Covid-19 Measures. Institutional "Errors", Transaction Costs and Adaptation in the Agriculture

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Abstract

This article combines law, behavioral and institutional economics in order to explain the existence of an "error" in the way the Covid-19 crisis has been managed. Bulgaria's agriculture is in focus. The problem is presented as arising from the dualism of what is happening in the legal sphere; subjective decision-making models; challenges in assessing economic effects. In an institutional perspective, the levels of are measured: the quantitative changes of the rules; costs, as determining the individual choice, losses, etc. The adaptation of agriculture has been assessed.

Key words: Covid-19; measures; agriculture; transaction cost; adaptation

Мерки Covid-19. Институционални "грешки", разходи за трансакции и адаптация в земеделието

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Резюме

Тази статия комбинира право, поведенческа и институционална икономика с цел да обясни наличието на "грешка" по отношение на начина, по който се управлява кризата Covid-19. Във фокус е поставено земеделието на България. Проблемът е представен като произтичащ от дуализма на случващото се в правната сфера; субективните модели за вземане на решение; предизвикателствата при оценката на икономически ефекти. В институционална перспектива са измерени нивата на: количествените промени на правилата; разходите, като определящи индивидуалния избор, загубите и др. Оценена е адаптацията на земеделието.

Ключови думи: Covid-19; мерки; земеделие; трансакционни разходи; адаптация

Introduction

The present research takes into account the problems in Bulgarian's agriculture following the crisis related to the Covid-19 pandemic (C-19). The medical problem has led to extraordinary legal acts making and legal changes, that requires measures to preserve the public health. On the other hand, a series of financial mechanisms are put in place to overcome the effects of the restrictions. The special provisions in this particular part of the legal sphere started to live "their own lives" and, along with the positives of the shortterm recovery of the economic system, are an occasion for critical analysis. The rules affect the behavior of the subjects. The economic results are also important. Even the beliefs of economic actors in the importance of the size of their personal expenses related to the crisis is predetermining their subjective behavioral models. The aim of the publication is to present them in an integrated way, by which they assess the adaptability. The following issues are therefore addressed:

First. The legality challenges. The balance between absolute rights and the public interest stemming from the crisis is of global character. Restrictions should also be seen as barriers, but should also protect both general and economic, investment and consumer activity. Legality is transposed into a special kind of adaptability.

Second. Problems with the intensity of change. They stem from repeated changes to the rules. Due to the many legal acts and the subsequent changes, their ability to navigate the new environment is affected. The same indirectly affects legal certainty and predetermines economic security. In cases of any uncertainty, subjective patterns of behavior change. Adaptability is strongly affected by an informal institution related to the expected negative results.

Third. Assessment of adaptability. Losses (L) for the agricultural sector should be assessed ob-

jectively. At the same time, the method of the distribution, its disproportion, determines the dualism of legal and financial measures. Short-term benefits may be available, but this does not mean greater adaptability either for every of concrete individual or for the sector. Financial compensation compromises long-term adaptability.

Fourth. The assessment of adaptability. Measuring transactional costs, it can be present a realistic picture of the situation and to assess whether the end effect is negative.

The publication should consider and evaluate the rules, including the economic ones as regards their legality and intensity. Their financial consequences, costs, and losses, as well as the subjectiveness models of their behavior is redefined.

1. The Research Framework

The study presents a new framework for legal analysis of the juridical problem (Gilson, 1986; Masten and Crocker, 1985). The legal change can cause new, different connectivity and hierarchy between rules, organizations, subjects, and its actions (Williamson, 1979); Macheil, 1974, 1978). Williamson (1998) talks about the need of a reassessment on the legal "error" and its integration with behavioural sciences. The formal institutional change defined by the many changes in the law leads to a new re-distribution along with the new problems for its addressees (Winieski, 2000). The problems of the legality of the rules are the reason for their low stability and the high intensity of the legal uncertainty. The latter ones reformulate the institutions and makes long term changes to the economic adaptation.

Simon (1955) have set the beginning, Tversky and Kahneman (1981) together have imposed a cognitive approach in the research of the behavioural sciences, and Thaler (2016) explains the existence of an unambiguous relationship between the institutional error, subjective perceptions, and transaction costs (TrC). Kahneman and Tversky (1979) considered that subjective models are the basis of the long-term systemic economic adaptation. The modern applications of new institutional economics did not mix objective analysis of the environment with the subjective models for adaptation of individual economic actors. This article does just the opposite.

In the scientific literature is full of an examples of adaptation costs considered in the context of farmers' problems and behavior in relation to climate change. The doctrine is substantiated as a mixture of the reaction to the exchange of property rights (Coase); collective action (Ostrom); and the coordination mechanisms (Williamson) - COW (Araral, 2013; Graham, 2013). The crisis arising from C-19 should be assessed not only as a condition for assessing the adaptability of the economic system but also as a lasting change in individual behavioral models. Its adverse effects can be assessed objectively - by comparing general economic trends, and on the other hand, as arising from the subjective models and individual costs. The transaction costs are the key. In the research, the costs of adaptation are presented indirectly as subjective values determining the choices (Buchanan, 1969), which should complete the essence of the TrC and thus re-evaluate the economic system (Stiglitz, 1974).

2. Materials and Methods

The research methodology includes positive legal analysis of the legal acts. At the same time, the establishment of legal errors also has a normative character. Cross-Sectional Study (C-SS) of the production at different times allows to determine the (L) of farmers, relating to their income. According to the method of Allais (1953), individual choice was studied, and hence the impact of "expected" TrCs on behavior. Discrete Structural Analysis (D-SA) also involves measuring TrC in organizations where a business is started or closed (Djankov et al., 2000); organizations for transfers of property rights from agricultural land. The total number of organizations are 174, 95 of them have started agricultural business; 24 have terminated their activity; and at about 55 transferred /protected property rights related to the agricultural land. The subjective part of the value was measured by the method of Benham and Benham (2000); Benham et al. (2004) as prices of the resource are not included in the measurement. Adaptation costs are not measured directly.

3. Dualism in Legal Doctrine

The first case of C-19 infection in Bulgaria was registered on March 8, 2020. "Emergency situation" (ES)¹ was declared on March 13, and on May 14 with Decision No. 325 of the Council of Ministers (CoM) in the country was introduced "emergency epidemiological situation", and which has been extended several times and it is still valid up to now. In the country an extraordinary legislation started to be drafted, and for almost 12 months we have witnessed a quite number of legal acts – 185 (orders, proposals, decisions, instructions), with a total number of the amendments – 515.

In the Constitution of the Republic of Bulgaria of 1991 (CRB), the ES is admissible by virtue of a deliberate provision. Art. 57 (1) of it, the legislator has imperatively stated: "The fundamental rights of citizens are irrevocable". It is allowed only by law to be limited². ³With its interpretation of the Constitution – the Constitutional Court (CC) has announced under which circumstances and largeness the absolute rights can be limited⁴. The question of the time for which ab-

² See Art. 57 (3) of the CRB "Upon declaration of war, martial law or other state of emergency, the exercise of certain rights of citizens may be temporarily restricted by law, with the exception of the rights provided for in Art. 28, 29, 31, para. 1, 2 and 3, Art. 32, para. 1 and Art. 37". ³ See: Constitution of the Principality of Bulgaria from 16 April 1879 - Art. 47; Constitution of the People's Republic of Bulgaria of December 6, 1947 - Art. 30; as well as Article 92 (13) of the Constitution of the People's

Republic of Bulgaria -1971. ⁴ Decision № 7 of the (CC) of 4 June 1996 of 4 June 1996 on c.d. № 1/96 for interpretation of art. 39, art. 40 and art. 41 (CRB) - for the right to free expression; Decision № 11

¹ Decision of the National Assembly of March 13, 2020 and for overcoming the consequences (Supplemented -SG, issue 44 of 2020, in force from 14.05.2020) / Law on measures and actions during the state of emergency (LMADSE).

solute rights may be restricted has not been clarified. Legal delegation of fundamental rights to a sole executive body is inadmissible (Semov, 2020).

By LMADSE of Art. 63 of the Health Act (HA) were described as measures to combat the epidemic. Upon reading of an Art. 3 (1) of The Law on Normative Acts (LNA), however, it becomes clear under which cases sub-normative act⁵ may be issued. The Administrative Procedure Code of the Republic of Bulgaria (GAA) regulates the legitimate definitions of the general administrative and sub-normative act administrative acts (SAA)⁶. The first ones have had a one-time legal effect and affects an unknown number of persons. However, the individuals are subsequently identifiable. The second ones - with multiple legal effect, affect an unlimited number of persons. The normative acts have a higher rank. The measures introduced in art. 63 of the APC and which are introducing restrictions of rights should be possible only through a normative administrative act. The latter it happens with (SAA), in inconsistency of the general idea of legality and the operation of legal principles (Valchev, 2020)7. The

of the (CC) 5 October 2010 on c.d. N_{O} 13 of 2010 on the possibility to delegate rights granted explicitly through the Constitution to other authorities.

⁵ Art. 3 (2) of the (LNA).

⁶ (GAA) is defined in art. 65 of the (APC) and normative administrative act 75 of the (APC).

⁷ Decision \mathbb{N}_{2} 4 of March 31, 2010 of the (CC) on k. e. \mathbb{N}_{2} 1 of 2010. "It is not admissible to regulate a matter that must be regulated by a law of the National Assembly with another normative act, by another body, because they have a lower legal force than the law. On the other hand, it should be noted that when a legal act contains a "methodology" - regardless of its name, the latter is necessarily normative, because in itself, it contains multiple legal action (Decision \mathbb{N}_{2} 6609/2017 on Administrative Court; \mathbb{N}_{2} 5173/2016, VI Department of the Supreme Adraised dispute for unconstitutionality of the measures in art. 63 of the (APC)⁸ was accompanied by a public discussion of 12 opinions of scientists and lawyers have been received. In its decision, the Constitutional Court recognized the possibility of imposing measures restricting the rights of citizens in view of the public interest, through a legal delegation of the Minister of Health. This will lead to legal uncertainty and it creates serious problems regarding the adaptation of the subjects.

4. "Pandemic" of Legal Amendments, Prerequisites for Problems with the Adaptation

The measures can be divided into 6 types:

a) Measures of coordination – for legal hierarchy and subordination between the different services;

b) Medical measures – for medicinal products for the treatment of the disease;

c) Disinfection – for algorithms on disinfection;

d) Movement restrictions – for the introduction of checkpoints and other restrictions;

e) Cluster limitation and physical distance – for the restrictions on crowds at certain places, such as schools, universities, cinemas, parks, stadiums

f) Separation as regards the risky groups – special rules for the groups at risk – for example, shopping time limits for the people under / over 65 years of age, etc.

ministrative Court (SAC).

⁸ Decree № 70 of the President for return for a new discussion in the National Assembly of the Law on Public Procurement; The (CC) instituted proceedings (№ 7/2020);

Table 1. Number of acts changes relating to measures

| | Mar. 2020 | Apr. 2020 | May. 2020 | Jun. 2020 | Jul. 2020 | Aug. 2020 | Sept. 2020 | Oct. 2020 | Nov. 2020 | Dec. 2020 | Jan. 2021 | Feb. 2020 | Total |
|------------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|-------|
| Accept | 32 | 32 | 25 | 22 | 12 | 7 | 6 | 12 | 12 | 10 | 7 | 1 | 178 |
| Revoc/Terminate | 2 | 11 | 53 | 19 | 11 | 9 | 2 | 7 | 7 | 7 | - | - | 128 |
| Amend | 21 | 68 | 91 | - | 3 | - | - | - | 16 | 0 | 10 | - | 209 |
| | 55 | 111 | 169 | 41 | 26 | 16 | 8 | 19 | 35 | 17 | 17 | 1 | 515 |

Source: Own research [as of February 10, 2021].

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The measures were introduced, changed, repealed with impressive intensity. The number of changes in the administrative acts can be presented in tables:

In Table 1, in synthetic form, by months are presented the cases in which the orders have been issued, changed, revoked or their effect has been suspended, in whole or in a part as regards the C-19 pandemic. The most intensive issuance of new legal acts was at the beginning of the period - April March - April 2020. In April-May - the main change was the largest -68 and 91 times, respectively. In May, at the end of the "state of emergency" and its replacement by the "emergency situation" and most rules related to the crisis were repealed (suspended). The number of legal changes, in a short period of time, together with the way of the restriction of rights, have led to ambiguity for individuals. Their cognitive models include the possible cessation of their economic activity. Individual behavioral models have infiltrated into the general adaptation.

5. Financial Framework on Measures in the Agriculture. Impact of Inequality Ta and Polarization on Adaptation

Measures C-19 in Bulgaria (I). In accordance with the assessment of the importance of the agricultural sector, the latter continued to work under the conditions of the existing crisis. Despite the functioning of agricultural markets and the possibility of seasonal workers to participate in the harvest, due to the limited production, import and export of agricultural products, the Government has taken a series of financial supporting measures for the economy of the state. The beginning of the crisis coincided with the cyclical servicing of many crop activities. Livestock, with its full year production cycle, continued to need labour force. The beliefs9 for the inevitable and prolonged downturn in the economy, prompted many farmers not to keep their staff. Therefore, the supporting measure¹⁰, aimed for the agri-entrepreneurs, was to enable them to receive compensation for the remuneration of their employees, had little impact on the sector.

Measures C-19 – EU funds (I). In accordance with the EU financial mechanisms and in particular on the basis of Regulation 1305/2013, C-19 in the RDP 2014-2020 have become possible at the initiative of Bulgaria, which initiative was supported during the negotiation process by all EU member states. It will amount to up to 2% of the budget under the Rural Development Program (RDP) 2014-2020. Bulgaria envisages the allocation of a resource of about 51 million EUR under this measure. The ceilings of the financial assistance for agricultural producers are up to 7 thousand Euros, and for companies it is up to 50,000 Euros. The funds will compensate for the costs of anti-epidemic measures, as well as for reduced income from closed channels for the sale of products.

The European Commission has approved € 150 million (approx. BGN 294 million) Bulgarian scheme to support small and medium-sized enterprises (SMEs) in the context of the coronavirus outbreak. The scheme was approved under the State aid Temporary Framework adopted by the Commission on 19 March 2020, as amended on 3 April 2020. Bulgaria notified to the Commission under the Temporary Framework a State aid scheme with an estimated budget of € 150 million (approx. BGN 294 million) to support companies affected by the coronavirus pandemic. Under the scheme, the public support will take the form of equity and quasi-equity investments. The amounts should not exceed € 800,000 per company, and by this should drastically improving the liquidity of the sector by 31 December 2020.

For the Bulgarian agriculture this means subsidies for: *Livestock:* cattle – 27 EUR¹¹; buffaloes – 32 EUR; sheep/goats – 5 EUR; poultry (Laying hens (16 to 78 weeks) – 88 EUR parents of all <u>types (18 to 60 weeks)</u> – 182 EUR, broilers (one ¹⁰ Decree 55 March 30, 2020, the state will cover 60% of employees' insurable earnings as well as the social insurance contributions owed by the employer and at the expense of employers remain 40%.

⁹ The beliefs are used in the sense of an informal institution. But if the costs of adaptation form beliefs - do they not in themselves constitute an institution? There is a symbiotic relationship.

¹¹ 1.00 EUR = 1.95583 BGN [February, 11 2021]

turn) - 17 EUR turkeys for fattening - 30 EUR, geese per animal -30 EUR ducks one turn (up to 12 weeks 84 days) - 27 EUR; pigs for fattening - 77 EUR, sows 84 EUR; beehives - 2.5 EUR. Crop production: vegetables in the open areas – 33 EUR/dka; or 33 EUR on every 642 EUR of income according to the submitted annual tax state payment declaration for 2020) revenue under an annual tax return for 2020. The industry will choose which approach to apply; support for vegetables in the greenhouses - 276 EUR/dka; fruits - 26 EUR/dka; rose production - 46 EUR/ dka and for wine grapes - 15 EUR lv/dka. For the other producers it is 15 EUR for each permanent appointed worker. The total maximum value of support - 7000 Euros for the manufacturers and for small and medium enterprises - 50,000 Euros. Measures C-19 – EU funds (I). On 7 of July 2020 the Bulgarian State Fund Agriculture-Paying Agency (BSFA-PA) has announced the opening of new measures to support the agricultural producers after the continuation and the extended quarantine measures until 31 of August 2020¹² concerning the C-19 pandemic. The inclusion of the measure in the RDP 2014-2020 is based on Regulation (EC) 2020/872 of the European Parliament and of the Council of 24 June 2020 amending Regulation (EU) №1305/2013 and is co-financed by the European Agricultural ¹² Order РД-01-452/04.08.2020 by the Minister of health.

Fund for Rural Development. Sub-measure C-19 (1) has a budget of 48 million EUR and covers the sensitive sectors - "Fruits and vegetables", "Oil-bearing rose", "Vineyards", "Ornamental plants", "Livestock" (cattle, buffaloes, sheep and goats) and "Beekeeping". Eligible for support under sub-measure C-19 (1) are farmers who have applied for support under the direct payment schemes in Campaign 2019 and Campaign 2020 or have applied for and been approved for de minimis state aid to support beekeepers in 2019, as well as beneficiaries with active contract / commitment or approved application under the measures of the RDP 2014-2020 Sub-measure C-19 (2) has a budget of 2.8 million EUR and covers all other areas in the field of crop production and "Livestock" (pigs and poultry). Eligible for funding under C-19 (2) are applicants for support under direct payment schemes in Campaign 2019 and Campaign 2020, or beneficiaries with a valid contract / commitment under the measures of the RDP 2014–2020. Farmers who raise pigs and / or poultry can apply for the sub-measure in case they have applied for and approved for granting state aid in 2019 under the scheme "Aid for the implementation of voluntary commitments for the welfare of birds" and / or the scheme "Assistance for the implementation of voluntary commitments for the welfare of birds attitude towards pigs". The financial assistance under the mea-

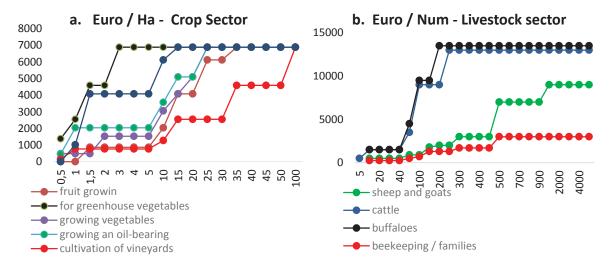


Fig. 1. Regulatory distribution of subsidy for farmers – Euro/per Ha/Num *Source: Own figures adapted based on information from the Ministry of Agriculture.*

sures is paid in a lump sum. The support ceiling per farmer under sub-measures C-19 (1) and C-19 (2) is not more than EUR 7,000.

Figure 1 shows the "pillar" of a) subsidies for plant growing and animal husbandry sectors and b) the subsidy that should not exceed > 6500 Euro/ per Ha/Num. The measure C-19 is to help farmers for solving the liquidity problems, but at the same time is a prerequisite to generate additional costs. The financial aid is up to 100% of the eligible costs and amounts to 15 EUR per employee for agricultural holdings growing other agricultural crops; 125 EUR per employee for agricultural holdings keeping pigs; 220 EUR per employee for agricultural poultry farms. According to the Bulgarian Ministry of Agriculture, Food and Forestry forecasts, the sub-measure will provide access to finance for about 800 SMEs.

In connection with the reduction of the negative effects of the C-19 pandemic, the Managing Authority of the Rural Development Program 2014-2020 has developed an emergency temporary support measure for farmers and small and medium-sized enterprises, which are particularly affected by the crisis caused by C-19. For the target group small and medium-sized enterprises a separate sub-measure 21.3 "Extraordinary temporary support for small and mediumsized enterprises (SMEs) and recognized producer groups and organizations - C-19 (3) was developed13". Eligible applicants under this sub-measure includes two main groups: micro, small, or medium-sized enterprises defined according to the Small and Medium-sized Enterprises Act, which processing agricultural products listed in Annex I to the TFEU or cotton, except the fishery products. The result of the manufacturing process being eligible to be a product not covered by that Annex; producer groups and organizations which are SMEs processing or marketing or developing agricultural products listed in Annex I to the TFEU or cotton, except the fishery products. Depending on the conditions that the eligible applicants meet, they can receive financial assistance in one of two groups: In the presence of a decrease in net revenues from sales of processed

¹³ Official data by the Bulgarian Ministry of Agriculture, Food and Forestry: https://tinyurl.com/4uoazbph

agricultural products by at least 20 percent for the period March-June 2020 compared to the period March-June 2019 - a lump sum based on 5% of the value of the declared net revenues from sales of processed agricultural products for selected production sectors, and for groups/producer organizations, and/or net revenues from sales of agricultural products for 2019; or a lump sum payable per employee, equated to the average number of staff for the period March-June 2020, related to the activities of processing agricultural products from the selected production sectors. The maximum amount of financial aid per applicant is no more than 50,000 Euros¹⁴. The financial support is provided only in one of the submeasures, and the combination of measures are not allowed.

Table 2 shows the costs versus the income, by periods for the different sectors in the agriculture of Bulgaria. There was an initial increase, then in the second period a slight decline and finally in the third period a new increase. For farmers engaged in beekeeping and cattle farming, lower aid is provided. Production costs have risen faster than other indicators. Financial compensation has only helped short-term adaptability.

6. Adaptation Costs

The adaptation problem is reduced to an experimental part and can be described as follows:

Problem one. a. Continue the activity if compensation is sufficient. *b*. Continue to operate at a low level of transaction costs.

Problem two. c. Do not continue the activity if compensation is insufficient. d. Do not continue operations at a high level of transaction costs.

Experiment 1: Choice between A and B

| A: | 3282 | with probability . | 33, |
|-------|---------|--------------------|-------|
| or B: | 1743 · | with certainty. | |
| 743 | with p | robability 66, | |
| 0 w | ith pro | bability 01, | |
| N = | - 174 | [31] | [69]* |

Experiment 2: Choice between C and D

¹⁴ Unified information C-19 portal: <u>https://coronavirus.</u> <u>bg/bg/merki/ikonomicheski</u>

| | Big Farı L / Euro | | | Small Farms L / Euro – % I | | |
|----------------------------------|----------------------|----------------|----------------|-------------------------------|----------------|----------------|
| date | 14.03 06.05 | 07.05 28.08 | 29.08 31.01 | 14.03 06.05 | 07.05 28.08 | 29.08 31.01 |
| Crop sector | | | | | | |
| greenhouse vegetables | 15 | 5 | 17 | 27 | 13 | 17 |
| growing vegetables | 12 | 6 | 11 | 39 | 15 | 24 |
| growing an oil-bearing rose | 12 | 4 | 13 | 24 | 8 | 24 |
| cultivation of vineyards | 11 | 4 | 8 | 27 | 15 | 21 |
| cultivation of ornamental plants | 9 | 3 | 10 | 25 | 10 | 19 |
| Livestock sector | | | | | | |
| sheep and goats | 24 | 18 | 22 | 32 | 20 | 28 |
| cattle | 15 | 13 | 13 | 25 | 19 | 25 |
| buffaloes | 12 | 18 | 13 | 21 | 18 | 23 |
| bee families | 15 | 10 | 16 | 20 | 15 | 19 |

| Table 2. Institutional | l analysis of | production (L |) - (C-SS) |
|------------------------|---------------|---------------|------------|
|------------------------|---------------|---------------|------------|

Note: $L/Euro^1$ and $L/Euro^2$ are an indicator showing euro (L) based on C-19, as a percentage of the farm income % I of the previous year.

Source: Own research.

| [30] |
|------|
| |

The number of respondents is marked with N, the percentages of the choice are placed in brackets.

And we get:

u(1743) > 33u(3282) + 66u(1743)or 34u(1743) > 33u(3282)

The number of respondents is marked with N, the percentages of the choice are placed in brackets.

The first lines (experiment 1; experiment 2) present the size of the incentives, the second line - the number of respondents and the relative value of the choice in percent. Some of the respondents make a dual choice. That means that they continue, or they cease operations, depending on the subsidy and TrC. We believe that the high lev-

el of TrC carries out more weight than the subsidy received and it is crucial for the choice and the adaptability.

Figure 2 (a; b) is the *Pareto* diagram – which is presenting cumulatively the data for the increase of the three types of *TrC*: start; termination of the activity; resource access costs.

In contrast 2019, in the year of crisis – 2020, the months of June and July seems be the most important. These months, however, are not in the worst part of the crisis. There are two explanations for that. First, adaptation costs are weakly dependent or not dependent on the crisis at all. Second, in the period after March 2020, adaptation has been strongly influenced by the C-19 crisis, which has made all costs high. Subsequently, the effects of adaptation began to manifest themselves with a delay.

The cognitive processes of economic actors have been shaped by beliefs about the duration and "new waves" of the crisis. Many actors, especially the smaller ones, have reported lost profits, such as sink costs. This is the reason why some of them decide to refuse to continue eco-

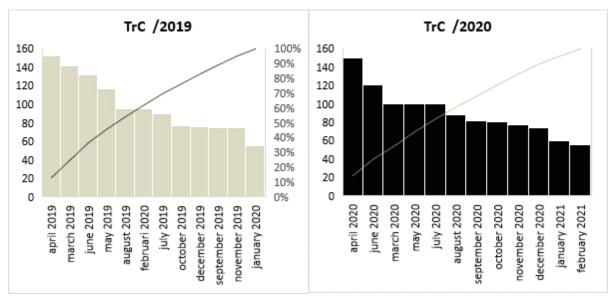


Fig. 2. (a; b) Increase of the three groups of the measured ones TrC - (D-SA)Source: Own study.

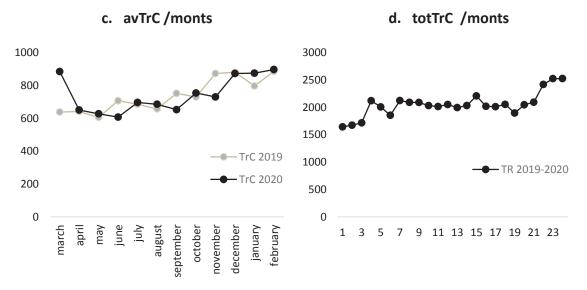


Fig. 3. (c; d) Comparison of *TrC* for the same entities for the two years -(D-SA) *Source: Own study.*

nomic activity. Thus, in July 2020 there is a sharp increase in TrC, and in the months, August–September 2020, the increase in TrC is smooth as despite the delay – follows the general trend of sustainable increase in TrC despite the measures. We trust the second explanation and at the same time raise the question of the real effectiveness of the C-19 measures. In Fig. 3 (c) shows how the total transaction costs of farmers have changed for the period of one year before the crisis and after that, in the months following its onset. In the beginning, their adaptation costs are lower, rising sharply in the second month. However, their real effect is manifested in the period May–June, when it is the most active part of the agricultural season, after which they slowly and gradually increase to reach levels – 20–25% higher than before the crisis. After all, transaction costs increased due to the crisis (Fig. 3 d). TrC increase, as the part that goes to adaptation grows faster in one of the months in 2020. At the end of the analyzed period, they do not decrease. The effect of most measures is controversial.

Conclusion

The high intensity of the legal change creates difficulties with the adaptation of a large part of the subjects. The financial framework predetermines lower adaptability for smaller, medium and larger sized farmers. The same applies to some sub-sectors of animal husbandry. Losses (L) – from the crisis – C-19 – in agriculture are partially covered, to a greater extent by larger farmers.

During a crisis, TrC have a stronger impact on individual choice than the financial support has provided. They are crucial to whether an economic actor continues or ceases to operate. Adaptation costs appearance with certain delay. They are the basis of the total increased TrC.

The financial assistance received is affecting the adaptation in short term. We believe that in long term of time, these subsidies might become a reason for micro-polarization between the subjects, which will gradually infiltrate into larger groups between sectors and even between the sectorial industries.

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