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## THE WAVES OF ENTERPRISES BANKRUPTCY AND THE FACTORS THAT DETERMINE THEM: THE CASE OF LATVIA AND LITHUANIA

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Abstract. Bankruptcy of enterprises is macroeconomic issue and a phenomenon of a dynamic and competitive market economy. It results in a lot of negative effects not only for the enterprise and its employees but also for other enterprises and institutions, as well as the state and society. The aim of the article is to carry out the analysis of bankruptcy of Latvian and Lithuanian enterprises. No such study has been carried out so far. Article analyses the dynamics of Latvian and Lithuanian enterprise bankruptcy, which manifest themselves in larger waves in certain periods and the factors that influence them. From 1993 - when the bankruptcy of enterprises was started to be officially registered - to 1 January 2017, 21,503 Latvian enterprises and 20,933 Lithuanian enterprises went bankrupt. The largest wave of bankruptcy took place in the period of 2008-2010, when the financial crisis started in both countries. The comparative analysis of Latvian and Lithuanian enterprise bankruptcies was carried out according to the economic activity types and enterprises legal forms. In both countries mostly wholesale and retail trade, repair of motor vehicles and motorcycles enterprises (30% on average) go bankrupt, while construction enterprises (13% on average) are the runners-up. Initiators of enterprise bankruptcy are studied, numbers of Latvian and Lithuanian enterprises that went bankrupt are compared to the overall number of companies in the country. The data of this analysis are valuable when forecasting enterprise bankruptcy and preparing the measures to avoid it. The main research methods: analysis of scientific literature and statistical data, case analysis, methods of collection, grouping, comparison and generalization of information.

Keywords: enterprise bankruptcy, enterprise bankruptcy statistics in Latvia, enterprise bankruptcy statistics in Lithuania, enterprise bankruptcy initiators.

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### 1. Introduction

In dynamic and competitive market conditions, every business faces a higher or lower risk. No enterprise is guaranteed that its activity is going to continue forever, that its services will always be in demand, and that due to fluctuations in demand there will be no need to change volume of activity, dismiss employees, have additional costs, etc. Quite often enterprises' managers – in order to achieve higher profits – undertake riskier activities and those unwilling to risk and having accepted the current situation are usually floundering or are forced to leave the market after they have failed to compete. The most serious outcome of underestimating the risk is the bankruptcy, which results in negative consequences not only for the company but also for its employees, other companies and institutions, state and society.

The bankruptcy of enterprises became one of the mostly studied issues by scientists. Economic, financial and legal questions regarding the bankruptcy have been studied rather thoroughly in the scientific literature. In recent years, more and more attention has been paid to managerial, cultural, ethical, psychological and even philosophical aspects of bankruptcy. Probably the most attention has been paid to the bankruptcy forecasting issue. Some authors prefer to analyse the signs displaying the bankruptcy possibility; some pay their attention to conditions and events increasing the business risk; others maintain that analysis of managers' morale, competence and staff policy should receive the most attention; even others give preference for studying the accounting and internal control system. The number of scientific studies evaluating the efficiency of different authors' bankruptcy forecasting models in certain countries and industries is constantly increasing. New bankruptcy forecasting models are offered. In recent years, many authors have analysed various aspects of enterprise bankruptcy. These are noteworthy: Antonowicz (2014); Aziz and Dar (2006), Bivainis and Garškaitė (2010); Burkšaitienė and Mažintienė (2011); Dyczkowska (2009); Garškienė and Garškaitė (2004); Genriha and Voronova (2010); Genriha, Petere and Voronova (2011); Grigaravičius (2002); Haber (2005); Mackevičius, Giriūnas and Valkauskas (2013, 2014); Prasad and Puri (2005); Purlys (2001); Purvinis, Šukys and Virbickaitė (2005); Šneidere (2005, 2007); Stoškus, Beržinskienė and Virbickaitė (2007); Stundžienė and Boguslauskas (2006); Tvaronavičienė (2001), Kuzmin (2018) and others.

However, their studies have a disadvantage in the sense that they were carried out only in a certain country or a certain industry or even based on example of a group of a few companies with a certain activity. Until now, there have not been many studies of bankruptcies in several countries – especially neighbouring or of similar size; their comparative analysis might reveal a lot of possibilities to decrease the number of enterprises going bankrupt in each country.

The aim of the research: carry out a comparative analysis of Latvian and Lithuanian enterprise bankruptcies.

These goals were set to achieve the aim: 1) analyse the essence of inevitability of enterprise bankruptcy as a phenomenon of competitive market economy; 2) carry out a number analysis of Latvian and Lithuanian enterprises bankruptcies; 3) analyse Latvian and Lithuanian enterprise bankruptcies according to the activity types and legal forms; 4) determine the most important factors influencing enterprise bankruptcy; 5) highlight other important issues of enterprise bankruptcy. The research object: Latvian and Lithuanian enterprise bankruptcies.

The research methods: analysis of various authors' scientific literature, analysis of statistical data, case analysis, methods of information comparison, systematization, elaboration and generalization.

## 2. Enterprise bankruptcy as a phenomenon of competitive market

The term "bankruptcy" (banca rotta in Italian) derives from medieval Italian towns' custom to break the benches of an indebted banker or merchant who had run away (Baird, 1993, p. 4). In modern economical literature,

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bankruptcy is described in many different ways: a bankruptcy is the death of a company, ultimate failure, business of losers, the decline of the employees' expectations, and the end of everything you used to have. Bankruptcy received even more frightening epithets: it is God's scourge for the businessmen sins, it is the cruel twist of faith with no hopes of salvation, etc. So, what is indeed the anatomy and essence of bankruptcy of enterprises?

Bankruptcy is the state of an insolvent enterprise where bankruptcy proceedings have been instituted in court or the creditors are performing extrajudicial bankruptcy procedures in the enterprise. More specifically, bankrupt enterprise means an enterprise declared bankrupt by the court or, in case of extrajudicial bankruptcy proceedings by the resolution of the creditors' meeting and put into liquidation due to bankruptcy. Enterprise in bankruptcy means an enterprise against which bankruptcy proceedings have been instituted or in respect of which extrajudicial bankruptcy procedures are applied and enterprise liquidation procedures established by law have not been instituted. Insolvency of an enterprise means the state of an enterprise when it fails to fulfil its obligations (i.e. fails to discharge a debt, to perform prepaid work, etc.) and the overdue obligations (debts, unperformed work, etc.) are in excess of over half of the value of the assets on the enterprise's balance (Lietuvos Respublikos imonių bankroto įstatymas, 2001).

It means that the companies seeking to avoid bankruptcy have to be solvent, i. e. able to settle long-term and short-term liabilities with available payment instruments. The payment instruments are cash and cash equivalents, amounts receivable within one year (trade debtors, amounts owed by entities of the entities group and amounts owed by associates entities, other amounts receivable), raw materials and consumables, work in progress, finished goods, goods for resale, contracts in progress, prepayments for suppliers, other current assets (current investments, time deposits, other assets). These payment instruments could be used to settle short-term (financial debts, debts to suppliers, received prepayments, corporate income tax liabilities, liabilities related to employment relationship, etc.) and long-term (financial debts, debts to suppliers, received prepayments, deferred tax liabilities, etc.) liabilities. However, in reality most of the companies do not have enough payment instruments to settle short-term and long-term liabilities and are forced to go bankrupt.

Speaking of the essence of bankruptcy anatomy, first of all, one has to note that it is not the God's scourge or the cruel twist of faith or something similar, but it rather is a phenomenon of a dynamic and competitive market. It could be added that it is a natural phenomenon, similar to a race from which some athletes are forced to withdraw because they cannot keep up with the leaders' pace. In current global market conditions, this phenomenon becomes more frequent in all countries: companies of different industries (manufacturing, trade, construction, etc.), of different size, and of different legal forms (public companies, private companies, individual enterprises, etc.) go bankrupt.

Many authors (Tvaronavičienė, 2001; Purlys, 2001; Dyczkowska, 2009; Mackevičius, 2007; Šneidere, 2005, and others) consider the bankruptcy of enterprises as inevitable phenomenon of free and competitive market.

Two sides of company bankruptcies – as a phenomenon of competitive market – should be distinguished: 1) negative and 2) positive. The bankruptcies have many negative effects not only on the company itself and its employees but also on other companies and institutions, the state and society. It has been proven that bankruptcies are dangerous for the economy because old and rather large companies with nice traditions and many employees go bankrupt. Often the state has to solve the issues that appear due to company bankruptcies. The worst is that the regular citizens suffer from bankruptcies: they lose their savings and jobs, suffer from mental traumas, etc. The enterprise bankruptcies cause a lot of economic and social problems. Loss of production capacity, weakening of general competitiveness of national economy, unpaid taxes to the state budget, unmet requirements of creditors, etc. can be attributed to economic problems. Increase of the unemployment level, decrease of general national standard of living, citizens' dissatisfaction with weak national economy, uncertainty about the future, etc. can be considered as social problems (Isachsen and Hamilton, 1992; Bivainis and Garškaitė, 2010; Valackienė, 2005).

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On the other hand, bankruptcies should not be viewed as entirely negative phenomenon. New companies using advanced technologies and new forms of organization replace the old ones. The situation when companies go bankrupt but are not replaced by the new ones should be considered as dangerous to national economy. Thus, bankruptcy could be described as a process allowing to increase competitiveness in market, remove unsuccessful businessmen who avoid or are unable to settle with the creditors and replace them with new companies that are able to efficiently develop activity beneficial for the society and discharge their obligations. Yet, the situation is much better when the enterprises survive as long as possible and are beneficial for the state and society.

The managers have to constantly look for ways and means to prevent bankruptcy and ensure successful continuity of activity. One of the most efficient means of bankruptcy diagnostics and prevention is the financial analysis of company's activity. Without the timely and thorough analysis, it is impossible to properly manage the company's resources, determine the right ways to use them, make optimal investment and financial solutions and prepare forecasts of further company development. Only those enterprises, in which financial analysis and activity planning and forecasting were well organized and whose managers try to manage the processes related to business risks efficiently and carefully, can determine the imminent activity crisis earlier, respond to it rapidly and decrease the possibility of bankruptcy.

## 3. Latvian and Lithuanian enterprise bankruptcies waves

Latvia and Lithuania started to record bankruptcy of enterprises in 1993. In this year 10 cases of bankruptcy have been registered in Latvia and 6 in Lithuania. In 1997 for the first time more than 100 of companies went bankrupt in Lithuania (107 companies in total). The number of bankruptcies per year gradually increased until 2008 and nearly reached 1000. And from 2009 to 2017 approximately 1,770 companies go bankrupt every year. In Latvia already in 1996 more than 200 companies went bankrupt (237 companies in total) and in 1997 the number was 553. In 2002, 1,087 companies went bankrupt in Latvia (and 799 in Lithuania) and in 2010 the number was 2,574 (and 1,673 in Lithuania). However, since 2011 the number of bankruptcies in Latvia – contrary to Lithuania – has been gradually decreasing and now around 845 companies go bankrupt every year. The dynamics of enterprise bankruptcy processes are clearly shown in their changes in every 5 years (see Table 1).

D d :	La	tvia	Lithuania		
Period in years	Number	Percentage	Number	Percentage	
1993-1997	924	4.3	255	1.2	
1998-2002	3,983	18.5	2,149	10.2	
2003-2007	5,508	25.6	3,468	16.6	
2008-2012	7,775	36.2	7,112	34.0	
2013-2016	3,313	15.4	7,949	38.0	
Total	21.503	100.0	20.933	100.0	

Table 1. Enterprise bankruptcy processes in Lithuania and Latvia per 1993 - 2016 year

Source: compiled by the authors based on Lursoft statistika. Maksātnespējas reģistrs; Įmonių bankrotas. Bankruptcy of Enterprises 2007, 2015; Oficialiosios statistikos portalas

As we can see from the table 1, during the 1993-2016 period, 21,503 companies went bankrupt in Latvia, whereas in Lithuania the number was 20,933. It is a huge loss for these countries' economies and societies. The largest wave of bankruptcies was in 2008-2012, when 7,775 companies went bankrupt in Latvia and 7,112 in Lithuania, which accounted for respectively 36.2% and 34.0% of all the companies that went bankrupt in 1993-2016. The economic crisis, which began in 2008, had the most impact on the bankruptcies wave. The Latvian companies were especially harmed. In 2009, 2,149 companies went bankrupt and in 2010 the number increased to 2,574. Foreign banks that were predominant in Latvia and Lithuania increased the loan portfolio every year: its growth was almost twice as rapid as that of deposit, and as much as 5-6 times more rapid than the actual GDP growth.

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Most of the loans were diverted towards the real estate sector, which influenced creation of real estate bubble. In both republics – due to the economic crisis – unemployment, emigration, inflation, shadow economy increased while level of production volume and consumption shrank. The social tensions and dissatisfaction with governments' policies kept increasing and unfair competition among business participants and partners manifested itself. The increase in the number of bankruptcies showed that both republics' businesses were not ready to survive in extreme conditions, that insolvency of one company negatively influenced other companies, which were unable to recover the debts from the insolvent debtors, and thus were unable to discharge their obligations and went bankrupt themselves (Rugenytė, Menciūnienė and Dagilienė, 2010). This was an example of a so-called Domino effect. Deteriorated economic and political relations with Russia also had a significant impact.

After the economic crisis ended, the number of bankruptcies in Latvia decreased significantly: during the 2013-2016 period, 3,313 companies went bankrupt which accounted for 15.4% of all companies that went bankrupt during the 1993-2016 period, i.e. less than during the period of 1998-2012. One of the reasons is the improvement of the business environment: a) the share of shadow economy from 2013 onwards decreases each year; b) gross domestic product increases year by year since 2013; c) unemployment rate decreases year by year since 2013. Another reason may be due to changes in the conditions for setting up companies. Since July 2010, small capital companies with a capital of 1 euro can be established in Latvia. It can be founded by one or more natural persons (up to 5 people). In addition, a person may be a participant (owner) in only one small capital limited liability company. This means that the person may not owned by two small capital limited liability company (Komerclikums, 2002; point 185¹). Many companies themselves are liquidated because they must pay an income tax of 50 euros per year if there is no operating income. Statistics on the establishment and liquidation of companies allows one to draw a conclusion, that small capital Ltd don't have enough finance and knowledge to develop company, so they decided to eliminated themselves.

Meanwhile in Lithuania, the number of bankruptcies did not decrease after the end of the crisis and in 2016 it was the highest in history – 2,728 companies went bankrupt. The 09 July 2014 resolution of the Government of the Republic of Lithuania No. 647 "On Confirmation of Rules of Bankruptcy Administrators' Selection", on the basis of which since 01 January 2015 the state institutions (creditors of companies) have had a right to initiate the bankruptcy process by automatically assigning an administrator for companies that have long been inactive, are in debt and have no assets, had a significant impact on the increase in the number of bankruptcy proceedings (Dėl bankroto administratorių…). The State Tax Inspectorate and Social insurance agency became much more active in bankruptcy processes initiation.

Another trend that has been noticed in recent years in Lithuania is the increase in the number of simplified bankruptcy proceedings. From 2003 to 2017, simplified bankruptcy proceedings were initiated for more than 6,000 companies. Simplified bankruptcy proceedings differ from the regular ones because they may not last longer than one year from the day of entry into force of the ruling to apply the simplified bankruptcy proceedings. During simplified bankruptcy proceedings, the creditors' meetings are not convened and the court itself addresses the issues related to the sales of assets of the insolvent company. The share of simplified bankruptcy proceedings out of all the bankruptcy proceedings has been growing and in 2016 accounted for 41.0% of all the bankruptcy proceedings.

The waves of bankruptcies in Latvia and Lithuania affected the companies in most of the industries. It is noteworthy that the spectrum of Latvian and Lithuanian companies' industries is similar. Manufacturing, construction, wholesale and retail trade, transport and storage, agriculture, forestry and fisheries enterprises are the dominating industries. Activities of some companies of certain industries vary a lot. For instance, in the manufacturing field of both Latvia and Lithuania operate manufacture of food products, manufacture of wearing apparel, manufacture of wood and of product of wood, manufacture of furniture, manufacture of chemicals and chemical product, manufacture of fabricated metal product and other manufacturing enterprises, of which some

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are successful while others go bankrupt because they are unable to compete. The analysis of Latvian and Lithuanian enterprise bankruptcies according to the industry in 2012-2016 showed that in both countries wholesale and retail trade, repair of motor vehicles and motorcycles enterprises go bankrupt the most (see table 2). Those companies accounted for 35.5% of all the companies in 2012 and for 30.8% in 2016, whereas in Lithuania these numbers were respectively 29.5% and 31.4%. Construction is the second most bankrupt-prone industry. In 2012, 129 construction companies went bankrupt in Latvia (14.6%) and in 2016 the number was 93 (12.7%). The situation is similar in Lithuania: 270 construction enterprises went bankrupt in 2012 and 367 in 2016, which accounted for 19.3% and 13.4% respectively.

Table 2. Enterprise bankruptcy processes instituted by economic activity in Latvia and Lithuania 2012 – 2016 year

	Latvia			Lithuania				
Economic activity	Number		Percentage		Number		Percentage	
	2012	2016	2012	2016	2012	2016	2012	2016
1. Agriculture, Forestry and Fisheries	11	22	1.3	3.0	27	48	1.9	1.8
2. Manufacturing	89	82	10.1	11.2	185	252	13.2	9.3
3. Construction	129	93	14.6	12.7	270	367	19.3	13.4
4. Wholesale and retail trade, repair of motor vehicles and motorcycles	313	225	35.5	30.8	413	856	29.5	31.4
5. Transport and storage	63	56	7.2	7.7	117	256	8.4	9.4
6. Accommodation and food service activities	83	91	9.4	12.4	98	198	7.0	7.3
7. Professional, scientific and technical activities	51	45	5.8	6.2	76	159	5.4	5.8
8. Administrative and support service activities	66	48	7.5	6.6	61	255	4.3	9.3
9. Other activities	76	69	8.6	9.4	154	337	11.0	12.3
Total	881	731	100.0	100.0	1,401	2,728	100.0	100.0

Source: compiled by the authors based on Lursoft statistika. Maksātnespējas reģistrs; Oficialiosios statistikos portalas

Therefore, the managers of these industries have to pay a lot of attention to find out the causes of bankruptcy and take specific operational and perspective measures in order to avoid bankruptcy. From other industries, which see a lot of bankruptcies both in Latvia and Lithuania, these are noteworthy: electricity, gas, steam and air conditioning supply; water supply, sewerage, waste management and remediation activities; information and communication; financial and insurance activities; real estate activities; arts, entertainment and recreation and other activities. There are still cases when financial and insurance activities, education and human health and social work activities enterprises go bankrupt; this should not happen and governmental authorities should pay more attention to these companies' activities. When analysing the processes of bankruptcies it is important to analyse the bankruptcies not only according to the industry but also to the legal form (see table 3).

Table 3. Enterprises against which a bankruptcy process has been initiated by legal form in Latvia and Lithuania (1993-2015)

Legal form	La	itvia	Lithuania		
Legal for in	Number	Percentage	Number	Percentage	
1. State – owned and municipal enterprises	208	1.0	81	0.5	
2. Private companies	17,226	82.9	14,712	80.8	
3. Public companies	398	1.9	492	2.7	
4. Agricultural companies	409	2.0	224	1.2	
5. Individual enterprises	121	0.6	2,220	12.2	
6. Others	2,410	11.6	476	2.6	
Total	20,772	100.0	18,205	100.0	

Source: compiled by the authors based on Centrālās statistikas pārvaldes; Oficialiosios statistikos portalas

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As we can see from the table 3, the bankruptcy proceedings are usually started for the private companies. In Lithuania, during the 1993-2015 period, 14,712 bankruptcy proceedings were started for private companies, i.e. for 80.8% of all companies. The situation in Latvia is similar, where during that same period 17,226 private companies went bankrupt, i.e. 82.9%. A relatively large number of Lithuanian individual enterprises go bankrupt. Bankruptcy process means the sum total of judicial or extrajudicial enterprise bankruptcy proceedings. State Social Insurance Fund Board, State Tax Inspectorate, owners, head of the enterprise and others can initiate the bankruptcy process in Lithuania. The data from the table 4 show what the initiators of the enterprise bankruptcy process in Latvia and Lithuania are.

Initiators of the enterprise	Latvia		Lithuania (1993 -2016)		
bankruptcy process	Number	Percentage	Number	Percentage	
State Social Insurance Fund	No data		5,642	26.96	
2. Head of the enterprise administration			4,044	19.32	
3. Owner(s)			1,954	9.34	
4. State Tax Inspectorate			1,912	9.14	
5. Employees			1,160	5.54	
6. Enterprise liquidator			774	3.70	
7. Other creditors			5,447	26.00	
Total			20,933	100.00	

Table 4. Initiators of the enterprise bankruptcy process in Latvia and Lithuania

Source: compiled by the authors based on Imonių bankrotas. Bankruptcy of Enterprises 2015; Oficialiosios statistikos portalas

The table 4 shows that the State Social Insurance Fund Board initiated the most bankruptcies processes during the period of 1993-2016 – 27%. It is worth noting, that in 2015 and in 2016, this board has enormously increased their activities: they instituted almost a half of all the bankruptcy processes (49%). State Tax Inspectorate increased their activities as well: they instituted 507 bankruptcy processes in 2016; i.e. 18.6%; whereas, they had only instituted 9.1% of bankruptcy processes during the period of 1993-2016. The fact that public authorities initiate the bankruptcies after an objective investigation on enterprise activities is thought to be a positive thing because the managers and owners of enterprise administrations often delay the filing of bankruptcy case due to various reasons, even with the knowledge of the difficult financial situation of an enterprise. And the bankruptcy cases that are filed too late determine an even bigger growth of debts: the enterprise remains in debt to the employees still working, the budget, State Social Insurance Fund, the suppliers of goods and services. Inevitably, such process results in transferring a part of expenses of ineffective bankruptcy proceedings to the tax payers. That is why an important part of a state's economic policies is not only a diagnosis of insolvency but a strict regulation of bankruptcy proceedings as well (Tvaronavičienė, 2001, p. 140).

The Authority of Audit, Accounting, Property Valuation and Insolvency Management under the Ministry of Finance and established in January 2016, is doing a significant work in analysing and evaluating bankruptcies in Lithuanian enterprises. One of its aims is to allow the enterprises that face financial difficulties to retain and develop activity, pay off debts and avoid bankruptcy. This authority also tries to ensure the effectiveness of enterprise bankruptcy or structuring proceedings.

## 4. Factors that determine enterprise bankruptcy

The enterprise bankruptcy is influenced by various factors which are divided into two groups in literature: external and internal. External factors are the factors that do not depend on the managers of enterprises. Internal factors are the ones that depend on the managers of enterprises, their competence, initiatives, managerial skills and ability to make right decisions. Authors from Latvia and Lithuania analysed external and internal factors that influence enterprise bankruptcy and tried to structure them and distinguish the most important ones. Instead of

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analysing the factors, some researchers analyse external and internal causes of bankruptcy. Nearly all the authors agree that business environment has the largest influence of bankruptcy. It is shown by the study carried out by Pricewaterhouse Cooper (see Table 5).

Table 5. Influencing factors on Business environment in Latvia and Lithuania in 2016 (%)

Factors	Latvia	Lithuania
Having a skilled and adaptable workforce	83	81
Bribery and corruption	75	Not asking
New market entrants	44	88
Changes in consumer behaviour	48	67
High unstable energy and raw material prices	50	68
Lack of trust in business	56	47
Supply chain distributions	30	74
Cybersecurity	43	34
Increasing tax burden	85	69
Over-regulation	67	61
Geopolitical uncertainty	78	63
The future of the EU	66	61
The threat of terrorism	33	40

Source: PricewaterhouseCoopers SIA. Baltic CEO Survey, 2016

PwC's Baltic CEO Survey involved interviewing 123 respondents from Latvia, and 105 from Lithuania in October and November 2016. The survey covered companies operating in major Latvian and Lithuanian industries: retail and wholesale, banking and finance, construction, processing, IT and telecommunications, health, transport, and other industries. The respondents included CEOs of privately owned and state-owned companies. The survey questions were answered by directors and board members of large and medium companies.

It can be seen from the Table 5 that without most of the factors that were already known and described in economic literature, new factors, whose influence on the enterprise bankruptcies is significant both in Latvia and Lithuania, have appeared: geopolitical uncertainty, the future of the EU, the threat of terrorism. It can be stated that the influence of international external factors has been gradually increasing for most companies' activity, risk and financial results. Latvia and Lithuania became a part of the world's economy, therefore, changes in Europe's and world's economy have a direct effect on certain Latvian and Lithuanian enterprises. Therefore economic globalization, European Union development, and integration of Latvia and Lithuania to the European Union single market with many strong and competitive companies should be attributed to the main external factors.

The study of Latvian enterprise bankruptcies has shown that these factors had the largest influence: requirements of EU directives and regulations; unclear custom proceedings; EU environmental requirement applied to production enterprises; declaration of agricultural product surplus; monopoly strengthening in the market; reduced stock market activity; increased inflation; unstable tax system; reduction of citizen purchasing power; labour force deficit; negative demographic trends; natural disasters (Šneidere, 2007, p. 62).

Based on Lithuanian enterprise bankruptcies practice these most important external factors, influencing the bankruptcy, have been determined: unstable economic and political situation; lower citizens' standard of living; higher labour costs; unfavourable customs policy; increase of the prices of materials; increase in number of new companies in the respective industry; high level of inflation and deflation; unstable legal system; high taxes and their changes; financial and economic crises in other countries; the country's foreign economic relations policy;

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foreign competitors; changes in the labour market; unemployment level; fluctuations of currency rates, etc. (Mackevičius, 2007; Mackevičius, Giriūnas and Valkauskas, 2013).

Another factor must be named which does not disappear neither in Latvia, nor in Lithuania, and is related to bankruptcies – shadow economy. The study carried by Putninš and Sauka (2017) in Baltic States show that the level of shadow economy in regard to GDP hardly changed (see Table 6).

**Table 6.** The shadow economy index in Lithuania and Latvia 2009-2016 (% from GDP)

Year	Latvia	Lithuania
2009	36.6	17.7
2010	38.1	18.8
2011	30.2	17.1
2012	21.1	18.2
2013	23.8	15.3
2014	23.5	12.5
2015	21.3	15.0
2016	20.3	16.5

Source: Putninš, Sauka, 2017

The research results show, the main components of the shadow economy are following: non-presentation of income (profit), no employee representation, envelope wages, percentage of income paid to "settle things"/bribery, percentage of the contact amount that is paid to secure government orders / corruption.

One of factors which give negative influence on companies solvency is late payment (collection period) in commercial transactions. Late payment negatively affects liquidity and complicates the financial management decisions. It also affects their competitiveness and profitability when the creditors need to obtain external financing because of late payment. The risk of such negative effects strongly increases in periods of economic downturn when access to financing is more difficult (Directive 2011/7/EU ...). When looking at the main causes of late payments in Latvia, 75 percent respondents state that they happen due to debtors' financial difficulties. In Lithuania, the aforementioned reason of late payment is stated by 51 percent respondents. The second reason for late payments is the disputes regarding goods and services delivered, 66% and 63% in Latvia and Lithuania respectively (European Payment Report, 2017).

The World Bank's "Doing Business" study explains the economic regularities of the insolvency system and outlines the main internationally recognized principles of the insolvency process: a strong insolvency system acts as a filter, which, through redistribution of resources from inefficient companies, ensures successful survival of companies; insolvency proceedings must be carried out quickly and at a low cost, so that companies can quickly restore their daily operations and creditors recover their funds to a maximum; improving insolvency prospects of creditors and debtors, a well-functioning insolvency system can facilitate access to financial resources, save viable companies, thereby overall improving the economy's growth and sustainability (World bank. Doing Business).

The carried out analysis suggests that the number of external factors in today's risky and indeterminate business environment is gradually increasing, thus, being more difficult to avoid them. Even successfully operating enterprises constantly face hard competition, changing technologies and other factors that have a negative impact on their activities. Since different business sectors face different trends and challenges, the manager of every company should be able to identify and name not only external but also internal factors that have a significant impact on operational efficiency and continuity of a certain company.

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In practice a sole factor determining the bankruptcy does not exist; unless it is an exceptional case. It is worth mentioning, that some factors sometimes determine unexpected, sudden bankruptcy of an enterprise while others gradually pile up until they determine a constant decline of an enterprise. It is difficult to say unequivocally which factors — external or internal — have more influence on the bankruptcy. This depends on many circumstances. Although, some studies do reveal that quite a considerable amount of enterprise bankruptcies are the fault of managers and executives: their incompetence, inability to operate in changing conditions of the market, abuse of official position, conservative views, poor decision making etc. (Ковалев, 1994, р.7).

An analysis of Latvian enterprise bankruptcies has shown that negative external factors – when politic and economic conditions are stable – are responsible only for one third of bankruptcies; the other two thirds occur because of internal factors (Šneidere, 2007, p. 62). The most notable internal factors are these: poor state of accounting; poor management of the company; incompetence and irresponsibility of managers; internal conflicts, especially among the managers; ineffective internal control system; lack of working capital and lack of management of cash flow; absence of internal and external audit system; underestimated competitive environment; frauds of employees; poor planning and forecasting of enterprises' activities; lack of enterprise activity analysis and other factors (Mackevičius, Giriūnas and Valkauskas, 2013). It is noteworthy that the external factors influence has synergy effect on the bankruptcy – usually external factors enhance the possibility of internal factors manifestation (Stoškus, Beržinskienė and Virbickaitė, 2007, p. 27). External factors are often the cause for development problems of small and medium businesses (Vijeikis and Baležentis, 2010).

## 5. Other important enterprise bankruptcy issues

The length of bankruptcy processes is one of the most important issues of Latvian and Lithuanian enterprises. Bankruptcy processes of some enterprises last for quite a long time, it could often be 7-8 years. For example, many of Lithuanian enterprises that were declared bankrupt in 2010 are still dealing with bankruptcy proceedings. 1,552 enterprises were declared bankrupt in 2013, 592 of them are still dealing with bankruptcy proceedings, which accounts for 38.1%. Out of all enterprises that were declared bankrupt in 2014, 969 – or 57.5% – still deal with bankruptcy proceedings (Imoniu bankrotas. Bankruptcy of Enterprises, 2015).

It is noteworthy that bankruptcy processes have tended to last shorter in recent years because enterprise bankruptcy law defined the deadline for bankruptcy proceedings and simplified bankruptcy proceedings have been applied. Among the main reasons why bankruptcy processes last rather long are criminal case initiated for the managers of enterprises or other individuals, low demand for the assets or their absence of enterprises going bankrupt to cover the administrative expenses (Sakalas and Savanevičienė, 2003, p. 134). Due to long-lasting insolvency of enterprises and bankruptcy proceedings debts accumulate and enterprise's assets are wasted, that is why the company – as a business player – becomes unattractive (Purlys, 2001, p. 81).

Another aspect to take into account when analysing bankruptcy issues is the lifespan of enterprises before they go bankrupt. This indicator could be viewed as a positive one because the enterprises' lifespan is getting longer. If, in the first decade of independent Lithuania, enterprises would go bankrupt after only 2-4 years in the market, they now often last around 8 years. For example, the largest proportion of enterprises for which a bankruptcy process was instituted in 2015 was made up of enterprises which from date of their registration to the declaration of bankruptcy existed for 10 and more years (34.4%) and those which existed for 5-10 years (32.1%) and up to 3 years – 15.4% (Imonių bankrotas. Bankruptcy of Enterprises, 2015).

First years of business are the most difficult. According to global statistics, more than 9 out of 10 companies go bankrupt in the first 10 years, about half of them go bankrupt before they turn 5 years old. It has been proven that the first years of activity is the most difficult stage: the enterprise faces new external environment, aggressiveness of competitors, field of activity untested in practice. Also, the managers and employees lack the necessary

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information about the market and competition, they often lack the knowledge and skills as well. Some enterprises cannot handle the so called "aggressive growth", i.e. uncalculated and ill-considered expansion. Other managers do not invest into the future, continuity and expansion of their enterprise and have completely unnecessary expenses.

It is necessary to mention these most important reasons that determine the bankruptcy of enterprises in the first three years of their activity: lack of expertise in commercial operations (business was conducted in a way to increase risk); lack of knowledge of business practices (entering into a contract, for example, without being aware of contractual obligations is often serious mistake); inadequate resources to cover the cost of making the business viable (to be viable, some businesses require capital and time many businesses just don't have); excessive expenditure, usually while trying to build business (throwing money at business development can be fatal); failure of clients to pay money owing or to follow through on business projects (business is being dragged down by another failing business); competition (many businesses seriously underrate their competitors); impractical business ventures (high risk ventures generally include costs to business which put the business in debt); financial management (even good businesses can be sabotaged by bad financial management); credit situations (borrowing money on the basis of future revenue) (Sanderson, 2011).

Fraudulent bankruptcy is another major issue that should receive more attention from public authorities and be more of a concern. Those are the cases when the enterprise's, which has just went bankrupt, activities are continued using different enterprise's name. The enterprise that has went bankrupt is deregistered, creditor claims are written off and the manager of the enterprise is put in charge of another enterprise. The Enterprise Bankruptcy Law of the Republic of Lithuania gives the description of fraudulent bankruptcy: "fraudulent bankruptcy is when an enterprise is deliberately led to bankruptcy by poor management (activity or lack of activity) and (or) by arranging deals, when it had been known or should have been known that certain arrangements violate creditors' rights and (or) legitimate interests" (Lietuvos Respublikos įmonių bankroto įstatymas, 2001). So, fraudulent bankruptcies are mostly associated with deliberate actions of enterprise managers who seek to profit in one way or another. It is achieved through different operations and activities e.g., in order not to settle with the creditors, the company sells real estate and shares at a loss, grants loans for the owners in very favourable conditions, even though the enterprise itself is indebted to the bank and so on. Even though, fraudulent bankruptcies are very harmful to the state and society, they are common in many countries and on average account for about 5-6% of enterprises that go bankrupt.

Some experts state that it is possible to profit from the bankruptcy. Allegedly, after a thorough analysis, arrangement and examination, it is possible to avoid debt collection and even profit, e.g., by legalizing money of unclear origin, by submitting various merging and splitting schemes of their enterprises, by changing the names of the enterprises, etc. It can be said that some enterprises declare bankruptcies too late, i.e. when enterprise's assets are minimal. In such case only 10-15% of creditors' claims are satisfied.

One of the most important bankruptcy issues is irresponsibility of managers and accountants. Enterprise managers must try to get as much and as thorough information as possible not only about the current financial state of an enterprise and operational results but to identify the enterprise's potential, weaknesses and advantages in a competitive market as well. However, managers do not always use the information presented by accounting and financial statements of the enterprise, they also do not take into account the influence of external factors which manifest themselves more frequently and intensively in EU today. They should ascertain these things: 1) is there enough information and evidence that financial indicators of the enterprise will keep gradually getting worse in the future; 2) is all the information on the possibility of enterprise's bankruptcy that has been gathered objective, correct and whether it has legal and probative value; 3) is there any data proving that currently positive indicators might change quickly and substantially worsen the state of an enterprise; 4) is there absolutely no possibility to ensure enterprise's continuity, were all the reserves used, was the opinion of the team taken into account; 5) are

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there any options left to make new decisions. There are risky fields of activity that have to be examined in every enterprise. It is very important to identify the most crucial types of risks that determine the operational results of an enterprise the most. The accountants of enterprises should identify and ascertain: 1) do the managers know which fields of activity are risky; 2) are the managers able to control these types of risks; 3) what is the influence of specific types of risks on most important business processes and the flow of information; 4) what are the possible outcomes of risks, how significant are they to the present and future operations of the enterprise; 5) how likely is it that the operations of an enterprise will go downward, what is the possibility of continuing the business (Mackevičius, Giriūnas and Valkauskas, 2014, p. 391-392).

One has to acknowledge that the enterprise managers' and accountants' irresponsibility, incompetence, indifference, overconfidence and inability to properly evaluate the financial state, level of competition, market changes which result in poor decision making, lead to sudden and unexpected bankruptcies.

## **Conclusions**

Bankruptcy of enterprises is macroeconomic issue and a phenomenon of a dynamic and competitive market economy. It results in a lot of negative effects not only for the enterprise and its employees but also for other enterprises and institutions, as well as the state and society. Loss of production capacity, weakening of general competitiveness of national economy, unpaid taxes to the state budget, increase of the unemployment level, decrease of general national standard of living, uncertainty about the future, etc. can be considered as main economic and social problems.

Latvia and Lithuania started to record bankruptcy of enterprises in 1993. In this year 10 cases of bankruptcy have been registered in Latvia and 6 in Lithuania. In 1997 for the first time more than 100 of companies went bankrupt in Lithuania and Latvia. The number of bankruptcies per year gradually increased until 2008 and nearly reached 1,000. During the 1993-2016 period, 21,503 companies went bankrupt in Latvia, whereas in Lithuania the number was 20,933. It is a huge loss for these countries' economies and societies. The largest wave of bankruptcies was in 2008-2012, when 7,775 companies went bankrupt in Latvia and 7,112 in Lithuania, which accounted for respectively 36% and 34% of all the companies that went bankrupt in 1993-2016. The economic crisis, which began in 2008, had the most impact on the bankruptcies wave.

The waves of bankruptcies in Latvia and Lithuania affected the companies in most of the industries. The spectrum of Latvian and Lithuanian companies' industries is similar. Manufacturing, construction, wholesale and retail trade, transport and storage, agriculture, forestry and fisheries enterprises are the dominating industries. The analysis of Latvian and Lithuanian enterprise bankruptcies according to the industry showed that in both countries wholesale and retail trade, repair of motor vehicles and motorcycles enterprises go bankrupt the most. Those companies accounted for 30-35% of all the companies in Lithuania and Latvia. Construction is the second most bankrupt-prone industry. About 13-14% construction companies went bankrupt in Latvia and 14-16% in Lithuania. The number analysis of enterprises against which a bankruptcy process has been initiated by legal form revealed that the bankruptcy proceedings are usually started for the private companies. They account for about 81 percent of bankrupt Lithuanian and 83 percent of bankrupt Latvian enterprises.

The enterprise bankruptcy is influenced by various factors. Nearly all the authors agree that business environment has the largest influence of bankruptcy. Without most of the factors that were already known and described in economic literature, new factors, whose influence on the enterprise bankruptcies is significant both in Latvia and Lithuania, have appeared: geopolitical uncertainty, the future of the European Union, the threat of terrorism. It can be stated that the influence of international external factors has been gradually increasing for most companies' activity, risk and financial results. Another factor must be named which does not disappear neither in Latvia, nor in Lithuania, and is related to bankruptcies is shadow economy. The main components of the shadow economy

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are following: non-presentation of income (profit), no employee representation, envelope wages, percentage of income paid to "settle things"/ bribery, percentage of the contact amount that is paid to secure government orders / corruption.

Other important enterprise bankruptcy issues in Latvia and Lithuania that featured in the research are these: 1) even though bankruptcy processes have gotten shorter because simplified bankruptcy proceeding have been applied they still last too long; 2) even though enterprises' lifespan is getting longer, still, a considerable amount of young enterprises that just started business go bankrupt; 3) assumptions allowing fraudulent bankruptcies still exist, although the number of them in all bankruptcies is relatively low now; 4) the enterprise managers' and accountants' irresponsibility, incompetence, indifference, overconfidence and inability to properly evaluate the financial state, level of competition, market changes which result in poor decision making, lead to sudden and unexpected bankruptcies.

#### References

Antonowicz, P. 2014. The multi-dimensional structural analysis of bankruptcy of enterprises in Poland in 2013 – results of empirical studies. *Journal of International Studies*, 7(1): 35-45.

Aziz, M.A.; Dar, H.A. 2006. Predicting corporate bankruptcy: where we stand? *Corporate Governance: The international journal of business in society*, 6(1): 18-33. https://doi.org/10.1108/14720700610649436

Baird, D. G. 1993. The Elements of Bankruptcy. New York: The Foundation Press.

Bivainis, J.; Garškaitė, K. 2010. Įmonių bankroto grėsmės diagnostikos sistema [The system of diagnostics of bankruptcy threat to the enterprises]. *Verslas: teorija ir praktika [Business: Theory and Practice]*, 11(3): 204-212.

Burkšaitienė, D.; Mažintienė, A. 2011. The role of bankruptcy forecasting in the company management. *Ekonomika ir vadyba [Economics and Management]*, 16: 137-143.

Centrālās statistikas pārvaldes [Central Statistical Bureau]. Retrieved from http://www.csb.gov.lv/par-mums/par-mums-8272.html

Dėl bankroto administratorių atrankos taisyklių patvirtinimo [On Confirmation of Rules of Bankruptcy Administrators' Selection]. Lietuvos Respublikos vyriausybės 2014 m. liepos 9 d. Nr. 647 nutarimas [The 09 July 2014 Resolution of the Government of the Republic of Lithuania No. 647].

Directive 2011/7/EU of the European Parliament and of the Council of 16 February 2011 on combating late payment in commercial transaction. Retrieved from <a href="http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32011L0007&from=LV">http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32011L0007&from=LV</a>

Dyczkowska, J. 2009. Sprawozdawczość finansowa jako źródło informacji wspomagającej wykrywanie kryzysu w przedsiębiorstwie [Financial accountability as a source of information facilitating exposure of a company crisis]. Zeszyty Teoretyczne Rachunkowości [Theoretical Journal of Accounting], 51 (107): 5–14.

European Payment Report 2017. Intrum Justitia. 2017. Retrieved from <a href="https://www.intrum.com/globalassets/corporate/publications/epr/epr-2017.pdf">https://www.intrum.com/globalassets/corporate/publications/epr/epr-2017.pdf</a>

Garškienė, A.; Garškaitė, K. 2004. Enterprise bankruptcy in Lithuania. Journal of Business Economics and Management, 5(1): 51-58.

Genriha, I., Petere G., Voronova I. 2011. Entrepreneurship insolvency risk management: a case of Latvia. *International Journal of Banking, Accounting and Finance (IJBAF)*, 3(1): 31-46. <a href="https://doi:10.1504/IJBAAF.2011.039370">https://doi:10.1504/IJBAAF.2011.039370</a>

Genriha, I., Voronova, I. 2010. Maksātnespējas noteikšanas modeļi Latvijas uzņēmumiem [Insolvency Risk Models Validated on Latvian Enterprises]. *Ekonomiskie pētījumi uzņēmējdarbībā [Econimics Research in Business]*, 8: 38-50.

Grigaravičius, S. (2002). Nemokių įmonių pertvarkymas ir alternatyvų parinkimas [Restructuring of insolvent enterprises and alternative choice]. Organizacijų vadyba: sisteminiai tyrimai [Management of Organizations: Systematic Research], 23: 89-95.

ISSN 2345-0282 (online) <a href="http://jssidoi.org/jesi/2018">http://jssidoi.org/jesi/2018</a> Volume 6 Number 1 (September) <a href="http://doi.org/10.9770/jesi.2018.6.1(8)">http://doi.org/10.9770/jesi.2018.6.1(8)</a>

Haber, J.R. 2005. Assessing how bankruptcy prediction models are evaluated. Journal of Business & Economics Research, 3(1): 87-92.

Imoniu bankrotas. Bankruptcy of Enterprises, 2007 (2008). Vilnius: Lietuvos statistikos departamentas [Statistics Lithuania].

Imonių bankrotas. Bankruptcy of Enterprises, 2015 (2016). Vilnius: Lietuvos statistikos departamentas [Statistics Lithuania].

Isachsen, A.J.; Hamilton C. 1992. Ekonomikos pagrindai. Basic Economics. Vilnius: Alma littera.

Komerclikums. 2002. [Commercial law]. Retrieved from https://likumi.lv/ta/en/id/5490-the-commercial-law

Kuzmin, E. A. 2018. Data on empirically estimated corporate survival rate in Russia. *Data in Brief*, 16, 850–864. https://doi.org/10.1016/j.dib.2017.12.01

Lietuvos Respublikos įmonių bankroto įstatymas. 2001. [The Enterprise Bankruptcy Law of the Republic of Lithuania]. 2001 m. kovo 20 d. Nr.IX-216. Retrieved from <a href="https://www.e-tar.lt/portal/lt/legalAct/TAR.0808D5C392B2">https://www.e-tar.lt/portal/lt/legalAct/TAR.0808D5C392B2</a>

Lursoft statistika. Maksātnespējas reģistrs [Insolvency register]. Retrieved from https://www.lursoft.lv/exec?act=MNR\_LSTAT&l=LV

Mackevičius, J. 2007. [monių veiklos analizė: informacijos rinkimas, sisteminimas ir vertinimas. [Analysis of enterprises activity: accumulation, systematization and evaluation of information]. Vilnius: TEV.

Mackevičius, J.; Giriūnas, L. Valkauskas, R. 2013. Reasons for bankruptcy of enterprises. Economics, 92 (3) Supplement B: 7-18.

Mackevičius, J.; Giriūnas, L.; Valkauskas, R. 2014. Finansinė analizė [Financial analysis]. Vilnius: Vilnius universiteto leidykla.

Oficialiosios statistikos portalas [Official Statistics Portal]. Retrieved from https://osp.stat.gov.lt/

Prasad, D.; Puri, Y.R. 2005. Does combining alternate bankruptcy prediction models improve forecasting accuracy. *International Journal of Finance*, 17(3): 3581-3602.

PricewaterhouseCoopers SIA. Baltic CEO Survey 2016. Retrieved from https://www.pwc.com/lv/en/news/pwc-baltic-ceo-survey.html

Purlys, Č. 2001. Įmonių bankroto prevencijos sistemos kūrimas Lietuvoje [Creation of the enterprise bankruptcy prevention system in Lithuania]. *Ekonomika* [*Economics*], 53: 75-92.

Purvinis, O.; Šukys, P.; Virbickaitė, R. 2005. Research of the possibility of bankruptcy diagnostics applying neural network. *Engineering Economics*, 1(41): 16-2.

Putninš, T.; Sauka, A. 2017. Shadow economy index in Baltic States 2009-2016. Riga: The Centre for Sustainable Business at SSE Riga.

Rugenytė, D.; Menciūnienė, V.; Dagilienė, L. 2010. Bankroto prognozavimo svarba ir metodai [The importance of bankruptcy prediction and methods]. Verslas: teorija ir praktika [Business: Theory and Practice], 11(2): 143-150.

Sakalas, A.; Savanevičienė, A. 2003. Įmonių krizių vadyba [Management of enterprises crises]. Kaunas: Technologija.

Sanderson, C. 2011. The Top 9 Causes of Business Insolvency. Retrieved from <a href="https://www.dissolve.com.au/blog/top-9-business-insolvency/">https://www.dissolve.com.au/blog/top-9-business-insolvency/</a>

Šneidere, R. 2005. Causes and factors affecting insolvency. *The International Conference "Accounting and audit system integration into European Union area, new challenges and opportunities"*. Selected papers, October 6-7, Vilnius, Lithuania. Vilnius: Lithuanian Chamber of Auditors, 233-243.

Šneidere, R. 2007. *Methods of financial analysis for forecasting enterprise bankruptcy*. Summary of the dissertation. Riga, Latvia University, Economics, theory of accounting and accountancy.

Stoškus, S.; Beržinskienė, D.; Virbickaitė, R. 2007. Theoretical and practical decisions of bankruptcy as one of dynamic alternatives in company's performance. *Engineering Economics*, 52(2): 26-33.

Stundžienė, A.; Boguslauskas, V. 2006. Valuation of bankruptcy risk for Lithuanian companies. Engineering Economics, 4(49): 29-36.

## ENTREPRENEURSHIP AND SUSTAINABILITY ISSUES

ISSN 2345-0282 (online) <a href="http://jssidoi.org/jesi/2018">http://jssidoi.org/jesi/2018</a> Volume 6 Number 1 (September) <a href="http://doi.org/10.9770/jesi.2018.6.1(8)">http://doi.org/10.9770/jesi.2018.6.1(8)</a>

Tvaronavičienė, M. 2001. Įmonių bankroto proceso ekonominio efektyvumo didinimo kryptys [Approaches to enhancing of efficiency of enterprises' bankruptcy process]. *Ekonomika [Economics]*, 54: 135-144.

Valackienė, A. 2005. Krizių valdymas ir sprendimų priėmimas [Management of crises and decision-making]. Kaunas: Technologija.

Vijeikis, J.; Baležentis, A. 2010. Smulkaus ir vidutinio verslo vystymo problemos bei perspektyvos Lietuvos regionuose [Problems and perspectives of small and medium business development in regions of Lithuania]. Vadybos mokslai ir studijos kaimo verslų ir jų infrastruktūros plėtrai [Management theory and studies for rural business and infrastructure development], 20 (1): 163-173.

World Bank. Doing Business. Retrieved from: <a href="http://www.doingbusiness.org/data/explore/economies/~/media/giawb/doing%20business/documents/profiles/country/LVA.pdf?ver=2">http://www.doingbusiness.org/data/explore/economies/~/media/giawb/doing%20business/documents/profiles/country/LVA.pdf?ver=2</a>

Ковалев, А.И. 1994. Финансовий анализ и диагностика банкротства [Financial analysis and prediction of bankruptcy]. Москва: Экономическая академия.

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