ADVANCED ECONOMIC DEVELOPMENT

http://vilniustech.lt/bm

EFFECTIVE PUBLIC ADMINISTRATION OF AGRICULTURAL ECONOMY SECTOR TO ADVANCE A COUNTRY'S ECONOMIC DEVELOPMENT

Oksana KIFORENKO*

*Department of Regional Policy, Taras Shevchenko National University of Kyiv,
Anton Tsedik str., 20, Kyiv, 03057, Ukraine*

Abstract. Effective public administration of any economy sector is a key prerequisite for the sustainable and, afterwards, advanced development of a country's economy as a whole. Therefore, the purposes of the study are to analyse the institutional frame for the public administration of Ukraine's agricultural economy sector and to assess its effectiveness by evaluating the agricultural exports dynamics in comparison with the total exports amount of Ukraine as the country's exports are a powerful tool of its economic development advancement. Different tools and methods of scientific research were employed to conduct the presented research, like empirical analysis, comparative analysis, statistical analysis, a method of trends, data visualization tools like bar charts, etc. The analysis results show the agricultural products exports of Ukraine to be rather changeable through the researched time frame, though showing positive general trend with the projections being at the approximately the same level as that of the last analysed year having upward tendency.

Keywords: public administration, institutional frame, agricultural products exports, economic development, Ukraine.

JEL Classification: H83, Q17, O52.

Introduction

Effective public administration is a key prerequisite to either a speedy upward economic development of the whole country or the well-being increase of its every single citizen as it is essential that both public authorities and their administrators were able to adjust to the changing circumstances of nowadays, especially with the challenges like crises, pandemics, wars, etc. appearing currently (European Institute of Public Administration [EIPA], 2021). The achievement of effectiveness on all its levels is an absolute imperative for the public administration of any country as public administration authorities including their administrators are responsible for the provision of the necessary public services of good quality to the citizens without any discrimination especially the one based on their affordability (Manzoor, 2014). After all, citizens are demanding public services to be both universal and qualitative and, therefore, effective, forcing public administrators, especially those from state power bodies, to formulate new laws, create or modify institutions, as well as implement innovative

management methods and instruments (Armijo et al., 2015).

Due to the importance of public administration effectiveness stated above, it is obvious that rather many scientists make researches of different issues connected with it. As everybody engaged in the topic under research is aware of the famous scientists working in the said scientific field, among which one should mention Allen P., Anurith P., Bailey S., Billings J., Venkatraman A., Guy M. E., Henry A. D., Johnston J., Juneja P., Coleman A., Crowe M. M., Croke S., Kjeldsen A. M., McInnes J., Mangai M. S., Malone P., Michelit R., Mirica D., Mosher F. C., Orleans M., Pallesen T., Pires S. M., Prentice A., Renwicka K., Stillman R. J. II, Tavares A. F., Teles F., Fabry M., Hammond J., Checkland C., Shangrau R. M., Yousufzada S., Jacobsen M. L., Yan S. B., and others, it would also be of a good use for the academic community representatives to get to know the scientists from Ukraine researching different frames of public

administration. These are Aleksandrov O., Arabadzhiyski N., Bakumenko V., Bilynska M., Binko I., Bobko L., Borodin I., Bugaichuk K., Vasylevska T., Vasylieva N., Vasylieva O., Galushka V., Gentosh O., Degtyarova I., Durman O., Ivashov M., Ivashova L., Zadykhailo O., Kalnysh Y., Kartashov Y., Kveliashvili I., Kovtun N., Kozak V., Kosheleva L., Kuybida V., Legeza Y., Lochshina L., Marukhlenko O. Maslyak M., Melnychenko B., Mykhaylovska O., Mykhalytska N., Naumenko A., Naumenko R., Obushna N., Oliynyk R., Perzhun V., Petrova I., Prylipko S., Romaniuk S., Ruban A., Saburova G., Salamatov V., Solovei D., Sopina O., Sosnin O., Sukmanova O., Taran Y., Ulyanchenko Y., Filipova N., Chernova L., Shevchenko S., Shura N., Shokin R., and others.

As far as it has already been stated previously, effective public administration of every economy or social sector is important for the stable functioning of any society, but it is especially significant when the analysed sector is strategical for a country's economy/society. In such a case the effective public administration of such a sector influences both the functioning of a country as a whole and every single citizen's life and prosperity in particular. In the case of Ukraine, such a strategically important economy sector is agriculture as the country takes leading places in terms of such agricultural products as sunflower and sunflower oil, wheat, soybeans, barley, etc. production and export on the global agricultural products market. That's why effective public administration of agricultural economy sector is a key factor to help Ukraine survive and live through the disruptive times of nowadays. Therefore, the purpose of the research presented in the given paper is to analyse the institutional framework for the public administration of the agricultural economy sector of Ukraine assessing its effectiveness through the analysis of the country's agricultural products exports and its share as of the total exports amount of Ukraine, because the country's exports are a powerful tool of its economic development advancement. The institutional framework of the said economy sector was given a special attention in the presented article as the budget cuts belong to the country's trying to survive during the war times, while the changes in terms of employees and budgetary spending cuts, reorganization in any forms, etc., in the institutions for public administration of one of the most strategically important economy sector can have an opposite effect, brining disorder in the well-organized mechanism.

1. Methods and materials

Good data analytics is essential either for big/middle/small businesses or every single individual as it helps us after having gathered the right data and analysed them make the right choices with the best possible outcomes while having the smallest possible shortcomings. In order to conduct the research presented in the paper in the most profound way possible, different methods and

tools of scientific research were used, like the empirical analysis, the comparative analysis, the statistical analysis, the method of trends as well as visualisation tools to show the research results in a more presentable way. The data analysed in the paper were taken from the official web page of the State Statistics Service of Ukraine. The timeframe of the data analysis is 16 years – from 2005 until 2021. The term "Export of goods" is used in the meaning of the customs regime, according to which Ukrainian goods are released for free circulation outside the customs territory of Ukraine without obligations regarding their re-importation (State Statistics Service of Ukraine, 2023). The term "agricultural products" was used as the sum of Section 1 (Live animals and livestock products), Section 2 (Live animals and livestock products), Section 3 (Animal or plant fats and oils) and Section 4 (Finished food industry products) of the Ukrainian Classification of Goods of Foreign Economic Activity (State Statistics Service of Ukraine, 2016). The data for analysis after 2013 were taken excluding the temporarily occupied territories of the Autonomous Republic of Crimea, the city of Sevastopol and part of temporarily occupied territories in the Donetsk and Luhansk regions.

The data were analysed with the help of the method of trends, within which the trend lines for the data under research were built, using one of the functions given below. So, the first in the list of the functions taken for the consideration as of the trend lines building is the exponential one, the formula of which is:

$$f(x) = b^x, \tag{1}$$

in which "b" being a constant and "x" – a variable (Cuemath, n.d.(a).

The next function in the list mentioned above is the linear function, of which there are some formulae, whereas the following one has been used while conducting the presented research:

$$y = mx + b, \tag{2}$$

in which (x, y) being a general point on the line, "m" – the slope of the line while "b" – the y-intercept (Cuemath, n.d.(b).

The third function considered for the building of the said trend lines is the logarithmic one, having the following formula:

$$y = b \times \ln(x) + c, \tag{3}$$

in which "b" being the slope and "c" – the intercept (XcelanZ, 2018).

The polynomial function (in this case – of order 2) stands as the forth in the list mentioned above with the following formula:

$$y = a_2 \times x^2 + a_1 \times x + b, \tag{4}$$

in which "a_2", "a_1" and "b" are calculated parameters (coefficients or constants) of the function, describing the

relationship between "*x*" and "*y*" (Officetooltips, n.d.(a).

And the fifth function in the list is the power one, having the following formula:

$$y = a \times x^b,\qquad(5)$$

in which "*a*" and "*b*" are the parameters (coefficients or constants) of the function calculated with the help of the least squares method (Officetooltips, n.d.(b). In addition, it should be added, that the main criterion, on the basis of which the appropriate function was chosen, was the values of the R^2 coefficient.

2. Results and discussion

Ukraine's reforms in the public administration sector, which were started in 2014, have been interrupted by Russia's large-scale aggression, though the continuation of the said reforms towards the modern public administration system with strong institutions underpinned by the rule of law is to be one of the priorities for the Ukrainian government officials (OECD, 2022). As Ukraine takes leading places among the world's biggest agricultural products producers and exporters, the effective public administration of this very economy sector is especially important for the stable functioning of all the sectors of the country's economy, causing the positive effects in all the spheres of the society's functioning, that, in turn is vital during current disruptive times the country has to survive in.

As state governance institutions are an integral part of the public administration institutional frame for any sphere of a society activity, the analysis of the public administration for the agricultural products exports of Ukraine is to be started from the very institutions mentioned previously. So, the main state governing institution administering all the issues connected with agriculture is Ministry of Agrarian Policy and Food of Ukraine. The general overview as well as all the peculiarities of the said Ministry activities are to be found on its official web page (Ministry of Agrarian Policy and Food of Ukraine, 2023a). As of 2023, the following structural divisions of the Ministry of Agrarian Policy and Food of Ukraine are engaged in the management and administration for all the details of the agricultural products export in general and to the countries of the European Union in particular, that is the Department of International Cooperation and European Integration, which includes the Department of Bilateral Cooperation and Protocol, the Department of Coordination of International Technical Assistance, the Department of European Integration and the Department of Cooperation with International Organizations, as well as a separate Department of Agricultural Export and Logistics (Ministry of Agrarian Policy and Food of Ukraine, 2023b). At the same time, as of 2023, the structure of the Ministry of Economy of Ukraine includes the following divisions that deal with international trade in general and export issues in particular, meaning the Department of Economic Cooperation with the European Union and the Countries of the World, Department of Trade Agreements and Export Development and Department of Foreign Economic Activity and Trade Protection (Ministry of Economy of Ukraine, 2023). Another institution related to the international trade of Ukraine in general and its agro – products exports in particular is the State institution "Entrepreneurship and Export Promotion Office", which was formed on the basis of the "Office for Export Promotion of Ukraine". The latter was, in turn, created on March 28, 2018 under the Ministry of Economic Development and Trade of Ukraine (Export Promotion Office of Ukraine, 2019) as a result of the reorganization of the Office for the Promotion of Exports, formed in 2015 at the initiative of the Ministry of Economic Development and Trade of Ukraine to support Ukrainian exports and since November 2016, the mentioned office received the status of a consultative and advisory body under the Ministry of Economic Development of Ukraine (Ministry of Economy of Ukraine, 2018). The Office mentioned above functioning is monitored by the Secretariat of the Cabinet of Ministers of Ukraine. The main area of the Office activity is to provide inter-sectoral cooperation between different ministries, governmental agencies, private companies, NGOs, etc. (Diia.Business, 2023). The Council of Exporters and Investors under the Ministry of Foreign Affairs of Ukraine is the next institution that deals with the issues of international trade in general and export of the Ukrainian manufacturers products in particular. As it is clear from the name of the institution itself, it functions within the structure of one of the state authorities, namely the Ministry of Foreign Affairs of Ukraine. The said Council was founded in April 2013 to ensure the implementation of national priorities, promote the entry of the Ukrainian exporters to foreign markets, protect their economic interests abroad and attract direct foreign investments into the economy of Ukraine (Ministry of Foreign Affairs of Ukraine, 2021). The Council also provides diplomatic support to domestic exporters in order to expand the geography of sales markets for the Ukrainian exporters and ensure the sectoral diversification of domestic exports (Ministry of Foreign Affairs of Ukraine, 2021). The Export Credit Agency (ECA) is very interesting from the point of view of its belonging to a certain defined area of public administration. On the one hand, it is a private joint-stock company, but on the other hand, its founder and sole shareholder is the state in the form of the Cabinet of Ministers of Ukraine, which, through the Ministry of Economy of Ukraine, manages the corporate rights of the mentioned agency. The purpose of the Export Credit Agency activity is to stimulate the increase for the export of goods, works and services of the Ukrainian origin by insuring the financial risks that may arise in the process for the exporting of the Ukrainian goods, works and services (Export Credit Agency, 2022).

In order to assess the effectiveness of the public administration institutions mentioned above as well as to make the analysis of the matter under research more

profound, the total exports of Ukraine compared with the agricultural products exports of the country are visualized together in the figure given below for the better comparison effect.
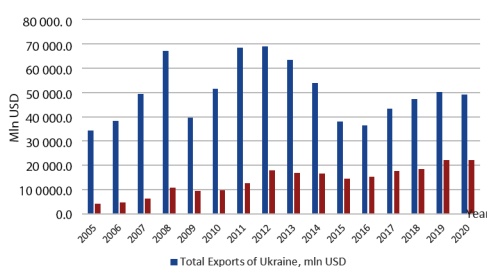

Figure 1. Total Exports of Ukraine Compared with the Exports of Agricultural Products of Ukraine, mln USD (source: State Statistics Service of Ukraine, 2021)

Having taken a close look at the data visualized in the figure given above, it can be stated, that the amounts of the total exports of Ukraine changed in a positive way from the beginning of the analysed time period to the year 2008 included. There was a single negative change of the said exports in the next year with the following three years' period for another positive changes of the total exports amount of Ukraine. The following group of changes last longer, that is for four years and was of the negative nature. Afterwards we observe the next three years for the positive changes of the total exports of Ukraine. In the last year under research the said exports amount changed in a negative way. If we talk about the agricultural products exports of Ukraine, the situation with the changes of the said exports if compared to the previous time periods looks similar to the changes for the total exports of Ukraine, except the change of the researched exports in the last year under research – it is positive by the agricultural products exports but negative – by the total exports of Ukraine. And the latter fact is very interesting, being worth paying attention at while conducting further research. Despite the similarity mentioned above there is a difference between the researched data visualized in Figure 1, which became seen thanks to the very visualization tool and that is the difference between the dynamics of the analysed data, meaning – the total exports of Ukraine seem to be more "torn" and slopy while the agro – exports dynamics – more flat if compared to that of the total exports one. To make the research more expository, it should be added, that the biggest increase of the total exports amount of Ukraine was in 2008, while the smallest one – in 2012. At the same time, the biggest decrease of the said exports amount can be observed in 2009, which can be explained by the consequences of the world financial crisis, while the smallest decrease of the exports amount mentioned previously – in 2020. The case with the changes for the agricultural products exports of Ukraine looks like the following way – the biggest increase of the said exports took place in 2012, while the smallest one – in 2020. In addition, the biggest negative change of the latter exports amount could be

experienced in 2015, whilst the smallest one – in 2014. The courage can't be taken here to state, that only one single factor had a decisive impact on either increases or decreases of both total and agricultural products exports amounts of Ukraine. It is rather a combination of factors having different origin that caused the exports amounts changes described above.

As the research presented in the given paper is connected with agricultural economy sector, the agricultural exports amounts of Ukraine for 16 years have been visualized in the figure given below in order to be analysed afterwards.
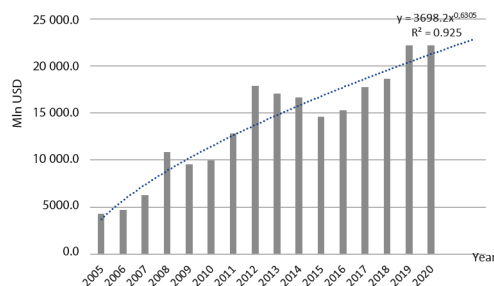

Figure 2. Exports of Agricultural Products of Ukraine, mln USD (source: State Statistics Service of Ukraine, 2021)

With the help of such a visualization tool as bar charts we can better see all the data dynamics peculiarities, which are only to have been implied without having used the mentioned tool, that is the data depicted in the Figure given above show definite changeability in its dynamics. After a closer look we can define four main dynamics directions within the data under research through the time period analyzed. The first one is upward and last from the beginning of the researched time frame to 2008 included. The second dynamics period is from 2010 till 2013 and is an upward one as well. The third period, the downward one, includes the years of 2013, 2014 and 2015. The last dynamics period of the agricultural products exports of Ukraine is an upward one and is the longest as it last from the year 2016 to the last year of the time frame being analyzed. The issue stated in the latter sentence is not ambiguous at all as it points to the steady increase of the Ukrainian agro – exports lasting for the last five years under research without any interruptions, that, in turn, means the increase of the foreign currency inflow, more capital for the agricultural economy sector development, more jobs and, consequently the decrease of the unemployment level, etc. and as a result the increase of the entire country's economic level development. Though the increase of the agricultural products exports in 2020 was the smallest increase during the analyzed time frame, it is still an increase. The trend line for the agricultural products exports of Ukraine was built with the help of the power function. The function was chosen from the power, polynomial, logarithmic, linear and exponential functions. The basis for the choice of the right function was the values of the R^2 coefficient of the said functions. Though the

mentioned values of the polynomial, logarithmic, linear and exponential functions differed of several points only, the "contest" was won by the one of the power function. The trend line is upward through the whole time frame analyzed.

The importance measure of the agricultural products exports for the country's economy is proposed to be analyzed through the analysis of the agro – products exports percentage of the total exports amount of Ukraine in dynamics during the same time frame being taken for the research of the data analyzed (Figure 3).
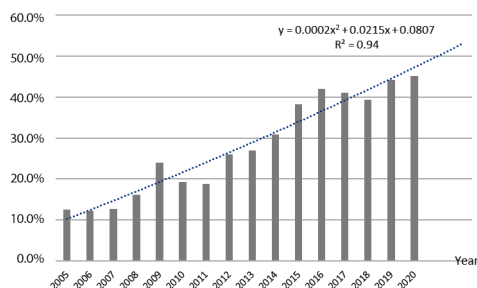

Figure 3. Agro Exports Percentage of Total Exports of Ukraine, % (source: State Statistics Service of Ukraine, 2021)

As far as we can see from the data visualized in the Figure, the percentage dynamics for the agro exports from the total exports of Ukraine is rather changeable and differs from both data sets dynamics being analysed previously. The said percentage dynamics can be divided into the following directions, with the first one being upward, lasting from the year 2007 to 2009 included. Afterwards, we observe a two year period of negative percentage changes, followed by another period of positive percentage changes going on for five years – from 2012 till 2017. The mentioned period was followed by another two ones, lasting two years each, – a downward and an upward ones consequently. To deepen the analysis and, therefore, the understanding of the matter under research, it should also be added, that the biggest positive change of the said percentage was in 2009, while the smallest – in 2007. At the same time, the biggest negative change of the agricultural products exports percentage from the total exports of Ukraine could be observed in 2010 and the smallest one – in 2006. Just like in the case of the previous data sets analysis, no single factor having caused the said changes either negative or positive ones can be named. The combination of different factors of either economic or political nature impacted the percentage changes of the agricultural products exports as of the total exports of Ukraine. The trend line for the percentage level being under research was built using the polynomial function (Figure 3). As the value of the R^2 coefficient of the linear function was very much close to the one of the polynomial function, the visualization of the data under research with the trend line built with the help of the linear function is presented in Figure 4 for comparison.

As far as one can see from the percentage changes data visualizations given above, the trend lines are very
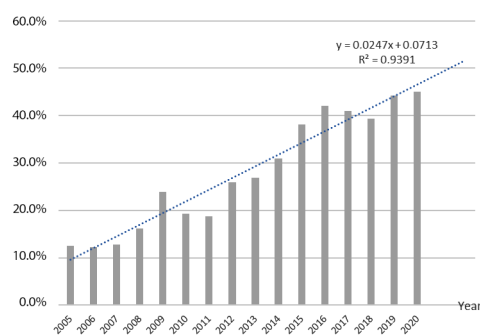

Figure 4. Agro Exports Percentage of Total Exports of Ukraine, % (source: State Statistics Service of Ukraine, 2021)

much similar with one another, though, it is commonly considered that the very polynomial function can adjust to such changeable data sets as the agricultural products exports percentage of the total exports of Ukraine, building a more accurate trend line and making a more precise projection. At the same time, the choice of the polynomial function for the agricultural products exports percentage of the total exports of Ukraine was made according to the assessment results of the R^2 coefficient values of the power, polynomial, logarithmic, linear and exponential functions. The mentioned indicator for the choice of the appropriate function for the trend lines building and projections making is not considered robust enough for the said purpose by the statisticians, but the research presented in the paper is not dedicated to the purely statistical purposes, that's why the mentioned indicator was considered to be sufficient enough for the purpose mentioned previously. Both trend lines mentioned above are upward either during the analysed time frame or two following time periods taken for the projection making. The fact mentioned in the previous sentence means the share of the agricultural products exports in the total exports of Ukraine is about to increase, indicating the increasing importance of the Ukrainian agro – exports for the whole economy of the country.

Conclusions

Ukraine is currently experiencing extremely hard times, having to overcome numerous challenges, like the consequences of the Covid-19 pandemics and its impacts on all the spheres of either social or economic activity of the country, but, first and foremost, the vital necessity to resist the invading neighbouring country, making Ukraine spend all the available resources to withstand the war impacts. The war itself is a hard burden not only from the human/ethical point of view but also from the economic one as the country has to cut its expenditures, on the social programmes as well, saving all the resources possible to spend them on the army support like providing it with food, uniforms, weapons, etc. in order to secure the survival of its own population as well as trying to remain its territory within the internationally recognized borders. And everything mentioned above requires big amounts

of financial resources to be able to spend them on the purposes noted previously. One of the most promising sources to get the needed financial resources from is export as it provides foreign currency inflows into the exporting country, increases payments into the country's budget, motivates businesses to develop increasing their production as well as expanding the geography of their activity, creates job opportunities decreasing unemployment rate, etc. For such a country as Ukraine, the agricultural products export is a matter of survival under the circumstances of nowadays. The effective public administration of such a strategically important economy sector as agriculture is an absolute necessity as the more effective the said administration is the more agricultural products are produced and, as a consequence, the more agro – products can be exported helping the country survive and go on functioning. The institutional framework for the public administration of the agricultural economy sector of Ukraine, more precisely – its state institutional framework, is represented by the following structural divisions of the Ministry of Agrarian Policy and Food of Ukraine as the Department of International Cooperation and European Integration, which includes the Department of Bilateral Cooperation and Protocol, the Department of Coordination of International Technical Assistance, the Department of European Integration and the Department of Cooperation with International Organizations, as well as a separate Department of Agricultural Export and Logistics. In addition, such structural divisions of the Ministry of Economy of Ukraine as the Department of Economic Cooperation with the European Union and the Countries of the World, Department of Trade Agreements and Export Development and Department of Foreign Economic Activity and Trade Protection are engaged in the analysed economy sphere. In the case under research, one should also mention the State institution "Entrepreneurship and Export Promotion Office", the Council of Exporters and Investors under the Ministry of Foreign Affairs of Ukraine, and the Export Credit Agency.

The effectiveness of the said institutions administration, in other words – the effectiveness of the decisions they make, for the economy sector under research was assessed through the analysis of the agricultural products exports dynamics and its share as of the total exports amount of Ukraine. The total exports amount of Ukraine is rather changeable through the 16 years' time frame under analysis. The dynamics of the agricultural products exports of Ukraine is similar to the one of the total exports but for the change in 2020 – it is positive by the agricultural products exports but negative – by the total exports of Ukraine, that in turn, once more testifies to the extreme importance of agro – exports for the stable functioning of the country helping overcome the consequences of the challenges it has to conquer. It should also be added, that the biggest total exports amount was observed in 2012, while the smallest one – in 2005. In the case of the agricultural products exports

of Ukraine, its biggest amount was to be seen in 2020, while the smallest one – in 2005. It can't be stated, that only one single factor influenced such exports amounts, rather the combination of several factors did that, either economic or political ones. As for the percentage of the agricultural products exports in the amount of the total exports of Ukraine, the biggest value was in 2020, while the smallest one – in 2006, that is another confirmation of the agricultural products exports growing importance for the Ukrainian economy.

The trend line for the agricultural exports through the analysed time period and two following years, taken as the projected ones, was built with the help of the power function. The said trend line is upward during the whole time frame under research. The trend line for the percentage of the agricultural products exports as the share of the total exports of Ukraine was built using the polynomial function. Another trend line was built with the help of the linear function and visualised for the purpose of comparison. Both trend lines mentioned previously are upward either during the analysed time period or the projected two years. Such functions as linear, polynomial, exponential, power and logarithmic ones were tried while building the said trend lines. The appropriate functions were chosen for the data analysis on the basis of the comparison of the R^2 coefficient values, though being not the only indicator used for such a choice, the other criteria were not applied in order not to direct the research into the purely statistical course.

So, as far as one can see from the research presented above, the turbulences in the political life of the researched country caused the changes in the institutional framework of the public administration for the agricultural economy sector, that, in turn, has its impact on either the total exports or the agricultural products exports of Ukraine causing its changeability, though, the influence of many other factors of different origin should not be underestimated as well. The conducted research presented in the paper could be interesting and useful for public administrators of all the levels, politicians, decision makers, big and small companies employees working in the international trade in general and agricultural products trade in particular, academic community representatives, beginners and experienced specialists in the fields of statistics and data analysis.

References

Armijo, M., Cuesta, J. P., Feinstein, O. N., García López, R., García Moreno, M., Kaufmann, J., Makón, M. P., Pimenta, C., Sanginés, M., Sanín Ángel, H., Santiso, C., Urra, F. J., & Varea, M. (2015). *Building effective governments: Achievements and challenges for results-based public administration in Latin America and the Caribbean*. https://publications.iadb.org/en/building-effective-governments-achievements-and-challenges-results-based-public-administration

Cuemath. (n.d.(a). *Exponential function*. https://www.cuemath.com/calculus/exponential-functions/

Cuemath. (n.d.(b). *Linear function formula.* https://www.cue-math.com/linear-function-formula/

Diia Business. (2023). *Entrepreneurship and export promotion office.* https://business.diia.gov.ua/en/eepo

European Institute of Public Administration. (2021). *Effective public administration.* EIPA. https://www.eipa.eu/areas-of-expertise/effective-public-administration/

Export Credit Agency. (2022). *Who we are.* https://www.eca.gov.ua/pro-eka/#.ZAOIN2HMLIU

Export Promotion Office of Ukraine. (2019). *About us.* https://epo.org.ua/en/about-us/

Manzoor, A. (2014). A look at efficiency in public administration: Past and future. *SAGE Open, 4*(4). https://doi.org/10.1177/2158244014564936

Ministry of Agrarian Policy and Food of Ukraine. (2023a). *Home page.* https://minagro.gov.ua/

Ministry of Agrarian Policy and Food of Ukraine. (2023b). *The structure of the apparatus of the Ministry of Agrarian Policy and Food of Ukraine.* https://minagro.gov.ua/pro-nas/struktura

Ministry of Economy of Ukraine. (2018). *The government decided to create the State Institution "Office for Export Promotion of Ukraine".* https://www.me.gov.ua/News/Detail?lang=uk-UA&id=a0288493-c21b-4586-9be1-6fb42e8ef33d&title=UriadPriiniavRishenniaProStvorennia-DerzhavnoiUstanoviofisZProsuvanniaEksportuUkraini

Ministry of Economy of Ukraine. (2023). *The Ministry's structure.* https://www.me.gov.ua/Documents/Detail?lang=uk-UA&id=983e66e6-dfd0-400e-b1b5-d0c6d64a6377&title=StrukturaMinisterstva

Ministry of Foreign Affairs of Ukraine. (2021). *The Council of Exporters and Investors under the Ministry of Foreign Affairs of Ukraine.* https://mfa.gov.ua/pro-ministerstvo/struktura/rada-eksporteriv-ta-investoriv-pri-mzs-ukrayini

OECD. (2022). *Public governance in Ukraine.* https://www.oecd.org/ukraine-hub/policy-responses/public-governance-in-ukraine-c8cbf0f4/

Officetooltips. (n.d.(a). *Polynomial trend equation and forecast.* https://www.officetooltips.com/excel_365/tips/polynomial_trend_equation_and_forecast.html

Officetooltips. (n.d.(b). *Power trendline equation and formulas.* https://www.officetooltips.com/excel_365/tips/power_trend_equation_and_forecast.html

State Statistics Service of Ukraine. (2016). *Ukrainian classification of goods of foreign economic activity.* https://ukrstat.gov.ua/klasf/nac_kls/op_ukzed_2016.htm

State Statistics Service of Ukraine. (2021). *Commodity structure of international trade of Ukraine.* https://www.ukrstat.gov.ua/

State Statistics Service of Ukraine. (2023). *Methodological explanations.* https://ukrstat.gov.ua

XcelanZ. (2018). *Calculating logarithmic forecast.* https://xcelanz.com/excel-forecast-charts-building-different-trend-lines/