

CHAPTER 2

DEVELOPMENT OF FINANCE, ACCOUNTING AND AUDITING

STATE FISCAL SUPPORT FOR SECURITY ENVIRONMENT OF ACTIVITIES OF SPATIALLY LOCALIZED SYSTEMS IN NATURAL-AND-RESOURCE AND AGRARIAN SECTORS OF NATIONAL ECONOMY

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Abstract. The article systematizes key typologies of collecting resource-oriented taxes in developed countries within the framework of establishing and evolving a national model of fiscal support for the security environment of activities of spatially localized systems in natural-end-resource and agrarian sectors of the national economy subject to globalization processes, their penetration into the Ukraine's economy and a degree of the COVID-19 coronavirus infection world pandemic spread in its territory. Key directions and methods of developed countries' accumulation of revenues (rent) extraction and exploitation of natural-and-land resources by spatially localized systems are systematized and typologized. An impact of invariance of forms and types of resource taxes on a behavioral model of activities of spatially localized systems in natural-and-resource and agrarian sectors of the economy in the framework of features of the national architecturing of the system of state support (assistance) is studied, in particular, for entities of natural-and-resource and agrarian sectors of the national economy (formal and informal institutional rules, normative, budgetary, fiscal and other institutional restrictions). Recommendations are grounded, for the selection of the efficient system of special taxation of spatially localized systems in the natural-and-resource sector subject to the general author's 3-D model of recommendations for countering and overcoming the consequences of the corona crisis in the national economy, in general, and its natural-and-resource and agrarian sectors. Features are established for national informal rules of the functioning and development of spatially localized systems in the natural-and-resource sector expressed through mechanisms of illegal amber mining as well as the analysis is made for the prospective regulatory environment of activities of spatially localized systems in natural-and-resource and agrarian sectors of the national economy resulted from the actualization of the regulatory-and-legal basis of the subsoil use.

Keywords: state regulation, fiscal stimulation and administration, security environment, corporations, spatially localized systems, natural-and-resource and agrarian sector, resource rent, state assistance (support), corona crisis, COVID-19.

JET Classification: H54, O13, Q14, Q18, Q28

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Introduction. Implementing economic reforms in Ukraine characterized by the inconsistency and misestimate of capabilities of the functioning of the domestic market model of development has led to quite negative results – destruction of the natural-and-resource, agrarian and production potential of the country, deformation of social-economic processes flowing in rural areas or mineral resource concentration areas. The established situation has adversely affected, first of all, the functioning of natural-and-resource and agrarian sectors of the economy, which are characterized by breaking and weakening economic ties, an insufficient level of social and ecological responsibility and state regulation to achieve global and national indicators provided by the Sustainable Development Goals by 2030 [1–2], implement natural-and-resource and agricultural directives in the respective Decree of the President [3]. The problem was further exacerbated by the turbulence in the system of state stimulation of economic entities caused by revolutionary changes in the state assistance provision system, resulted from the adoption of the Law of Ukraine “On State Assistance to Economic Entities” [4], modification of poles in the structure of the system of state regulation and control between the state and on-the-ground (local) level as a feedback of the state structure system to standards of public relations and coordinated development of natural-and-resource and agrarian sectors of the economy with a new gene type of national priorities and public needs, penetrated by the European Charter of Local Self-Government. Decentralization of power and financial authorities of the state in favor of local self-government is one of the most important reforms from the times of Ukraine’s independence, but the powers received as a result of changes in the Tax [5] and Budget [6] Codes have not been sufficiently reflected in increasing in regulating, economic and financial solvency of local authorities in order to straight things out in natural-and-resource and agrarian sectors of the economy.

In the whole world, public finance and fiscal policy are one of the major macroeconomic regulation tools [7–9], determine stability of the national economy, an extent of its orientation on implementing the UN Sustainable Development Goals, in general, and the New Green Deal [10], in particular. As of today, the efficient functioning of the whole economic system depends on properness of conducting a budgetary-and-tax policy. Applying not sufficiently grounded fiscal incentives causes creating negative trends in the national economy, prerequisites for destabilizing the public finance management system including threats to increasing in a state budget deficit. These facts confirm the topicality of the chosen subject for research. So, through a fiscal policy, the state affects the formation of centralized and decentralized monetary funds, accumulation and consumption funds using taxes, state budget expenditures, lending facilities, tax and budgetary policy therefor. In each country, they are different, however, a feature of the modern period is that fiscal actions of the Governments of foreign countries may affect the economy forming the other countries’ behavioral model acceptable to them.

Literature review. Studying mechanisms and processes of reforming spatially localized systems in natural-and-resource and agrarian sectors of the national economy, factors determining their further development is, in its essence, a difficult and large-scale task as, concurrently and synchronously, the matters of interaction

and coordination of systems of territorial, industrial management, food security at various levels must be addressed, subject to changing a paradigm of their fiscal stimulation. All this is extremely important also by the reason that the interests of systems under consideration, mainly, often conflict and are inconsistent that is a cause of a notable decline in the efficiency of fiscal stimulation of spatially localized systems in natural-and-resource and agrarian sectors of the economy, shadowing of the employed resource potential, slowing down rural area development dynamics, enrooting the inertia of a fiscal risk and, as a consequence, of the financial potential of amalgamated territorial communities.

Problems of formation and strategic development of state regulating institutions, budgetary incentives and respective fiscal aspects of support for spatially localized systems in natural-and-resource and agrarian sectors of the economy, security of forming and deepening value-added chains within the framework of the inclusion theory in rural development have been reflected in works of leading domestic scientists: Yu. O. Lupenko, M. I. Puhachov, O. H. Shpykuliak, I. I. Lukinov, O. M. Onyshchenko, V. V. Yurchychyn, P. I. Haidutskyi, M. Ya. Demianenko, V. Ya. Mesel-Veseliak, P. T. Sabluk, O. M. Shpychak, O. M. Borodina, O. V. Shubravska, L. V. Moldavan et al. Studying transformation of financial institutions, the system of management of public finance and harmonization of state fiscal support for sectors of the national economy, in general, and natural-and-resource and agrarian sectors, in particular, under the conditions of strengthening of the European vector of development of Ukraine and changing of the conjuncture of the world market of natural raw material and agrarian products was devoted in works by V. V. Zymovets, A. I. Danylenko, Yu. B. Ivanov, S. O. Korablin, N. M. Sheludko, A. M. Sokolovska, M. I. Skrypnychenko, V. M. Heets, A. A. Hrytsenko, O. O. Tereshchenko, M. A. KhveXbsyk, A. M. Shubalyi, A. M. Sunduk, L. V. Levkovska, H. O. Obykhod.

Among foreign scientists, the above problematics, from the viewpoint of strategy, tactics, formation and adjustment of corresponding resulting-and-qualitative indicators of the fiscal policy of transformation of nature management institutions including agriculture was successfully addressed by: F. Balassone, C. Vyplosz, A. Ghosh, D. Aimery, M. Cangiano, G. Kopitz, M. Lasar, D. Last, M. Moore, D. Ostry, M. Petry, L. Rice, F. Roser, B. Fabian, A. Fedelino, D. Franco, D. Harris, R. Hamming et al.

Nevertheless, a number of the most important aspects of fiscal stimulation of spatially localized systems in natural-and-resource and agrarian sectors of the national economy, especially, in the context of linking the prospects of sectoral “green” modernization and transformation of the public finance management system, intensification of the local finance institution resulted from fiscal decentralization are understudied because they have not been studied in a holistic and system manner.

Aims. Creating new fiscal stimulation methods requires large-scale research of patters and trends in activities of natural-and-resource and agrarian sector of the national economy within the framework of amalgamated territorial communities, which not only gain in their own financial autonomy but also adjust their regulating

activities, as well as requires theoretical rethinking of earlier applied, quite general assessments and provisions in fiscal stimulation of relevant sectors. As a result, a need arises for system and holistic research of factors forming a trajectory of transformation in natural-and-resource and agrarian sectors of the national economy as well as for elaboration of efficient fiscal stimulation tools regulating their development, ensuring a sustainable and sufficient level of raw material providing.

Methods. A theoretical and methodological foundation for this research was works of domestic and foreign academic economists on problems of development of natural-and-resource and agrarian sectors of the economy, structure and modernization of the public finance system, in general, and a fiscal policy, in particular, respective legislative acts, program documents, regulating development of natural-and-resource and agrarian sectors of the economy as well as a combination of various methods – economic-and-statistical, computational-and-constructive methods, expert evaluations etc.

Results. In a practice of taxation of spatially localized systems (of corporations (institutional units established specially for the purpose of the market production of goods and services and are a source of profit or other financial benefit for their owners [11]) including state-owned) functioning in the natural-and-resource sector, various kinds of special taxes apply.

As known, natural wealth is non-uniformly distributed in a space. Therefore, choosing between its national or on-the-ground (local) taxation inevitably affects a matter of tax equity. If you proceed from the equal right of citizens to natural wealth of the country, then it is obvious that resource taxation must be national because, only in this case, there is an opportunity to neutralize differences in the natural and agricultural potential and, hence, in financial capacity of various amalgamated territorial communities. In addition, it gives a potentiality to create, from the beginning, equal tax conditions for the competition of individual jurisdictions in labor and capital supply – the Tiebout hypothesis [12].

Among economists, in particular [13–15], quite popular is a point of view, according to which the availability of rich natural resources is an obstacle to development. There is a “resource curse”, which brakes economies developing in the segments with low value-added and low growth rates.

Widespread was an opinion, according to which a high dependence on resource tax payments especially from activities of foreign transnational companies cuts ties between the national state and broad public electorate weakening, therefore, state institutions as well [16].

A resource country’s place on the global consumption curve affects the competitiveness of the country, the amount of the received rent and revenues on the basis of tax receipts and requirements for the production localization. The country’s dependence on natural resources proves to be an important circumstance as well. A resource rent can be the largest component of country’s gross national product like in Angola and Equatorial Guinea but can turn out to be a supplemented revenue to a diversified economy like in Norway.

A discussion around a financial policy on resource sectors often ignores a matter of the optimal ratio between tax receipts and the competitiveness of spatially localized systems in natural-and-resource and agrarian sectors of the economy. There is no doubt that high tax rates can reduce in and even bring investments in a raw-material component of the functioning of spatially localized systems in natural-and-resource and agrarian sectors of the economy to naught. So, in the Canadian province of Alberta, after increasing in the royalty amounts by the local government, the investments in extraction reduced by 41 % [17].

A tax policy, using which the state establishes the amount of the received resource rent is an important mechanism affecting the competitiveness of natural-and-resource and agrarian sector sectors of the economy. Resource extraction taxation drastically differs from ordinary entrepreneurial activity taxation. In addition to standard capital gain tax, a resource tax system must include an exemption of the resource rent (i.e., a difference between the price, for which the volume of extracted resources can be sold and respective productive expenses) including adequate (subject to risks) profit for the operator.

There are the three most widespread methods of obtaining revenues from resource extraction and exploitation by countries [18]:

- first, royalties and taxes are paid in exchange for receiving concessions based on common taxation or through special taxes for the natural-and-resource sector of the economy. The latter are charged on gross output, income (royalty), profit or as a bonus paid after signing an agreement or concession;

- second, a state may enter into a production sharing agreement providing a partial state ownership and obtaining a portion of revenues or profit. Sometimes, a state compensates an investor for their share of the project or receives a so called freecarry (income from ownership of any asset), when such compensation is not paid. For example, Ghana National Petroleum Corporation has a 10-percentage freecarry share of all oil assets of Ghana as well as an option for purchasing additional 20 % at a reasonable market price [19];

- third, in some countries, a state reserves full control over assets by receiving the total revenue from selling resources and offers only service contracts, in which a service provider receives a fixed payment – for example, Iran and Mexico use such a model in developing their oil and gas fields.

As, along with the above methods of obtaining revenues from resource extraction and exploitation by countries, various general taxes are also applied, identifying their integral impact is an important task as well. It is explained by the fact that in the case of the concurrent application of several various taxes, their distorting effects can be mutually compensated for or, inversely, mutually strengthened.

For example, in the concurrent use of a profit tax with a discount for subsoil depletion and an extraction tax subject to quality, the distortions introduced by these two taxes are mutually compensated for. The same effect is observed by the concurrent use of an extraction tax subject to quality and ad valorem property tax. The concurrent use of a profit tax with a discount for subsoil depletion and ad

valorem property tax mutually increases in distortion stimulating earlier withdrawal of floating funds.

According to the optimal taxation theory, two small taxes can introduce less distortion than one large tax. However, in practice, this principle should be applied carefully. Firstly, when the number of collected taxes increases, administrative expenses can considerably increase. Secondly, corporations don't care of the number and size of distortions and, if a tax burden in general is higher, it may result in decreasing in investments and labor offers.

Taking into consideration the territorial belonging of natural resources, their taxation is closely associated with problems of the fiscal federalism, i.e., distribution of rights to receive revenues and regulate expenses between the various state management levels – from the central government to local authorities. However, there are also weighty arguments in favor of local resource taxation. First of all, this is associated with the fact that it is very difficult to organize a centralized redistribution of revenues from resource taxes in a way that it allows for, to the full extent, both general fiscal federalism principles and specific features of individual territories including those tied to the extraction in the natural-and-resource sector. If, for example, a system of inter-territorial financial alignment in force in a country does not sufficiently accounts for territories' problems arising in connection with extraction and enrichment of mineral resources, their needs for accelerated development of individual directions of economic activities (a need to invest funds in the so called "growth points"), then local resource taxation can assist in addressing these problems. For example, if ecological taxes are not sufficient to compensate for ecological losses caused by extraction of useful minerals and arise within a region or are, mainly, being centralized, then local authorities may reasonably pretend to collect and use resource taxes by themselves.

Some financial systems increase a state's propensity for price volatility. For example, a royalty charged on a profit allows a state to receive a benefit from rising prices but lowers the income when they fall. Negotiations under any resource contract must account for a volatility risk and the parties must be aware that rising prices may generate excessive expectations for contribution of natural-and-resource and agrarian sectors to the economic growth. A state choosing such option of financial policy and oriented on maximizing revenues under the price rise conditions must be armed with efficient stabilizing mechanisms.

Some financial systems are able to distort market investments incentives. For example, in gold extraction, a rock quality cutoff level (minimum gold to rock waste ratio, at which extraction remains profitable) will be higher when the income tax is used that decreases in investments and production. A profit royalty collection system minimizes such distortions and maximizes potential revenues of the natural-and-resource sector of the economy.

Any financial system provides the existence of overhead expenses of the state and spatially localized systems in natural-and-resource and agrarian sectors of the economy. Minimizing such expenses increases in their competitiveness. For example, a production sharing model in the oil industry usually requires establishing a national

oil company and selling, by the state, a portion of its oil in the international market that leads to a considerable rise in administrative expenses as compared to alternative financial mechanisms such as the ordinary corporate tax.

A state needs to have a broader view on the competitiveness including production expenses associated with geology, infrastructure and regulation but also risks associated with eventual expropriation, capital flow restrictions, arbitrary contract and concession changing.

A bright example is the experience of Chile, which used a financial policy promoting investment raising. The country had refused to collect royalty up to the mid-2000s and decreased taxes on profit invested within the country. Later, Chile started to increase taxes when the country's production efficiency grew and risk declined, as a result of which Chile managed to raise direct investments in the resource sector in the amount of USD 12 B [20], and the mining industry has become a driving force of the economy of the country.

Structural degradation of the national economy, to a large extent, is a consequence of a differentiated state regulation policy, in general, and a fiscal policy, in particular, according to which a priority was given to export-oriented sectors of the economy: agrarian, metallurgical, chemical and mineral raw material extraction sectors, which shares in the last years are nearly 70 % [21] of total export. Because of the lack of effectual mechanisms of inter-sectoral capital transfusion (inter alia not only between the natural-and-resource and agrarian sector but also inside the spatially localized systems combining corresponding types of economic activities) and stimulation of investing profits by spatially localized systems with additional funds received by export sectors thanks to high world prices, were not quite efficiently used. Therefore, concentrating a state fiscal policy on said industries has not promoted required modernization of relevant spatially localized systems, building of its science-intensive, high-technological types, which, at the modern development level, are key factors of ensuring the economic growth.

In the World Mining Data 2020 Report [22], which was prepared by the International Organizing Committee for the World Mining Congresses, Ukraine took 28th place in global ranking of extracting countries, its extraction output was estimated at 88.6 M t, or US\$10.6 B. Based on the Report data, we will rank Ukraine by the established division of commodity-and-nomenclature groups in the natural-and-resource sector [22–23]:

1) metal useful minerals: 7th place in the world (behind Australia, China, Brazil, India, Russia and RSA) in iron extraction – 39 M t, or 2.4 % of the global level; 8th place in the world (behind RSA, Australia, China, Gabon, Brazil, Ghana and India) in manganese extraction – 651 T t, or 3.6 % of the global level; 6th place in the world (behind China, RSA, Australia, Canada and Mozambique) in titan extraction – 431 T t, or 6.3 % of the global level; 2nd place in the world (behind China) in gallium extraction – 9 t, or 2.9 % of the global level; 5th place in the world (behind China, Russia, USA and Japan) in germanium extraction – 1 t, or 1 % of the global level;

2) nonmetal useful minerals: 6th place in the world (behind China, USA, Germany, India and Czechia) in kaolin extraction – 2.4 M t, or 5.9 % of the global

level; 10th place in the world (behind Australia, RSA, China, Mozambique, Senegal, USA, Kenya, India and Indonesia) in zircon extraction – 26 T t, or 1.9 % of the global level; 8th place in the world (behind China, Brazil, North Korea, India, Russia, Canada and Madagascar) in graphite extraction – 13 T t, or 1.3 % of the global level;

3) combustible (solid) useful minerals: 13th place in the world (behind China, India, USA, Indonesia, Australia, RSA, Russia, Columbia, Kazakhstan, Poland, Vietnam and Canada) in energy coal extraction – 18.9 M t, or 0.4 % of the global level; 12th place in the world (behind China, Australia, Russia, USA, India, Canada, Mongolia, Kazakhstan, Poland, Mozambique and Columbia) in coke coal extraction – 5 t, or 0.5 % of the global level; 10th place in the world (behind Kazakhstan, Canada, Australia, Namibia, Niger, Uzbekistan, Russia, China and USA) in uranium extraction – 1 T, or 1.4 % of the global level.

For the last ten years, the agrarian sector's share of Ukraine's GDP increased, on the average, by 3 %, the natural-and-resource sector's share including the extracting industry was remaining almost at the same level – nearly 5 %, and the processing industry's share decreased, on the average, by 2.3 % [24]. A considerable reduction is also observed in the industry of transport (-2.4 %), finance and insurance (-2.6 %), real estate (-2.06 %). Such trends are in general in line with a situation, which established in the world countries with developing economies when for the last decade the agriculture's share has increased up to the level of nearly 10 %, the production's share – from 40 % to 50 %, and the services' share – from 50 % to 70 % [25–26]. Accordingly, considerable changes are observed in the export structure towards a rapid drop in a share of the extracting, metallurgical, chemical industry and the transport sector against the background of growing in export of agricultural, food and wood-working products that allows to state reorienting the state policy from the natural-and-resource sector to the agrarian sector as a major export-oriented industry of Ukraine. It is worth noting that the most considerable changes in the agrarian sector's share (now provides 9 % of GDP, 18 % of employment of economic entities and 6 % of tax receipts [27]) in GDP and/or export are observed in the years of economic crises that means its relative resilience to crisis phenomena as compared to the natural-and-resource sector, transport, finance, insurance and real estate industries (under the conditions of the economic recession, the agrarian sector stagnates much less than the other sectors [28–29]).

Almost from the beginning of 2020, the Ukrainian economy has been placed in a new system of risks associated with the global economic recession that has laid a basis for the economic dynamics slowdown. An abrupt stop of a considerable portion of enterprises in various spheres of economic activities has significantly worsened a situation in the economy. During March-April, the measures were carried out to mitigate the adverse effects of the quarantine on the Ukrainian economy and society. The three “packages” of legislative changes provided fiscal support for business, first of all – tax reliefs for small business and individual entrepreneurs, regulatory load reduction as well as additional support for employees who lost jobs, and vulnerable population categories. However, in January-April of the current year, the industrial production was 8.7 % lower than a year ago having provided reorienting the overall

industrial depression onto an industrial drop with clear signs of the recession (Figure 1).

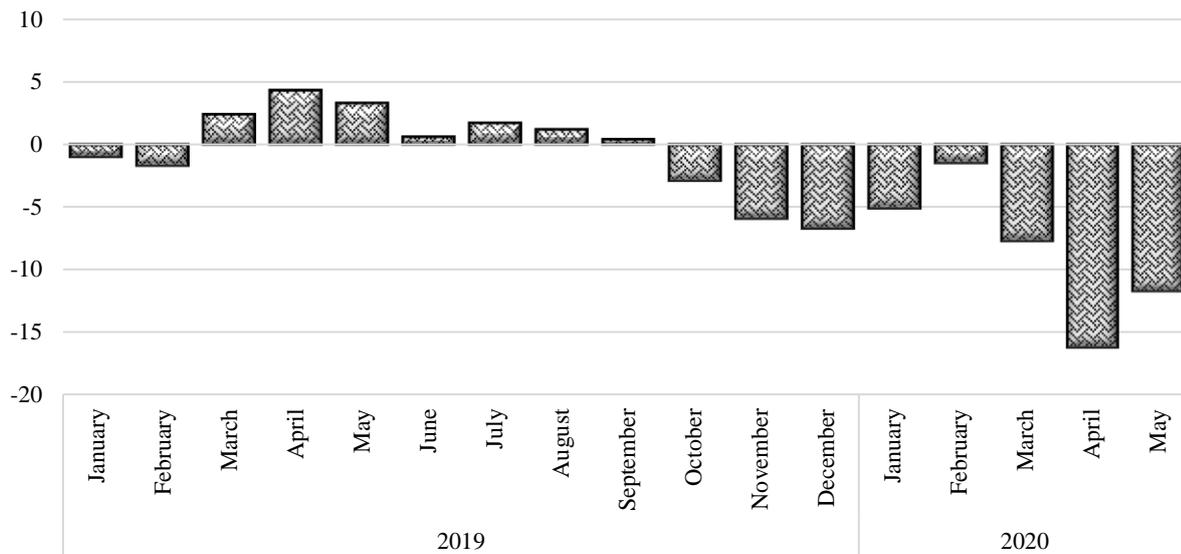


Figure 1. Industrial Products Dynamics, % of the Corresponding Month of the Previous Year

Source: compiled by authors according to data of [21; 24; 30–31]

The only exception from among the industries of the natural-and-resource sector is the chemical industry, which has retained positive advances gained over the last years. We will emphasize that, in May 2020, the depth of the drop almost in all sectors of the national economy reduced (Figure 2), it is especially seen in the extraction industry and quarry development, metallurgical production, wood, paper product manufacturing and printing activities.

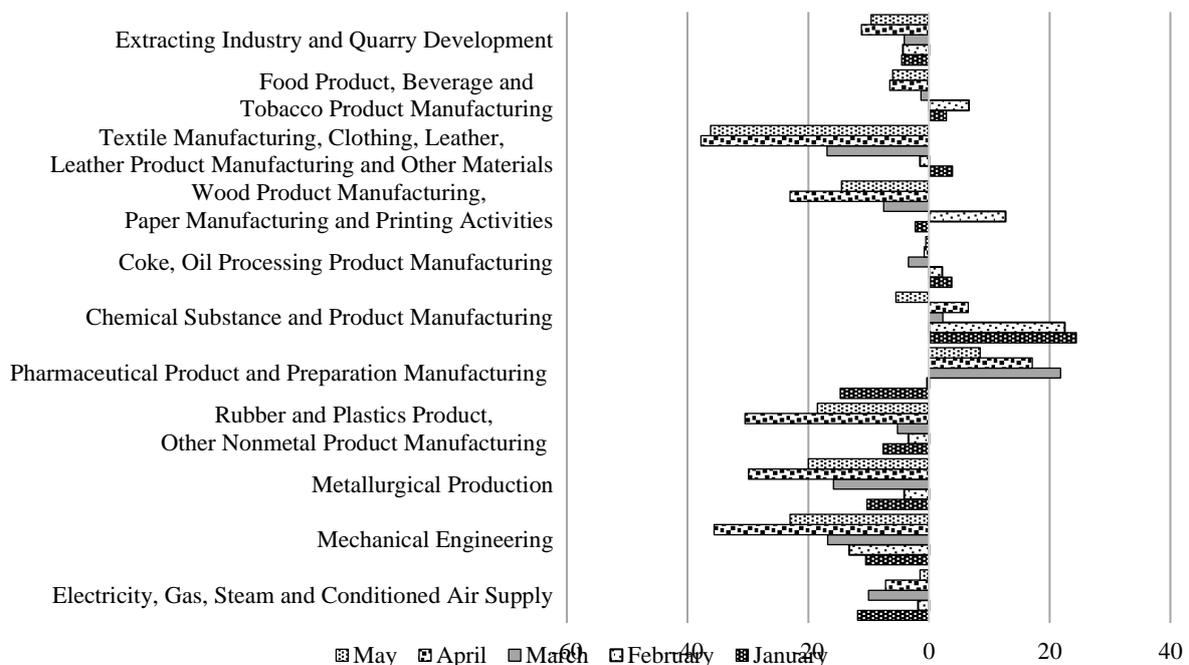


Figure 2. Production Dynamics in Industry Sectors in 2020, % of the Corresponding Month of the Previous Year

Source: compiled by authors according to data of [21; 24; 30–31]

According to the data of the State Statistics Service of Ukraine [21], agricultural products reduced, over January-May 2020, by 2.0 %, inter alia, in population households – by 3.7 %. In April 2020, as compared to April 2019, milk sales (in physical measurements), decreased by 4.7 %, in May – by 3.6 %. Slaughtering of cattle at enterprises – accordingly, by 20.7 % and 13.9 %, of pigs – by 9.0 % and 5.2 %.

According to the results of January-May 2020, commodity export volumes decreased, as compared to the same period of 2019, by 6.6 %, and, in May, an export drop rapidly accelerated (Figure 3) up to -24.2 % (in April -6.2 %, March – -4.3 %, February – +2.4 % and January – +2.4 %). In the export structure, the COVID-19 pandemic crystallized a clear dependence of Ukrainian export on raw material sectors (agriculture, extracting industry) and low-technological productions (food industry, in which low-processing-degree products prevail).

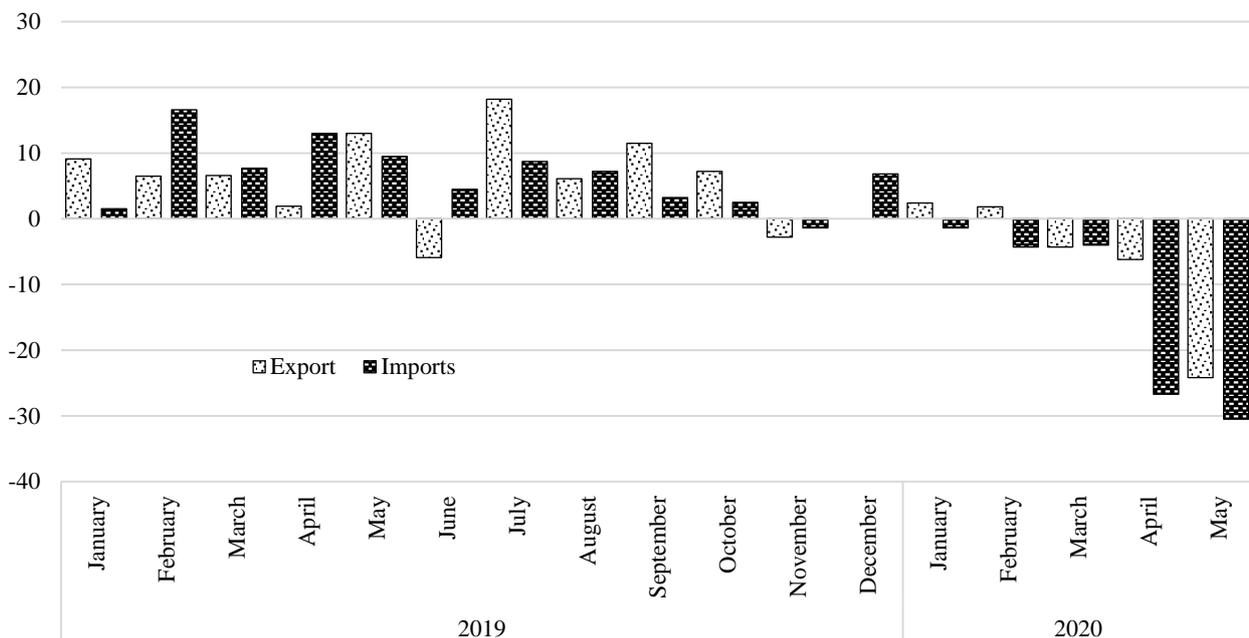


Figure 3. Foreign Commodity Trade Dynamics, % of the Corresponding Month of the Previous Year

Source: compiled by authors according to data of [21; 24; 30–31]

Resulted from the changes in the State Budget for 2020 [32], its revenues are decreased by UAH 119.7 B and, at the same time, its expenditures are increased by UAH 82.4 B, and the state budget deficit is increased almost three-fold – up to UAH 298.4 B (it is 7.5 % of GDP that is the highest indicator for the last 20 years [33]). However, already in March, a nonfulfillment of the tax payment plan was UAH 8.8 B (the plan was fulfilled at 89.6 %), in April, the tax payment plan was fulfilled at 73.9 %. In connection with the fact that, in May, the Ministry of Finance of Ukraine considerably adjusted plans for budget receipts downwards, the tax receipts in May were even over-fulfilled by UAH 3.6 B (Figure 4). Meanwhile, in aggregate, according to the data of the State Treasury Service of Ukraine [34], in January-May 2020, shortfalls to the state budget were UAH 43.8 B (the plan is fulfilled at 89.9 %), to the local budgets – UAH 12.2 B (90.2 % of the plan), having provided a

considerable reduction in budgetary capacities to receive state assistance by spatially localized systems in natural-and-resource and agrarian sectors of the national economy.

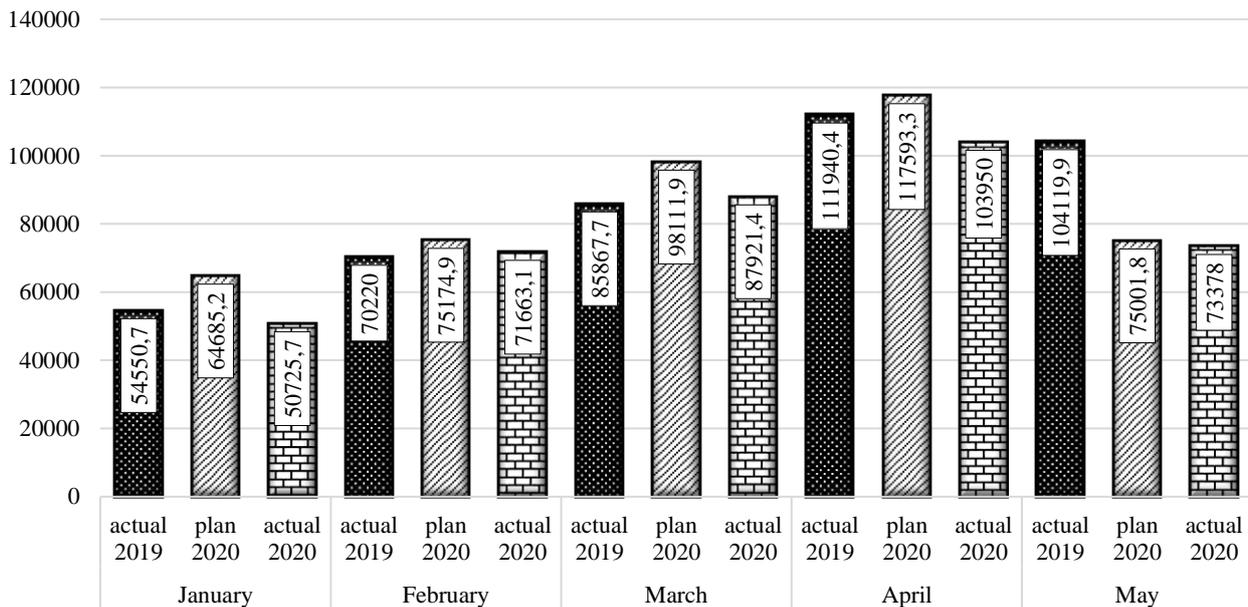


Figure 4. Dynamics of Monthly Receipts to the State Budget of Ukraine in 2019–2020, UAH M

Source: compiled by authors according to data of [21; 24; 30; 31]

The amount of the state assistance provided in 2019 in Ukraine, according to the data of central and local bodies of executive power and bodies of local self-government, was UAH 3,957.34 M that at the mean rate of the National Bank of Ukraine for 2019 (EUR 1 = UAH 28.95 [35]) was only EUR 136.70 M. Further, according to the information furnished by state assistance providers, the amount of inconsiderable state assistance provided in 2019, was UAH 553.24 M [36].

The most widespread form of state assistance in 2019 is a subsidy, which, according to the information of providers, was 19 %. Guarantees were 12 %, compensation economic entities for losses – 11 %, grants – 4 %, fiscal measures – 3 %, increasing in the state's share of the charter capital of economic entities – 1 %, decreasing in financial liabilities of economic entities to the mandatory state social insurance funds – less than 1 %, other state assistance forms were 49 %.

The greatest state assistance, including that within fiscal incentives, was provided in 2019 in the functioning of land and pipeline transport (43 %), in activities in creation, arts and entertainments (16 %), air transport (13 %), building and area maintenance (11 %), activities in sports (8 %), in other industries (9 %). Among other industries belonging to natural-and-resource and agrarian sectors of the national economy, the state assistance was provided only to manufacturers of other nonmetal mineral products – UAH 2.84 M and agriculture – UAH 0.01 M, considerably narrowing stimulating aspects of the current fiscal policy in mentioned sectors.

As of today, Ukraine is the world's second largest amber reserve holding country and differs by a markedly low value of this kind of a gemstone as compared

to other countries. As a consequence, a demand for amber mined in the territory of Ukraine is extremely high and provokes increasing in volumes of its illegal mining.

As of today, Ukraine has a global problem of illegal amber mining, which has started a way back in the beginning of the 1990s, however, has taken a mass and dangerous form after 2014. Rapid developing illegal “black gold” mining has caused an amber price rise. The Zhytomyr, Volyn and Rivne oblasts have become the three most attractive oblasts for illegal “black gold” mining.

An amber extraction method, which is used by evil-doers, has led to actual destruction of hundreds of hectares of the fertile soil layer and forests, abnormalities of small river channels and a ground water system. These consequences are disastrous and overcoming them requires both an extended time interval and extremely high expenditures from the State Budget of Ukraine – as of 2019, the expenditures reached an amount over US\$ 10 M [37].

A problem with illegal amber mining has been multiply attempted to be addressed. On 4 February 2020, the Verkhovna Rada adopted a draft Law “On Introduction of the Amendment to Article 252 of the Tax Code of Ukraine on Regulation of the Subsoil Use Rent Payment Rate for Amber Mining” (registration No 2241; the Law) [38–39]. The document provides to considerably reduce this rent even by the end of the current year. Today, the amber mining rent rate is 25 %. This is one of the highest rent payment rates, only that for gas extraction is higher. The said legislative initiative considerably lowers a rent rate – by 31 December 2020 inclusive, it will be 5 %, by 31 December 2021 – 8 %, thereafter – 10 %. Despite the fact that rate reduction is the only amendment provided by a draft law, it is not worth to belittle to significance of such decision.

However, a draft Law does not account for the other base norm of the Tax Code of Ukraine. Indeed, amendments to any elements of taxes and levies may not be introduced later than six months before the beginning of the new budgetary period, in which they will be effective. Thereafter, rent payment rates may not be changed during a budgetary year. If said norms are followed, then a 5 % rate may be applied no earlier than in 2021, but for 2021, an 8 % rate is already provided. So, there is a risk that additional accruals from the tax service of Ukraine arise, if a corporation pays not 25 %, but 5 %, and this is a totally different situation, as those entrepreneurs can get under blow who even without that were paying such a high rent payment.

A draft law also states that the Cabinet of Ministers of Ukraine shall harmonize its regulatory-and-legal acts, subject to the rate reduction, and adopt regulatory-and-legal acts needed so that reduced rates might yet be applied. Such legal framework is not very successful, whereto the attention was paid by the Main Legal Department. In remarks [40] on a draft law, it is stated that implementing the norms of this law is made dependent on the adoption of subordinated acts by the government in the future. So, it is too early to say that a 5 % amber extraction rate will start to be in effect even tomorrow. As a minimum, it is needed to wait until the Law is signed by the President and how the State Tax Service of Ukraine will implement it.

Discussion. An important factor of success of the proposed Law is the ability of the state and extracting corporations to manage social expectations after new natural

resource deposits are discovered. As a practice of the Klondike Gold Rush and California Gold Rush as well as that of the amber rush in Ukraine showed, many citizens have a keen sense of local identity that is often expressed in claims to receive a personally larger share of the resource rent. Ghana is one of many countries, which experienced a fierce debate after a state had started a policy of allocating land plots for extraction of useful minerals without involving a local community in a decision-making process.

It is important for investors to impress on local stakeholders that they are beneficiaries of developments of useful minerals and natural resources as well. A characteristic example can be the South-African Broad-Based Black Economic Empowerment [41] Act, obligating extracting corporations to allot a certain share of the joint-stock property to the local population. Stimulating establishing joint ventures between foreign extracting companies and local corporations is also an efficient mechanism to reduce country's risks in the natural-and-resource sector.

A braking effect of the quarantine caused by the COVID-19 pandemic is now weaker for Ukraine than for the countries with that kind of a model of countering the spread of the COVID-19 disease. The cause is a lower actual contribution to GDP by the sectors, which activities were suspended, first of all, a tourism-and-recreation sphere, trade, services, creative industries etc. However, it is easier for the developed countries, unlike Ukraine, to apply incentives including economic recovery fiscal-colored incentives accelerating a way out of the post-crisis industrial and natural-and-raw material depression. Instead, for Ukraine, the post-crisis depression may be found to be deeper and more protracted than a corona crisis itself.

Conclusions. Ukraine is doomed to fight “on two fronts” – with the consequences of the corona crisis and the effect of the global economic depression, which will limit exogenous factors of activation of natural-and-resource and agrarian sectors of the national economy. To ensure a dynamic way out of the crisis, it is needed to overcome the depressive “traps” in the three major system directions:

first, recovering a functionality for major mechanisms of the monetary-and-credit and budgetary policy in order to obtain their effectiveness in implementing the measures for stimulating the economic growth and regulating structural changes;

second, improving a sectoral structure of the national economy in order to recover its sensitivity to endogenous factors, which have to promote the economic growth by adapting to the domestic demand structure and optimizing the integration in the global labor distribution;

third, adjusting an institutional structure of the national economy in order to consolidate the society in implementing an anti-crisis strategy on the basis of achieving inclusion through the lens of the national model of economic development, in general, and natural-and-resource and agrarian sectors of the national economy, in particular.

All special taxes in natural-and-resource and agrarian sectors increase, in the short-term, in extraction expenses and mineral resource prices, and in the long-term – decrease in the rate of profit on capital and, therefore, – investments in the extraction industry and employment in this sector. However, this may not be irrevocably

attributed to the defects of these taxes, because reducing in the mineral raw material extraction itself is namely one of the key goals of resource taxation. In addition, each of the taxes brings additional distortional effects in economic behavior of spatially localized systems in the natural-and-resource sector of the economy, in particular, a tax:

1) at the fixed rate per extraction unit exclusive of qualitative parameters provokes a decision to postpone the extraction from the current time to the future but does not change time decisions on the extracted raw material quality;

2) per extraction unit inclusive of qualitative criteria at the fixed rate affects the extraction time as well as changes decisions on the extracted raw material quality;

3) the extraction time does not affect the extracted raw material quality but is able to postpone the extraction in general. However, it is practically impossible to identify a direction of such time changes as they depend, to a considerable extent, on the ratio of raw material price increases to the bank interest rate or value of other borrowed funds – the so called Hotelling's rule [42].

An advantage of all above taxes is an ease of and low costs for their administration as well as stability of receipts to the budget regardless of financial results of activities of corporations, but a main disadvantage is that they strengthen a threat of bankruptcy for low-profitable or loss-making spatially localized systems in the natural-and-resource sector of the economy.

An orthodox property tax, first, requires assessing the reserve value in situ that is quite difficult to conduct and, the second, accelerates the depletion of resources. The latter circumstance compels to recognize inappropriate to apply this tax as its effect contradicts the traditional goals of the state resource policy.

A progressive tax on profit brings large distortions as compared with a proportional tax, is more complicated in administration. In addition, we consider an essential argument against its application also that, as receipts of revenues from activities of corporations in the natural-and-resource sector are extremely unequally distributed in time, the application of the progressive tax may lead not only to the exclusion of the rent but also to a loss of a portion of their profit.

Soil depletion discounts transform decisions on extraction from the future to the present, so they should be carefully applied, taking into consideration that they may contradict the main resource regulation goals as well as complicate the tax administration problems.

So, taking into consideration the resource regulation goals (rent exclusion, reduction in natural resource extraction and consumption at present), we consider appropriate to separate the two most acceptable options of architecting a special taxation system in the natural-and-resource sector of the economy:

1) an additional proportional tax on profit of corporations combined with a progressive personal profit tax. This tax brings the minimum distortion and is associated with relatively low administrative expenses provided that a tax on profit is present in the general tax package. In this case, expenses for geological exploration may be capitalized while expenses for development may be amortized by the ordinary rules;

2) a tax on separation as a percentage of extracted raw material subject to its quality and content of a useful component. This tax is relatively simple in administration and does not affect a profile of the extracted useful mineral quality. In addition, in connection with the fact that a tax rate depends on the price in effect at the moment of the calculation of liabilities, this tax better accounts for the inflation factor.

However, these conclusions are fair, first of all, for the developed market economy, well specified ownership relations subject to the Government's capacity to apply relatively complex tax systems, collect established taxes to the full extent with minimum expenses as well as existence of other institutions and factors inherent in developed countries. So, it is obvious that grounded proposals for resource taxation of corporations in the natural-and-resource sector may not be automatically transferred to the Ukraine's economy without essential adjustment subject to its institutional features – poor property and contract protection, absence of developed markets of production factors, large-scale concealment of real financial results and tax evasion. The same conclusion may be applied to the problem of choosing between national and local (regional) resource taxation. So, forming an efficient system of taxation of corporations in the natural-and-resource sector for Ukraine requires conducting additional specialized studies.

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