unequivocal is the result of the test of the hypothesis of asymmetry of information and the inefficiency of the capital market. Third, the manner in which the control groups were created has a negligible impact on the general interpretation of the results obtained.

The proxies testing the significance of the motive of integration with the foreign owner and the decrease of costs: FOREIGN and FORCON are statistically significant in all specifications and, in line with our expectations, increase the likelihood of going private. In five out of six specifications the null hypothesis on the lack of influence of these variables on the likelihood of going private may be rejected at the significance level of 1% and in one case – at the significance level of 5%. The conclusion concerning the determinants of going private companies emerging is thus similar to the one obtained by Jansen and Klezmer (2003, pp. 26) for the German capital market. These authors noticed that the likelihood of conducting the described process depended, to a large extent, on the degree of ownership concentration.

In the versions of the models estimated using the combined control groups and the control group selected randomly, the likelihood of going private increased in a statistically significant manner with the increase of the relative level of free cash flows (FCFA). In specifications 1, 2, 5 and 6, on the other hand, the likelihood of the event in question decreased in a statistically significant manner with an increase in the level of financial leverage (LTDA). Both of the relationships identified may be seen as a confirmation of the occurrence of agency problems related to free cash flows in the entities deciding to leave the stock market. As we have strongly argued in section 3, in Polish conditions, this may also be a signal that the company does not feel, due to its stage of development, the need to acquire further capital in the stock market. The third proxy testing the hypothesis of agency problems, RDS, is never statistically significant, although it has the expected sign of the estimated parameter in all specifications. One of the reasons for the non-significance of the RDS variable may be, as suggested by Lehn and Poulsen (1989, pp. 777-778), the fact that the average dynamics of sales revenues does not reflect the developmental prospects of the company well, if its managers follow a growth strategy through aggressive acquisitions.

Of the proxies testing the hypothesis of asymmetry of information and inefficiency of the capital market, only the average number of days without trading influences the likelihood of going private in a statistically significant manner and in the foreseen direction in all specifications. Proxies describing the potential market undervaluation of companies from the sample: MVBV and YIELD are statistically non-significant. At the same time, these variables have the positive signs of estimated parameters which are contrary to expectations. The same anomaly was observed in the German capital market (Jansen et al, 2003). In research using data from the US and British capital markets, there was a negative influence of the increase of the market valuation of equity in relation to the book value on the likelihood of going private (Ippolito et al., 1992; Weir et al, 2002). In summary, although we provided evidence that going private companies were characterized by a lower liquidity in trading in their shares, we cannot establish the simultaneous occurrence of undervaluation caused by the asymmetry of information in Polish circumstances.

Moreover, the likelihood of going private decreases in specification 5 with an increase of the effectiveness of operation measured by the ratio return on assets (ROA). We observe a similar dependence almost reaching the level of statistical significance for specification 1.

Compared with the results of research into the motives of going private we announced in Polish based on smaller samples, we noted two differences (Jackowicz and Kowalewski, 2004). The results described above indicate the relatively higher significance of illiquidity in shares trading and the less important role of the return on assets on the decision to go private.

## **6. Conclusions**

The phenomenon of going private is associated mainly with developed financial markets. Empirical research conducted till now into the reasons for its occurrence is based, in the majority of cases, on data from the US capital market and the capital markets of Western European countries. This paper supplements findings described in the literature with

experience from a young Polish capital market (created in 1991). The theoretical and empirical analyses carried out lead to two basic conclusions. First, standard explanations for the phenomenon of going private companies in previous literature requires reformulation and reinterpretation in the circumstances of developing markets. Second, decisions to leave the stock market in the period 1999 - 2004 in Poland were taken mainly because of the desire to further integrate activities with the foreign owner, the non-attractiveness of the stock market as a source of funding, and the illiquidity of shares trading. Results obtained in the study are significant for investors wishing to identify entities with a high likelihood of going private, and for government authorities in terms of evaluating the rationality of some of the privatization paths of mature state-owned enterprises in Poland in the 1990s.

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**Table 1**  
**Number of going private transactions related to the number of listed companies**  
**on the WSE**

<b>Year</b>	<b>Number of Going Private companies</b>	<b>Going Private / Number of companies listed at the beginning of period</b>
1998	1	0.70%
1999	2	1.01%
2000	3	1.36%
2001	2	0.89%
2002	11	4.78%
2003	8	3.70%
2004	6	3.94%
<b>Total (or average)</b>	<b>33</b>	<b>2.34%</b>



**Table 2**  
**Structure of going private companies in Poland according to EKD code**

<b>EKD</b>	<b>Sector</b>	<b>Number</b>
10 -14	Mining	1
15 - 37	Manufacturing	23
45	Construction	3
50 - 52	Wholesale and retail commerce	2
60 - 64	Financial intermediation	1
70 - 74	Real estate services	3

**Table 3**  
**Initiators of the going private transactions in Poland according to country of origin**

<b>Country of origin of initiators:</b>	<b>Number of companies</b>
Austria	2
Denmark	2
France	4
Spain	1
The Netherlands	1
Germany	6
Poland	8
Sweden	3
The United States	5
The United Kingdom	2
<b>Total</b>	<b>34*</b>

\* In one case a going private transaction was initiated by two investors (Austrian and German).

**Table 4**  
**Initiators of going private transactions divided according to type of relationship with the company**

<b>Initiators:</b>	<b>Number of going private companies</b>	<b>Share in the total number of going private transactions</b>
<b>Insiders</b> including:	<b>23</b>	<b>69.70%</b>
Founders	1	3.03%
Strategic investors	21	63.64%
Employees	1	3.03%
<b>Outsiders</b> including:	<b>10</b>	<b>30.30%</b>
Investors	10	30.30%
<b>Total</b>	<b>33</b>	<b>100%</b>

**Table 5**  
**Official motives offered about decisions for going private transactions in Poland**

<b>Motives:</b>	<b>Percentage of cases when motive was listed as the first one</b>	<b>Percentage of cases when motive was listed as the second one</b>
Illiquidity of companies' shares	39%	24%
Consolidation of activities with another entity or inclusion in holding structures	24%	18%
High cost of maintaining listings	18%	15%
Restriction of access to information about business activities of the company	12%	9%
No need for additional financing through the stock market	3%	27%
Other motives or motives that were not identified	4%	7%

**Table 6**  
**Explanatory variables, their operational definitions and predicted signs**

Variable	Operational Definitions	Predicted Sign
<b>FCFA</b>	Sum of cash flows from operating and financial activities divided by total assets	+
<b>LTDA</b>	Value of long-term debt divided by total assets	-
<b>RSD</b>	Geometric average of annual growth rate of sale revenues	-
<b>MVBV</b>	Market value of the company to book value.	-
<b>YIELD</b>	Average return from shares of a given entity after deducting the return offered by the market index WIG.	-
<b>v0</b>	Number of days without trading in shares of a given company during the year.	+
<b>FOREIGN</b>	Dummy variable = 1 if entities controlled by foreign investors and 0 – in other cases.	+
<b>FORCON</b>	Product of the FOREIGN variable and the indicator of concentration of ownership in the hands of the largest shareholder.	+
<b>ROA</b>	Net income divided by total assets.	-

**Table 7**  
**T - Statistic for differences in mean of independent variables<sup>#</sup>**

<b>Variable:</b>	<b>Going private companies and the combined controlled groups</b>	<b>Going privates companies and a control group selected randomly</b>	<b>Going privates companies and a control group selected according to sectors</b>
<b>FCFA</b>	1.1549	2.0467**	0.2220
<b>LTDA</b>	-1.1954	-0.6145	-1.3412
<b>RSD</b>	0.7051	1.1038	-0.0485
<b>MVBV</b>	1.0109	1.0356	0.9752
<b>YIELD</b>	-0.1516	0.4119	-0.7149
<b>V0</b>	3.2507***	4.4569***	3.3082***
<b>FOREIGN</b>	4.8716***	3.5479***	2.7235***
<b>FORCON</b>	6.5574***	6.3099***	5.1610***
<b>ROA</b>	-1.3549	-0.2873	-2.7421***

<sup>#</sup> The table presents results of t-statistic for continuous variables, for binary variables – the z statistic from the binomial test is listed instead of a t - statistic;

\*\*\*, \*\*, \* indicate statistical significance at the 1%, 5% and 10% levels, respectively.

**Table 8**  
**Results of estimation and diagnostics of a probit model for going private**  
**companies in Poland – combined control groups (1,2); random control group (3,4);**  
**adjusted control group (5,6)**

Number of the specification of the model:	1	2	3	4	5	6
<b>Constant</b>	-1.5451 (-4.41) <sup>***</sup>	-1.7066 (-4.49) <sup>***</sup>	-1.6003 (-3.37) <sup>***</sup>	-1.9472 (-3.41) <sup>***</sup>	-0.8808 (-2.10) <sup>**</sup>	-1.0732 (-2.46) <sup>**</sup>
<b>FCFA</b>	4.6933 (2.06) <sup>**</sup>	4.2981 (1.79) <sup>*</sup>	6.2403 (2.07) <sup>**</sup>	6.5295 (2.01) <sup>**</sup>	3.2887 (1.26)	2.9077 (1.07)
<b>LTDA</b>	-5.4556 (-2.29) <sup>**</sup>	-5.3369 (-2.09) <sup>**</sup>	-3.3750 (-1.35)	-3.6948 (-1.23)	-6.1010 (-2.31) <sup>**</sup>	-6.0635 (-2.16) <sup>**</sup>
<b>RSD</b>	-0.1120 (-0.118)	-0.5415 (-0.514)	-0.9128 (-0.757)	-2.3586 (-1.43)	-0.1580 (-0.145)	-0.4981 (-0.419)
<b>MVBV</b>	0.0396 (0.635)	0.0436 (0.415)	0.0520 (0.440)	0.0947 (0.677)	0.0467 (0.398)	0.0606 (0.442)
<b>YIELD</b>	0.1384 (0.219)	0.4173 (0.593)	0.4083 (0.521)	1.0552 (1.19)	0.0414 (0.0572)	0.3023 (0.388)
<b>V0</b>	0.0142 (3.16) <sup>***</sup>	0.0142 (2.97) <sup>***</sup>	0.0194 (2.94) <sup>***</sup>	0.0205 (2.92) <sup>***</sup>	0.0122 (2.29) <sup>**</sup>	0.01263 (2.22) <sup>**</sup>
<b>FOREIGN</b>	1.1677 (3.44) <sup>***</sup>		1.5359 (3.41) <sup>***</sup>		0.9449 (2.40) <sup>**</sup>	
<b>FORCON</b>		2.6199 (4.47) <sup>***</sup>		3.8301 (3.65) <sup>***</sup>		2.1814 (3.40) <sup>***</sup>
<b>ROA</b>	-3.6509 (-1.63)	-3.1376 (-1.28)	-2.2747 (-0.773)	-1.0956 (-0.349)	-5.5510 (-1.78) <sup>*</sup>	-5.1279 (-1.53)
<i>Elements of diagnostics</i>						
Number of observations	93	93	62	62	62	62
Test of joint statistical significance of explanatory variables ( $\chi^2$ )	51.839 <sup>***</sup>	64.242 <sup>***</sup>	38.618 <sup>***</sup>	48.447 <sup>***</sup>	26.129 <sup>***</sup>	33.934 <sup>***</sup>
McFadden's R <sup>2</sup>	34.89%	45.36%	44.93%	56.37%	30.40%	39.48%
Akaike information criterion	1.0224	0.8891	1.0537	0.8952	1.2552	1.1293
<i>Correctness of classification within the sample using the model</i>						
Percentage of correctly identified non going private companies (specificity)	90.32%	90.32%	80.65%	90.32%	74.19%	77.42%
Percentage of correctly identified going private companies (sensitivity)	70.97%	80.65%	90.32%	87.10%	83.87%	80.65%
Total percentage of correct classifications	83.87%	87.10%	85.48%	88.71%	79.03%	79.03%

t - statistic values are in parentheses; <sup>\*\*\*</sup>, <sup>\*\*</sup>, <sup>\*</sup> indicate statistical significance at the 1%, 5% and 10% level levels, respectively.