

DETERMINANTS OF SHORT-TERM DEBTS WITHIN THE ROMANIAN AGRICULTURE SECTOR

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Abstract. *The increase of the short-term debts especially during crisis period can affect the company's profitability involving higher interest costs. This study has the objective to evaluate the impact of the dividend policy, debt structure and firm size on the short-term debts for a sample 1.455 companies from agri-business sector which paid-out dividends in 2020. This year was considered a difficult one in term of the financial results for the sector. The research method applied is the multiple regression test and the results were obtained using the SPSS software. The changes in the financing structure can lead to a financial distress by affecting the level of short-term debts. Within the study the debt structure is represented by the relationship between short and long-debts. The company size is represented by the turnover. In case of dividends pay-out, these should be replaced by short-term debts for keeping the same financing level. Using absolute value instead of financial rate it can be determined the effect of the basis for interest expenses calculation which have a direct impact on the net profit of the companies. According with the results the level of short-term debts is in direct relationship with all the factors taken into consideration, with a higher influence of turnover and dividends pay-out. The managers should determine or foresee the proper balance between different financing sources to keep motivated all the stakeholders and to continue the activity with the purpose of getting a higher profitability.*

Keywords: *short-term debts, turnover, dividends, long-term debts.*

JEL Classification: G33

Introduction

The companies from the agriculture sector from Romania are very exposed to several risk and it is very important for managers to identify the determinants for some critical variables of the business. As the volatility of the sector is very high, the different financial gaps can be covered by short-term debts, and therefore the influence factors for them should be analyzed. In general, the studies show the effect of different factors on dividend policy explained by the dividend pay-out ratio. Debts can have an influence on the dividend policy depending on company financial position expressed through debt ratio or liquidity ratio. On the other hand, a company may have difficulties if the level of debts increases in correlation with other factors as fast-growing sales correlated with longer number of days for collecting the receivables. Once the company position is deteriorating, additional factors as dividends can accelerate the financial distress.

Financing through debt is considered an accessible solution as it is not time-consuming and the rules for using it are not under specific regulations. The decisions for using the debt are related to both internal (attitudes on risks from managers side, developing plans etc) and external factors (fiscal and monetary policies, decisions of governments, national banks strategies, etc.) (Beidaghib et al. 2020). For business developing, additional resources in term of financing are needed in general. If the funds are not available inside the company, a debt policy should be put in place. This

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can be considered risky and the solution for addressing the associated risk is to increase the operational efficiency (Safitri and Wulanditya 2017).

The managers must consider the way for applying the debt policy. This is an important part of the decision-making process which has an important influence on the company itself and on the stakeholders interested to invest in the company (Nugraha et al. 2020). The financing through debts has several advantages compared with the financing using shares. The borrowing for sustaining projects has no influence on the ownership, so the shareholders are not affected. On top of that the presence of the creditors act as a control system over the managers behavior (Beidaghib et al. 2020). The behavior of the investors depends on the quality of the company capital prospects. The dividend policy is influenced by the decision of the managers to use the retained profits for financing the business development. Therefore, the usage of leverage can affect the amount allocated for dividends and the dividends can influence the leverage. The dividends and leverage have a reciprocal relationship (Nur 2023).

The financial risk is expressed by higher financing costs through interest when the level of debts is considered in excess. This level can have a negative influence on the company performance with a worst-case scenario when the company goes bankrupt because of the significant interest expenses and capital repayments that are involved. The solution of the managers is to increase the capacity of the company to generate cash. The profitability increases and the acceleration of the asset's turnover are considered options available for managers to improve the return of assets and to decrease the pressure over the company due to the high level of debts (Barbuta-Misu and Rusu 2014). As dividends are followed very closely by the investors, the dividend policy is a topic very present within the financial literature. A lot of variables were defined as influencing factors for the dividends like size of the company, sales, or leverage. The dividend policy is still a focus for the research in the economic area (Chaudhary and Sohail, 2023).

The conclusions of the study are that there are positive and strong correlations between short-term debts and the determinants defined as turnover, paid-out dividends, and long-term loan. The influence of the turnover and paid-out dividends is higher than the one related to the long-term loan. The relationship between turnover and short-term debts is explained by the additional financing need when the business is growing as it was for the agriculture sector in the last 14 years, after the financial crisis from 2008-2009. The low level of profitability compared with the shareholders expectations is transposed in the replacement of the retained earnings by the short-term debts due to the paid-out dividends. The results show that the sector cannot generate enough profit to sustain the shareholders request without involving short-term debts. The investments in the sector financed by long-term debts does not require a significant working capital need.

The structure of the study is represented by three sections which present the literature review, research methodology and conclusions of the results.

Literature review

Debt policy

In general, high level of debt is equal with high level of costs expressed by interest. Companies should be careful at their profitability, which can be increased either by the increase of revenues or by the decrease of the costs, or better said by the cost efficiency. This will lead to a better management of the debts which can be defined by ratios as debt to assets. This can express the level of the company risk and its ability to pay its debts. Within some business approaches, it is advisable that the profit or retained earnings should be used for paying the debts and not for working capital (Kosasih et al. 2021). The capacity for generating profits can be improved by using the own capital as main financing source. The focus should be on analyzing the debt policy because it can influence in a negative way the value of the company (Sukmawardini and Ardiansari 2018). The company growth is another factor that has influence on the company debt policy. If the activity is on expansion, the financing need is higher. Once the profitability is increasing at the same time

with the availability of the internal funds, the company will use more the internal resources and the debts will decrease. If the profitability is not at the expected level, more external funds should be attracted to sustain the operational activity (Nugraha et al. 2020). On the other hand, the fast-growing companies can pay-out dividends based on the reserves accumulated on short term (Suhardami and Suripto, 2023). The return on equity can be affected by the debt policy through the financial leverage method decided by managers. It is very relevant to assess the financing costs depending on the type of financing, internal or external, and to get an optimal solution (Barbuta-Misu and Rusu 2014).

The debt policy is influenced strongly in a positive way by the company development and its size, while the dividend policy has a negative effect on it (Endah and Wahyudin 2017). Other studies suggest that the company size can have a negative influence over the debt policy. Higher the level of assets, lower the level of debts as the assets cannot be used as collaterals for external financing (Lumapow 2018). The level of operational efficiency is the effect of the financial structuring. By comparing the interest cost with the return of assets, which should be higher, the result can be expressed by either a negative or a positive leverage position. Considering this approach, return on equity is influenced by the level of financing and by the methods of attracting the founding sources (Barbuta-Misu and Rusu 2014). Another influencing factor on the debt policy is the liquidity (Afiezan et al. 2020). The companies with good liquidity will not be focused to restructure the debts or to increase their level, unless they intend to develop the business through new projects. Liquidity and leverage are factors that influence the company performance (Shah 2023). The revenues can be stabilized through profitability. The leverage and dividend policy have no effect on that, while the company size has a low influence (Kosasih et al. 2021).

Dividend policy

The behavior of managers is a defining factor for the structure of the financial sources. Considering the activity development and the profit increasing, the main financing sources are considered linked with retained earnings. In general, the retained earnings are considered less expensive and available. The dividend policy is a factor which has influence on the retained earnings level on a yearly basis. Therefore, the attitude of managers through using internal funds or debt is influencing the decision in that direction. The tendency is given by the behavior (Beidaghib et al. 2020). Within the specialized literature, there are more theories which are analyzed in term of dividend policy in connection with the company value. The dividend policy is not relevant for the market value being considered irrelevant. As per the bird in hand principle, the market value is affected by the dividend policy. Within the tax difference theory, it is important to assess if the dividend pay-out influence the market value from taxation point of view (Avcı et Sarıgül 2023). The analysis of the dividend policy should be extended to the external environment as well. Not only the internal factors influence it. (Tanna 2022)

Performance, risks, and behavior

The performance expressed by profitability and the institutional ownership have a negative impact on the debt policy. The institutional ownership is characterized by the structure of share. (Safitri and Wulanditya 2017). The institutional ownership does not have an influence over the company's value (Sukmawardini and Ardiansari 2018) or on the dividend policy (Sari and Aris 2023), but the dividend policy can affect the market value (Sukmawardini and Ardiansari 2018). Moreover, the investment decisions and debt's structure impact positively the market value of the company (Pertiwi et al. 2023). During the crisis time, the dividend policy can be influenced by the ownership structure and by the corporate governance (Handini 2023), but the common influence with the company performance is a moderate one (Shah 2023). The dividend policy is also influenced by the structure defined by the number of men and women, size of the board and the level of knowledge. Also, the board independence influences it, but not so much (Mustafa et. al

2023). The managers should consider the proper risks and their level when the take decision regarding the debt policy (Nugraha et al. 2020). The risks at which the company is exposed at, and the company's size can have a significant positive influence on the debt policy and performance overall. On the other hand, debt policy and company performance are linked with the liquidity, company's size, and company risks (Sunardi et al. 2020). The debt policy is negatively impacted by the business risk. Also, the company value is influenced in the same way. Therefore, it is very important for companies to assess the decisions that can involve changes in the overall level of risk. The investments should be decided by considering the company's size, risks it is exposed at and the debt policy (Bandanuji and Khoiruddin 2020).

Additionally, the managerial ownership defined by shares owned by managers of the company, has a positive impact on the debt policy along with the company profitability (Vieira et al. 2023). The tendency in this situation is that the managers increase their remuneration through dividends and decide to attract more external funds for company development (Lumapow 2018). There are also contrary theories according with the dividend policy is not affected by the managerial ownership (Suhardami and Suripto, 2023) or the structure of the assets (Sari and Aris 2023). The Agency's conflict can be addressed by the collateralizable assets that are used as guarantee in relationship with the creditors (Suhardami and Suripto, 2023). The big companies have more needs in term of long-term financing due to the investments. Therefore, the debt ratio will increase. On the other side, the profit resulted can be the basis for a higher level of dividend pay-out ratio (Akhmadi 2023). The small businesses are influenced by the family decisions as well along with the debt policy and profitability (Gill et al. 2012).

Methodology

Data source and analyses method

The research is using a quantitative approach and data collection refers to the yearly financial statements of 2020 for 1.455 companies from the Romanian agri-business sector. The data review relates to secondary data processing. The companies included in the sample are companies which paid-out dividends in 2020 from a total number of 3.109 taken into consideration initially.

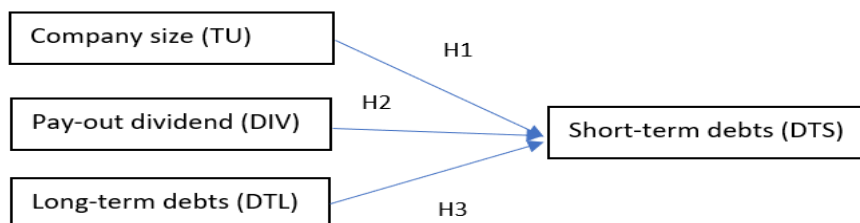
The feasibility of the method used is assessed using several tests as correlation coefficient, normality test, multicollinearity test, autocorrelation test, heteroscedasticity test, determination coefficient test using SPSS software.

The regression model used in the study is the following:

$$DTS = \alpha + \beta_1 TU + \beta_2 DIV + \beta_3 DTL + e$$

where DTS is the Short-term debts, α is a constant, β_1 , β_2 , β_3 are the coefficients of the regression, DIV is Pay-out dividends, DTL is long-term debts, e is a residual variable.

The conceptual framework is presented in the below chart:



Hypothesis

The hypothesis tested with the study are:

H1: TU has a significant impact on DTS

H2: DIV has a significant impact on DTS

H3: DTL has a significant impact on DTS

DTS (Short-term debts) is defined as dependent variable and TU (Company size), DIV (Paid-out dividends), DTL (Long-term debts) are defined as independent variables.

Results and discussions

Descriptive analyses

Table 1. Descriptive statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
DTS	1455	0	396,559,444	4,541,336	18,391,157
TU	1455	0	650,697,014	9,407,728	40,308,639
DIV	1455	1	128,587,961	616,502	3,801,385
DTL	1455	0	237,664,385	2,285,033	9,052,464

Source: Author’s own research, SPSS.

Based on the tables 1 which present the minimum, maximum, mean and standard deviation from the analyzed variables, we can conclude that the level of paid-out dividends was much lower compared with the level of short-term debts. The long-term debts are approximately 50% of the value of the short-term debts and the turnover is more than double compared with the short-term debts.

Correlation coefficient

Table 2. Pearson’s Correlation Coefficient

Variable	DTS	TU	DIV	DTL
DTS	1			
TU	0.804**	1		
DIV	0.228**	0.212**	1	
DTL	0.365**	0.382**	0.079**	1

** Correlation is significant at the 0.01 level (2-tailed)

Source: Author’s own research, SPSS.

As per the results of the Pearson’s Correlation Coefficient presented in the Table 2, all variables are positively strongly correlated. The coefficients between DTS - TU and DTL – DIV are higher than 0.7, but they are kept in the study as the difference is not so high for the rejections of these variables.

Normality test

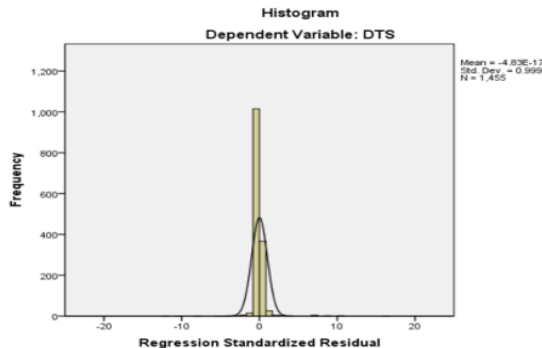


Figure 1. Histogram: 2020

Source: Author’s own research, SPSS.

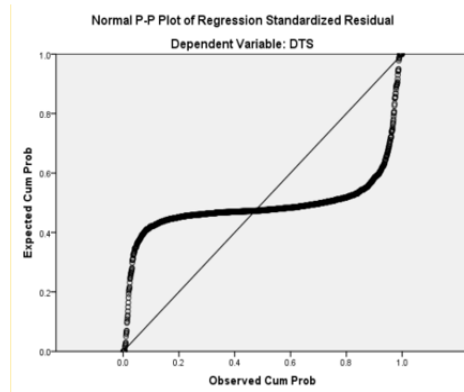


Figure 2. Normal P-P Plot of Regression Standardized Residual: 2020

Source: Author's own research, SPSS.

Based on the histogram presented in the Figure 1 and the Normal P-P Plot presented in the Figure 2, the data is normally.

Multicollinearity test

Table 3. Multicollinearity test

Model	Collinearity statistics	
	Tolerance	VIF
TU	.821	1.218
DIV	.955	1.047
DTL	.854	1.171

Source: Author's own research.

The analyzed model is free of multicollinearity as the Variance Inflation Factor (VIF) is lower than 10 and the Tolerance is higher than 0.1.

Autocorrelation test

Table 4. Autocorrelation test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.808 ^a	.653	.652	10.841.524	1.942

a. Predictors: (Constant), TU, DIV, DTL

Source: Author's own research, SPSS.

The autocorrelation test reflects a non-correlation between variables and the Durbin-Watson coefficient is very close to 2. The degree of similarity between them is very low.

Heteroscedasticity test result

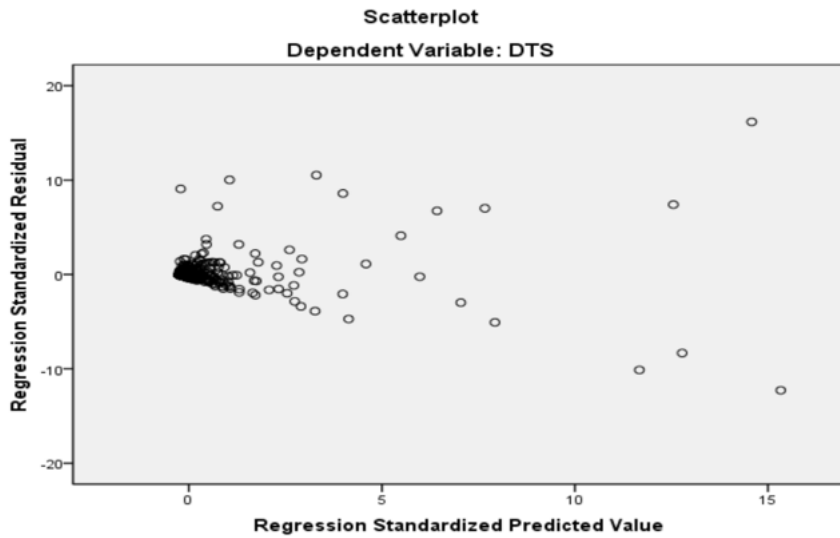


Figure 3. Scatterplot: 2020

Source: Author’s own research, SPSS.

The results presented in the scatterplot graph presented in the figure 3 show a cone shape which confirms the heteroscedasticity test.

Statistical F test

Table 5. Statistical F test

ANOVA ^b						
Model 2019	Sum of Squares	Df	Mean Square	F	Sig.	
Year						
2019						
1	Regression	321,244,655,952,772,000	3	107,081,551,984,257,000	911.033	.000
	Residual	170,548,558,220,414,000	1451	117,538,634,197,391		
	Total	491,793,214,173,186,000	1454			

- a. Predictors: (Constant), TU, DIV, DTL
- b. Dependent variable: DTS

Source: Authors’ own research.

Within the F-test, the p-value is below 0.05. The conclusion is that the model presents a statistically significance of the independent variables on short-term debts.

Multiple regression analyses

Table 6. Multi regression analyses^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	764,328	297,980		2.565	.010
TU	.349	.008	.765	44.837	.000
DIV	.290	.077	.060	3.795	.000
DTL	.137	.034	.068	4.040	.000

- a. Dependent variable: DTS

Source: Author’s own research.

The regression equation with the results in table 6, is the following:

$$DTS = \alpha + \beta_1 TU + \beta_2 DIV + \beta_3 DTL + e$$

$$DTS = \alpha + 0.349 TU + 0.290 DIV + 0.137 DTL + e$$

The three hypotheses are valid and therefore we can affirm that the short-term debts are positively impacted by the turnover, pay-out dividends and long-term loans. Any increase in these variables will reflect on the short-term debts as well.

The result of determination coefficient test (R2)

Table 7. Result of determination coefficient test (R2)
Model summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.808*	.653	.652	10,841,524

- a. Predictors: (Constant), TU, DIV, DTL
- b. Dependent variable: DTS

Source: Author’s own research, SPSS.

The regression model explains 65.2% (R2 coefficient) of the determinants of the short-term debts. The total variances of the independent variables within the model is quite significant.

Conclusions

The results of the study show that all the factors taken into consideration have a positive effect on the short-term debts with a higher impact of turnover and dividends pay-out. Once the turnover increases the need of financing through short-term debts increases as well. On top of that, the dividend pay-out affects in the same way as the short-term debts. We can conclude that the companies did not generate enough profit for dividends and for sustaining the turnover increase at the same time.

The dividend policy can affect more the level of debts under the condition of low level of profitability. On the same time, the dividend policy is influenced by the profitability (Sari and Aris 2023). This relationship is in connection with the short-term debts as they are influenced by the turnover increase and the profitability which can have a positive impact through additional financing sources created and used as retained earnings. Higher level of profitability will be reflected in lower level of debts, and vice-versa lower level of profitability will involve a higher level of debts (Safitri and Wulanditya 2017). On the other hand, depending on the behavior and the structure of the ownership regarding the dividends pay-out, the companies can be in the position to attract more debts to sustain the operational activity.

The debts structuring by attracting more short-term or long-term debts depends on the type of the investments the companies have. The positive relationship between long-term debts and short-term debts is characterized by investments which have working capital needs that should be sustained by short-term debts.

The managers from the agriculture sector can take the benefits of the conclusions of the present study by reflecting on the fact that the short-term debts are sensitive to the movements of turnover and dividends, mainly. Therefore, they must quantify the impact of the additional costs with the interest and assess the associated risks. These risks are related to a lower profitability and difficulty of debts payment into a worst-case scenario.

The limitations of the study are related to the limited period chosen and the exclusion of any external factor from the analyses. For the future, the research should be focused on the identification of the profitability factors impact, as profitability is a driver for both business increase and the source for the dividends pay-out.

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