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Efficient Bankruptcy and Reorganisation in Domestic Practice

Summary: During the 2008 crisis in line with international trends, the Hungarian domestic legislator attempted to create a bankruptcy law, which supports the continued operation of viable companies. This resulted in the Act. LI. 2009. According to our research conducted in 2014 at the Hungarian Metropolitan Tribunal it can be concluded, that the changes in the regulation of bankruptcy in Hungary did not bring change in the efficient allocation of capital and as a consequence the creditor protection has not improved. The decisions of arrangement or liquidation were not built to the analyses of the companies' past and future performance, and consequently the regulation failed to set a path of value creation in most of those companies that face financial difficulties.[1]

Keywords: effective default; regulation of bankruptcy; Hungary
JEL Codes: G32, G33, G34, K22

Act LI of 2009 aimed at increasing the weight of reorganisation in Hungary at companies struggling with financial difficulties. This was in line with the global wave of bankruptcy law reforms aimed at supporting reorganisation in the aftermath of the 2008 crisis, and with the experiences gleaned from reorganisation-oriented law amendments triggered by previous crises (in Asia, Central America). During this period, the amendment of bankruptcy laws was aimed at ensuring the maintenance of viable companies and the rapid liquidation of non-viable companies. This article examines what the future held for the companies faced with financial difficulties after 2009. Is the amendment of the law supporting reorganisation a sufficient condition in itself to initiate a reorganisation process? Were more reorganisation procedures initiated for companies in financial distress[2] after the 2009 law amendment? In the case of companies subjected to the reorganisation procedure, is it possible to identify significant differences between cases that were closed with a composition arrangement or the rejection thereof based on the key historical financial parameters? What proportion of the reorganisation procedures ended with an agreement on the continued operation of the relevant companies? Did the composition arrangement facilitate the restoration of the value-creating operation of the companies and did it improve the efficient allocation of capital?

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THE ECONOMIC AND LEGAL CONTENT OF BANKRUPTCY

In recent decades and especially in the wake of the crisis in 2008, reforms related to the transformation of the bankruptcy law have

been presented globally and in particular in Europe for the following purposes (*Cirmizi et al.,* 2010): to prevent viable companies from leaving the market; to facilitate the continued operation and value creation of as many companies as possible through the reallocation of assets, credit restructuring and reorganisation; and to accelerate the exit of non-viable companies and hence, reduce bankruptcy costs.

A prerequisite for the efficient separation of viable and non-viable companies is to define the concept of bankruptcy, which has a distinct financial/economic content and legal interpretation. The central perception of economics is that market forces in the long run lead the markets towards equilibrium. In the market those companies remain alive that realise at least normal profits in the long run. Financial distress financial distress (in the economic sense, bankruptcy) when a company is unable to operate its resources in the long run in accordance with normal profit requirements, the firm's cost of capital (WACC) is consistently higher than the return on assets (return on invested capital, ROIC), that is, the company goes into the stage of value destruction. Financial distress becomes clearly visible to external stakeholders when the company is unable to meet its outstanding payment obligations. The company's insolvency may be a temporary liquidity problem, but it may also be driven by inadequate financial management persistently at odds with efficiency requirements, where the value destruction stemming from the long-standing existence of the ROIC < WACC condition increases financial leverage (even without additional borrowings) (*D/E,* debt-to-equity ratio), the result of which is that the value of the debt ultimately exceeds corporate value *(V)*, that is, insolvency is caused by the actual lack of assets. The economic relevance of bankruptcy and financial distress is linked to three factors: poor asset efficiency, high leverage (which may arise from the inability to create value or the direct cause of bankruptcy) or insufficient liquidity. In a perfect market, when a company faces a financial crisis all stakeholders (debtors and creditors) sharing the same information base will make a rational decision to reorganise or liquidate the company. A company in financial distress will survive if the company's going concern value (V_C) exceeds its liquidation value (V_L) – i.e. if it is expected to be able to generate value in the future –, and it will be liquidated if $V_L > V_C$.

In a perfect market, there is no need for institutionalised creditor protection. However, the existing market is not perfect; because of asymmetric information – the principal-agent problem –, the decision to liquidate the company may end up far from the criterion of effective bankruptcy. Under such conditions, the bankruptcy institution is responsible for providing protection to creditors, promoting an efficient allocation of capital and ultimately, for securing the orderly exit of companies ripe for liquidation (*Veress,* 2002) and facilitating the decision to continue operations along with the preparation of the supporting reorganisation plan. According to *White* (2011), bankruptcy law encourages creditors and debtors to behave in economically efficient ways and it has widespread effects: it shapes the demand for credit and the risk assumed by corporate managers in investment decisions. In addition, bankruptcy law affects the proportion of formal and informal arrangements, the time of launching a bankruptcy procedure, and – in the course of decision-making on the arrangement –, the occasional coalition of stakeholders, etc. In this article, we seek to determine whether the change in bankruptcy regulation in 2009 in support of reorganisation has changed the behaviour of creditors and debtors and whether it has helped to allo-

cate capital efficiently with improved creditor protection for companies subjected to formal reorganisation procedures.

White (1983) draws attention to the risk of inefficient bankruptcy in existing market conditions when she compares the financial decision criterion of individual creditor groups with the criterion of efficient bankruptcy. The author considers bankruptcy, that is, the company's exit from the market, efficient when the company's liquidation value exceeds the company's future earnings if it continues to operate. White's analysis shows that the time of the bankruptcy filing plays a vital role in economically efficient decisions, which dictate that viable companies should survive and non-viable ones should exit the market as soon as possible. She argues that there is a risk of inefficient continuation decisions before the launch of the bankruptcy procedure when debtors play at the risk of the creditors, while after the launch of the bankruptcy procedure there is the threat of inefficient liquidation. *Haugen* and *Senbet* (1978) constructed a model in which the date of the bankruptcy filing is identified with a $V=D$ state, where the company's market value (V) equals the book value of the creditors' claim (D). In such cases, the value of corporate equity is zero, which means, in economic terms, the transfer of ownership to the creditor.

Due to the information asymmetry between the company's stakeholders and different expectations about the future, the emergence of economic bankruptcy cannot be considered an objective point in time from the perspective of all stakeholders. It is therefore difficult to make an efficient decision on when to file for bankruptcy. On the other hand, the legal definition of bankruptcy – the insolvency of a company – is a symptom that can be clearly grasped by anyone, enabling them to simply and objectively identify the occurrence/existence of bankruptcy. However, in legal terms, the state of bankruptcy is not established on the basis of the firm's true fundamentals; it contains only a single element of them, which corresponds to the existence of insolvency.[3]

In summary: the economic criterion of efficient bankruptcy is to reorganise companies that are still capable of creating value and to facilitate the speedy exit of those unable to do so. In the decision-making process of stakeholders, the enforcement of the efficiency requirement facilitates both compliance with the requirement of credit protection and efficient capital allocation. The timely commencement of a bankruptcy procedure is a prerequisite for making a decision on distinguishing between viable and non-viable companies based on their ability to create value. Bankruptcy law is a necessary but not sufficient condition for stakeholders, debtors and creditors to make an efficient decision on both the time of the bankruptcy filing and on the continuation of operations and liquidation.

REFORM WAVE IN TRANSFORMING BANKRUPTCY REGULATION

International experience

Over the last two decades in Europe, bankruptcy regulation – largely based on the American pattern – was geared toward reorganisation. While referring to the delicate balance between auction/liquidation and reorganisation/restructuring, White (1989) also points out the marked divergence between the US and European corporate finance systems and the resulting differences in bankruptcy regulation. If the law of each country is "pro debtor" in the direct financing system, it will inevitably support the inefficient continued operation of companies in financial distress.

However, if the law supports liquidation in a system defined by the indirect capital market ("pro creditor"), there is a risk that viable companies will also be liquidated. In the US regulatory environment, the results of empirical tests have demonstrated the efficiency of bankruptcy regulation that favours reorganisation at stakeholder level (*Giné – Love,* 2006; *Bris et al.,* 2006). According to *Corbae* and *D'Erasmo* (2014), a reform of the bankruptcy law promoting reorganisation increases welfare through companies' performance.

In the past 2–3 decades, the bankruptcy law has been amended in a number of European countries (e.g. France, Germany, Italy, Finland, Sweden, Spain) with the intention of replacing the existing, credit protection oriented system – which typically led to liquidation – by a system that is more flexible in managing bankruptcies.

The research summarising the experiences of the Belgian Bankruptcy Act of 1997 (*Dewaelheyns – Van Hulle,* 2009) shows a typical European system dominated by banks and small businesses. The Belgian reorganisation process shows little success and a low survival rate. In the Belgian survey (1998–2003), 79 per cent of the companies involved in the survey ended up in liquidation, compared to 46 per cent in England and 72 per cent in France. In these economies, creditors with significant influence prefer to collect the returns on liquidation to a solution where unsecured creditors may expand at the expense of secured creditors.

According to *Janda* and *Rakicova* (2014), in a legal and economic comparison of the Czech, Slovakian, Croatian and Serbian bankruptcy systems, despite the fact that reorganisation is preferred in bankruptcy regulation, the number of successfully completed reorganisations is very low, whereas numerous firms on the verge of bankruptcy wind up in liquidation. Although there is no information about the number of informal bankruptcies and their success, the authors note that stakeholders prefer to liquidate companies in financial distress to avoid lengthy and costly legal disputes.

Damijan (2014) focuses on the macroeconomic approach to efficient bankruptcy regulation. The author draws from the example of Slovenian companies to examine how financial disturbances affect the performance of companies, employment, exports and investments. He finds that the financial stability of companies is less important in good times, but during the periods of financial crises liquidity shortage becomes a critical factor that limits the companies' operations.

Brouwer (2006) makes an important statement: according to her research, after the bankruptcy the number of surviving firms does not differ dramatically between countries; only the method of survival differs. Reorganisation is a common method for US companies to survive bankruptcy intact, whereas other, more differentiated methods prevail in Europe. In England, liquidation procedures frequently involve acquisitions (*pre-packaged sale*), in Sweden a mandatory auction system is set in motion after the commencement of the bankruptcy proceedings, while in Germany, informal reorganisation is the most common method of survival. While Giné and Love (2010) and similarly, *Bris et al.* (2006), argue in favour of reorganisation in their research using American data, *Thorburn* (2000) and *Eckbo* and *Thorburn* (2009) conclude, on the basis of an analysis of the Swedish auction model, that auction bankruptcy is more efficient than reorganisation. Drafting of the Bankruptcy Act is a highly debated issue. The question is what to prefer: auctions, liquidation or structured reorganisation. The critics of reorganisation argue that costly negotiations between stakeholders may drag on, which strongly erodes the company's going concern value. Accord-

ing to *Klapper et al.* (2006), the companies' exit from the market is a prerequisite for economic growth. Critics of liquidation say that the possibilities of efficient asset sales are limited; therefore, the lack of liquidity on the secondary market of assets and the resulting high transaction costs set a low level of liquidation value for the company and thus the return on creditors' claims.

2009 amendment of the Hungarian Act XLIX of 1991

The entry into force of the 1991 Bankruptcy Act in 1992 triggered an overwhelming wave of bankruptcies across the Hungarian economy. The reason for this was the incorporation of mandatory "self-bankruptcy" into the Bankruptcy Act, which served to eliminate the passivity of stakeholders, the debtor and the creditor. The institute of mandatory self-bankruptcy brought to the surface a multitude of companies struggling with permanent or temporary insolvency and pushed them on the verge of bankruptcy. Many, primarily foreign experts and researchers, found that "mandatory self-bankruptcy" was in conflict with the institutional system of the market economy (see, for example, *Bonin and Schaffer,* 1996). Beyond the beneficial effect of the threat of bankruptcy, mandatory self-bankruptcy threw into liquidation numerous value-creating companies whose insolvency resulted solely from circular debt.

Act LXXXI of 1993 abolished the institution of mandatory self-bankruptcy, and since the possibility of automatically obtaining a moratorium as an incentive force was also removed from the law, the formal reorganisation process became a non-functioning bankruptcy institution for a decade and a half.

The domestic intention of reviving the bankruptcy institution to ensure the continued operation of viable companies met with the globally preferred endeavour in the period of the 2008 crisis, resulting in Act LI of 2009 (Csőke, 2009). With this so-called Amendment 5 to the Bankruptcy Act, the legislator sought to promote reorganisation, given that the bankruptcy procedure was only exceptionally applied in practice. Similar to the provisions of Act XLIX of 1991, it introduced the institution of immediate moratorium (if the debtor initiates the procedure voluntarily), which can be extended from 90 days to maximum 1 year with the creditors' consensus, in order to enable the parties to reach an enforceable bankruptcy arrangement. This amendment assigned clear priority to bankruptcy proceedings as long as the court has not adopted a liquidation order. The amendment was subject to criticism even at the time of its adoption (Csőke et al., 2009). Objections were raised that the Act failed to stipulate the debtor's obligation to present a reorganisation plan at the beginning of the procedure and to require the company's management to inform the shareholders as soon as possible – with a proposed reorganisation plan – if it believes that it is unable to resolve the insolvency situation from its own resources. Subsequently, shareholders should decide whether to launch a formal procedure and whether the former management should manage the reorganisation process – possibly with the replacement of the senior officer by a candidate supported by the creditors – or reorganisation/crisis consultants should be assigned.

With the modifications introduced on 1 September 2009, the legislator had intended to reduce the exponentially increasing number of liquidation procedures, to increase the number of successfully reorganised companies and hence, their job-retaining capacity, and to improve the satisfaction rate of creditors.

Data from *Figure 1* show that the number of reorganisation procedures, apart from the period of 1991–1993, is statistically barely measurable compared to the number of participants in liquidation proceedings. The number of reorganisation procedures did not reach 1 per cent in the ten years preceding 2009 (bankruptcy procedures were initiated each year in the case of 15 companies on average). Following the year 2009, the number of reorganisation procedures rose to over 100 per year which, as intended by the legislator, is a significant increase compared to the 10–20 procedures of the previous years but essentially, reorganisation procedures still fall short of playing a decisive role in the formal settlement of the predicament of distressed companies.

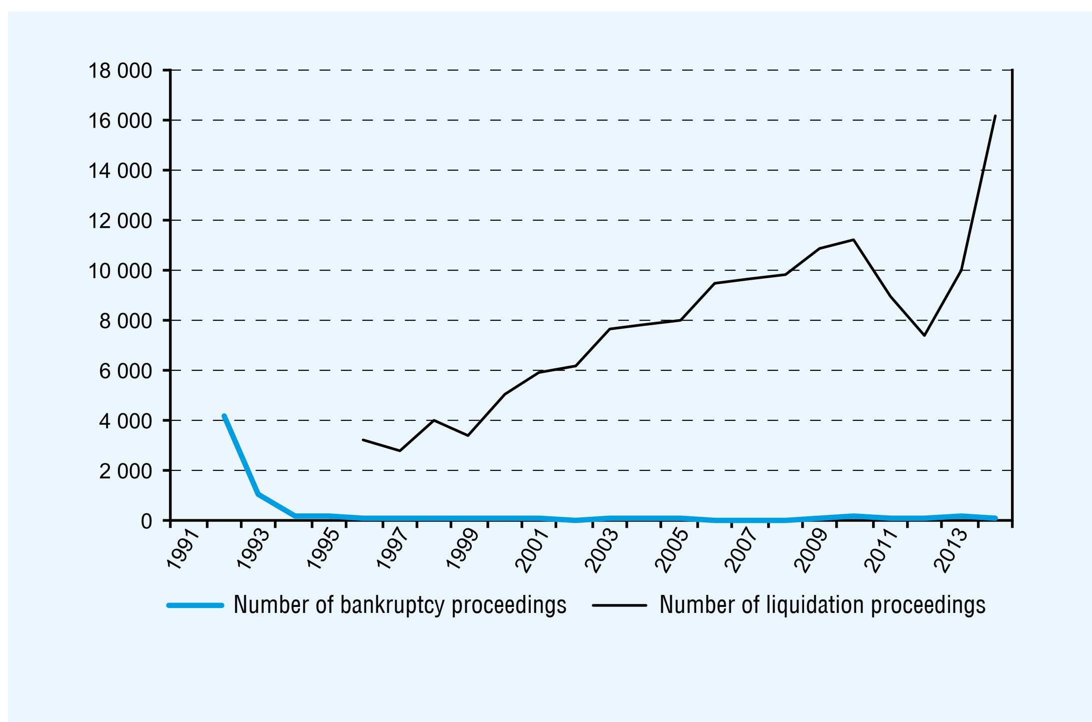
Research questions

In the next chapters of the article, we examine – from the perspective of economics, using a corporate finance approach – compliance with the theoretical bankruptcy initiation, continuity/liquidation efficiency requirements in managing the situation of distressed companies. Based on primary research data, we analyse whether the increase observed after 2009 in the number of companies launching bankruptcy procedures in the period of 2009–2014 has led to a shift towards financial efficiency considerations in decisions on continued operation and liquidation.

The change of the Hungarian 2009 Bankruptcy Act was a turning point in answering the following questions.[4]

Figure 1

CHANGES IN NEWLY COMMENCED BANKRUPTCY (REORGANISATION) AND LIQUIDATION PROCEEDINGS (1991–2014)



Source: HCSO data; Statistical Reflections (2011–2015); Erdős (2007)

- What proportion of the reorganisation procedures ended with an agreement on the continued operation of the relevant companies?
- In the case of companies subjected to the reorganisation procedure, is it possible to identify significant differences between cases that were closed with a composition or the rejection thereof based on the key historical financial parameters?
- How did the reorganisation plans help the parties concerned in making their decision on the composition?

Did the composition arrangement facilitate the restoration of the value-creating operation of the companies and did it improve the efficient allocation of capital?

Agreement on the composition, as a decision, will facilitate efficient capital allocation if the company's going concern value exceeds the liquidation value achievable upon liquidation. This means that the surplus in the going concern value derives from the value creation of future activities. In the case of value creation, the efficient capital allocation decision supports creditor protection, as in such cases the value of the claims in all creditor classes is at least equal to the value that the class would receive in case of a possible liquidation and the surplus is distributed between creditor classes, so in case of continued operation – as opposed to outright liquidation – some classes can improve their position. Stakeholders can use two basic sources to determine whether prospective value creation supports the company's continued operation: from the company's historical data and, even more so, from future expectations. In the form of a thoroughly substantiated reorganisation plan, these expectations indicate what asset and resource restructuring process is required for the company to achieve the value creation phase. Seeking an answer to the questions above, we now proceed to analyse the extent to which the decision to enter into a composition is based on historical data and future expectations.

EFFECT OF THE 2009 CHANGE OF THE HUNGARIAN BANKRUPTCY ACT ON EFFICIENT CAPITAL ALLOCATION - EMPIRICAL STUDY

Description of the data used, characteristics of the examined sample

The empirical research is based on a 2014 data collection that we conducted at the Metropolitan Court of Budapest. In this context, we investigated bankruptcy cases filed with the court under the law amendment that entered into force on 2 September 2009.

Based on the data of the Metropolitan Court of Budapest a distinction could be made between cases concluded with an arrangement and those concluded with the rejection thereof. 332 companies filed petitions for the commencement of bankruptcy proceedings with the Metropolitan Court of Budapest in the period of 2009–2014. We have collected additional financial data from the Amadeus database[5] for the companies under review. For the analysis, we used the relevant companies' balance sheet and profit and loss data for the years preceding the receipt of the bankruptcy petitions and for the years following the closure of the procedure, as well as other (corporate governance, legal status, etc.) information published in respect of the companies. The Amadeus database provided a 10-year dataset for the research.

At the Metropolitan Court of Budapest, we investigated 97 (limited sample) cases of 332 (complete sample) cases by processing the entire legislation. In the absence of concluded procedures, the primary research did not cover the examination of cases that went into liquidation. It was not possible to ensure

the representativity of the narrow sample, so with the method of random selection. we reviewed the bankruptcy proceedings materials assigned to a single judge. Disregarding fractional periods, the sample of 97 companies accounts for 12.9 per cent of the nationwide number of bankruptcy applications and 28.2 per cent of the cases processed by the Municipal Court of Budapest.

The empirical study covered 332 companies (all having filed for bankruptcy with the Metropolitan Court of Budapest), including 307 companies that were identified based on the Amadeus database and 97 companies that were subject to the court's direct data collection (of which 71 were identified based on Amadeus).

Table 1 shows the method for completing the procedure following the bankruptcy petitions of the companies under review.

For a five-year period following the reorganisation-oriented 2009 law amendment, only 1 per cent of financially distressed companies involved in the formal procedure filed for bankruptcy, of which, based on the total sample, around one third (27.43%) entered into a composition arrangement (Table 1).

In the "large sample", we used 307 companies' financial/economic data from the Amadeus database to determine whether there is a significant difference between the group of companies that entered into a court-approved composition during the bankruptcy proceedings and the group of companies that went into liquidation in the absence of such an arrangement with respect to the historical value parameters (defined from accounting data).

Financial performance of the companies initiating bankruptcy proceedings before the procedure

The message of efficient bankruptcy is to reorganise companies that are still capable of creating value and to facilitate the speedy exit

Table 1

CLASSIFICATION OF COMPANIES FILING FOR BANKRUPTCY WITH THE METROPOLITAN COURT OF BUDAPEST IN 2009–2014 ACCORDING TO THE RESULT OF THE PROCEDURE

Result of the procedure in case of bankruptcy petitions		Number of cases		As a percentage of bankruptcy filings
		Complete sample	Limited sample	Complete sample
Composition		79	34	27.43
Liquidation		167		57.99
Rejection due to	failure to submit additional documents	21	17	7.29
	liquidation*	10	10	3.47
Termination of the procedure		5	4	1.74
Other result		6	6	2.08
Total		**288**	**71**	**100.00**

Note: Of the 332 companies 307 companies were identified based on the Amadeus database. Of the 307 companies covered by the survey, the bankruptcy proceedings were completed in 288 cases; in 19 cases the proceedings were still pending at the time of the data collection.

* Pursuant to the Bankruptcy Act, liquidation procedures may not be launched if the court has already passed a ruling on the debtor's liquidation in another case.

Source: data provided by the Metropolitan Court of Budapest

of those unable to do so. A company in financial distress will survive if the company's going concern value (V_C) exceeds its liquidation value (V_L) – i.e. if it is expected to be able to generate value in the future –, and it will be liquidated if $V_L > V_C$. In the decision-making process of stakeholders, the enforcement of the efficiency requirement facilitates both compliance with the requirement of credit protection and efficient capital allocation. The task of bankruptcy regulation is to support the effective decision-making of stakeholders.

Being aware of the financial criteria of the decision, a correct decision can be made based on market data. However, since domestic companies are typically not listed on the stock market, the key information for stakeholders is provided by historical data; consequently, we also partly relied on the analysis of such data. (Nevertheless, during the primary data collection we examined the complete documentation of composition negotiations for the selected 79 companies to glean information about the future expectations that may provide justification for a potential composition arrangement).

As a first step, we examined whether there is a significant difference between the group of companies that entered into a composition and the group that wound up in liquidation in the period preceding the bankruptcy filing based on the value parameters indicating the level of financial difficulty.[6]

We distinguished between two groups of companies in the large sample of 307 subjects: one that entered into a composition in the course of the bankruptcy proceedings (79 companies), and one that failed to make an arrangement and wound up in liquidation during the process (167 companies) (*Table 1*). The two groups of companies were compared based on the data obtained from the financial statements of the companies using the Amadeus database published by *Bureau Van Dijk*.

For the survey hypotheses we compared the values of all corporate indicators in the two groups under review (composition, liquidation) in each of the 9 years preceding the launch of the procedure. For every indicator of each year, we checked with the *Jarque-Bera* test whether variables are of normal distribution. Clearly due to the special situation of the bankrupt companies, the assumption of the variables' normality was rejected in all cases; therefore, we compared the data of the groups using the non-parametric *Mann-Whitney* test with a 5% significance level designation. Since the test did not show any significant differences between the groups compared during the measurements, it is not specifically indicated further on, i.e. for the same behaviours shown in the figures, it is not indicated separately that significant differences cannot be measured.

If the decision to continue operations or liquidate a company is centred on value creation, the question arises whether we can rely on historical accounting data while the stakeholders' decisions are based on future expectations. Although the profit and loss statement does not give an idea ofthe exact amount of economic profit (as a measure of value creation), the firm's accounting data reveals that, if the revenue does not even cover the cost of accounting, the shareholders' cost of capital, as normal profit, is unsecured. This clearly demonstrates the lack of value creation. Historical data, however, cannot be the sole basis for analysing the composition decision. The analysis of the historical data was further supplemented by the analysis of the primary data obtained from the court's documentation and by the analysis of the data obtained from the Amadeus database of the companies that were provided an opportunity for continued operation after the composition arrangement.[7, 8]

In this section, in the analysis of historical accounting data we considered the filing of the

bankruptcy petition as year *T*, and each year of operation was taken into account based on its distance to the date when the bankruptcy procedure was launched. The indicators we constructed for the companies subjected to the reorganisation procedure are suitable to examine the companies' viability and to capture asset efficiency, financing structure and liquidity. By using a static approach, we examined the key data of the annual accounts in the years prior to the commencement of bankruptcy proceedings and the median values of the indicators selected for capturing the company's viability in the two groups of companies, as well as their temporal evolution.

Table 2 shows the indicators (and the value of those pertaining to the *T*-1 date) that were determined on the basis of the Amadeus database calculated for the 10-year period, arranged for the *T*-date.[9]

In answering the research questions, the performance of the companies in the sample was examined from the aspect of value creation (asset efficiency), financing structure (leverage), and liquidity situation. Comparing the data for the year of launching the bankruptcy procedure *(T)*, we found no significant difference between the companies that entered into a composition in the period preceding the start of the bankruptcy proceedings or during the procedure and the companies that wound up in liquidation in the absence of such an arrangement. To illustrate this, we have chosen indicators that represent asset efficiency, leverage and the liquidity situation. The group charts in *Figure 2* aptly demonstrate the co-movement that we observed, without exception, for all indicators.

The value of ROA, the indicator selected for measuring asset efficiency, was always zero or negative in both groups of companies in the 4 years prior to the bankruptcy filing, and in the previous 5 years it was 0–3 per cent in both groups. Thus, irrespective of years, sectors and asset risk, it can be established that the companies that brought a bankruptcy petition before the court did not create any value whether they entered into a composition in the course of the procedure or the procedure turned into liquidation.

According to the Belgian Bankruptcy Act, a company's activities must be profitable in order for a positive decision on arrangement and reorganisation. According to the legislator, this increases the likelihood that the company is capable of continuing its business. This is considered to be a guarantee against fraudulent bankruptcy (Dewaelheyns – Van Hulle, 2009). Does this rule have financial/economic rationality? Where there is no evidence of the existence of value creation in the past, value creation will not be guaranteed by credit restructuring and the short-term recovery of liquidity alone. Of course, it is conceivable to have a reorganisation plan that puts a company that permanently destroys value on the path of value creation either by using the available resources or through a significant restructuring thereof, but in this case, it is indispensable to include a detailed explanation of this turnaround in the reorganisation plan. With respect to the companies investigated by the Court, however, having reviewed the full documentation of the cases, we did not find any such reorganisation plans in the minutes of composition negotiations.[10] The indicator selected for measuring leverage and indebtedness *(TL/TA)* expresses the book value of all liabilities of the company in the value of total assets, irrespective of the liabilities' maturity or any associated costs of capital. In the year preceding the launch of the bankruptcy proceedings, this indicator of indebtedness approaches 1 in both groups of companies and reaches 1 in the case of the companies that reached a composition. At the time of the bankruptcy filing *(T)*, the value of accumulated liabilities reaches the asset value

Table 2

CONTENT AND VALUE OF THE FINANCIAL PARAMETERS COMPUTED FOR THE TWO GROUPS OF COMPANIES SUBJECT TO THE REORGANISATION PROCEDURE IN THE YEAR PRECEDING THE BANKRUPTCY FILING (T–1)

Computed financial parameters			Group of companies with composition arrangement		Group of companies placed under liquidation	
Abbreviations applied	Description of parameter	Calculation of parameter	average	median	average	median
ROA	return on assets	taxed profit/total assets	–0.45	–0.11	–2.46	–0.08
EBITDA_SALES	EBITDA to sales ratio	EBITDA*/sales revenue	–10.47	–0.19	–1.92	–0.01
EBITDA_TA	EBITDA to total assets ratio	EBITDA/total assets	–0.30	–0.06	–2.58	–0.03
EBIT_TA	EBIT to total assets ratio	EBIT**/total assets	–0.31	–0.05	–2.23	–0.02
NI_TA	net income to total assets ratio	net income/total assets	–0.45	–0.11	–2.46	–0.08
TA_GR	annual growth rate of total assets	(TA1–TA0)/TA0	12.55	–0.04	3.97	–0.01
FA_TA	fixed assets to total assets ratio	fixed assets/total assets	0.46	0.43	0.60	0.73
DEBTOR_CA	accounts receivable to current assets ratio	accounts receivable/current assets	0.22	0.09	0.08	0.20
CA_CL	liquidity ratio	current assets/current liabilities	0.77	0.66	17.39	0.48
EBITDA_INT	interest coverage ratio	EBITDA/annual interest payment obligation	–1127.93	–1.77	127.16	–0.08
TL_TA	leverage***	total liabilities/total assets	1.55	1.00	1.92	0.95
SF_TA	shareholder equity ratio	shareholders' funds (BV)/ total assets	–0.54	0.00	–0.92	0.04
OSF_TA	ratio of shareholders' funds above share capital	shareholders' equity (BV) – share capital/total assets	–0.70	–0.08	–1.04	–0.00
CL_TL	current liabilities to total assets ratio	current liabilities/total assets	0.77	0.95	0.68	0.90
TL_EBITDA	debt/EBITDA ratio	total liabilities/EBITDA	17.01	–3.42	–30.05	–3.31
EMP_GR	employment growth	year-on-year change in employees	–0.11	–	–0.37	–0.33

Computed financial parameters			Group of companies with composition arrangement		Group of companies placed under liquidation	
Abbreviations applied	Description of parameter	Calculation of parameter	average	median	average	median
LN_TA	firm size	natural log of total assets	12.99	13.01	12.67	12.92
TA_GROW	annual growth rate of total assets	(TA1–TA0)/TA0	12.55	–0.04	3.97	–0,01
LIFE_T	number of years from foundation to bankruptcy filing		8	7	8	6

**EBITDA* Earnings before Interest, Tax, Depreciation and Amortisation

***EBIT* Earnings before Interest and Tax

****Leverage=D/E*, market value of Debt/Equity; we replaced this indicator – which is traditionally used to capture leverage – with the book value of the [D/(E+D)] ratio. Since financing in Hungary is typically dominated by short-term liabilities, we considered total liabilities in calculating the value of debt.

Source: own calculations based on the Amadeus database and data provided by the Metropolitan Court of Budapest

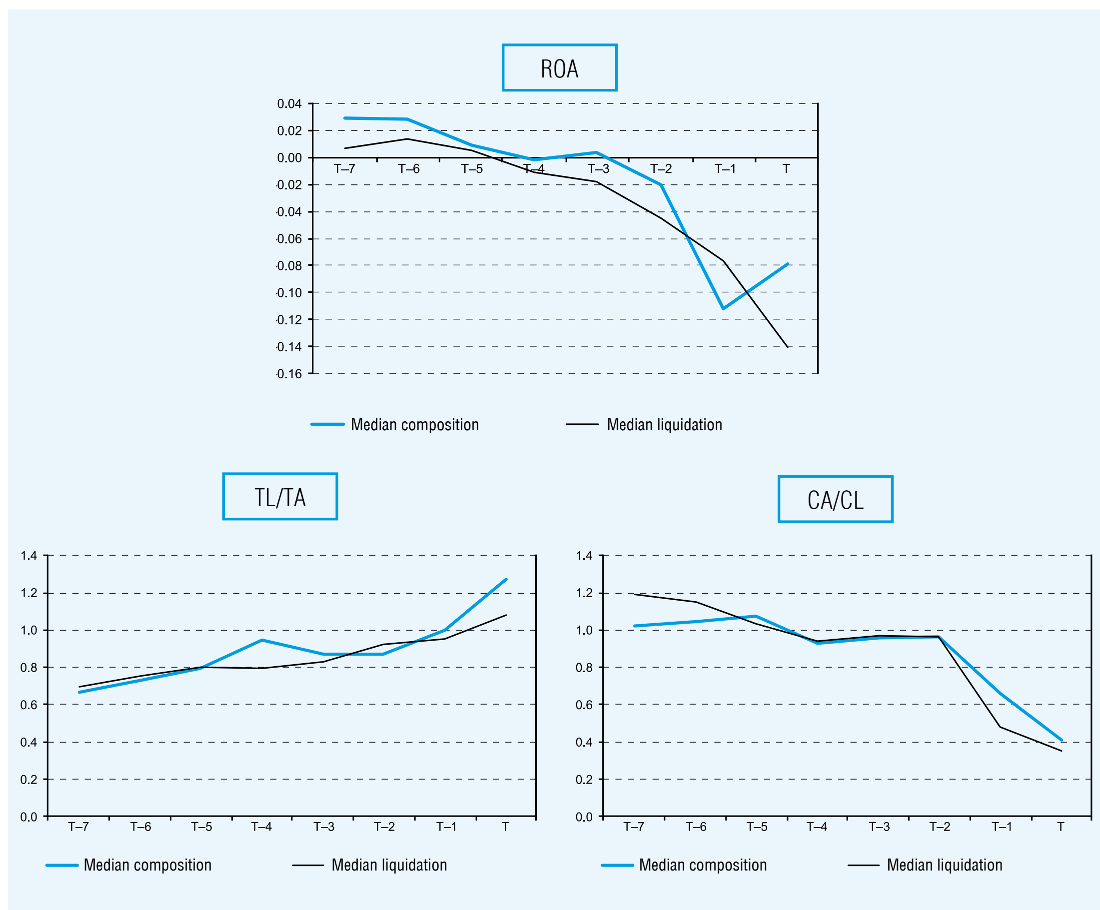
of the group of companies being subjected to liquidation, while in the case of the group of companies that have reached a composition the debt accounts for 127 percent of the book value of the assets. As regards the degree of leverage and the loss of assets, the companies that entered into a composition arrangement during the procedure are in a worse position. The liquidity rate, which shows a close co-movement in the two groups of companies, is steadily below the still acceptable threshold of 1 for the 4 years preceding the start of the bankruptcy proceedings, indicating a permanent liquidity shortage. Based on all of the parameters listed in Table 2, it can be concluded that the companies with a composition arrangement and the companies subject to liquidation do not show any significant difference. The graphs *(Figure 3)* illustrate a close co-movement of the indicators characterising financial difficulties in the two groups of companies.

The deviation of the indicators is important in both groups of companies. Companies under liquidation demonstrated a higher dispersion than the group of companies that negotiated a composition arrangement (ROA deviation in the group of companies with a composition arrangement was 1.03, compared to 18.17 at the companies under liquidation). With this in mind, we can expect that the group of companies under liquidation may also include viable firms based on the criteria examined.

For some of the parameters that measure asset efficiency, indebtedness and liquidity, we have determined the critical values that are relevant to the bankruptcy criteria (Figure 3). The figure shows changes in the number of companies that did not reach/or exceeded the specified critical value compared to the number of companies in the group under review as the year of the bankruptcy filing approaches.

Figure 2

CHANGES IN THE ROA, TL/TA AND THE CA/CL PARAMETERS IN THE CASE OF COMPANIES WITH COMPOSITION ARRANGEMENTS AND THOSE PLACED UNDER LIQUIDATION



Source: own calculations based on the Amadeus database and data provided by the Metropolitan Court of Budapest

For the asset efficiency index, the critical value was considered to be *NI/TA*=0. If the *NI/TA* indicator is below zero, this indicates that a company that is not even able to cover its accounting costs cannot secure coverage for the expected return of shareholders. This problem arises to a nearly identical extent in both groups of companies. In the year preceding the start of the bankruptcy proceedings (*T*–1), 74 per cent of the companies with a composition arrangement show a profitability below 0 compared to over 81 per cent in the case of companies under liquidation. In the four years preceding the start of the bankruptcy proceedings, the number of companies reaches or exceeds 50 per cent in both groups, indicating that the magnitude of the value destruction had persisted in the four years preceding the bankruptcy filing in both groups of companies.

For indebtedness, the critical value was *TL/TA*=1, which is the same as the economic criterion for bankruptcy opening *(V=D)* when the value of the company just covers the value of the debt (calculated at book value). Regarding the companies undergoing bankruptcy

Figure 3

PROPORTION OF FIRMS UNDERPERFORMING OR OVERPERFORMING THE CRITICAL VALUE OF THE SELECTED FINANCIAL PARAMETERS IN THE GROUP OF COMPANIES WITH A COMPOSITION ARRANGEMENT AND IN THE GROUP UNDER LIQUIDATION

Source: own calculations based on the Amadeus database and data provided by the Metropolitan Court of Budapest

proceedings, we found that more and more companies found themselves in the state of asset shortage when the commencement of the bankruptcy proceedings was drawing near. Indebtedness was nearly the same or even worse among the companies with a composition arrangement than among those in liquidation. Total liabilities exceed the balance sheet value of the assets by 50 per cent in the group with composition arrangements compared to 37 per cent in the group of companies that wound up in liquidation due to a failure to reach an agreement on composition.

TL/EBITDA replaces the value of the D/EBITDA indicator,[11] which shows the level of "overstretched credit", i.e. the level of long-term liquidity in the practice of credit rating agencies (Damijan, 2014). If the indicator is above 4, the expected cash flow will not cover the expected liabilities (the number of companies with a value above 4 was increased by the number of the companies where the value of the indicator was negative due to the EBITDA value). Based on the TL/EBITDA survey, it can be concluded that the two groups of companies did not show any significant differences in the

years preceding the launch of the bankruptcy proceedings. From the 4th year prior to the bankruptcy, nearly 90 per cent of the companies face a serious "overstretched credit" problem and are classified into the non-investment grade category by the credit rating agencies.

For liquidity and short-term solvency indicators, $CA/CL=1$ was considered to be the critical value. As regards liquidity, we found the same results as with asset efficiency and indebtedness. The group of companies with composition arrangements and the group of companies under liquidation owing to the absence of a composition arrangement have the same proportion of companies with liquidity problems in the years preceding the launch of bankruptcy proceedings.

In summary: based on the analysis of historical data, the companies that reached an agreement on composition and those going into liquidation after the rejection thereof do not show any differences in asset efficiency, leverage or liquidity that would demonstrate that the stakeholders were able to make a sound financial decision to continue operations in reliance on these historical data.

Reorganisation plan

At companies facing financial difficulties, the function of the reorganisation plan is to develop a plan – in light of the market and company conditions for continued operation – for the recovery of liquidity that would ensure the continued operation of the company in the short term (including plans aimed at the recovery of outstanding receivables and asset sales that do not jeopardise continued operation and plans on securing short-term financing). Moreover, the plan is intended to align the existing asset portfolio to the composition of the portfolio of assets and services that was defined based on market expectations for the future, while, besides ensuring long-term financing, providing the resources required for the continued operation and long-term liquidity of the company by transforming the existing asset structure and establishing the optimum level of leverage. To put it simply, the task of the reorganisation plan is to present the conditions under which the company may recover its ability to create value in consideration of future market prospects and through the restructuring of the company's assets and liabilities, and to also indicate if the company's immediate sale in parts or in full is the more effective decision. Being aware of the contents of the reorganisation plan allows all stakeholders to make an efficient financial decision by comparing the company's business value (going concern value, V_C) determined in function of expected cash flows and risk and the asset value that can be realised in case of an immediate liquidation (liquidation value V_L). Based on this comparison, stakeholders can decide V_L and V_C in favour of continued operation or outright liquidation.

Compliance with the efficiency criteria of the reorganisation was not considered during the composition negotiations in any of the Court cases examined by us. Stakeholders did not ask the debtor to demonstrate that the company will be worth more in the case of continued operation than as a result of immediate liquidation. This is irrelevant anyway, as all composition negotiations focused on immediate or short-term satisfaction. Contrary to the intent of the Bankruptcy Act, the minutes of the composition negotiations did not include a detailed reorganisation plan in any of the cases investigated by us.

However, the wording of this intent also indicates the legislator's uncertainty about the place and role of the reorganisation plan.

▸ *"Composition means the debtor's agreement with the creditors laying down the conditions for debt settlement, ... [and] on the approval of the*

debtor's program for restructuring and for cutting losses," [Section 19 (1) of Act XLIX of 1991 on Bankruptcy Proceedings and Liquidation Proceedings]. The arrangement with creditors is not determined as a consequence of future value-creation but it can be determined based on the reorganisation plan. The agreement on the extent, timing and method of the satisfaction of claims is not a consequence, but the direct purpose of the composition.

▸*"The composition agreement shall contain ... (b) the debt settlement and restructuring programme approved by the creditors, and the method of execution and oversight, ..."* [Section 21 (1) of Act XLIX of 1991 on Bankruptcy Proceedings and Liquidation Proceedings], of which only the debt settlement programme was fulfilled in all cases, based on the minutes of the 97 composition negotiations examined in the course of the research and the annexes thereto.

The Kúria

- in March 2015 specified the purpose and content of the reorganisation plan (Decision No. Gfv. VII. 30. 413/2014/10);
- in its ruling it states that *"... the purpose of the composition is to enable the debtor to continue its operations;if the procedural details reveal that the debtor wishes to use this legal institution not for its intended purpose but to dispose of the vast majority of its debts, the court shall not approve the bankruptcy composition and shall dismiss the procedure"* (Decision No. Gfv. VII. 30. 257/2015/4).
- at the same time, it is important that *"in relation to the composition it has been stated in the Kúria's decisions on several occasions that the economic content thereof may not be inspected by the court ...; neither may the court inspect the economic content of the reorganisation plan as it also constitutes a part of the composition. Under Section 21/A (3) of the Bankruptcy Act, the court may only inspect the conformity of the composition arrangement with the relevant legislation."* (Decision No. Gfv. VII. 30. 294/2015/4).

Accordingly, the court does not examine the economic content of the composition; under the law, the only condition for the court's ruling on the approval of the composition arrangement is conformity with the relevant legislation. During the research we concluded that the preparation of a reorganisation plan – which would allow stakeholders to make relevant decisions regarding the composition (assuming that the stakeholders are both prepared and invested in making an efficient decision) – does not form an integral part of the minutes of composition negotiations.

In summary: for the nine years preceding the launch of bankruptcy proceedings, the profitability, indebtedness and liquidity indicators calculated on the basis of historical data (as listed in Table 2) for the two groups of companies point to a close co-movement between the two groups of companies (those reaching a composition agreement vs. those subject to liquidation). Without exception, the correlation coefficient, in almost all cases, was well above 0.8. The number of companies that do not meet the critical value of the examined indicators shows similarly strong co-movement in the two groups of companies over the period under review. With one exception, the correlation coefficients are above 0.9. Regarding asset efficiency, indebtedness and liquidity, we found no evidence that the group of companies where creditors voted for continued operation were in a better condition prior to the commencement of the bankruptcy proceedings in terms of the parameters examined,[12] i.e. historical data cannot justify a positive expectation of continued operation in the case of companies that entered into a composition arrangement. The question arises as to what motivated stakeholders during the procedure in making their decision.

A rational economic operator makes decisions based on future expectations. This pre-

supposes that based on their expectations for the future, the stakeholders saw it convincingly proven that the value creation of the company can be restored. Yet, we could not find even a single reorganisation plan among the documents of the composition negotiations in the 97 cases reviewed. Instead of making an effort to establish the conditions for continued operation, the composition negotiations focused on recovering creditors' claims to the extent possible in the shortest possible time (which alone may thwart the implementation of most reorganisation plans on the financing side). The condition for a successful reorganisation and value-creating continuity is the timely launch of bankruptcy proceedings. The critical value is $V=D$; until that state is reached, the likelihood of making an efficient decision on continued operation is fairly good. We found that the bankruptcy proceedings were launched in a state of asset shortages $(V<D)$ for 50 per cent of the companies with a composition arrangement, and for 37 per cent of those under liquidation due to their failure to enter into such an arrangement. The actors (typically the debtor) exercised their right of filing for bankruptcy at a later point in time from the aspect of value-creating continuity.

The status of companies after the composition

Data of the Amadeus database reveals that in 2013 only three companies were active of the 79 companies that were reorganised according to the bankruptcy procedure between 2009 and 2013 (*Table 3*). Only one company is included in the "active" category of the companies involved in the Court's primary research. Looking at the sample, the distressed companies that were involved in bankruptcy proceedings and entered into a composition arrangement failed to survive for more than 1–3 years after the arrangement. During this period almost all companies where continued operation was secured by an arrangement exited the market, or, if they still have a formal presence,

Table 3

STATUS OF COMPANIES THAT FILED FOR BANKRUPTCY WITH THE METROPOLITAN COURT OF BUDAPEST IN 2009–2013 AND ENTERED INTO A COMPOSITION ARRANGEMENT, BASED ON DATA SUPPLY AT END-2013

Company status		Number of companies with composition arrangements	Proportion of companies with composition arrangements
Active	Active (operating)	3	0.04
Inactive	Active (under insolvency proceedings)	31	0.39
	Active (in liquidation, dissolved)	3	0.04
	Active (dormant)	30	0.38
	Bankruptcy (under liquidation, not operating)	12	0.15
Total		**79**	**1.00**

Source: based on the Amadeus database and data published in the Companies Gazette

they do not perform any activity or are under bankruptcy/liquidation proceedings.

The most important phenomenon in the group of companies that reached a composition is the category of dormant (active, dormant) companies (their proportion in the large sample is 38 per cent compared to 30 per cent in the Court's sample of 37). Although they are registered in the database, they do not show any activity. The presumed intention to acquire this status is aptly characterised by the fact that nearly one-third (10) of the 37 companies of the primary research that reached a composition did not have tangible assets and inventories worth over HUF 1 million (book value). In 11 cases, the companies that sought to avoid bankruptcy did not have any employees whatsoever at the commencement of the bankruptcy proceedings.

The reorganisation supporting effect of the bankruptcy regulation where viable companies are given an opportunity to continue operations was typically thwarted when stakeholders decided to continue operations or to liquidate without a true intention to continue operations, i.e. their decision was not based on the financial/economic criteria. *"... the Kúria has repeatedly stated that bankruptcy proceedings may not be initiated with the purpose of terminating the debtor without a legal successor after the parties' composition agreement has been fulfilled"* (Csőke, 2015). The data of Table 3 demonstrate that the "reorganisation" of the companies that entered into a composition can be considered unsuccessful. We believe that one of the lessons learned from the practice of recent years is that credit restructuring is not a substitute for corporate reorganisation. After failing to resume value creation by continuing operations under the composition arrangement, it is unlikely that the debtor will be able to comply with its commitment to satisfy creditors as specified in the composition in any creditor category.[13]

In summary: based on historical data our study confirmed that the companies that had been given an opportunity to continue operations under the composition arrangement did not have a better financial position in terms of value creation than those under liquidation. According to the minutes of the composition negotiations, no reorganisation plan was drafted that would have confirmed the companies' ability to transition to a value-creating growth path as a result of the reorganisation following the composition arrangement. According to Amadeus data, only three of the 79 companies with a composition arrangement showed an "active" status 1–3 years after the composition decision. Thus, economic efficiency criteria are not among the key explanatory variables of composition arrangements. At the reviewed companies that entered into a composition arrangement, the composition decision was not based on the company's past value creation capacity or future expectations in this regard; consequently, the long-term survival of these companies is not ensured.

CONCLUSIONS

Our study was intended to determine whether the legislative intention to support reorganisation facilitated changes in stakeholder behaviour after the amendment of the 2009 bankruptcy law that, besides improving the position of creditors, led to more efficient capital allocation and improved job retaining and growth-supporting capacity among the reorganised companies.

Although after 2009 the number of companies undergoing a formal reorganisation procedure rose to over 100 from the previous average of 15 companies per year, this is barely measurable in statistical terms compared to the number of companies being liquidated.

During the initiated bankruptcy proceedings, about 1/3 of the companies agreed on the continuation of the company's business operations. Based on the analysis of the primary research data and the balance sheet and profit and loss statement of the companies surveyed, we found numerous cases where the companies filing for bankruptcy presumably did not initiate the procedure with the intention of continued operation. The results show that the changes in the Bankruptcy Act opened the door to a delayed liquidation technique, and numerous companies took advantage of this opportunity. The companies that had been given an opportunity to continue operations under the composition arrangement did not have a better financial position in terms of value creation than those under liquidation. According to the minutes of the composition negotiations, no reorganisation plan was drafted that would have confirmed that, contrary to the previous period, the companies would be able to transition to a value-creating growth path as a result of the asset and debt restructuring following the composition arrangement. Stakeholders focused on debt restructuring during the process, which can be attributed to their expectations about the implementation of a value-creation oriented reorganisation plan. All of this made it inevitable that only three companies among those included in the court sample showed activity 1 to 3 years after the court approval of the composition. Based on the above, it can be stated that the increasing number of bankruptcy filings did not result in a change in the situation of companies in distress that points to more efficient capital allocation or an improvement in creditor protection.

Another research task is to explore which methods of those applied successfully in international practice could be adapted to the Hungarian bankruptcy regulation. One of the promising solutions is the Swedish auction model where, in case of insolvency, the trustee entrusted by the creditors organises the company's outright sale at an auction. Subsequently, the successful tenderer decides whether the company should be liquidated or it should continue operations. As an owner, this single actor is capable of – and has a vested interest in – making an efficient capital allocation decision and choosing a solution that increases the value of the company's equity. Although the adaptation of this model appears to be promising, a new set of problems may arise from the development level of secondary markets or, for example, from informal ownership intentions and attitudes.

Notes

[1] In May 2014, the President of the Metropolitan Court of Budapest provided an opportunity for us to collect data and information on the validity of the economic efficiency criteria of bankruptcy proceedings based on processing individual cases. We wish to express our thanks to all employees of the court who assisted us in our work. We are grateful for the professional support we received from our colleagues Márta Szabó and Andrea Csőke – judges of the Civil Division of the Kúria (Supreme Court).

[2] In the practice of international bankruptcy regulation, reorganisation and liquidation are regulated under a single procedure, as part of a uniform/single-tier insolvency procedure. The reorganisation decision is the first stage of the procedure and liquidation only takes place in the absence of a composition arrangement on continued operation/reorganisation. Unlike the international practice, the Hungarian bankruptcy regulation – as demonstrated by the name of the act (Act XLIX of 1991 on Bankruptcy and Liquidation Proceedings) –, is characterised by a "dual" procedure (*Csőke,* 2015). A bankruptcy procedure is a procedure for salvaging (reorganising) a

debtor, which can be concluded with an composition ensuring the continued operation of the company or, in the absence of such an arrangement, the procedure is continued as liquidation proceedings. Liquidation proceedings (regulated separately in the Bankruptcy Act) governs the company's exit from the market and consequently, the distribution of the debtor's assets among creditors. [The study of *Piller* (2012) provides a more differentiated distinction between the procedural systems in insolvency proceedings]. In the rest of our paper we use the term reorganisation procedure instead of national bankruptcy proceedings, thus adapting to the practice of international bankruptcy law.

[3] In domestic judicial bankruptcy proceedings, it is not necessary for the debtor to be in the state of insolvency, even the threat thereof is sufficient for an application for bankruptcy proceedings to be filed. The existence of insolvency under the Hungarian Bankruptcy Act is a prerequisite for the opening of liquidation proceedings.

[4] This study is the first part of the research carried out on the basis of primary data collection at the Metropolitan Court of Budapest.

[5] https://amadeus.bvdep.com/

[6] At a time of crisis, when external influences intensify in generating bankruptcy situations – threatening with the emergence of the phenomena of "queueing" and "circular debt" –, value-creating companies can become insolvent even when they are able to generate a yield above normal profits. Accordingly, the analysis of historical data does have relevance. Businesses that have become insolvent temporarily/out of their own control must be rescued.

[7] In their article on the evaluation of bankrupt firms, *Gilson et al.* (2000) investigated 63 publicly traded companies that published a cash flow forecast after more than 2 years of restructuring, which the authors considered to be sufficient for a DCF-based valuation. Naturally, all this was complemented by market data for the period before and after the composition arrangement, whose combined analysis, of course, is consistent with the economic efficiency criteria of the decisions made in a bankruptcy situation. The Hungarian situation can be characterised by the fact that the financial indicators used are largely determined by the available database in addition to the purpose of the survey (*Virág et al.,* 2013).

[8] The risk may arise that the accounting data of companies on the verge of bankruptcy are less reliable. This assumption was not taken into account during the investigation. Since we do not have information for the justification or denial of this presumption, we assumed that the companies' books are maintained in accordance with the provisions of the Accounting Act.

[9] These indicators were later also used as variables for panel testing.

[10] Of course, the minutes of the composition negotiations may include numerous expectations that affect stakeholders' decisions regarding the arrangement.

[11] In Hungary, since the depth of financial intermediation does not allow small and medium-sized companies access to bank loans, commercial loans often represent the only form of external resources, which, in our opinion, justified the use of total liabilities instead of long-term liabilities.

[12] By using a probit regression (which is not presented here due to the limited space available), we also confirmed that the decision of companies that filed for bankruptcy to enter into or reject a composition arrangement cannot be explained by using a model that is built on the companies' historical financial indicators.

[13] There are, of course, exceptions where the debtor and the creditor agreed on "immediate" satisfaction in order to reach a composition arrangement.

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