FORMATION OF THE ACCOUNTING POLICY FOR SUBSIDIES IN AGRICULTURAL COMPANIES: IMPACT ON FINANCIAL RESULTS
Lina Martirosianiene¹, Mg.oec., Neringa Stonciuviene², Dr.oec., Danute Zinkeviciene³, Dr.oec.
1, 2, 3 Aleksandras Stulginskis University

Abstract. Agricultural business has many specific features from which one of the most important is business subsidies. Agricultural companies use two types of subsidies – subsidies related to assets and subsidies related to revenue. The analysis of features and practical experience of accounting of subsidies in agricultural companies has led to conclusion that while forming the accounting policy for subsidies two options are possible – when subsidies are registered once they are received or when receivable subsidies are registered. The results of research show that subsidies accounted based on cumulative principle improve the financial indicators of agricultural companies comparing to the option of formation of accounting policy for subsidies when the subsidies are registered in accounting only when they are receive.

Key words: subsidies, accounting policy, financial result, asset, revenue.

JEL code: Q14

Introduction In order to stimulate economic growth state authorities use various measures – creation of public infrastructure, implementation of "soft" measures/projects, subsidies for businesses. State’s intervention into market functioning is crucial in cases when the market cannot solve the problems itself or when solving problems without the state’s intervention would take much more time (Park, 2012; Grilli, 2012). One of forms of state intervention is direct support for business. The following forms of direct support for business are mostly mentioned: subsidies; loans with little interests or discounts for interests; state’s guarantees; purchase of shares or another capital displacement with favourable conditions; exemption from taxes or other obligatory payments or their reduction; supply of land, services or products with favourable conditions (Sternberg, 2014). From the microeconomic point of view, subsidies are one of the main measures dedicated to maintain the financial stability (Nawaz, 2010). Due to its specifics agricultural business is one of the most risky businesses but its manufactured products are vital for the society. This leads to a demand to ensure successful development of such business supporting it from national and international funds.

The European Union (further - EU), the USA and Japan dedicate tens of billions of dollars every year only for agricultural subsidies including direct payments for farmers (Schaffer et al., 2009). Part of subsidies are substantial payments or periodic payments dedicated to compensate loss of revenue or incurred expenses; other subsidies are dedicated to support investments in order to gain economic benefits; others are dedicated for investments which will bring economic benefits only to future generations (Alekneviciene et al., 2013). Monea et al. (2010) state that receipt of subsidies for agricultural subjects can also be significant in preparing financial statements and these authors provide two motives for such statement: 1) if the subsidy was received a suitable method for its accounting must be found; 2) it is preferred to provide the information how much of such support was used by the company during the reporting period. This would ensure fair evaluation and comparability of data provided in financial statements of business subjects.

Conducted research show that there are varieties of subsidies. Their correct interpretation and choice of suitable option of accounting methodology remains relevant in forming the accounting policy which ensures real and correct picture presentation in financial statements.
The object of the research is accounting policy for subsidies.

The aim of the research is to determine the impact of alternative formations of accounting policy for subsidies to financial results after conducting an analysis of features of formation of accounting policy for subsidies.

The tasks of the research: 1) to provide the theoretical backgrounds for description and recognition of subsidies; 2) to explore the features of formation of accounting policy for subsidies in agricultural business subjects and to determine possible options; 3) to evaluate the impact of alternatives of formation of accounting policy for subsidies to financial results.

Research methods: analysis and synthesis of scientific literature, standard regulations and practical experience, logical abstraction, modelling, calculation methods of financial indicators.

Research results and discussion

1. Description of subsidies

The analysis of scientific literature leads to conclusion that agricultural business is unimaginable without grants and subsidies (further – subsidies). Lithuanian 21 Business Accounting Standard Grants and Subsidies (BAS 21) state that subsidy for a company are purposive support for a company from state or municipal authority if the company has met conditions required from the support provider or will meet such conditions in the future. This standard describes subsidies for companies as purposive support from state or municipal authorities not only from Lithuanian authorities but from various foreign state and municipal (or with equal status) authorities as well as main providers of subsidies. In this standard, subsidies also include grants, various other support types from these institutions and assets received gratis. However, state support the exact amount of which cannot be determined or separated from main activities of the company is not attributed to subsidies in this standard.

Regulation (EU) No 549/2013 of the European Parliament and of the Council state that subsidies are current and unpaid which are dedicated for resident manufacturers by state or EU institutions. Subsidies can be given in order to influence: a) production level; b) prices of products or c) wages for production factors. This document also describes investment subsidies as state or remaining world sector capital transfers in money or in kind for other institutions, residential or non-residential, which are dedicated to fund all expenses of procurement of fixed assets or its part.

Scientific literature describes subsidies more specifying their proved benefits and meaning. Oxford Dictionary describe subsidy as an amount of money which is given from state or state institutions to help an industry field or business keeping low price of products or services. Schaffer (2009) explains subsidies are monetary payments provided by state to local company or industry, seeking economic or social goals. Schwartz and Clements (1999) describe subsidies as measures of economic intervention which are used by states in all over the world seeking to compensate market deficiencies, exploit mass economy, and implement social policy goals. Sergejeva (2014) states that subsidies are purposive funding and received funds can be used only for subjects’ purpose for which they were dedicated. Kirk (2014) illustrates the description of subsidies by following examples: 1) rural development measures that help farmers developing home-made production and encourage them to farm; 2) 20 percent subsidies to fund new factory and equipment; 3) loans without interests which encourage establishing companies inside territories of the country which are characterized by high unemployment rate. Some authors only supplement the description of subsidies by expected benefits: stimulation of research and development (Gorg and Strobl,
2007), export competitiveness (Desai and Hines, 2008), increasing the effectiveness of production (Azzimonti et al., 2008), promoting ecologic activity (Kohn, 1997). The results of scientific empirical research exploring the economic benefits provided by subsidies are ambiguous. Some research show that subsidies improve company profitability (Desai and Hines, 2008) and reduce capital limitations for companies (Claro, 2006); meanwhile other research conclude that subsidies can lead to overproduction and decrease of effectiveness (Lopez and Galinato, 2007).

In conclusion, it might be stated that subsidies are free of charge support for companies from state institutions and the main tasks of subsidies are to: 1) develop national priority areas such as agriculture, municipal services etc.; 2) help companies coping with capital limitations, 3) support companies facing financial difficulties.

2. Formation of accounting policy for subsidies.

Scientific research related with formation of accounting policy for subsidies are dedicated to explain recognition criteria of subsidies and their accounting policy formation and presentation in financial statements for problem solving.

IAS 20 Accounting for government grants and disclosure of government assistance are dedicated for subsidies accounting. In Lithuania, the accounting of subsidies is regulated by BAS 21. Accounting of subsidies and its representation in financial accounting in specific regulation areas is also regulated by the IAS 41 Agriculture, BAS 18 Financial assets and financial liabilities, IAS 37 Provisions, contingent liabilities and contingent assets, IAS 9 Financial measures, BAS 7 Changes in accounting policies, accounting estimates and correction of errors.

For subsidies recognition in accounting, IAS 20 and BAS 21 provide two most important criteria. These regulations state that a subsidy can be recognized only when there is a reasonable guarantee that a) business subject (receiver of subsidy) meets all subsidy granting conditions and b) the subsidy will be received (either there is a document about the decision made or there are other evidences that the subsidy will be granted). It is also noted that in case there are no evidences that the subsidy or its part will be received, the subsidy is registered into the account only once it is received.

As it stated in IAS 20 and BAS 21 the accounting recognizes two types of subsidies: 1) subsidies related to assets; these subsidies are provided in form of fixed assets or giving funds to procure, build or in other ways obtain fixed assets. While granting such subsidies additional conditions might be given related with type of assets, place or time during which the assets must be obtained or maintained; 2) subsidies related to revenue, which are given to compensate incurred expenses or loss of revenue; also subsidies which are not attributed to subsidies related to assets.

While forming the accounting policy for subsidies all conditions and circumstances which predetermine the attribution of subsidies to one or other group must be defined. While comparing international and Russian experience, Sytnik (2015) notices that in international practice the subsidies are being classified based on positions of financial accountability elements and are divided into revenue and assets subsidies. Meanwhile in Russia, subsidies are classified into subsidies for funding the expenses, consumption and capital investments.

As the subsidies have features of both owned capital and liabilities, IAS 20 emphasize that in accounting the subsidies can be registered by two methods: 1) capital method, when the subsidy is registered in accounting directly as owned capital; and 2) revenue method, when the subsidy is registered in accounting as revenue received in one or several periods.
Due to the reason that subsidies are not shareholders’ funds and they are received when company fulfils given liabilities, Stonciuviene and Zinkeviciene (2006) ascertain that revenue method, in which subsidies are registered as revenue necessary to compensate related expenses, is more correct. Meanwhile, Monea et al. (2010) support capital method because a) state subsidies are free funding measure, thus, they must be registered in the accounting directly in benefit for shareholders; b) recognition of state subsidies as revenue in the accounting is not correct because that revenue were not earned.

Provisions in IAS 20 and BAS 21 for accounting of subsidies related to revenue are similar. IAS 20 state that such types of subsidies can be registered in other revenue article or they can reduce the expenses. BAS 21 divide subsidies related to revenue to subsidies dedicated to compensate loss of revenue and subsidies dedicated to cover incurred expenses. Subsidies dedicated to compensate loss of revenue are recognized as used by such part which is equal to lost revenue during the reporting period in the accounting. The amount in compensated revenue article is increased by this amount in Profit (loss) statement. Subsidies dedicated to compensate incurred expenses in the accounting are recognized as used by the amount equal to incurred expenses for which compensation the subsidies were gained. The amount in compensated expenses article is reduced by this amount in Profit (loss) statement.

In Stonciuviene and Zinkeviciene (2006), Monea et al. (2010) opinion registration of subsidies in other revenue article facilitates the comparison of incurred expenses with other expenses which are not compensated by subsidies. If corresponding compensated revenue article is being increased by the amount of used subsidies, the amount of subsidies are presented together with revenue earned by the company or corresponding compensated expenses article is being decreased by the amount of subsidies, the cost of manufactured production or services is being distorted.

International and national accounting regulations for subsidies related to assets are different. IAS 20 offer two options for accounting of such subsidies: revenue of future periods is recognized or accounting value of asset is reduced. BAS 21 edition which came into force from 2016 state that at the moment of primary recognition the subsidies are registered as liabilities in separate account. Later these subsidies reduce depreciation cost during the period of useful serving time of depreciable fixed assets. Uher and Nagy (2013) note that in Romania subsidies related to assets are accounted as revenue of future periods. Analogously, in China they are registered as future period revenue and are recognized as used in equal parts during all the serving time of fixed asset (Deloitte, 2006). In Portugal, at the moment of primary recognition subsidies related to assets are registered as owned capital. Later subsidies are attributed to revenue during the period of useful serving of depreciable fixed asset. If the subsidies are dedicated to non-depreciable fixed assets or fixed assets with unlimited serving time, they are considered to be ownership except in cases when there is a need to compensate and account losses related with value depreciation (Pereira et al., 2015).

Standards which regulate the accounting of subsidies foresee that accounting policy for subsidies must be formed based on cumulative principle. Accounting standards applied in the United Kingdom and Ireland (Kirk, 2014) state that subsidies can be accounted using two models: activity and accumulation. Based on activity model, subsidies are recognized as revenue in the following way: 1) a subsidy which does not raise specific conditions for future activity results for subsidy receiver is recognized as revenue once it is received; 2) a subsidy which has specific conditions for future activity...
results of subsidy receiver is recognized as revenue once these conditions are met. Kirk (2014) emphasizes that before mentioned revenue recognition criteria are met subsidies are recognized as liabilities, most often as revenue of future periods. The model of accumulation corresponds to IAS 20 accounting requirements for subsidies related to assets and subsidies related to revenue. Based on the opinion of Kirk (2014), the activity model pays more attention to correct assets and revenue presentation in the Balance sheet, meanwhile cumulative model is directed to revenue and incurred expenses conformation.

IAS 20 state that subsidies related to assets must be registered by indicated received assets value or real value if the value of these assets was not indicated. If indicated value of received assets substantially exceeds its real value, received subsidy and cost of assets procurement is registered by real value of such assets. If the value of assets is not indicated and its real value cannot be determined the value of received subsidy related with assets is zero. IAS 20 foresee real or nominal assets value, meanwhile accounting standards in Holland do not foresee any specific requirements for registering assets value, only state that estimation by real value more better reveals real economic situation (Deloitte, 2014).

Therefore, the analysis of international and national regulations of accounting for subsidies, practical experience and scientific research lead to conclusion that the formation of accounting policy for subsidies is influenced by the following aspects: type (purpose) of subsidy, moment of registering the subsidy in the accounting and method of subsidy recognition as used.

Moment of registration of subsidy in the accounting is an important part of accounting policy for subsidies because it influences the accounting not only by the subsidies themselves but also by settlements related with them. If substantial evidences that the subsidy will be received exist a receivable subsidy must be registered in the accounting. However, if there is lack of evidences about receivable subsidy, such subsidy is registered only at the moment of its receipt, i.e. a received subsidy is registered at once. In this way, two groups of subsidies can exist in subjects’ accounting – receivable and received subsidies which recognition as used has an important impact to the financial status of the subject.

Therefore the primary requirement while forming the accounting policy for subsidies is classification of subsidies to subsidies related to assets and subsidies related to revenue. However, the most important element in forming this part of accounting policy is recognition of subsidies as received or receivable because they in large part determines how the subsidies will be recognized as used. Such view to formation of accounting policy for subsidies leads to two options: first option is being formed when a foreseen subsidy independent on its purpose is registered in the accounting based on cumulative principle, i.e. subsidies are registered as receivable subsidies (further – G1), second option is being formed when it is chosen to register the subsidies in the accounting at the moment they are received (further – G2).

3. Impact of formation of accounting policy for subsidies to financial results

The goal of financial statements is to satisfy the need of users of information in financial statements to receive real and correct information about company financial status, results of activities and cash flows. Therefore, depending on the accounting policy which company chooses and applies in financial statements, meeting main accounting principles and valid regulations, various accounting objects can be evaluated and presented differently. Differences in formation of accounting policy for subsidies while choosing different options also
influence the information about the subsidies presentation in financial statements.

While creating financial statements and accounting subsidies based on G1, the amount of receivable subsidies is registered in assets part in the Balance sheet. If used amount of subsidies related to revenue increases revenue it is registered in revenue article in Profit (loss) statement. If used amount of subsidies related to revenue decreases compensated expenses it has influence to those articles in which such expenses are reflected. Used amount of subsidies related to assets decreases depreciation costs of fixed assets. Unused receivable amount of subsidies is registered in Balance sheet equity and liabilities part in a separate article.

If the accounting is done based on G2, receivable subsidies are not being registered but use of subsidies in financial statements is presented analogously to the first option, only, comparing with G1, a moment of subsidies recognition as used may be different. Both options use equal presentation in Balance sheet of subsidies which are received but not yet used.

In order to reveal how information about the subsidies changes in Balance sheet and Profit (loss) statement, when mentioned options of subsidies accounting are applied, a comparison was made analyzing the data of N agricultural company and N farmer farm (Table 1).

### Table 1

<table>
<thead>
<tr>
<th>Articles</th>
<th>N agricultural company</th>
<th></th>
<th>N farmer farm</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G2</td>
<td>G1</td>
<td>± % G1 versus G2</td>
<td>G2</td>
</tr>
<tr>
<td>Subsidies related to revenue:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Reporting year</td>
<td>254 219</td>
<td>301 458</td>
<td>+18.6</td>
<td>120 488</td>
</tr>
<tr>
<td>- Previous year</td>
<td>344 527</td>
<td>372 297</td>
<td>+8.1</td>
<td>342 383</td>
</tr>
<tr>
<td>Other receivable revenue:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Reporting year</td>
<td>-</td>
<td>75 008</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Previous year</td>
<td>-</td>
<td>27 769</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Profit of reporting year:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Reporting year</td>
<td>605 746</td>
<td>652 984</td>
<td>+7.8</td>
<td>340 883</td>
</tr>
<tr>
<td>- Previous year</td>
<td>1 104 434</td>
<td>1 132 203</td>
<td>+2.5</td>
<td>649 148</td>
</tr>
</tbody>
</table>

Source: authors' calculations based on N agricultural company and farmer farm data.

All subsidized assets in N agricultural company were procured before the analyzed period and subsidies related to assets are recognized as subsidies which decrease the expenses. During the analyzed period the company did not receive subsidies related to assets. N farmer's farm did not use subsidies related to assets.

In the research, financial statements corresponding to both options of accounting policy for subsidies were prepared. Using G1, i.e. registering receivable and received subsidies in the period in which the conditions were met in order to receive the subsidies, the amount of subsidies in N agricultural company was 18.6 percent and for N farmer's farm 37.9 percent bigger than while applying G2, when subsidies were registered and recognized as used on the moment of their receipt. While applying G1 net profit of N agricultural company during the reporting period was 7.8 percent and in N farmers' farm – 13.4 percent bigger than while applying G2.

Financial indicators calculated based on the financial statements of N agricultural company and N farmer farm, which were prepared using...
two different options of accounting policy for subsidies are provided in Table 2.

Table 2

<table>
<thead>
<tr>
<th>Financial ratios</th>
<th>N agricultural company</th>
<th>N farmer farm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G2</td>
<td>G1</td>
</tr>
<tr>
<td>Debt-to-equity ratio</td>
<td>3.25</td>
<td>3.39</td>
</tr>
<tr>
<td>Quick ratio</td>
<td>1.61</td>
<td>1.74</td>
</tr>
<tr>
<td>Debt-to-equity ratio, %</td>
<td>8.64</td>
<td>8.55</td>
</tr>
<tr>
<td>Gross production profit margin, %</td>
<td>69.8</td>
<td>70.5</td>
</tr>
<tr>
<td>Net profit margin, %</td>
<td>31.5</td>
<td>33.1</td>
</tr>
<tr>
<td>Return on equity, %</td>
<td>8.6</td>
<td>9.2</td>
</tr>
<tr>
<td>Asset turnover</td>
<td>0.25</td>
<td>0.26</td>
</tr>
<tr>
<td>Variable costs in gross revenue</td>
<td>0.81</td>
<td>0.79</td>
</tr>
<tr>
<td>Fixed costs in gross revenue</td>
<td>0.34</td>
<td>0.33</td>
</tr>
</tbody>
</table>

Source: authors’ calculations based on N agricultural company and farmer farm data.

Quick ratios show that both analyzed agricultural subjects independent on applied option of formation of accounting policy for grants and subsidies, are able to cover short term liabilities by owned short term assets. Higher indicators were calculated in cases when cumulative principle (G1) was chosen for accounting of subsidies. Having high business risk in agriculture high indicator of financial leverage increases financial risk. When cumulative principle (G1) was chosen for accounting of subsidies, debt-to-equity ratio in N agricultural company was 8.55, meanwhile when subsidies were registered at the moment of their receipt (G2) this ratio was 8.64. Analogous situation was seen in N farmer farm: when the cumulative principle was chosen for accounting subsidies debt-to-equity ratio was 4.21, meanwhile when the subsidies were registered at the moment on its receipt this ratio was 4.28.

While calculating gross production profit margin the subsidies related to revenue are added both to gross production profit and sales revenue. Therefore it is clear that use of accounting policy while registering receivable subsidies leads to higher gross production profit margin. Part of variable and fixed costs in gross revenue show the effectiveness of activities: when this indicator increases effectiveness of activities decreases, and vice versa. When accounting policy which registers receivable subsidies is applied, activity effectiveness in N agricultural company is 2.5 – 2.9 percent smaller (accordingly, in farmer’s farm 2.1 – 5.4 percent smaller) comparing to the effectiveness calculated while using accounting policy which registers received subsidies.

In summary, it can be stated that choice of options of accounting policy for subsidies which allows forming the scenario of accounting policy reflecting best directions and results of company activities, can influence the decision making. After analyzing the financial statements of N agricultural company and N farmer’s farm, prepared using different options of accounting policy for subsidies, it can be concluded that application of cumulative principle for subsidies accounting, i.e. when receivable subsidies are registered, which are recognized as used without waiting for money receipt allows both company and farmer’s farm presenting more favourable information about their financial status and in
such way increasing the possibilities of attracting investors.

Conclusions

1) The formation of agricultural accounting policy for subsidies depend on the following aspects – type (purpose) of subsidies, moment of subsidies registering in the accounting and method of subsidies recognition as used. Two types of subsidies are recognized in the accounting: 1) subsidies related to assets – received in form of fixed assets or in form of funds to procure, build or in other ways obtain fixed assets; 2) subsidies related to revenue – provided to compensate expenses or loss of revenue, as well as all other subsidies not attributed to subsidies related with assets.

2) The subsidies are registered in accounting based on conformation of received revenue and incurred expenses from the time point of view. While preparing financial statements unused part of subsidy is shown in separate article of a Balance sheet, meanwhile used subsidy increases revenue or reduces expenses for which compensation the subsidy were obtained. The main factor influencing the formation of agricultural accounting policy for subsidies is the registration of subsidies in the accounting: either receivable subsidies are being registered, or subsidies are registered only once they are received. Therefore it can be concluded that in formation of accounting policy for subsidies two options are possible: when the subsidies are registered once they are received, or when receivable subsidies are registered.

3) The results of conducted research show that subsidies accounted based on cumulative principle improve the financial indicators of N agricultural company and N farmer farm comparing to the option of formation of accounting policy for subsidies when the subsidies are registered in accounting only when they are received.

Bibliography


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