DOI: https://doi.org/10.18371/fp.4(36).2019.190211

JEL Classification G 21, L26, Q57

## BANK LENDING TO ENVIRONMENTALLY FRIENDLY BUSINESS IN UKRAINE

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Abstract. The article investigates the essence of environmentally friendly entrepreneurship as a component of the modern business model of competitive economy, and also defines the main directions of its development in Ukraine. The nature and peculiarities of bank lending to environmentally friendly business have been studied using the example of state bank. The risks for the development of bank lending to environmentally friendly business in Ukraine have been identified and its prospects have been explored.

**Keywords:** environmentally friendly business, innovative activity, bank lending, credit risks.

Formulation of the problem. The emerging contradictions between the growing needs of the population, and the adverse impact of production on the environment indicate the need to shift the focus of business entities to the environmental component. Eco-friendly entrepreneurship is an effective mechanism for solving many environmental problems that cannot be solved by traditional

Аннотация. В статье исследована сущность экологически безопасного предпринимательства как составляющей современной бизнес-модели конкурентоспособной экономики, а также определены основные направления его развития в Украине. Рассмотрены сущность и особенности банковского кредитования экологически безопасного предпринимательства на примере государственного банка. Выявлено риски и исследованы перспективы развития банковского кредитования экологически безопасного предпринимательства в Украине.

**Ключевые слова:** экологически безопасное предпринимательство, инновационная деятельность, банковское кредитование, кредитные риски.

prohibition measures.

In economically developed countries, the priority is given to protection of the environment and rational use of natural resources, that's why lending to environmental programs in the current context is becoming increasingly important. At the same time, bank lending is one of the main forms of financial support for environmentally friendly entrepreneurship all over the world.

Analysis of recent research and publications. Given the importance of the problems of environmentally friendly entrepreneurship, they were investigated by such domestic and foreign scientists: T. Den, S. Kavun, L. Lazebnik, J. McMullen, L. Cherchik and others. The views of economists are mostly reduced to the elaboration of the environmental component of entrepreneurship, without taking into account the financial one. Therefore, bank lending to eco-friendly businesses needs further research.

The purpose of the article is to study the current state of bank lending to environmentally friendly entrepreneurship, identify risks and prospects for its development in Ukraine.

Presenting main material. There is no single definition in the scientific literature of the concept of "environmentally friendly entrepreneurship". T. Den and J. McMullen see eco-friendly entrepreneurship as a process of identifying, evaluating, and using economic opportunities that are present in environmentally significant market failures. The core of the concept is formed by both environmental responsibility to society, and profitability of the enterprise. Green entrepreneurship is considered a mission, not just a profitable activity [1].

Eco-friendly entrepreneurship, in contrast to traditional entrepreneurship, takes into account environmentally-friendly methods of management and extends to the production of environmental goods and services, as well as to all activities that directly or indirectly contribute to the improvement of the environmental situation. Therefore, the definition of eco-friendly entrepreneurship should re-

flect both the environmental and economic efficiency of its business and clearly indicate how it differs from traditional business models. Besides, environmental entrepreneurship not only focuses on regulating environmental safety standards and reducing the destructive impact on the environment, but also assumes the existence of environmental awareness of entrepreneurs about the importance of protecting the environment [5, p. 221].

According to the definition of the European Commission, eco-friendly entrepreneurship is production of goods and provision of services for measuring, preventing, limiting or eliminating environmental damage, waste management and reducing noise, as well as environmentally friendly technologies that minimize the use of raw materials and environmental pollution. At the same time, environment-related products, works and services are those that directly or indirectly contribute to improvement or preservation of the environment and reproduction of natural resources [2].

Environmentally friendly entrepreneurship is therefore understood to mean an innovative activity of business entities in the production of goods and services, aimed at generating profit with a focus on environmental preservation and enhancing the competitiveness of the national economy internationally.

An environmentally friendly enterprise is considered from two positions:

- 1) protection of the environment, people from the negative impact of the enterprise, namely:
- absence of significant environmental damage through the use of environmentally friendly technologies, the

use of environmentally friendly production or treatment facilities that minimize negative impacts (emissions into the atmosphere, discharges into the water, soil pollution do not exceed the limit values);

- absence of negative impact on the health of people who reside in the territory where the enterprise is located, and the employees of the enterprise;
- compliance with applicable environmental legislation and reduction of costs and losses from environmental pollution;
- creation of safe working conditions at enterprises, ensuring safety;
- possibility of receiving benefits subject to environmentally friendly activities (enhancing competitiveness through positive image, reducing unproductive costs, increasing profits at the expense of higher prices for environmentally friendly products; increasing export potential);
- 2) protection of the enterprise from environmental threats related to:
- the existence of favorable natural and climatic conditions;
- availability and access to necessary natural resources (including water, land);
- absence of threats of natural and man-made origin (including radiation, acoustic, ionizing, wave);
- absence of negative impact pollution, harmful waste from other entities;
- the existence of an effective legal framework and management system for environmental protection;
- adherence to environmental standards, technical, sanitary-hygienic, construction and other norms and rules containing requirements for environmental protection [8, pp. 58-59].

The integration of Ukraine into the European Union implies the introduction of strict control over activities, production processes that affect the environment or human health, as well as environmental protection, control of emissions from vehicles, hazardous chemicals and drugs, including those contained in consumer goods, and movements of waste. Therefore, the international quality management systems of DSTU ISO 9001, DSTU ISO 14000, OHSAS 18000 are being actively implemented in Ukraine. Conformity of production with international standards and availability of certified quality management systems are a prerequisite for their entry into international markets.

The grounds for the development of environmentally friendly entrepreneurship in Ukraine are the laws: 1264-XII, dated 25 June 1991, "On environmental protection"; 1862-IV, dated 24 June 2004, "On environmental audit"; 2496-VIII, dated 10 July 2018, "On basic principles and requirements to organic production, circulation and labeling of organic products"; 187/98-BP, dated 5 March 1998, "On waste"; 2707-XII, dated 16 October 1992, "On protection of atmospheric air"; 2697-VIII, dates 28 February 2019, "On the fundamental principles (strategy) of the state environmental policy of Ukraine for the period up to 2030"; 2768-III, dated 25 October 2001, The Land Code Of Ukraine; 213/95-BP, dated 6 June 1995, The Water Code of Ukraine; 132/94-BP, dated 27 July 1994, The Subsoil Code of Ukraine; 3852 -XII, dated 21 January 1994, The Forest Code of Ukraine.

The Law of Ukraine "On the fundamental principles (strategy) of the state

environmental policy of Ukraine for the period up to 2030" states that the goal of the state environmental policy is to achieve good environmental status by introducing an ecosystem approach to all areas of socio-economic development of Ukraine in order to ensure the constitutional right of each citizen of Ukraine for clean and safe environment, introduction of balanced nature management and preservation and restoration of natural ecosystems [6].

The market for green products, technologies and equipment, waste treatment and disposal, environmental work and services is expanding. In the world mar-

ket, enterprises that are not able to meet the requirements of society in environmentally friendly products, technologies, environmental services, are losing competitiveness. Economically developed countries monitor the quality of consumer goods, and dispose them if standards are not met.

It should be noted that expenditures on environmental protection by type of environmental measures in Ukraine in 2014-2018 increased by 56.9% (from UAH 21925.6 mln. in 2014 to UAH 34392.3 mln. in 2018), including current expenses – by 74.1%, capital investments – by 26.6% (Table 1).

Table 1 Expenditure on environmental protection by type of environmental measures in 2014-2018 (in actual prices; UAH million)

			including:					
Jear	Costs total	Capital investments	protection of at- mospheric air and prevention of cli- mate change	sewage treatment	waste manage- ment	protection and rehabilitation of soil, groundwater and surface water	other activities	Current
2014	21925.6	7959.9	1915.1	1122.1	784.0	359.9	3778.7	13965.7
2015	24591.1	7675.6	1422.9	848.9	737.5	388.3	4278.0	16915.5
2016	32488.7	13390.5	2502.8	1160.0	2208.7	420.0	7099.0	19098.2
2017	31492.0	11025.5	2608.0	1276.5	2471.0	1284.5	3385.5	20466.4
2018	34392.3	10074.3	3505.9	1692.6	1182.0	1444.3	2249.4	24318.0

Source: generated by the author based on [3]

The main pollutants of air and sources of greenhouse gases in Ukraine are enterprises of mining and processing industry, thermal power generation, road transport [6]. Therefore, according to the State Statistics Service of Ukraine, the largest expenditures for environmental protection by type of economic activity are enterprises operating in processing industries – 30%, water supply, sewage,

waste management -23.9%, mining and quarrying -22.6%, electricity, gas, steam and air conditioning supply -12.9% (Fig. 1).

The main sources of financing capital investments in the environmental area are the own funds of enterprises and financial resources of budgets of all levels. Local and national environmental funds account for only a small proportion of the

total funding for environmental actions [4, p. 80]. However, government support is not significant compared to the needs of enterprises in financing environmental programs. In addition, businesses do not have free access to such resources. In such circumstances, lending is one of the important instruments of the financial

mechanism for implementation of environmentally friendly entrepreneurship. Loans can be provided by banks, nonbank financial institutions and the state. At the same time, public lending, including that extended by state-owned banks, entails provision of funds on preferential terms.

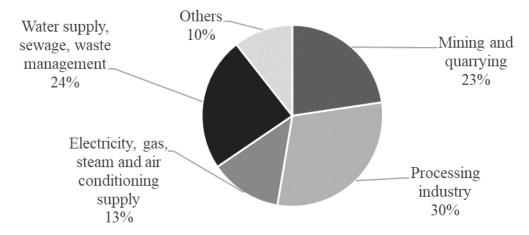


Fig. 1. Expenditure on environmental protection by type of economic activity in 2018

Source: generated by the author based on [3]

Among the Ukrainian banks that provide loans for environmental programs, the leading one is JSB "Ukrgasbank". In 2016, JSB "Ukrgasbank" chose the Ecobank development strategy, focusing its activities on financing projects of corporate clients, small and medium-sized businesses and individuals related to technologies of energy efficiency, renewable energy, resource efficiency, pollution reduction etc. The bank prefers to lend to the following projects: solar power plants (SPP), wind power plants hydroelectric (WPP), power plants (HPP), heat generation, transport, thermal power plants operated on bio-fuel, energy efficient measures and equipment, etc. A specialized unit for analysis and support of eco-projects has been created at the bank, and a system of social and environmental risk management has been introduced. When calculating the appropriateness of lending, JSB "Ukrgasbank" takes into account the project size, location and potential environmental and social impacts. If the socio-environmental assessment reveals that the lending project does not meet or does not fully meet the requirements, the bank develops an environmental and social work action plan and agrees it with the client to achieve the relevant standard of activity within a specified period [7].

Eco-loans have a significant share in the structure of the loan portfolio of JSB "Ukrgasbank". In 2018, the share of ecoloans in corporate loans was 27%, in loans to small and medium-sized businesses -67.1%, and in loans to retail businesses - only 0.23%.

By the results of 2018, the volume of eco-loans granted by JSB "Ukrgasbank" to corporate clients amounted to UAH 10980 mln. (during 2016-2018 it increased by UAH 9585 mln.), retail business – UAH 37.7 mln. (decreased by UAH 310.3 mln.), and small and medium-sized businesses – UAH 3265 mln.

(increased by UAH 2787 mln.) (Fig. 2). The decrease in the volume of lending to retail business is caused by the termination of a preferential program for purchase of energy-efficient equipment and/or materials, which provides for the reimbursement of a part of the "Warm House" loan amount from the State Agency on Energy Efficiency and Energy Saving of Ukraine in 2017.

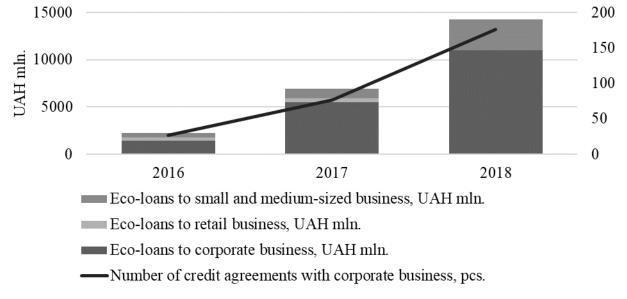


Fig. 2. Eco-loans of JSB "Ukrgasbank" in 2016-2018 Source: generated by the author based on [7]

As of January 1, 2019, the share of corporate business clients in the credit eco-portfolio is 75.7%, small and medium-sized business clients – 22.8%, retail business clients – 1.5%. In 2018, the concentration on small and medium-sized businesses increased significantly (the share increased by 7.7%). The largest share in the credit eco-portfolio is made up of renewable energy projects (solar power plants, hydroelectric power plants, wind power plants, power plants operated on bio-fuel) – 69.39%, the share

of energy efficiency projects and environmental projects is 30.61% (Fig. 3).

However, despite the positive changes that have taken place in recent years in the field of lending to environmental projects, bank eco-loans are used by a small proportion of business entities. This is due to the conditions on which banks lend, such as high interest rates on such loans, the need for long-term lending related to the implementation of projects, the absence of guarantees or mortgage property.

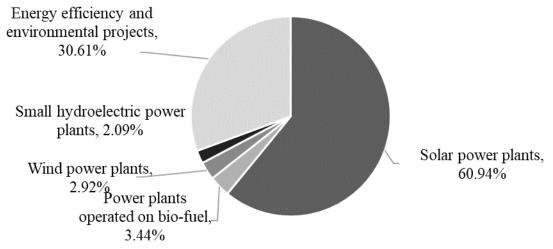


Fig. 3. Structure of the eco-loan portfolio of JSB "Ukrgasbank" by purpose in 2018 Source: generated by the author based on [7]

Besides, low lending activity for ecofriendly entrepreneurship is also caused by significant credit risks associated with the absence of:

- an efficient system for selecting the most effective environmental projects;
- effective mechanisms for stimulating participation of banking institutions in lending to innovative businesses;
  - experience in lending to envi-

ronmental projects at most banks.

Conclusion. Prospects for the development of bank lending to environmentally friendly entrepreneurship will depend on the risks of lending to ecoprojects and state incentives for bank eco-lending. State support for environmentally friendly entrepreneurship will have a positive impact on the further development of bank lending.

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