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Evaluation of the impact of the use of financial instruments financed by European Union funds

Summary of the final report

25 June 2021

The evaluation conducted under the agreement for the provision of services No 14P-73, dated 12 November 2020, between the Ministry of Finance of the Republic of Lithuania and JSC ESTEP Vilnius

The purpose of this evaluation of the impact of the use of financial instruments is to assess the impact of funds invested, during the period 2007-2020, under the form of financial instruments financed by the European Union (hereinafter – EU) funds, the state budget (hereinafter – SB) funds and private funds on the Lithuanian economy, to compare the efficiency of different financial instruments, as well as to determine the total amount, impact and efficiency of investments from different financing sources. To achieve the purpose of the evaluation, the technical specification provided with three evaluation tasks:

- to assess the impact of EU funds, SB funds and other funds' investments implemented under the form of financial instruments on the Lithuanian economy, by determining changes in key macroeconomic indicators and indicators at the level of Lithuanian economy sectors;
- to assess the efficiency of different financial instruments;
- to assess the efficiency of a system of planning, implementation and control of the financial instruments.

The evaluation of the impact of the use of financial instruments is a theory-based impact assessment that analyses why and how the interventions are working, what are their results and macroeconomic impact, and what are the reasons of their success or failure. The main evaluation method in the theory-based impact assessment is a theory of change, which examines the cause-effect relationships between interventions or other drivers and observed changes. The assessment is based on the following hypotheses:

- financial instruments reduce market failures in the supply of business crediting and facilitate private investments;
- Financial instruments attract private capital investments, thus accumulating additional resources (financial, knowledge) for achieving public policy goals;
- Demand for financial instruments depends on an economic cycle;
- The impact of financial instruments depends on the short- and long-term multipliers and the return on expenditures.

The set of methods used in the evaluation contains qualitative and quantitative methods. The qualitative methods are: intervention logic analysis, theory of change, comparative analysis, case studies, interviews, surveys, secondary data analysis, expert evaluation. The quantitative analysis methods are: macroeconometric modeling and cost-benefit analysis.

Scale of application of financial instruments in Lithuania in 2007-2020

From 2007 until the end of 2020, there were 61 state-supported financial instruments in Lithuania which were fully or partially implemented with public funding (EU funds, state budget, international financial institutions' funds). The total amount of financial resources received by final recipients through these financial instruments was 5.1 billion EUR, with almost 3 billion EUR (59%) of which from public funding, and 2.1 billion EUR (41%) from private capital funds. Therefore, the total leverage ratio of financial instruments was 1.7.

As, under normal economic conditions, financial instruments should only finance financially viable investments that do not receive sufficient funding from market sources, this form of financing is only appropriate for some areas of public activity. In 2007-2020, financial instruments as a type of funding were mainly used in three areas of state activity: economic competitiveness (45% of total financial instruments resources), environment, including energy efficiency (28%), agri-food industry (23%) and 4% for the remaining sectors.

The largest share of public funding were distributed to loan instruments (1.7 billion EUR; 51%) and guarantee instruments (0.97 billion EUR; 28%). In order to facilitate venture capital investments in Lithuania, 0.23 billion EUR (8%) were allocated for this purpose, and 0.1 billion EUR (3%) were allocated for mixed instruments.

Comparing two periods of 2007-2013 and 2014-2020, there was a significant extension of the implementation of financial instruments in terms of both funding scale and content. In the second programming period, the number of financial instruments increased from 11 to 61, and public funding for them increased 2.5 times: from 0.872 billion EUR up to 2.182 billion EUR. The areas in which funding was provided through financial instruments have also expanded. In 2007-2013, financial instruments were used to promote SME development, energy efficiency and agricultural competitiveness. In 2014-2020, new financial instruments were created with EU funds to finance energy efficiency in the public sector, water management, transport and cultural heritage projects. The evaluation revealed that the introduction of financial instruments for public infrastructure has partially paid off: the progress achieved was limited, and the demand for financial instruments increased when financial instruments were combined with the subsidies. At the end of the period under review, the use of financial instruments was extended to other areas of public policy, with the establishment of the Defense Investment Fund and the Innovation Promotion Fund, but financial instruments through these funds have not yet been launched by the end of 2020.

Impact of financial instruments on Lithuanian macroeconomic indicators

The development of the financial sector and the increase in the supply of financing are important drivers for economic growth, especially in times of recession. State-supported financial instruments affect private sector borrowing and, as a result, make external financing more accessible to companies and individuals. The financial instruments that provide loan financing have a direct effect on the lending channel by increasing the amount of money in the market, while financial instruments, that provide guarantees, primarily affect the risk channel, which consists of incentives from banks or other financial intermediaries to reduce a risk of loans or other debt products (leasing, factoring). The outcome of both types of financial instruments is the same – a growing loan portfolio, which has a significant impact on aggregate demand. Changes in demand affect labour market and markets of intermediate goods and services. Unlike soft loans and state-guaranteed loans, venture capital investment or private equity investment are a specific type of investment and type of financing that investors provide to companies with high growth potential, but with investments which are relatively more uncertain and more risky than traditional investments. In addition, companies, in which venture capital and private equity are invested, receive not only additional financial injections, but also management assistance that is important for the company's development. Venture capital investments have a significant impact on the development of start-ups ecosystem, which are particularly important for economic transformation.

According to the results of a macroeconomic modeling on direct and indirect impacts of the analysed financial instruments on the Lithuanian economy, additional GDP of almost 9 billion EUR in nominal terms was created in 2009¹-2020. Also the macroeconomic modeling shows that total effect of the measures on GDP over the period 2009-2030 will exceed 17 billion EUR. These estimates suggest that the financial instruments accounted for an average of 1.9 percent higher annual nominal GDP growth in Lithuania in 2009-2020 compared to the scenario without the financial instruments. Due to the largest financial shock, the strongest impact was observed in 2020, when financial instruments generated 3.4% of nominal GDP. During the analysed period, the net benefit of the financial instruments, which was equal to the additionally generated GDP excluding the costs (public and private funds allocated for the implementation of financial instruments), was additional 1% on average of annual nominal GDP.

By stimulating investment, the financial instruments had the greatest positive impact on GDP through the increase in gross capital formation. Because of the financial instruments the gross capital formation increased by additional 8.5 billion EUR during the analysed period (up to the end of 2020), and was estimated to increase by 12.2 billion EUR until the 2030. There is also a significant impact on

¹ Although the evaluation covered the period from 2007, only from 2009 higher financial flows through financial instruments have reached Lithuanian economy, thus macroeconomic impact analysis covered the period of 2009-2020.

GDP through the increase of consumption. The consumption additionally increased by 4.3 billion EUR over the analysed period (up to the end of 2020), and by 8.5 billion EUR of total increase until the 2030.

Sectorial impact of the financial instruments in 2009-2020 was assessed for three aggregated groups: 1) the private sector, excluding agriculture, 2) the infrastructure, and 3) agriculture and food sector. Most funds reached the economy through the private sector. 1.4 billion EUR were allocated to the private sector through financial instruments in 2009-2020. Together with funds raised by financial intermediaries, 2.55 billion EUR was allocated to the enterprises (excluding the agri-food industry). Quantitative increase of material investments has significantly accelerated the growth of companies in the short and long term and has increased export opportunities in foreign markets. The financial instruments generated additional 4.3 billion EUR of nominal value added in the private sector in 2009-2020, and are expected to generate over 8 billion EUR in 2009-2030. Total return on investment was 2.35 in 2009-2020, and it is expected to rise to 3.58 in 2030, when projected with delayed multiplier and long-term effects added.

In 2009-2020, agricultural entities received 745 million EUR in loans. The results of the econometric modeling shows that the impact of these financial instruments on the value added generated by the agri-food sector is quite strong and long-lasting. Because of the soft loans and guarantees, nominal value added in the agri-food sector in 2009-2020 was about 1.5 billion EUR higher, and in 2009-2030 is estimated to be almost 2.2 billion EUR higher if compared to the scenario without financial instruments. Efficiency ratio of financial measures used in the agricultural sector in 2009-2020 was equal to 2.15 and in 2009-2030 is expected to be equal to 2.41, if long-term effects are included.

All the financial flows from the financial instruments to the infrastructure sector are related to renovation works. The direct economic impact on the construction sector is short-term, as the construction sector, as a main contractor for renovation works, receive benefits only during the construction project implementation. In 2009-2020, more than 885 million EUR was paid to the construction sector for renovation works, 850.7 million EUR of which was from public funding. These investments additionally generated over 1.2 billion EUR of the value added at current prices in the sector, thus the efficiency ratio was 1.52. Taking into account the projected payments of the measures in question until 2023, the cumulative direct effect on the added value generated by the constructions sector in 2009-2030 will increase to over 2.1 billion EUR, and the efficiency ratio in that case is expected to be 1.62. After the completion of major infrastructure projects, the impact on the construction sector's GVA will disappear. However, these investments indirectly ensure the long-term positive impact of the financial instruments on the Lithuanian's GDP. With the implementation of renovation projects, the efficiency of energy consumption improves, and that reduces import of fossil energy resources to Lithuania. The results of the macroeconomic modeling show that because of the decreasing imports of fossil energy resource in 2009-2020, additional nominal GDP of 330 million EUR was generated, and the total impact of the measures on the Lithuanian GDP is expected be over 1.8 billion EUR in 2009-2030, if multiplicative long-term effects are included. Thus, the implemented renovation projects has indirectly ensured long-term economic benefits for the Lithuanian economy and a continuous contribution to the total value added and employment, compared to the scenario with no financial instruments implemented.

Financial measures had a positive effect on employment rates in Lithuania. Job creation was a direct objective of the two financial instruments. The aim of microloans from Entrepreneurship Promotion Fund (VSF, VSF-2) funded from ESF of 2007-2013, ESF of 2014-2020 and from returned financial resources was to promote entrepreneurship, self-employment and job creation. SFMIS (EU Structural Funds Monitoring Information System) monitoring data show that in 2009-2020 these financial instruments have already created 5810 jobs, with VSF-2 investments not finished yet. Other financial instruments, which had no aim to save the existing jobs or to create new ones, had also contributed to improving employment rates. For example, financial measures to increase energy efficiency have had a direct positive effect on the creation of temporary jobs in the constructions sector. The macroeconomic model results show direct and indirect effects of the financial instruments on

employment. It was estimated that about 18 thousand jobs were saved or newly created because of the use of the financial instruments, which accounted for about 1.2 percent lower unemployment rate in Lithuania. In addition, there was a significant impact on wages. The modeling results show that the average annual real gross salary was 22.8 EUR higher than in the scenario with no use of the financial instruments, and resulted in a 2% increase in wages in Lithuania.

The significant effects of the financial instruments on the consumption, import and employment indicators directly determine the impact of the financial instruments on additional government revenue. Due to rising revenues from direct and indirect taxes, additionally 3.1 billion EUR was received as government revenues in 2009-2020 and additionally 6.5 billion EUR is expected to receive as government revenues in 2009-2030.

Comparison of the impact of financial instruments and subsidies by economic efficiency ratio

A comparison of financial instruments with the cost-effectiveness ratio, calculated as the ratio between public funding and additionally generated GDP, showed that the efficiency ratio of financial instruments is almost 50% higher (2.6) in 2009-2020, and twice as high (5) in 2009-2030. This is explained by the fact that financial instruments, as a type of aid, are targeted at viable, revenue-generating investments, as opposed to subsidies, and therefore have a much greater impact on value added growth. In addition, guarantee instruments, which accounted for more than a quarter of all financial instruments, have a significant financial multiplier, e. g. some of the instruments assessed (GIF, GIF2) had a leverage ratio of 10.

Period	2014-2020 EU funds subsidies	2014-2020 Financial instruments	2009-2020 financial instruments		
			Loans	Guarantees	Venture capital investments
Economic efficiency during the period of interventions implementation	1.88	2.6	2.12	4.69	2
Economic efficiency including delayed supply effect until 2030	2.4	5.0	4.02	7.54	3.2

Impact of financial instruments on reduction of market failures in Lithuania

Since the financial crisis in 2008, when many EU countries, including Lithuania, encountered a shortage of public finances, the focus on the efficiency and the rational use of public funding is growing. International institutions, including the European Commission, also encourage to use the public resources efficiently. Thus, instead of subsidies, it is proposed to use more sustainable types of financing instrument – loans, guarantees, venture capital and private equity investments. These incentive financing instruments are characterized not only by addressing the insufficiency of financial resources or non-optimal market conditions for availability of financial resources, but also by the fact that the funds (or part of them) allocated through these financial instruments return and can be further used for other actions aiming the same or different policy objectives.

The main economic reason to implement the financial instruments with public funds is that market failure may reduce investments, which may lead to slower economic growth in the future, and government has more interests and opportunities to overcome this market failure than other market participants, both by investing and by sharing investment risk with private investors. The efficient allocation of resources can be hampered by externalities, monopolies, information asymmetries, the immobility of factors of production or market failures related to public goods. This can affect both investment demand and supply.

The evaluation identified several key market failures that were addressed by the use of the financial instruments in Lithuania. First, SMEs' access to sources of external funding in Lithuania is one of the worst in the EU. 14% SMEs indicated that inability to borrow was the biggest operational problem for

them (EU average is 8%). The Lithuanian financial system is dominated by the banking sector, which is highly concentrated – the three largest foreign capital banks in Lithuania have the dominant market share. This structure of the financial system implies that the Lithuanian economy as a whole and the activities and development opportunities of individual business entities in terms of attracting financing are most dependent on banks' lending. The lack of funding is due to the high rejection rate of commercial bank loan applications. In 2007-2013 and in 2014-2020, all financial instruments provided by INVEGA, the EIF and the State Investment Management Agency (VIVA), which was established in 2020, aimed at increasing companies' access to external funding. State-supported measures included various products: loans, financial leasing, factoring, venture capital, guarantees, crowdfunding. During the analysed period, the implemented measures, depending on the economic cycle, increased the number of loans in the market from one tenth to an half of all loans issued in the market during the year. In order to continue the improvements of SMEs' accessibility to external funding and to reduce their dependency of borrowing from credit institutions, it is recommended (1) to continue the development of INVEGA's measures designed for alternative financiers, (2) to develop new measures facilitating corporate borrowing in the capital market, and (3) to use direct lending in the areas where financing is not available on the market.

The second market failure addressed by implementation of the financial instruments was the lack of venture capital investment in Lithuania. In 2007-2013, a share of venture capital and private capital investment in GDP in Lithuania was less than 0.01%, while the EU average was 0.33%. Venture capital investment started to grow significantly since 2010, when JEREMIE HF was established and venture capital funds established through it started their operations in Lithuania. In 2010-2014, 62.2% of all funding to venture and private capital in Lithuania was made from EU funds and state budget. Although the dependency on public funding is declining, still, due to market failures, it remains very high in the area of pre-seeds and seeds funding. Besides, it is often easier for the fund manager to raise additional capital to the fund if a state or an international development bank or an international fund (EIF, EBRD) have a share in the fund as a key investor. Further development of the venture capital and private capital markets needs additional state measures for (1) development of funds ecosystems, (2) attraction of foreign investment to the Lithuanian funds, (3) targeted marketing, (4) strengthening the qualification of Lithuanian fund managers, (5) development of the start-ups ecosystem, starting with the opportunities provided by newly created Innovation Promotion Fund .

The third market failure, which has been addressed through financial instruments, was a strong need for investments in energy efficiency, particularly, in the modernization of multi-apartments\buildings, and the lack of market instruments for this sector. There was a lack of funding of 1 billion EUR in modernization of multi-apartment buildings in 2014-2020. The impact of financial measures aiming to reduce energy consumption has been really significant. During the analysed period, 6 funds were established for the use of the financial measures to improve energy efficiency by renovating buildings – multi-apartment buildings, student dormitories, central government public buildings and municipal public buildings. In 2009-2020, over 850 million EUR of public funding were allocated through the financial instruments to the goal of energy efficiency improvement. An important achievement was that the development of a stable flow of projects, capabilities and credit history over the decade has created conditions for attracting private capital to energy efficiency projects. The main direct benefits of energy efficiency measures are energy savings and reduced GHG emissions. As already mentioned, the impact of energy savings on the declining import of raw materials and on the Lithuanian GDP growth was assessed by macroeconomic modeling. Total impact of financial measures on energy efficiency on the Lithuanian GDP until 2030 is expected to be over 1.8 billion EUR. Renovation projects, inter alia, contribute to the goals of the National Energy and Climate Action Plan by saving GHGs. Until the end of 2020 the financial instruments in the area of energy efficiency had saved 86620 tonnes of CO₂.

Financial instruments as countercyclical instrument

The assessment results show that government investment is an important tool in fiscal policy to reduce cyclical fluctuations and to promote economic growth and transformation. These investments

can lead to the growth of labour productivity and economy potential. Analysis of the share of financial instruments in loans and state-guaranteed loans in the total share of real loans to non-financial corporations shows that in 2009–2020 the share of financial instruments in the total loan market fluctuated quite significantly, from one tenth to a half of all loans issued in the market. A clear cyclicity is observed, which was very obvious in 2020 because of the COVID-19 pandemic and the government's response to mitigate the negative socio-economic consequences and strengthening corporate liquidity with the financial instruments almost doubling to 1.8% GDP and with 54% of all new loans in 2020 were granted by the state or with the state assistance.

During the economic recession, the need for loans for working capital and corporate liquidity is particularly strong, as well as the importance of state guarantees. Although these measures formed the basis of assistance with financial instruments in 2020, data of the survey of institutions and financial intermediaries show that 70% of respondents think that the implemented measures were only partially appropriate and partially sufficient. In 2020, a priority was given to the speed of the assistance instead of compatibility of the proposed measures and their continued actuality after the initial COVID-19 shock to the economy, thus, range of use of the guarantee instruments was too narrow and the potential of financial institutions to raise capital to mitigate the crisis was not fully exploited. Because of these reasons the effectiveness of financial measures, implemented in response to the consequences of COVID-19, was reduced and, according to the National Audit Office's assessment (2021), was exposing a risk to financial sustainability in the medium term.

Analysis of impact of financial instruments on attraction additional capital for public policy goals

The ability to attract additional resources to achieve public goals is a key feature of financial instruments and one of the main reasons for their wider use. The ratio between financial flow from the financial instruments to final recipients and public funding is called the leverage ratio. The higher the leverage ratio, the more private capital is attracted for use of the financial instruments. Comparison analysis of the leverages show that the leverage of debt financial instruments implemented in Lithuania in 2007-2020 ranges from 1 to 5, the leverage of venture capital investments – from 1 to 4.2, and the guarantees – from 1 to 10.22. However, only one third of these measures (20) have a leverage ratio higher than 2, therefore, it can be argued that the potential of financial instruments to raise additional capital to meet public goals is not yet fully exploited.

The case studies of foreign countries show that in order to encourage large institutional investors to co-invest together with the state, it is important to have a clear and long-term public investment strategy, preferably with identified potential key projects, to create a fund of funds for implementation of the strategy, with significant public funding and with attractive conditions for private investors (different levels of risk or state guarantee) to take part in, as well as to ensure a favourable investment environment and stability in the country. The foreign countries examples also show that public sector efforts to attract private capital investment need to be effectively coordinated at the national level. Both the case studies and the examples of foreign countries (Denmark, France, Poland, Latvia, Scotland) presented in this report show that there is a tendency to consolidate the management of the financial instruments by merging institutions responsible for different financial instruments into a single national promotional institution (NPI) or by strengthening the administration of the NPI and the administration of implementation of the overall investment strategy with merging the NPI into a group of companies and appointing a coordinating company.

Aiming to facilitate investments in areas such as climate change, the environment and innovation, investment platforms can play an important role by concentrating resources from public and private investors. The investment platforms can generate a relatively large budget, which can make much easier for public and private investors to solve a shortage of funding in the market and to invest into group of smaller and riskier projects. Using the platform, investment risk is shared by investment in portfolio of projects which are funded from different sources. Lithuania have used these opportunities very little, so far.

Assessment of financial instruments as a type of sustainable investing

Financial instruments, in contrast to subsidies, are considered to be a sustainable type of financing because most of the invested resources return back to fund within 3-20 years, depending on a type of projects financed by the financial instruments and on a type of a risk-sharing between public and private (e. g., financial intermediaries) investors. According to the data from financial instruments managing authorities, the share of loan defaults in the portfolio of the individually evaluated instruments is up to few percent. In addition, some financial instruments (e. g., loans, venture capital or private equity investments, debt securities) may generate the return. The financial data collected for this assessment show that since 2012 in Lithuania new financial instruments were launched, financed from the resources returned from the EU funds of the period of 2007-2013. A total of 384.2 million EUR were re-used for the implementation of the financial instruments, and that was 11 percent of all public funding provided for the implementation of the financial instruments.

Besides the fact that loans, including those for which guarantees are provided, and capital investments have to be returned back to the fund, the use of the financial instruments also have an impact on a behaviour of final recipients and should therefore improve the efficiency of public resources and reduce the likelihood of final beneficiaries becoming dependent on public support.

Improvement of the financial instruments administration system

An institutional system of an administration of the financial instruments in Lithuania is fragmented, and there is a lack of coordination between actions of these institutions and between the financial instruments. A lot of public and private actors are involved in the implementation of the financial instruments. The instruments financed by EU funds and the state budget are planned and implemented according to different rules, although in essence the processes and requirements are almost the same. Although, the same EU Regulation (EU) No 1303/2013 and accompanying regulations applies to the use of the financial instruments under the different EU funds, but implementing rules and rules for the use of returned funds have been developed separately. This model of implementation of the financial instruments reduces administrative efficiency, as it requires higher administrative costs at all levels and increases risk for inefficient use of funds due to overlapping responsibilities, and does not ensure an integrated approach to solutions of the problems financial instruments and strategic goals of the state are targeted to.

The main function of planning, coordinating and monitoring the implementation of the financial instruments under the EU funds, except EAFRD, is performed by the Ministry of Finance. The Ministry of Finance also performs a coordination function in a process of implementation of a new financial instrument financed from state budget. The Ministry together with other relevant ministries organizes the assessment of the need for a financial instrument. The coordination is ensured through an inter-institutional working group established by the order of the Minister of Finance. This working group is responsible for carrying out and monitoring the assessment of the need for incentive financial instruments of the NPI. However, there is no monitoring of the overall implementation of the financial instruments under the state budget and no monitoring of the efficiency and impact of investments in Lithuania.

There were four National promotional institutions in Lithuania at the end of 2020: INVEGA, Public Investment Development Agency (VIPA), Agricultural Credit Guarantee Fund (ŽŪPGF) and State Investment Management Agency (VIVA). Although the rules of individual NPIs clearly define their scope and functions working with a specific target group (e. g., private sector, agricultural sector, public sector), there is a lack of coherence in some financial instruments. In addition, financial instruments in Lithuania are implemented not only by NPIs, but also by international financial institutions (EIB and EIF). The EIB implements financial instruments for the modernization of multi-apartment buildings, as does the VIPA. In 2007-2013, management of new financial instruments was assigned to an international financial institution because of a simpler appointment procedure provided in the EU regulations and existing competencies. For keeping international financial

institutions as funds managers in Lithuania in the future and paying them higher administration fees, additional requirements for them for more contribution to the implementation of the instruments using their own resources should be raised.

Despite the fact that, compared to the EU, the costs of managing financial instruments in Lithuania are in line with the overall average, there is a potential to promote greater administrative efficiency and to reduce management costs and administrative burden. Administrative costs could be reduced by: (a) scaling up financial instruments by consolidating different funding resources from public (including EU funds) sources; (b) reviewing processes, eliminating redundant and non-value-added processes, and automating them; (c) direct implementation of some measures, with the aim to reduce level of governance (e. g., direct lending, low-budget financial instruments or financial instruments for riskier groups with which private financial institutions are reluctant to work). Consolidation of NPIs is also a relevant tool to reduce the cost of financial instruments administration. But this reason should not be the main argument for deciding on the need and benefits of NPIs consolidation. As stated before, the model of consolidated NPIs is likely to help implement the public investment strategy more effectively and to attract larger institutional investors.