7. Department of Industrial Policy & Promotion. Available at: https://dipp.gov.in/foreign-direct-investment/foreign-direct-investment-policy

8. CEIC Data. Available at: https://www.ceicdata.com/en/indicator/india/gdp-per-capita.

9. Index Mundi Available at: https://www.indexmundi.com/g/g.aspx?c=in

10. Dokladi o mirovikh investitsiyakh [World Investment Report]. : *UNCTAD Conference*. Available at: https://unctad.org/en/Pages/publications.aspx.

11. Galishcheva N.V. (2017) Globalizatsiya indiyskoy ekonomiki: tendentsii i perspektivy [The globalization of the Indian economy: trends and prospects]. *Bulletin of MGIMO-University*. Vol. 2(53), pp. 71-89.

12. World Economic Forum. Available at: https://www.weforum.org/search query=Global+Competitiveness+Report

13. The Global Competitiveness Report 2017–2018. Available at: https://espas.secure.europarl.europa.eu/orbis/sites/default/files/generated/document/en/TheGlobalCompetitivenessReport2017–2018.pdf.

14. Doing Business: assessment of the quality and effectiveness of regulation. Available at: http://russian.doingbusiness.org/ru/reports/global-reports/doing-business-2019.

15. Index of Economic Freedom [Electronic resource]. – Mode of access: http://www.heritage.org/index/country/India. – Title from the screen.

16. The Conversation. Why credit rating agencies matter for developing countries Available at: http: //theconversation.com/qanda-why-credit-rating-agencies-matter-for-developing-countries-51964.

17. Fitch ratings Available at: https://www.fitchratings.com/.

18. Moody`s credit rating Available at: https://www.moodys.com/.

19. S&P Global ratings Available at: https://www.standardandpoors.com.

20. World Bank Official Website. Available at: http://databank. worldbank.org/.

21. National investment promotion and Facilitation Agency. Available at: https://www.investindia.gov.in/why-india.

22. Make in India Available at: http://www.makeinindia.com/home.

23. Government of India. Available at: https://community.data.gov.in/total-foreign-direct-investment-equity-inflows-from-2000-01-to-2016-17/.

24. Ernst&Young. Available at: https://www.ey.com/in/en/newsroom/news-releases/ey-will-it-make-india-an-attractive-investment-destination

25. Department of Foreing Affairs and Trade. Available at: https://dfat.gov.au/geo /india/ies/overview.html.

UDC 336.64 **DOI** 10.18664/338.47:338.45.v0vi65i.162924

ACTIVITY–HOLISTIC VIEW ON ESSENTIAL CONTENT OF MODERN FINANCE

Serikov A.V., PhD of Phys.-Math. Sc., Professor, Full Professor
(Kharkiv National University of Civil Engineering and Architecture)

Based on the activity-holistic analysis of the problem, the paper shows that finance is a component of the life activity of economic entities of all levels (individual, family, firm, community, state), within which they perform high-performance economic activity, while carrying out processes of targeted movement of the exchange value of their monetary capital

to achieve the planned levels of its capitalization. The concepts of a financial flow, financial resource, financial activity, financial institution and financial system have been redefined.

Key words**: **definitions; economic activity; holism; finance; financial activity; financial institutions; systems; flows; resources; capital

ДІЯЛЬНІСНО–ХОЛІСТИЧНИЙ ПОГЛЯД НА СУТНІСНИЙ ЗМІСТ СУЧАСНИХ ФІНАНСІВ

Сєріков А.В., канд. фіз.-мат. наук, професор, професор (ХНУБА)

На пострадянському просторі фахівці додержуються думки про те, що «фінанси» є економічною категорією, що виражає грошові відносини при перерозподілі вартості між економічними суб'єктами в процесі накопичення необхідних цільових фондів та цільовому їхньому використанні при відтворенні виробництва. В англомовній літературі словом «фінанси», доповнюючи прикметником типу «громадські», «корпоративні» та ін., визначають як науку, так і практику управління капіталом (або грошима). Існуюча багатозмістовність наповнення дефініції «фінанси» може несприятливо позначатися на взаємодіях між суб'єктами господарсько-економічного діяльності. Тому її усунення є завданням актуальним.

Для вирішення цього завдання використано підхід, детермінантами в якому виступають, по-перше, діяльність людини і, по-друге, холізм або цілісність аналізу діяльності та її результатів.

На прикладі окремої людини, як суб'єкту господарювання, розглянуто її діяльність в межах власного господарства – з метою забезпечення власної родини продуктами харчування із певним набором споживних цінностей, господарсько-економічну діяльність – для успішного виробництва таких продуктів з метою їхнього еквівалентного обміну або продажу за гроші та фінансово-економічну – з метою нарощення капіталу у грошовій формі. Діяльнісний підхід, підтримуючи процесну або операційну модель, дозволяє, наприклад, достатньо строго описати мовою математики «народження» нових споживних цінностей у вироблених продуктах. Системний розгляд перелічених результатів не заперечує їхнє розповсюдження і на інших суб'єктів господарювання, а саме: сім'ю, фірму, місцеву або регіональну громаду, галузь, населення окремо узятої держави. В межах запропонованої системи виявляється просторово-часова цілісність усіх сфер життєдіяльності господарюючих суб'єктів будь-якого рівня. В цілому, діяльнісно-системний підхід забезпечує досягнення наступного висновку: фінанси є сферою життєдіяльності господарюючих суб'єктів всіх рівнів (особистість, сім'я, фірма, громада, держава), в рамках якої вони забезпечують процеси цілеспрямованого руху мінової вартості своїх капіталів в грошовому вимірі для досягнення запланованих рівнів їх капіталізації. Згадані процеси потребують їхнього супроводження у вигляді набору правил, інструкцій, рекомендацій тощо, що можна позначити словом «відносини», чим керуються всі суб'єкти господарської діяльності і що отримало назву інститутів. Інституційний атрибут «відносини», на якому утримуються визнані до сьогодні дефініції фінансів, спровокував підміну сутнісного змісту останніх.

Здобута в даній праці дефініція фінансів є підставою для визначення змістовної сутності фінансового потоку (як потоку капіталу у грошовому вимірі, що формується і активізується господарюючим суб'єктом з метою його запланованої капіталізації), фінансового ресурсу (як закумульовану господарюючим суб'єктом будь-якої кількості капіталу будь-якої природи (і ліквідності) в грошовому вимірі з відкладеною

капіталізацією), фінансового капіталу (як фінансового ресурсу, що не має споживної цінності, а уявляє із себе у чистому вигляді гроші та грошові агрегати), фінансової діяльності (яка об'єднує усі види дій із фінансовим капіталом), фінансового менеджменту (як теорію та практику управління фінансовими об'єктами, дефініції котрих надані вище).

Ключові слова: визначення; економічна діяльність; холізм; фінанси; фінансова діяльність; фінансові установи; системи; потоки; ресурси; капітал

ДЕЯТЕЛЬНОСТНО–ХОЛИСТИЧЕСКИЙ ВЗГЛЯД НА СУЩНОСТНОЕ СОДЕРЖАНИЕ СОВРЕМЕННЫХ ФИНАНСОВ

Сериков А.В. А.В., канд. физ.-мат. наук, профессор, профессор (ХНУСА)

В статье на основе деятельностно-холистического анализа проблемы показано, что финансы – это составляющая сферы жизнедеятельности хозяйствующих субъектов всех уровней (личность, семья, фирма, община, государство), в рамках которой они обеспечивают высокоэффективную экономическую деятельность, осуществляя при этом процессы целенаправленного движения меновой стоимости своих капиталов в денежном измерении для достижения запланированных уровней их капитализации. Переопределены понятия финансового потока, финансового ресурса, финансовой деятельности, финансового института и финансовой системы.

Ключевые слова: дефиниции, хозяйственная деятельность, холизм, финансы, финансовая деятельность, финансовые институты, системы, потоки, ресурсы, капитал.

Problem formulation. The definitions of finance formulated by the Russian-language post-Soviet scholars can be summarized by the statement that "... finance is an economic category expressing monetary relations in the process of redistributing value among economic actors in the course of accumulating the necessary target resources (funds) and the targeted use of these monetary resources when forming the necessary reproduction ratio in unity with the mechanism, practice, and tools ensuring this process" [1, P. 9]. In the English literature, the word 'finance' is accompanied with an attribute ('public', 'corporate', etc.), which gives rise to a wide variety of the definition semantic content. However, as a rule, 'finance' is defined as the science and practice of managing capital (or money) [2, P. 1]. Such a multi-semantic filling of the definition of 'finance' can adversely affect the interactions between economic agents, which causes reasonable concern among experts [1; 3]. Therefore, the elimination of the problem of the multidimensionality of financial science terminology seems to be a relevant pursuit.

In the critical **analysis of the recent research and publications** on the above-cited problem, it is advisable to highlight the already mentioned works [1; 3]. Thus, the paper [1] states that there is no uniform understanding of the object and subject of finance in the scientific community, and therefore – no generally recognized system of knowledge about finance. The reason for that is the lack of a systemic approach to understanding the essence of finance, and therefore the discrepancies in the theory of finance can rather be presented as scientific fragments that are not connected by a single idea. At the end of the above-cited publication, the author proposes a synthetic definition of the conceptual essence of finance.

The paper [3] considers the

development of a multidimensional understanding of finance as reflection of each specific historical stage in financial science formation. The author of the paper shows that interpretation of finance still remains within the discussion field, since the previous conception of finance as being exclusively public (state) cannot be extrapolated to private (corporate) finance without the appropriate assumptions.

An explicit recognition of the determining feature of finance – that the relations pertaining to funds (or target resources) have monetary value or content – can be attributed to the specific features of both the publications. This specificity prevents the understanding of the essence of finance as a phenomenon that is objectively necessary for the vital activity of society.

The objective of the present paper is to find a new conceptual approach to an unambiguous and exhaustive definition of 'finance'.

The presentation of the main material. Among the well-known approaches to formulating the definition of an object / phenomenon in economics, the following three approaches are most frequently used: (1) descriptive, based on the simplest description of the external (formal) side of an object / phenomenon; an example of this kind of definition is given at the beginning of the present paper; (2) attributive, aimed at identifying and describing the most characteristic features or attributes of an object / phenomenon; (3) essential, which allows bringing to light in the most complete and accurate manner the nature and raison d'être of an object / phenomenon. All the above approaches are based on traditional reductionism i.e. mental decomposition of the problem under study, which leads to a loss of the holistic vision of the problem and violation of the definition completeness principle [4, p. 145]. To prevent such losses, it is advisable to apply a holistic (integral, systemic) approach. In this case, there appears a chance for an unequivocal and exhaustive definition of the essential content of the 'finance' concept.

Examples of holistic approach effectiveness are contained in a famous work [5] by Ludwig von Mises. In his research, the pivotal role is assigned to the man whose natural quality (property, attribute) is the ability and need to carry out a given type of activity throughout his lifetime. At the same time, life can be considered as an active signal form of the system existence; signaling (informativeness) can act as a necessary sign of life, while activity – as a sufficient one [6, P. 76–77]. In contrast to inert matter, life is able to persist due to the advance response to signals of a possible impact. Activity can be defined as a specific form of human actions, the content of which is an expedient change and transformation of the outside world [7, P. 52].

The basis for all socio-economic transformations (phenomena) is laid by (1) *certain target actions (activities) of people* and (2) *their relations through and pertaining to these actions* [8, P. 56]. Therefore, it is quite reasonable to designate the method proposed for solving the above problem as the activity-holistic approach. Its determinants are (1) human activity and (2) holism or wholeness of the analysis of activity and its results [9, P. 83].

As a starting point on the way to the set goal – identifying the essential content of the 'finance' concept – let's consider a human existence sphere called 'economic activity', designating with the word of 'economy' a set of production means used by their owners (or the society) to meet their needs, while 'activity' – as a sequence of actions for the manufacture of products to meet the needs.

Originally, people's economic activity was associated with housekeeping (home), that is, with the life support (shelter, protection) of a certain community of people, their survival in adverse climatic (and other) conditions, with all of its implements and essentials [10, P. 125]; acts of exchange or purchase / sale were not intended. Later, political economists called that kind of

management ‘natural’ [11, P. 53].

It should be emphasized that with the natural form of management, people were forced to create targeted reserves of life-sustaining resources (which were later called ‘funds’) in order to ensure their own long-term survival in unfavorable conditions. Significantly, these stocks were initially managed by the actual participants of the economic process. Later on, with the division of labor, emergence of the family, private property, markets and the state, the processes of building up funds and their control began to be implemented by those who have power or communities thereof [12, P. 355-370]. At the same time, the funds themselves (created through taxes), and their related formation, distribution and redistribution processes, were already described in monetary value terms.

An example of natural-economic activity is the situation in which a certain housewife is engaged in home-based cheese-making to meet the needs of her family [13; 14]. She thereby creates material wealth used for sustaining a human body. Here lies its benefit. The consumer value of cheese as a useful food is determined (according to Menger [15, P. 94]) by its scarcity, since it is not found in the nature in the ready-to-eat form.

Cheese-making, most likely appeared as a method of milk preservation, for among the consumer qualities of cheese its much longer shelf life, compared to that of milk, has always been noted [16, P. 12]. Cheese is obtained by concentration and biotransformation of the main components of milk (casein) affected by enzymes (protein substances - catalysts in biochemical reactions), microorganisms, and physicochemical factors [16, P. 6]. The added consumer value of cheeses is a large amount of easily digestible proteins, obtained as a result of the enzymatic decomposition of milk casein, minerals, vitamins, amino acids (including the essential ones that are not originally present in milk), etc. [17; 18]. The created good – cheese of desirable consumer value – differs from the consumer values of the products used as raw materials.

In cheese-making, as a rule, four types of milk (cow, goat, sheep and buffalo) and mixtures thereof are used. At the same time, in the International Dairy Federation catalog, about 500 types of cheeses [16, P. 6] are described with their own organoleptic (taste, flavor, etc. [19, P.11]) palettes which provide a high consumer value. The production of cheese itself includes [16]: (1) coagulation (condensation) of milk, (2) separation of the curd mass from whey, (3) molding, (4) pressing under external loads or its own weight, (5) salting, (6) maturation (ageing) at a certain temperature and humidity in anaerobic or aerobic conditions.

Cheese-making, as a value-forming activity, is realized through an orderly, expedient set of interrelated actions, united by a single plan and aimed at achieving a certain goal. The corresponding result is obtained in the process of converting certain resources. The systemic (holistic) analysis calls this activity an ‘operation’ [20, P. 11], presenting it as a process of interaction between system products and system mechanisms. The operation model is shown in Fig. 1.

In the analyzed situation: (1) the product undergoing processing is milk, (2) the processed product is cheese, (3) the energy product is thermal energy providing coagulation of milk and maturing of cheese, (4) the remainder of the energy product is heat dissipated in the environment, (5) the processing mechanism is milk-coagulating enzymes (ferments), special additives (calcium chloride, lipase, etc.), salt, wax, molds, presses, special containers for maturing cheese, (6) the worn-out mechanism is residues of enzymes and additives, forms, presses and containers after being used in cheese-making.

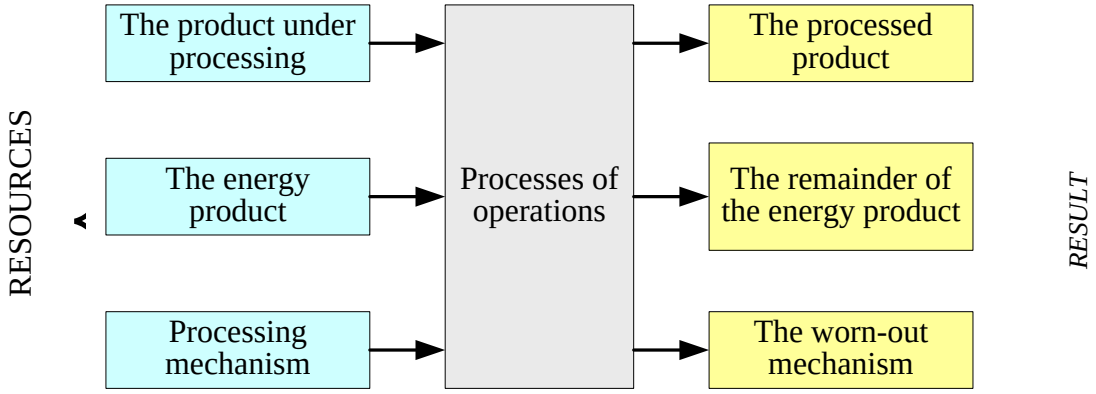

Fig. 1. Cybernetic model of operation [21, P.30]

The considered process of creating a new customer value can be described with the help of the following matrix-operator model [22, P. 5]:

$$\left| y(t) \right\rangle = S(t) \cdot \left| f(t) \right\rangle, \qquad (1)$$

where *S* is an explicitly set matrix operator of a cheese-producing technological system, which describes the transformation of the column vector of the input consumer values of resources $\left| f(t) \right\rangle$ into the column vector of the output consumer values of product (cheese) $\left| y(t) \right\rangle$; $t \subset [a,b]$ is the time required for execution of the technological process (let's clarify that in mathematics the rule by which each element *x* of a certain non-empty set *X* is associated with a single element *y* of some non-empty set *Y* [23, P.18] is called *an operator)*. In an expanded form, the ratio (1) takes the form:

$$\begin{pmatrix} y^1(t) \\ y^2(t) \\ \dots \\ y^n(t) \end{pmatrix} = \begin{pmatrix} S_1^1(t) & S_2^1(t) & \dots & S_m^1(t) \\ S_1^2(t) & S_2^2(t) & \dots & S_m^2(t) \\ \dots & \dots & \dots & \dots \\ S_1^n(t) & S_2^n(t) & \dots & S_m^n(t) \end{pmatrix} \cdot \begin{pmatrix} f^1(t) \\ f^2(t) \\ \dots \\ f^m(t) \end{pmatrix}. \qquad (2)$$

Here elements $S_j^i(t)$ of the matrix operator of the system $S(t)$ (or *S*-matrices) in their turn serve as operators that can be called *birth* operators, for the action of each of them on the corresponding component of the vector of the input consumer values of resources leads to the "birth" of a part of the corresponding component of the vector of the output consumer values of the product. The present paper does not aim to write explicitly the birth operators of the consumer properties of cheese, which are the result of the hard-to-describe microbiological processes of milk components transformation. It is important that the operator describes a specific action (activity).

The cheese-making success of the housewife is indicated by the size of consumption of homemade cheese by her family members and the degree of their satisfaction with the product organoleptic qualities.

In general, the success (competitiveness) of any economic activity can be assessed using the performance indicator which is applicable as a criterion for optimizing the system process [24]. Assessment of performance in food production is complicated by the need to

build and use qualimetric scales (digitizing qualitatively the expressed indicators of the research object value [25, P. 80]) for processing the results of the organoleptic analysis of products. Since the result of any economic activity is of a multidimensional nature, it becomes necessary to use a vector efficiency indicator that reflects both functional (performance and productivity) and economic (resource-intensive) components (Fig. 2) [26].

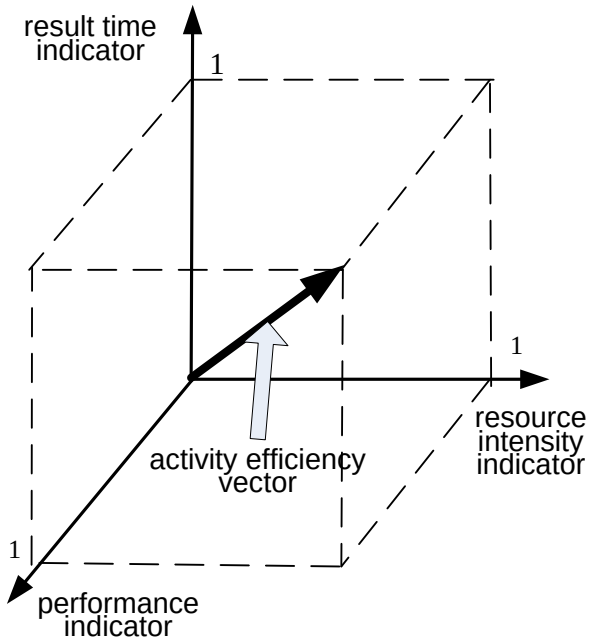

Fig. 2. A model of the vector of economic activity efficiency [26, P. 216]

Let us assume that the housewife' neighbors' repeated appraisal of her cheese-making success (efficiency) proved that she is the most skillful and efficient cheese-maker in the neighborhood. Thus, the next-door families began to order her cheese, providing her with milk (raw material) in quantities sufficient for both making cheese and compensating for its labor costs. With the advent of a direct interpersonal exchange of products (milk for cheese) and labor remuneration with the same product (milk), the housewife in fact turns to economic (entrepreneurial) activity. Its purpose is creation of both use and objective exchange value [27, P. 115], or cost, or monetary value [28, P. 87].

Assume that the housewife produces so much cheese from the milk she received that part of it can be placed in the nearby food markets for sale (more precisely, for exchange after a preliminary bargaining for a generally recognized and highly liquid commodity i.e. money; essentially, at present money is an information brand product and at the same time a legitimate debt receipt of the state, which is in circulation among all the economic entities, ensuring the alienation of part of the national wealth proportional to the value declared on that receipt [29]). Her activity now covers the stages of production, distribution and sale of cheese-making commodity products (which can be taken as goal-setting) indirectly exchanged in the food markets. This exchange requires establishing through a 'producer ↔ consumer' negotiation process the cost in money terms and a subsequent use of the money with changing its owners. In the general case, the result of bargaining can be described by an expression of the following form:

$$\left| m(t) \right\rangle = C(t) \cdot \left| y(t) \right\rangle ,$$

(3)

where *C* is an explicitly specified matrix operator for the sale of a product (cheese), which describes the conversion of the column vector of the product consumer values $|y(t)\rangle$ into the monetary exchange value; $|m(t)\rangle$ is the column vector of the monetary aggregates; $t \subset [a,b]$ is the required sale time. Assuming that the novice entrepreneur sells cheese for cash, we can pass from expression (3) to the following scalar product:

$$M = |ps\rangle \cdot |y\rangle = \begin{pmatrix} ps^1 & ps^2 & \dots & ps^n \end{pmatrix} \cdot \begin{pmatrix} y^1 \\ y^2 \\ \dots \\ y^n \end{pmatrix} = ps^1 \cdot y^1 + ps^2 \cdot y^2 + \dots + ps^n \cdot y^n, \quad (4)$$

where $|y\rangle$ is a column vector of cheese consumer qualities, $|ps\rangle$ is a row vector of market prices of cheese consumer qualities, for which they are sold by the entrepreneur in food markets.

Our entrepreneur, by purchasing all the necessary resources in business markets, can direct the money received from the sale of cheese to development of her business. At the same time, she has to observe the following condition:

$$pp^1 \cdot f^1 + pp^2 \cdot f^2 + \dots + pp^m \cdot f^m \le M, \quad (5)$$

where $\{f^1, f^2, \dots, f^m\}$ is a set of consumer characteristics of resources, $\{pp^1, pp^2, \dots, pp^m\}$ is a set of their corresponding purchase prices.

After repeating the cycle of 'production → distribution → exchange', the entrepreneur can earn a sum of money $M' = M + \Delta M > M$; here ΔM is a certain money increment which Karl Marx called '*surplus value'* (Germ. – *mehrwert*) [30, P. 161]. This fact proves that the resources involved by the entrepreneur in the economic activity (circulation) enable her to create surplus value which transforms into additional cash flows. Karl Marx called those resources '*capital'* [30, P. 161].

The capital [31, P.21]: (1) acts as a *scarce* economic resource; (2) is an economic resource that is not only stored, but also *accumulated*; (3) has certain liquidity; in the framework of the most common interpretation, it is an ability to be converted into a monetary form; however, in a broad interpretation, *liquidity* is described by the speed of the change of its owner [29, p. 188]; (4) is characterized by exchange *value* reproduced in the process of a continuous circulation of its forms; (5) can be regarded as *a moving value, bringing (generating) a new, added value.*

The following forms of capital can be identified [31, P.22-23]: (1) *economic* capital; within this form, monetary capital (financial assets), production capital (means of production), and commodity capital (finished products) are distinguished; (2) *human* capital; here, biophysical or health capital, intellectual or mental and psychological capital, social or cooperation and interaction capital are often discerned; (3) *social* capital, as a set of relations between economic entities, generating action.

Let us assume that after each 'production → distribution → exchange' cycle the capital of the entrepreneur grows in money terms, which is described by the universal formula of capital proposed by K. Marx: *M → (P - Pr - P ') → M'* [30, P. 157]; here, the letter *M* denotes the money involved

in the economic circulation (according to Marx – 'industrial capital'), *P* is a product purchased for performance of economic activity, *Pr* is a production process, *P'* is a new product produced in that process, *M'* is the money received from the sale of the product. It is anticipated that $M' > M$, otherwise the economic activity makes no economic sense.

Let us presume that by selling self-made cheeses in food markets, our entrepreneurial housewife buys the products of her competitors at a low price in one of the markets, aiming to sell them at a better price in another market, which is described by the expression $M \rightarrow P \rightarrow M'$ (according to Marx – 'trading capital').

If the business life of the entrepreneur compels her to give one of her counterparties a loan in the amount of *M*, which by agreement will be repaid with a larger amount of *M* '; the universal formula of capital is transformed into the form: $M \rightarrow M'$ (according to Marx – 'loan capital'). In this case, the housewife assigns to another business entity the possibility of advancing money *M* into a more successful income-generating activity $M'' > M'$.

The main creative force in the above example is the housewife-entrepreneur herself with all of her abilities for productive activity resulting in appearance of *M* '. These abilities, generating monetary income flows, are commonly described as 'human capital (potential)' [32]. Human potential formation, maintenance and development require investment [33] which later on turns into a higher income. In this case, we can use a symbolic notation: $M \rightarrow HP \rightarrow M'$ (where *HP* is 'human potential').

Considering the housewife-entrepreneur's ability to conduct activities as a productive resource, we can give it a monetary evaluation, calculating all the costs of acquiring this ability. Thus, for the monetary evaluation of human potential it is sufficient to use the cost approach [34, P. 88]. To some extent, it simplifies both the procedure of (self-) assessment of a person's potential and the pricing procedure for its "exploitation" in favor of other persons. In the latter case, we can use, for example, the following formula [35, P. 181]:

$$M' = \sqrt{M \cdot M_C^{USE}}\ , \qquad (6)$$

where M' is the price of using the housewife-entrepreneur's potential, M – the cost of her gaining potential, M_C^{USE} – the use value, added due to using the potential of the housewife-entrepreneur in favor of other persons.

When the potential of the housewife-entrepreneur is involved to create added value in favor of other persons, it is transformed into capital with a capitalization rate

$$RC = \frac{M' - M}{M} = \sqrt{\frac{M_C^{USE}}{M}} - 1. \qquad (7)$$

It is clear that $RC > 0$, when $M_C^{USE} > M$.

In all the considered cases of the entrepreneur's economic activity, we can speak of the targeted movement of her capital's exchange value with the aim to increase or capitalize it. It is rational to refer to the field of activity described by the formula $M \rightarrow M'$, in which capitalization is the only target (or the only "generic" attribute), as 'finance'.

From the analysis of the housewife's activities, "nested" within one another, there appears a graphical interpretation which is shown in Figure 3.

The graphic model in Fig. 3 takes into account that: (1) the set of goods with desired consumer qualities is substantially greater than the set of goods with similar properties, (2) the statement $M \rightarrow M'$ is unique among the modifications of K. Marx's universal capital formula.

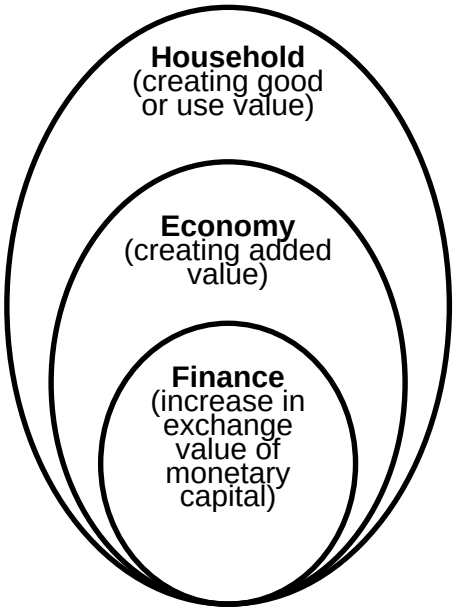

Fig. 3. A holistic view of the location and target content of an economic actor's various activities

It should be recognized that, apart from individuals (housewife-entrepreneur), it is advisable to include with the community of business actors the family, firm, regional community, and the population of the country as an entirety, the interests of which are represented by public authorities. Such a community can manifest itself as a dynamic (functional) socio-economic system. The most successful definition of the systems in question was given by a famous physiologist P.K. Anokhin, who showed that as a functional system $\{S\}$ we can consider only a complex of selectively attracted components $\{a\}$, in which interaction and interrelations (R) assume the nature of the *"mutual COaction"* of components $\{a\}$ for obtaining a useful focused result (P) [36, P. 35]. The interaction (R) of the components $\{a\}$ manifests itself when they are released from redundant degrees of freedom (potential activities in certain directions), unnecessary for obtaining a particular result (P), normally $(\tilde{R}) \geq (R)$. In turn, the result (goal), due to its characteristic parameters and feedback, is able to make the system self-organized so that the mutual co-action in it would be most favorable for achieving this result (goal). For such systems, a symbolic description is applicable [37, p. 103]:

$$\{S\} \underset{def}{=} \{[\{a\}R]P\}, \qquad (8)$$

where *def* – definiendum – is an open, attributive, subject formula. A description of this kind suggests the need for and possibility of introducing a three-dimensional coordinate system $\{S_P; S_R; S_a\}$, within which it is possible to describe the properties or goals of each sphere of activity, the totality of its structural elements and activity-based relations (transactions) between them (Fig. 4).

Within the framework of the proposed model, an important quality of $\{S_P; S_R; S_a\}$-spatial (and probably temporal) integrity of all the vital activity spheres of economic actors of any level is manifested. In the model, the highest level is assigned to the individual as a business actor.

All the transactions are accompanied by the emergence and flow movement of certain values in the material, energy and information forms. Here it is advisable to

proceed from the consideration of transactions (operations) to considering processes (or business processes [38, P. 29]). The flow nature of the processes allows us to use for their description and management the proven language of logistics, as a kind of thinking aimed at organizational-structural and organizational-analytical improvement of the flow processes of any human activity [39, P.127]. In terms of this description, any funds with their formation, distribution and redistribution processes (which formerly applied exclusively to public finance [40]) occupy their natural place in obtaining the planned result.

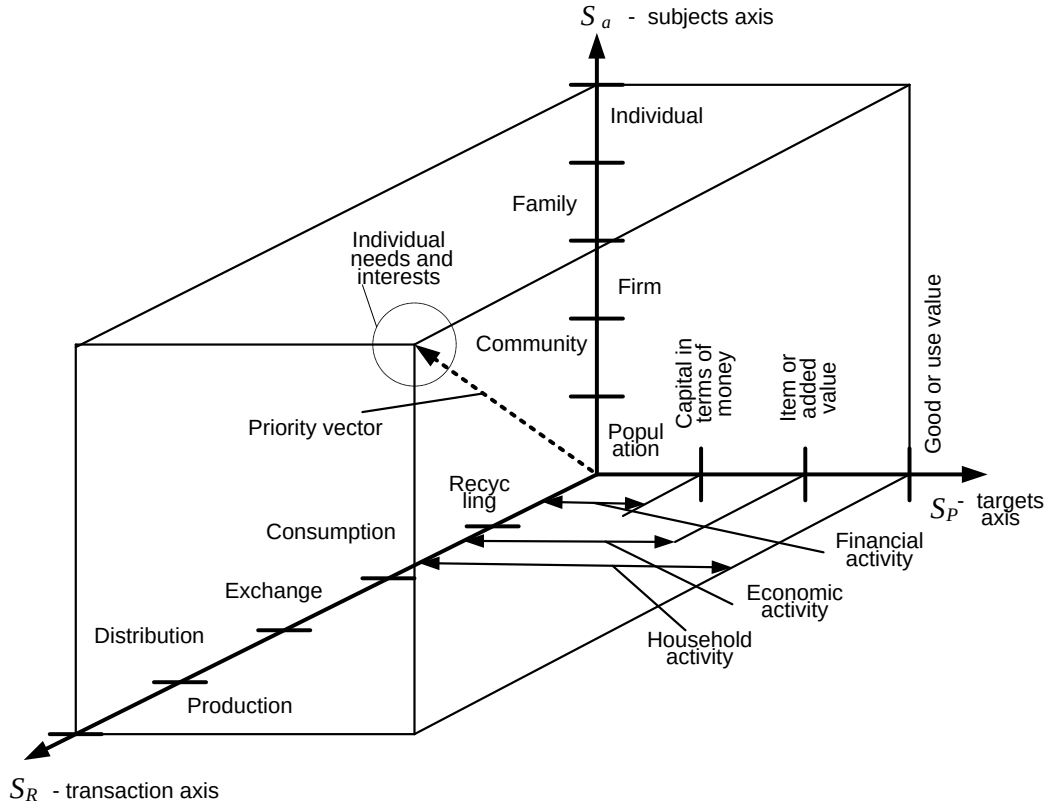

Fig. 4. Coordinate space of economic actors in a particular state

All the above allows us to pass on to the following definitions:

- *household* is a sphere of the vital activity of economic actors of all levels (individual, family, company, community, state), within which they carry out processes of targeted production, distribution, consumption and disposal of a residual created use value (benefits) for the satisfaction of their own needs, biologically inherent in the human nature (the need for food, clothing, security, belonging, respect);

- *economy* is a sphere of the vital activity of economic actors of all levels (individual, family, firm, community, state), within the framework of which they carry out the processes of targeted and most efficient creation of value (goods) with their subsequent exchange for satisfaction of all the economic actors' needs;

- *finance* is the sphere of the vital activity of economic actors of all levels (individual, family, firm, community, state), within the framework of which they provide the processes of targeted movement of the exchange value of their monetary capital to achieve the planned levels of its capitalization.

Since the three spheres "live" in a single $\{S_P; S_R; S_a\}$–coordinate space, most of the processes (and target results) from

different spheres are interconnected (which is reflected in their names, e.g. 'economic' or 'financial and economic'). Think, for instance, of the well-known material and financial flows model, covering both the sphere of production (economy) and the finance sphere [41, P. 231].

Obviously, each of the discussed business processes in a single $\{S_P; S_R; S_a\}$ – coordinate space requires a framework of rules, instructions, recommendations etc. All of the above can be denoted by the word 'relations', which guides all business agents and is called *institutions*. The latter, of course, are an integral part of the $\{S_P; S_R; S_a\}$-coordinate space and are perceived as a set of generally accepted rules and regulations. They have a relative invariability, specify the behavior of individuals in certain recurring situations, and are necessarily supplemented with control and norm-compliance mechanisms (which leads to physical separation of institutions in the $\{S_P; S_R; S_a\}$-coordinate space) [42, P.19]. The norm should be interpreted as "... a rule, prescription or pattern, addressed by virtue of tradition, custom or instructions given by the authorized persons or bodies to a specific agent or an indefinite set of agents, and defining characteristics of perception, interpretation or use of socio-economic information for decision-making, behavior, and forming *relations in society*"[42, P.16].

Any socio-economic (including financial) institution should have its relevant system of norms, comprising the following five components [42, P.35]: (1) basic norms expressing the main guidelines of the institution (the institution core); (2) additional norms included in the institution's "protective layer" acting as a buffer between the factors, views and actions of agents and the institution core; (3) subsidiary instructive supportive norms that form the mechanisms for monitoring, controlling, and supporting adherence to the norms set by the institution core; (4) value norms determining a general line of evaluating the institution, which are formed in the minds of the people (both participants of the institution and "outside observers"); (5) cognitive norms regulating various subjects' perception of the norms essence and enactment.

For financial institutions, the above groups of norms may have content, the example of which is given in Table 1.

Table 1

The content of the system of norms for financial institutions

The name of norm group	Norm content
Basic	Capital must always "work" i.e. capitalize, which is expressed in the targeted movement of its exchange value in monetary terms.
Additional	All kinds of financial transactions known today: (1) with capital – insurance, loans, collateral, currency mortgage; (2) in money transfer – transfer, letter of credit, collection, bank transfer; (3) in investment – rent, leasing, trust, credit, franchising; (4) speculative – swap, currency arbitrage, interest arbitration, currency speculation.
Supportive	Principles of financial management: (1) planned and systemic nature; (2) target orientation; (3) diversification; (4) strategic orientation; (5) advance management; (6) the current financing – capital accumulation ratio.
Value	The most complete satisfaction of human needs.
Cognitive	Assortment, pricing, marketing and communication policies.

Business actors and their servicing financial institutions (not examined in detail in this paper) constitute a financial system of any level. In such a system the right to legitimate existence is provided for:

- *a financial flow* – the flow of monetary capital, formed and activated by a business actor with a view of its planned capitalization;

- *a financial resource* – any amount of capital of any nature (and liquidity) accumulated by a business actor in monetary terms with a deferred capitalization;

- *financial capital* – a financial resource that has no use value i.e. money and monetary aggregates in their pure form;

- *financial activity* – combines all types of actions with financial capital;

- *financial management* – the theory and practice of managing financial objects, the definitions of which are given above.

Conclusions and prospects for further research. Within the framework of the activity-holistic approach to revealing the essential content of the 'finance' concept, the following can be argued.

Finance is a component of the sphere of life activity of economic actors of all levels (individual, family, firm, community, state), within the framework of which they provide processes for the targeted movement of the exchange value of their monetary capital to achieve the planned levels of its capitalization.

This definition is based on an activity implemented in the form of flow processes, which makes it possible to use the universal language of logistics to describe the multitude of financial problems. The term 'relations', which can be found in the earlier definitions of finance, is an institutional attribute "provoking" the substitution of the essential content of the definition under discussion.

The uniformity of the target functions of finance among business actors of all levels indicates a clearer vision of all possible forms of capital and their transformations. Therefore, as a contemporary goal of public finance, it is necessary to consider not only the use value arising from public funds distribution, but also the capitalization of human capital at all levels of management: from the individual to the state inclusive. The renewed human capital involved in the subsequent economic cycles can ensure the further growth of the national wealth, which will act as the pacing factor for the self-development of society at all levels.

The proposed approach has made it possible to fill the definitions of a financial flow, financial resource, financial activity, financial institution and financial system with new essential content.

Further research should be devoted to development of the present paper results.

REFERENCES

1. Ostanin V.A., Rozhkov Yu.V., Glukhov V.V. Kontsept ponyatiya «finansy»: problemy metoda poznaniya. [Concept of 'finance' notion]. *Finansy i kredit*. 2011. No 22 (454). Pp. 2 – 9. (rus)

2. Shiller R.J. Finace and the Good Society. *Princeton:* Published by Princeton University Press, 2012. 296 p. (transl. from Engl.)

3. Ishina I.V. Mnogoaspektnost' terminologii finansovoi nauki i ee evolyutsiya. [Multidimensionality of financial science terminology]. *Audit i finansovyj analiz*. 2015. 5. Pp. 199 – 203. (rus)

4. Kononyuk A.E. Ponyatologiya (Obshchaya teoriya ponyatii). Kniga 3. Teoriya opredelenij ponyatij. [Conceptology (General theory of concepts) Book 3. Theory of concept definitions]. *Kiev*: Osvita Ukraïni, 2014. 656 p. (rus)

5. Mizes L. von. Human. Action: A Treatise on Economics. *Chelyabinsk*: Socium. 2005. 878 p. (transl. from Engl.)

6. Shterenberg M.I. Fizicheskaya sushchnost' zhizni i nachala teorii organizovannykh sistem. [Physical essence of life and basics of organized systems theory]. *Moscow*: Novyj vek, 2003. 164 p. (rus)

7. Nikiforov A.L. Deyatel'nost', povedenie, tvorchestvo. [Activity, behavior, ceativity]. *Deyatel'nost': teorii, metodologiya, problemy*. *Moscow*: Politizdat, 1990. Pp. 52 –

69. (rus)

8. Fetiskin V.V. Deyatel'nost' kak atribut cheloveka. [Activity as Human Attribute]. *Sotsial'no-gumanitarnye znaniya*. 2010. No 1. Pp. 55–66. (rus)

9. Blauberg I.V. Problema tselostnosti i sistemnyi podkhod: monografiya. [Entirety problem and systemic approach: monograph]. *Moskov*: Editorial URSS, 1997. 448 p. (rus)

10. Ushankov V.A. «Khozyaistvo» i «ekonomika»: obshchee i osobennoe, ili Dva smysla. ["Farm business" and "economy": the common and the specific, or Two meanings] *Filosofiya khozyaistva. Al'manakh Centra obshchestvennykh nauk i ekonomicheskogo fakul'teta MGU im. M.V. Lomonosova*. 2015. Pp. 124 – 141. (rus)

11. Teoreticheskaya ekonomika. Politekonomiya: Uchebnik dlya vuzov. [Theoretical economics. Political economy: Textbook for HEIs]. *Moscow*: Banki i birzhi, YUNITI, 1997. 485 p. (rus)

12. Engels F. Origin of the Family, Private Property and the State. V. 3. *Moscow*: Politizdat, 1981. Pp. 211 – 370. (transl. from Germ.)

13. Lazareva O.V. Vsyo o syrodelii. Luchshie syry mira svoimi rukami. [All about cheese-making. World best hand-made cheeses]. *Moskov:* SyrDoDyr, 2016. – 208 p. (rus)

14. Asher D. The Art of Natural Cheesemaking. *Moscow*: E, 2017. – 320 p. (transl. from Engl.)

15. Menger K. Foundations of Economic Theory. Selected papers. *Moscow*: Territoriya budushchego, 2005. 496 p. (transl. from Engl.)

16. Gudkov A.V. Syrodelie: tekhnologicheskie, biologicheskie i fiziko-khimicheskie aspekty. Monografiya. [Cheese-making: technological, biological and physico-chemical aspects. Monograph]. *Moscow*: DeLi print, 2004. – 804 p. (rus)

17. Alekseev V.N. Process sozrevaniya syrov i puti ego uskoreniya. [Process of cheese maturation and ways to accelerate it]. *Moskov:* TSINTIPISHCHEPROM, 1963.– 80 p. (rus)

18. Savel'kina N.A. Biohimiya i mikrobiologiya moloka i molochnyh produktov. V 2-h chastyakh. Ch.1.: uchebnoe posobie. [Biochemistry and microbiology of milk and milk products. Two parts. Part 1: manual]. *Bryansk:* 2015. 129 p. (rus)

19. Vytovtov A.A. Teoreticheskie i prakticheskie osnovy organolepticheskogo analiza produktov pitaniya: ucheb. posobie. [Theoretical and practical basis for organoleptic analysis of food products: manual]. St. Petersburg: 2010. 232 p. (rus)

20. Effektivnost' tekhnicheskikh sistem [Technical systems efficacy] / Pod obshch. red. V.F. Utkina, Yu.V. Kryuchkova // Nadezhnost' i effektivnost' v tekhnike: Spravochnik: V 10 t. / Red. sovet: V.S. Avduevskii (pred.) i dr.- Tom 3.- M.: Mashinostroenie, 1988.- 328 p. (rus)

21. Lutsenko I.A., Fomovskaya E.V., Vikhrova E.V., Serdyuk O.Yu. Razrabotka ierarhii modelei sistemnykh operacii po agregiruyushchemu priznaku sistemnykh mekhanizmov. [Development of model hierarchy of systemic operations on aggregating indicator of systemic mechanisms]. *Vostochno-Evropeiskii zhurnal peredovykh tekhnologii ISSN 1729-3774*. 2016. No 3/2 (81). Pp.29 – 37. (rus)

22. Surnev V.B. Matrichno-operatornaya model' ekonomicheskoi sistemy s nepreryvnym vremenem. [Matrix-operator model of continuous-time economic system]. *Izvestiya Ural'skogo gosudarstvennogo gornogo universiteta*. 2013. No 4(32). Pp. 5 – 11. (rus)

23. Matematicheskaya entsiklopediya, t. 4, Ok –Slo. [Mathematical Encyclopedia, vol. 4, Ok-Slo.]. *Moscow:* Sovetskaya Entsiklopediya, 1984. 1216 col. (rus)

24. Lutsenko I.A. Opredelenie pokazatelya effektivnosti i obosnovanie ego osnovnoi funktsii kak kriteriya optimizacii. [Determining performance index and substantiation of its function of optimization criterion]. *Vostochno-Evropeiskii zhurnal peredovykh tekhnologii ISSN 1729-3774*. 2016. No 6/2 (84). Pp.33 – 42. (rus)

25. Subetto A.I. Kvalimetriya : malaya entsiklopediya. [Qualimetry: small

encyclopedia]. *St. Petersburg*. 2015. 244 p. (rus)

26. Serikov A.V. Effektivnost' hozyajstvennoi deyatel'nosti: opredelenie, izmerenie, sinergeticheskoe upravlenie. [Efficiency of economic activity: definition, measurement synergetic management]. *Ekonomichnyi visnyk Donbasu*. 2011. No 2(24). Pp. 212 – 219. (rus)

27. Böhm-Bawerk E. Osnovy teorii cennosti hozyajstvennyh blag. [Fundamentals of theory of the value of economic goods]. *Moscow*: Direktmediya Publishing, 2008. 194 p. (transl. from Engl.)

28. Smith A. An Inquery into the Nature and Causes of the Wealth of Nations. Moscow: Eksmo, 2007. 960 p. (transl. from Engl.)

29. Serikov A.V., Krivoruchko G.V. Sutnist' groshei: netraditsiinii poglyad. [Essence of money: non-traditional perspective]. *Aktual'ni problemi ekonomiki*. 2008. No 9(87). Pp.184 – 189. (rus)

30. Marx K. Das Kapital. Kritik der politischen Ökonomie. Band 1. *Moscow*: Politizdat, 1973.– 907 p. (transl. from Germ.)

31. Radaev V.V. Ponyatie kapitala, formy kapitalov i ikh konvertatsiya. [Concept of capital, forms of capital and their conversion]. *Ekonomicheskaya sotsiologiya*. 2002. Vol. 3. No 4. Pp. 20–32. (rus)

32. Becker G.S. Human Capital. Theoretiical and Empirical Analysis. *N.Y.*: Columbia University Press for NBER, 1964. 412 p.

33. Schultz T. Investment in Human Capital. *The American Economic Review*. 1961. Vol.51. No 1. Pp. 1–17.

34. Smirnitskii G.B., Chirkin A.N. Otsenka biznesa: osnovy, instrumentarii, praktika. [Assessment of business: basics, tools, practice] *Kiev*: Art Ekonomi, 2013. 312 p. (rus)

35. Serikov A.V. Lyudskyi kapital osobystosti: otsinka i upravlinnia. [Human capital of individual: evaluation and management]. *Ekonomichnii visnyk Donbasu*, 2015. No 2 (40). Pp.180-185. (rus)

36. Anokhin P.K. Printsipial'nye voprosy obshchei teorii funktsional'nykh sistem [Principal issues of general theory of functional systems]. Printsipy sistemnoi organizatsii funkcii.– *Moskow:* Nauka, 1973. Pp. 5–61. (rus)

37. Uemov A.I. Sistemnyi podhod i obshchaya teoriya sistem [System approach and general theory of systems]. *Moskow:* Mysl', 1978. 272 p. (rus)

38. Repin V.V. Biznes-processy kompanii: postroenie, analiz, reglamentatsiya. [Business-processes of company: structure, analysis, regulation]. *Moskow*: Standarty i kachestvo, 2007. 240 p. (rus)

39. Semenenko A.I., Sergeev V.I. Logistika. Osnovy teorii: Uchebnik dlya vuzov. [Logistics. Fundamentals of theory: Textbook for HEI]. *St. Petersburg:* Soyuz, 2001. 544 p. (rus)

40. Basteble C.F. Pablic finansy. Third edition, revised and enlarged. London: Macmillan, 1903. 808 p.

41. Mogilevskii V.D. Metodologiya sistem: verbal'nyi podhod. [Methodology of systems: verbal approach]. *Moskow*: Ekonomika, 1999. 251 p. (rus)

42. Kleiner G.B. Evolyutsiya institutsional'nykh sistem. [Evolution of institutional systems]. *Moskow*: Nauka, 2004. 240 p. (rus)