Aneta Dzik-Walczak[*], *Monika Kubiak*[*]

DO THE FINANCIALLY CONSTRAINED FIRMS LEASE THE ASSET? EVIDENCE FROM POLISH LISTED ENTERPRISES

Introduction

Lease is an example of asset-based financing. When thinking about the attractive features of leasing the following issues are mentioned: more flexible way to finance than traditional lending because of customer-adjustment in a number of ways, a higher approval rate for leases than for bank loans, sales-tax deferral[1]. Leasing has also some characteristics that are unappealing, for instance purchasing allows the flexibility to sell the asset when it is no longer needed, whereas a lease may be binding until expiration[2]. In addition, interest expenses are typically higher in leasing than traditional bank lending, but on the other hand transaction costs can be lower. The literature offers different explanations of firms' decisions to lease. The determinants which drive enterprises' capital structure decisions constitute the base of corporate finance research. However, it seems that there still remains a gap between empirical evidence and its theoretical counterpart.

Our research adds to a still quite small but growing literature on the firms' capital structure in Poland, where the existing elaborations on financing decisions of listed firms tends to be more descriptive in focus. The applicability of financial theories developed to explain capital structure can be questioned when considering the influence of institutional settings. Thus capital structure

[*] *Faculty of Economic Sciences, University of Warsaw.*

[1] *Asset-based financing, investment and economic growth in Canada*, Canadian Finance & Leasing Association, 2004.

[2] C.W. Smith, L.M. Wakeman, *Determinants of corporate leasing policy*, "The Journal of Finance", 40(3), 1985, pp. 895-908.

decisions may vary across countries[3], what makes our analysis provides some new insights about the Polish case and represents added value.

The last two decades were a period of increased development of the Polish leasing market. Twenty years ago, the leasing market in our country was just taking its first steps. In 1999 leasing was defined in the Civil Code, in 2000 leasing was defined in the Tax Law and in 2001 leasing was defined in the Accounting Law. As Polish Leasing Association indicates, the leasing market is currently one of the strategic branches of the economy. Leasing has become one of the main source of investment financing along with the loan. On average, every third investment of the enterprise sector is financed from funds from leasing companies. The growth of Polish leasing industry in 2015 (y/y) accounted for 13.2 percent, the total value of new leasing volumes in Poland in 2015 exceeded 23 PLN billion, the total outstandings of Polish leasing industry at the end of June 2015 was over 80 PLN billion.

The purpose of this article is to examine the relation between a propensity to lease and the firm's characteristics. Eisfeldt and Rampini (2009), using the argument of higher debt capacity of leasing, derive that leasing ratio is increasing in firm's financial constraints. Rampini and Viswanathan (2011) argue that tangible assets are a key determinant of corporate debt capacity. We test whether financial constraints influence firm's financing choice. Our study focuses on the following constraints: tangibility constraint and size constraint.

This paper employs a panel data set with detailed financial information on Polish listed companies over the period 2010-2016 which has been taken from the Emerging Market Information Service database. To test our hypotheses we apply a Prais-Winten framework that simultaneously controls for autocorrelation problem and firms' individual effects.

The paper is structured as follows. The next section outlines the theoretical background and the empirical literature review. The third section introduces the data, presents several descriptive statistics and methodology. The fourth section describes our findings. The final section provides conclusions.

Theoretical background

Bower (1973) reviewed various approaches to the lessee's decision that have been proposed in the early theoretical literature. He concluded that they differ substantively on very few points and lead to a composite approach in decision

[3] G.C. Hall, P.J. Hutchinson, N. Michaelas, *Determinants of the capital structures of European SMEs*, "Journal of Business Finance & Accounting", 31(5-6), 2004, pp. 711-728.

making. Firms look at the decision implications associated with different tax shelter discount rates. Researchers agree in using the cost of capital to calculate benefits that involve purchase price, operating saving and salvage and using the appropriate interest rate in calculating the present cost of the lease payments. But, it should be highlighted that early analytical papers were based on the neoclassical framework assuming perfect markets with no transaction cost and symmetric information. Under such conditions firms were found to be indifferent between owning and leasing and the only rationale for leases, was the tax differential between the lessee and the lessor[4]. Meanwhile in some studies the lease ratios and debt ratios we found positively correlated, indicating that debt and lease financing may be complements.

The trade-off theory states that firms try to maintain certain levels of debt ratio. According to the static trade-off theory the capital structure is optimized by weighing up the advantages of the tax-shield benefits of debt against the likelihood of incurring debt-related bankruptcy costs.

In line with the pecking-order theory of financial choices enterprises prefer initially retained profits rather than outside funds. In case external finance are required firms tend to issue the safest security, debt, and only issued equity as a last resort. Theoretical explanations for such behavior underline that taxes and transaction costs favor the use of retained earnings and make debt more attractive than issuing of new equity. According to Myers and Majluf (1984) under asymmetric information, equity issues may be interpreted as bad news.

The contracting cost hypothesis is often used to explain the use of lease financing by enterprises. It suggests that risk features influence contracting cost and thus the company's choice of financing, in particular, the choice of leasing verses buying[5].

Krishnan (1994) concentrates on the existence of agency costs and bankruptcy costs when analysing leasing. In case of debt agency costs arise because of the divergence between the interests of the stockholder or the manager representing the stockholder (agent) and the debtholder (principal). The problems that stay behind the principal-agent relation are the consequence of information asymmetry between the principal and the agent and occurs when their objectives are in conflict. Jensen and Meckling (1976) define agency costs as the sum of the monitoring expenditures by the principal, the bonding expenditures by the agent, the residual loss. Leasing is perceived as having

[4] V.S. Krishnan, R.C. Moyer, *Bankruptcy costs and the financial leasing decision*, "Financial Management", 23, 1994, pp. 31-42.

[5] C.W. Smith, L.M. Wakeman, *Determinants of corporate leasing policy*, "The Journal of Finance", 40(3), 1985, pp. 895-908.

lower agency and bankruptcy costs, therefore, firms may find it attractive even in the absence of a tax incentive.

Data and methodology

Definitions of variables and statistical analysis

The database used in this study was created based on *Emerging Market Information Service* (EMIS) and comprised of annual financial data from 2010 to 2016. Over 800 companies listed on Warsaw Stock Exchange have been included in the analysis.

The variables used in the study are summarized in Table 1. Additionally, based on literature review, alternative measures of firms' characteristics are presented.

Table 1. **Variables' definitions**

Variable	Definition	Authors
Size	The natural logarithm of total assets	Beattie et al. (2000), Chu et al. (2008), Deloof et al. (2007)
	The natural logarithm of the market value of the firm	Lin et al. (2013)
	Number of employees	Robicheaux et al. (2008)
	Total assets	Ang and Peterson (1984), Koh and Jang (2009)
	Specification for non-linearities: size measured as total assets, and its square	Beattie et al. (2000)
Tax	Effective tax rate = the taxes divided by income before tax	Beattie et al. (2000), Robicheaux et al. (2008), Chu et al. (2008)
	Tax-loss, measured as the dummy variable equal to 1 if the firm reports tax-loss-carryforward and zero otherwise	Lin et al. (2013)
Assets structure	Fixed assets ratio = net property plant and equipment divided by total assets	Beattie et al. (2000), Lin et al. (2013), Robicheaux et al. (2008)
	Working capital (current assets minus current liabilities) deflated by total assets	Chu et al. (2008)
	The ratio of financial assets to total assets	Deloof et al. (2007)
Growth opportunities	The average percentage change, over the past 4 years, in total assets	Beattie et al. (2000)
	The price earnings ratio	Ang and Peterson (1984), Beattie et al. (2000)
	Percentage total assets growth	Deloof et al. (2007)
	Tobin's Q	Koh and Jang (2009)
	Market-to-book Book value of assets minus the book value of equity plus market value of equity divided by book value of assets	Robicheaux et al. (2008)

Debt	The ratio of bank credit to total assets	Ang and Peterson (1984)
	Financial leverage calculated as total liabilities divided by total assets.	Chu et al. (2008)
	The long-term debt to total assets	Robicheaux et al. (2008)
	The ratio of debt to book value of equity	Ang and Peterson (1984)
	The debt ratio was measured as the ratio of (the book value of) long-term and short-term debt, net of finance leases, to total assets	Beattie et al. (2000)
	Debt: (long-term debt−capital leases)/market value of the firm	Lin et al. (2013)
	Long term debt + leasing / equity	Filareto-Deghaye and Severin (2007)
Profitability	EBITDA/sales= Firm's earnings before interest, taxes, depreciation, and amortization divided by sales	Robicheaux et al.(2008)
	Income before taxes divided by total assets	Deloof et al. (2007), Koh and Jang (2009)
	Earnings before interest and tax (EBIT) divided by capital employed	Beattie et al. (2000)
	The return on assets defined as operating income over total assets	Chu et al. (2008)
	The return on net fixed plant	Ang and Peterson (1984)
Liquidity / Solvability	Cash flow / (financial debt + leasing)	Filareto-Deghaye and Severin (2007)
	Current ratio= Current assets divided by current liabilities	Ang and Peterson (1984), Beattie et al. (2000)
	Cash flow = Pretax income minus taxes paid plus depreciation	Robicheaux et al. (2008)
	Cash flows from operations over current liabilities	Chu et al. (2008)
Financial distress / Risk	The dummy variable equal to one if the firm's common equity is negative	Graham et al. (1998), Lin et al. (2013)
	Modified Altman's Z score	Altman
	Volatility of the yearly change in EBIT/the mean value of total assets	Lin et al. (2013)
	Volatility of earnings growth = Standard deviation of first differences in earnings before interest, taxes, and depreciation for the five years preceding the sample year, scaled by average assets for that period	Robicheaux et al. (2008)
	Probability of bankruptcy = EBITDA/Financial expenses	Filareto-Deghaye and Severin (2007)

Source*:* authors' own elaboration, used measure is underlined, then alternative measures are presented.

Lease propensity was used as a dependent variable in this study. We adopt one of three the Sharpe and Nguyen (1995) measures of leasing. They suggested the following measures of a firm's propensity to lease: capital lease share, operating lease share, and total lease share. In this research we concentrate on

capital lease share, which is defined as the proportion of fixed assets accounted for by capital leases. It was calculated as the ration of leasing liabilities to total assets. Capital leases must be reported on the balance sheet as if they were debt obligations (operating leases do not appear on the balance sheet).

Descriptive statistics of the sample for years 2010-2016 were calculated. The leasing share has a mean of 0.0096 throughout the analyzed years with a standard deviation of 0.0168. It is worth to see that in 2012, when global economic slowdown took place, the mean for profitability was much more lower than in other years. Also the mean solvability occurred to be at extremely low level. The slowdown was also reflected in the value of the 3 month WIBOR, which increased in 2012 by over 26% compared to the previous year.

Spearman correlations were analyzed. Leasing is significantly negatively correlated to size of a company, solvability, financial distress variable and risk of bankruptcy, whereas the significant positive correlation was found for leasing and bank credit, assets structure and growth opportunities variables. Additionally, the problem of multicollinearity was not detected.

Methodology

The nature of used data makes it possible to use panel data methodology to examine the relation between a propensity to lease and the firm's characteristics. Based on literature review the following model was empirically tested.

$$ln\_Leasing_{it} = \beta_1 Bank\_credit_{it} + \beta_2 ln\_Assets\_structure_{it} + \beta_3 Profitability_{it} + \beta_4 Growth\_opportunities_{it} + \beta_5 ln\_Size_{it} + \beta_6 Solvability_{it} + \beta_7 Financial\_distress_{it} + \beta_8 Risk_{it} + \beta_9 WIBOR3M_{it} + \beta_{10} WIBOR3M_{it-1} + \varepsilon_{it}$$

where:

Leasing	Leasing liabilities divided by total assets
Bank_credit	Bank debt divided by total assets
Assets_structure	Net property plant and equipment divided by total assets
Profitability	Firm's earnings before interest, taxes, depreciation, and amortization divided by sales
Growth_opportunities	The average percentage change, over the past 4 years, in total assets
Size	Total assets.
Solvability	Cash flow divided by sum of financial debt and leasing
Financial_distress	The dummy variable equal to one if the firm's common equity is negative.
Risk	Modified Altman's Z score
WIBOR3M	3 month WIBOR
i	Company index
t	Time index

As a problem of heteroscedasticity and autocorrelation of residuals was detected based on Wooldridge test robust Prais-Winsten estimator was then chosen for the final interpretation.

Results

As a number of authors have suggested, we found the firm size clearly relevant to leasing. For size, measured as the logarithm of total assets, we got negative relationship with capital leasing. It means that firms use leasing all the more so when they are of a smaller size. Our result is in line with arguments given by Adams and Hardwick (1998), Beattie *et al.* (2000). They expected that larger firms are less liable to suffer financial distress, leasing can alleviate the information cost premiums that creditors impose to compensate for the greater risk. Size of a company allows to control for extent of information asymmetry. Greater information asymmetries between the firm and debt holders are rather observed for smaller than larger firms, that may imply a negative relation between size and leasing. Lin *et al.* (2013), expecting that the size of the enterprise is increasing in internal funds, included firm size as one of the proxies for financial constraint. They also found that size has negative effect on leases.

The assets structure was defined as fixed assets ratio: net property plant and equipment divided by total assets. We confirm Graham, Lemmon and Schallheim (1998) statement that fixed asset ratio is relevant to debt structure because of the collateral value the fixed assets imply. They claimed that enterprises using more tangible assets should use more leases especially capital leases since it allows the lessee to use a physical asset without appearing on the balance sheet. We got positive coefficient estimate for assets structure variable, meaning that firms with assets available as collateral are likely to take on more capital leasing. Our result is consistent with those obtained by e.g. Beattie, Goodacre and Thomson (2000), Robicheaux, Fu and Ligon (2008).

On the one hand, the literature suggests that leasing and financing act as substitutes[6] on the other hand, some studies report that leasing and debt are complements[7]. In our research bank credit occurred to be not significant. Based on Lin *et al.* (2013) research we expect that the lease versus debt decision depends on financial constraints. It should be then deeply examined in next research, e.g. with the usage of interactions.

[6] F Marston., R.S. Harris, *Substitutability of leases and debt in corporate capital structures*, "Journal of Accounting, Auditing & Finance", 3(2), 1988, pp. 147-164.

[7] J. Ang, P.P. Peterson, *The leasing puzzle*, "The Journal of Finance", 39(4), 1988, pp. 1055-1065.

Table 2. **Determinants of leasing – Random effects, Fixed effects, Prais-Winsten results**

Variable	Random effects	Fixed effects	Prais-Winsten
Bank credit	0.3550	0.1921	0.1959
	(0.2706)	(0.2853)	(0.2460)
	0.1895	*0.5008*	*0.4258*
Ln(assets structure)	0.3342	0.2778	0.3304
	(0.0292)	(0.0466)	(0.0291)
	0.0000	*0.0000*	*0.0000*
Profitability	-0.0008	-0.0007	-0.0010
	(0.0014)	(0.0015)	(0.0012)
	0.6006	*0.6548*	*0.4169*
Growth opportunities	0.0104	0.0115	-0.0013
	(0.0920)	(0.1156)	(0.0884)
	0.9101	*0.9208*	*0.9883*
Ln(size)	-0.4280	-0.4096	-0.4422
	(0.0338)	(0.0945)	(0.0334)
	0.0000	*0.0000*	*0.0000*
Solvability	-0.00001	-9.971e-06	-0.00004
	(0.00007)	(0.00008)	(0.00006)
	0.8384	*0.8955*	*0.5600*
Financial distress	0.5045	0.7010	0.6038
	(0.2694)	(0.3030)	(0.2508)
	0.0611	*0.0209*	*0.0161*
Risk	-0.0282	-0.0195	-0.0292
	(0.0123)	(0.0143)	(0.0117)
	0.0221	*0.1728*	*0.0125*
WIBOR3M	0.0414	0.0416	0.0366
	(0.0333)	(0.0348)	(0.0328)
	0.2144	*0.2321*	*0.2650*
Lag WIBOR3M	-0.0449	-0.0516	-0.0313
	(0.0325)	(0.0342)	(0.0295)
	0.1664	*0.1317*	*0.2892*
Constant	-0.3890	-0.8326	-0.3427
	(0.4586)	(1.0987)	(0.4482)
	0.3963	*0.4487*	*0.4445*
R squared overall	0.3510	0.3438	0.3494
R squared between	0.4343	0.4216	0.4321
R squared within	0.0834	0.0851	0.0837
F/ Wald	8.7461		

legend: b/(se)/*p*

Source*:* authors' own calculations.

We included the bankruptcy risk measure in our model. Based on estimates it can be concluded that firms with lower probability of bankruptcy are more likely to use lease.

The majority of studies have established a positive relationship between growth and lease financing[8]. Robicheaux *et al.* (2008) claimed that higher volatility of earnings growth can lead to preference for agency cost reducing debt structures, such as leasing. Koh and Jang (2009) stated that lease is beneficial for fast growing firms. In our research we didn't confirm the impact of growth opportunities, measured as the average percentage change, over the past 4 years, in total assets, on capital leasing. Probably it is worth to investigate this issue with the usage of alternative growth opportunities measures.

Also for solvability, defined as the ratio of cash flow to sum of financial debt and leasing we got not significant estimates. Thus expectation that firms use leasing all the more so when they are less solvent was not confirmed. If the pecking order theory hold there should be a negative relationship between internally generated funds and leasing. Moreover, cash flow might indicate financial constraints, what also suggests a negative relationship between cash flow measures and leasing propensity.

We obtained positive relation for financial distress measure and capital leasing. Following Graham, Lemmon and Schallheim (1998) and Lin, Wang, Chou and Chueh (2013) we used the dummy variable equal to one if the firm's common equity is negative. Our result indicates thus that there is greater use of leases for firms with negative common equity.

Following Robicheaux, Fu and Ligon (2008) we controlled for enterprises' profitability. In line with the trade-off theory a negative impact of profitability on the use of leasing was expected. In our model the coefficient for firm's earnings before interest, taxes, depreciation, and amortization divided by sales occurred to be not significant.

Based on the additional estimates for each year it can be seen that for 2012, when global economic slowdown took place, additionally solvability occurred to be significant. In line with the pecking order theory a negative rela-

[8] V.S. Krishnan, R.C. Moyer, *Bankruptcy costs and the financial leasing decision*, "Financial Management", 23, 1994, pp. 31-42; C.F. Slotty, *Financial constraints and the decision to lease-evidence from German SME*, "Working Paper Series: Finance & Accounting", 205, 2009; M. A. Lasfer, M. Levis, *The determinants of the leasing decision of small and large companies*, „European Financial Management", 4(2), 1998, pp. 159-184; H. Mehran, R. A. Taggart, D. Yermack, *CEO ownership, leasing, and debt financing*, „Financial management", 1999, pp. 5-14; M. Lasfer, *On the financial drivers and implications of leasing real estate assets: The Donaldsons-Lasfer's Curve*, „Journal of Corporate Real Estate", 2007.

tionship between internally generated funds and leasing was obtained. Used cash flow measure, occurred to be an indicator of financial constraint during economic slowdown.

Concluding remarks

In light of the increased importance of leasing in financing of enterprises in Poland and the ambiguous explanations in the literature for its use this study examined the determinants of leasing propensity in firms. The aim of the analysis was to verify the hypothesis that financial constraints influence firm's financing choice. The hypothesis appears to hold up reasonably well, consistent with Eisfeldt and Rampini (2009). Using size as measure of financial constraints we found that capital leasing ratio is increasing in firm's financial constraints. The results of estimations on a sample of Polish firms listed on the Warsaw Stock Exchange support our prediction that leasing propensity decreases with size. According to Chu *et al.* (2008) firm size enables to control for factors such as the stability level of operation and extent of information asymmetry. What we found interesting, is the insignificant relation between leasing and bank credit. Further research can provide more explanations by considering substitution versus complementarity depending on the extent to which firm is financially constrained. It is also worth mentioning that based on the estimates for each year separately for 2012, when global economic slowdown took place, a negative relationship between internally generated funds and leasing was obtained. It means cash flow measure, occurred to be an indicator of financial constraint during economic slowdown.

Summing up, a typical high leasing company is likely to be smaller, less exposed to bankruptcy risk and has negative common equity. The comparison of obtained results with empirical literature shows that there are variations in both capital structure and the determinants of capital structure between the countries surveyed.

Our results have implications for both company managers and researchers. Managers should be aware what are the characteristics of firms willing to use leasing. Academic researchers need to remember that lease finance is an important source of finance which should be included in studies on capital structure.

References

Adams M., Hardwick P., *Determinants of the leasing decision in United Kingdom listed companies*, "Applied Financial Economics", 8(5), 1998, 487-494.

Ang J., Peterson P.P., *The leasing puzzle*, "The Journal of Finance", 39(4), 1988, 1055-1065.

Beattie V., Goodacre A., Thomson S., *Operating leases and the assessment of lease–debt substitutability*, "Journal of Banking & Finance", 24(3), 2000, 427-470.

Bower R.S., *Issues in lease financing*, "Financial Management", 2(4), 1973, 25-34.

Chu L., Zhang P., *Why firms lease short-lived assets: a tax-based explanation,* "Canadian tax journal", 56(3), 2008, 639-660.

Deghaye-Filareto M., Severin E., *Determinants of the choice leasing vs bank loan: evidence from the French SME by KACM*, "Investigacion Operational", 28(2), 2007, 120-130.

Deloof M., Lagaert I., Verschueren I., *Leases and debt: complements or substitutes? Evidence from Belgian SMEs,* "Journal of Small Business Management", 45(4), 2007, 491-500.

Eisfeldt A.L., Rampini A.A., *Leasing, ability to repossess, and debt capacity*, "The Review of Financial Studies", 22(4), 2008, 1621-1657.

Graham J.R., *Proxies for the corporate marginal tax rate*, "Journal of Financial Economics", 42(2), 1996, 187-221.

Graham J.R., Lemmon M.L., Schallheim J.S., *Debt, leases, taxes, and the endogeneity of corporate tax status*, "The journal of finance", 53(1), 1998, 131-162.

Hall G.C., Hutchinson P.J., Michaelas N., *Determinants of the capital structures of European SMEs,* "Journal of Business Finance & Accounting", 31(5-6), 2004, 711-728.

Jensen M.C., Meckling W.H., *Theory of the firm: Managerial behavior, agency costs and ownership structure*, "Journal of financial economics", 3(4), 1976, 305-360.

Jensen M.C., *Agency costs of free cash flow, corporate finance, and takeovers*, "The American economic review", 76(2), 1986, 323-329.

Krishnan V.S., Moyer R.C., *Bankruptcy costs and the financial leasing decision*, "Financial Management", 23, 1994, 31-42.

Koh J.H., Jang S.S., *Determinants of using operating lease in the hotel industry*, "International Journal of Hospitality Management", 28(4), 2009, 638-640.

Lin J.R, Wang C.J., Chou D.W., Chueh F.C., *Financial constraint and the choice between leasing and debt*, "International Review of Economics & Finance", 27, 2013, 171-182.

Marston F., Harris R.S., *Substitutability of leases and debt in corporate capital structures,* "Journal of Accounting, Auditing & Finance", 3(2), 1988, 147-164.

Myers S.C., Majluf N.S., *Corporate financing and investment decisions when firms have information that investors do not have,* "Journal of financial economics", 13(2), 1984, 187-221.

Robicheaux S.H., Fu X., Ligon J.A., *Lease financing and corporate governance,* "Financial Review", 43(3), 2008, 403-437.

Sharpe S.A., Nguyen H.H., *Capital market imperfections and the incentive to lease*, "Journal of Financial Economics", 39(2-3), 1995, 271-294.

Slotty C.F., *Financial constraints and the decision to lease-evidence from German SME,* "Working Paper Series: Finance & Accounting", 205, 2009.
Smith C.W., Wakeman L.M., *Determinants of corporate leasing policy*, "The Journal of Finance", 40(3), 1985, 895-908.

CZY FIRMY Z OGRANICZENIAMI FINANSOWYMI BIORĄ AKTYWA W LEASING? ANALIZA POLSKICH PRZEDSIĘBIORSTW GIEŁDOWYCH

Streszczenie

W artykule zbadano determinanty wykorzystania leasingu kapitałowego. Badanie prowadzono dla polskich spółek giełdowych w latach 2010-2016. Analiza opiera się na danych z bazy EMIS. Zweryfikowano, czy ograniczenia finansowe wpływają na wybór finansowania przez firmę. Wskazano, iż korzystanie z leasingu jest silnie związane z ograniczeniami finansowymi. Skoncentrowano się na analizie struktury aktywów oraz wielkości firmy. W celu weryfikacji hipotez badawczych oszacowano model ekonometryczny za pomocą estymatora Prais-Wintena. Wskazano, iż mniejsze firmy w większym stopniu wykorzystują leasing kapitałowy. Dodatkowo zauważono, że firmy charakteryzujące niższym wskaźnikiem ryzyka oraz przedsiębiorstwa z ujemnym kapitałem własnym w większym stopniu finansują działalność leasingiem kapitałowym.

Summary

In this article we investigate the determinants of using capital lease. The study is conducted for Polish listed companies in years 2010-2016. The analysis is based on data from the Emerging Market Information Service database. We test whether financial constraints influence firm's financing choice. We show that the use of leases is strongly related to financial constraints. We focus on tangibility constraint and size constraint. Based on the literature we choose low asset tangibility and small size as measures of financial constraints. In order to verify the research hypotheses, the econometric model is estimated using the Prais-Winten estimator. In particular, we provide evidence that smaller firms use more capital leases. In addition, our results indicate that there is greater use of leases for firms that are less risky and for firms with negative common equity.