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Project Lending in Banking Risk Management

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Abstract:

The article presents a number of concepts of contemporary risk management theory and methodology. The general concept of risk is structured into two successive aspects: factorial and productive.

Except of the broadest approach to the definition of risk as having in its manifestation only negative consequences (losses), i.e. "pure risk", the authors define also "odds", "chance risks (speculative risks)", and "shocks".

It is shown that in project lending (funding), credit, reputational, and deposit pure banking risks can be significantly reduced, while corresponding odds can increase. This is due to the fact that cash flow management of the project is carried out by bank employees or working groups under their leadership, whose competence and professional behavior will support the bank's reputation and will allow immediately and timely providing a return of funds invested in the project.

The authors describe techniques and tools to minimize and compensate banking risks, as well as peculiarities of their application in project lending (funding).

Keywords: *commercial bank, project funding, factorial risk area, risk management, methods and tools for preliminary orientation, reputational risk, project author and implementer.*

JEL Classification: *G21, G24, G32.*

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1. Introduction

Pertinent risk management refers to the modern requirements, conditions, and indicators of effective, high-quality bank management. This is formulated by both international and national banking supervisory and regulation authorities, specialized non-governmental organizations (NGOs), and the priorities of the internal policies of commercial banks. When choosing bank, potential customers are guided by the ability of the bank management to neutralize, compensate for, or minimize pure risks, to strengthen and stabilize the odds, and to block banking initialization risks. High-risk banking policy, the inability of bank management to cope with problem loans, loss of capital and reserves for loan losses, as well as high risks of insider dealings are usually listed among the reasons for the Central Bank revoking licenses from banks which it considers problematic.

It is quite natural that such a situation promotes intensive development of risk management in general and banking risk management theory and methodology, clarifies the terminology, develops new approaches, restores and adjusts traditional methods and tools of banking risk management to current conditions (Thalassinos and Dafnos, 2015; Thalassinos *et al.*, 2010; 2015). The latter include the development of innovative organizational scheme of project lending (funding) aimed at management of both financial and especially credit risks, as well as non-financial, and first, reputational banking risks, which are exactly the subject of this study.

The hypothesis of this development is that engagement of employees of the lending bank in the process of ensuring funds, aimed at implementation of the project, as persons responsible for observing, advising, supervising, or directly governing cash flows, will allow monitoring, reproducing, correcting, stabilizing, and even controlling directly over incoming and outgoing project cash flows, as well as providing accordingly minimization of credit risk and compensation of reputational risks in banking through both direct and indirect schemes.

The methodological basis of the present research includes the works of scientists and specialists working in both Russia and abroad, as well as Russian and international regulatory documents. Risk management and banking risk management are described in theory, methodology, and practice in the scientific works and methodological developments of O.I. Lavrushina, N.I. Valentseva, N.E. Sokolinskaya, M.A. Pomorina, V.T. and others, as well as in the works of P. Rose, D. Sitka, K. Walraven, and M. Betts. Issues of theory and practice, problems and prospects of project lending (funding), including banking risk management, lie in the sphere of scientific interests of I.A. Nikonova, V.Yu. Katasonov, A.M. Morozov, B.V. Vorontsov, A.M. Kolesnikov, G.S. Bektenova, and others, as well as E. Fayt, G. Winter G., and F. Benoit.

The purpose of the present study, the outcomes of which are presented in this article, is the substantiation of the possibility and necessity to implement tooling of innovative organizational scheme of project lending (funding) into banking risk management. Developed methodological basis of project cash flow management of the borrower by management of the bank will allow minimizing and compensating basic banking risks, and, first and foremost, credit and reputational risks in banking.

2. Materials and methods

During the research and preparation of curricular materials we have identified a number of disagreements and debating points, the explanation of which seems promising to improve the efficiency of the theoretical principles and practical actions in banking risk management. This required a need of practical contacts with bank employees, during which we have applied methods of the survey, target surveys, expert assessments, and observations. When processing the collected materials, we used methods of economic analysis (internal regulations of the banks), generalizing, ranking, classifications, groupings and comparisons, as well as descriptions. The study of the historical experience in banking risk management predetermined the use in the study of the historical and logical method, as well as method of analogies and generalizations. The study required developing a collection of surveys, questionnaires, classification criteria, specialized exactly in the use of project lending (funding) in the banking risk management.

3. Results

According to the risk management theory, risk management based on the use of instructions, rules, methodologies and tools is more functional and efficient, if carried out comprehensively at consecutive stages. This complex includes, first the factorial area of risk, and then the productive area of risk (Rusanov, 2004). Such successive integrated schemes are particularly effective in project lending (funding), where the project cash flow management is carried out by bank managers. Cash flow management of the project allows the bank staff supervising the project to minimize and, in favorable situations, neutralize almost any pure banking risks, but primarily credit and reputational risks. In project lending (funding), pure risks can rise to the level of shocks only in a very negative manifestation of the general risks (natural, technological, social, and physiological), while the probability of forming odds in their positive manifestation, becomes more real (Thalassinos and Politis, 2011; 2012).

Factorial area of risk as a risk structure component is implemented if the uncertainty and therefore threats, problems, and failures are focused on the process itself until its completion. This means that there is time and opportunity to neutralize or at least minimize these threats, challenges, and problems (Rusanov, 2004). With respect to banking risks such as credit and reputational risks in project lending (funding) this situation may occur because of the following reasons:

- aggressive, incompetent actions of the project author and implementer or other persons involved in the project implementation;
- lack of competence and experience of bank staff supervising the project;
- disagreements between members of the group created to manage the cash flow of the project;
- ambitious, inappropriate actions of the banking supervisory and regulation authorities, often protested by prosecutor's office;
- loss of competitive positions;
- use of unsuccessful characters, scripts, and advertising vehicles;
- use of non-adapted foreign methods;
- the arbitrariness of the authorities, establishing absurd prohibitions and restrictions followed by subsequent inspections and repressions;
- aggressive actions of public institutions, and many other factors.

Project lending (funding), suggesting close contact between bank managers, managing project cash flows, as well as its authors and implementers, imposes its own peculiarities on the management of factorial area of credit and reputational banking risks. The main task when managing factorial area of credit risk is neutralizing or minimizing the negative factors that emerge in the course of project lending, as well as ensuring the full and timely repayment of credit resources invested in the project. This can be done using the following methods, techniques, and tools:

a) Gathering information, evaluating and selecting potential borrower – author and implementer of the project. This should be carried out paying special attention to the following aspects:
- the scenario of the contact between the bank and the potential borrower (project author and implementer), who applied to bank, at that the contact took place at the active participation of intermediaries, and the bank was looking for opportunities to invest accumulated resources in project lending (funding);
- how aggressive is a potential borrower (project author and implementer), when asking and sometimes menacingly demanding to invest in his project;
- whether the potential borrower is willing to admit bank managers to manage cash flows of its project and according to what schemes;
- whether a potential borrower agrees to invest his own funds in the project implementation and in what proportion;
- is the borrower’s family ready to spend family resources on the project implementation or they would prefer to spend the money for other purposes.

b) Evaluation, project selection and consent to participate in the project:
- the feasibility of the project in terms of enforceability of technologies, legislation, environmental and socio-cultural factors;
- the feasibility of the project in terms of possible inclusion of supplementary cash flows in project resource provision;

- the feasibility of the project in terms of the capability, sufficiency and timeliness of the adequate cash flows formation;
- evaluation of the possibility of acceptance by third parties, having relevant powers, of imposed restrictions or prohibitive measures that implies an increase in costs of their removal.

c) Establishing and introducing into documentation of covenants (special additional conditions) including those aimed at project lending (funding):

- not dismissing employees included in the project cash flow management group;
- not starting a new project before the completion of the started project;
- not dismissing secretaries and other employees having access to insider information about the project;
- not selling the property associated with the project, if this can affect the cash flows of the project;
- not acquiring additional property, if spent money can affect the cash flows of the project;
- not holding expensive corporate events, hospitality events, and trips abroad, which can affect the reputation due to a significant unnecessary expense;
- limiting a minimum philanthropic activity, patronage, sponsorship.

d) To include in the working group of project lending (funding) risk managers proficient in the areas of:

- regulatory risk management;
- reputational risk management;
- management of administrative and personnel risks;
- market risk management;
- banking risk management;
- Favorable impact on credit risk management will increase significantly, if the experts will have experience in similar projects.

e) Conclusion of a supplementary agreement of "Strategic partnership" type with the project author and implementer, as well as with other managerial (except credit) project components on the exchange of information and mutual assistance in the event of danger of risks formation and realization in the areas of their supervision.

f) Carrying out regular or onetime partial or complete control over organizational, technical, legal, technological, personal, socio-cultural, and other aspects of the project components implementation from the perspective of their impact on cash flows. This may be carried out in the framework of prior agreement with the author, project implementer, and other project management components (excluding credit) with the assistance of consultants and possibly specialized detectives. In this case, "Personal visit" scheme can be successfully applied, at which bank employee, who manages the cash flow of the project, personally observes and assesses on-site the level of success or problems in the course of implementation of particular part of the project. He defines how this may affect the completeness and timeliness of cash flow implementation; gives recommendations, and if the powers permit, puts forward the requirements, resolving problem situations. "Personal visit" involves a special arrangements, schedules and scenarios, and allows obtaining the latest, complete, and that is most important, actual information. Management of the productive area of risk aims at minimizing or compensating for losses in conditions where the pure credit risk has been not only formed but also realized, while the project implementation process has been completed, and the project cash flows have suffered. Methods and tools, used in this situation, are substantially different from the management tools used in factorial risk management. At that, we can distinguish methods and tools of preliminary orientation and those acting in fact. Pre-orientation methods and tools include:

a) defining limits and restrictions on the allocation of credit resources for particular project tasks associated with covenants, as well as conducting preliminary assessment of the performers' experience and competence;
b) creation of loss reserves making allowance for the project innovativeness and riskiness, as well as possible triggering of covenants, experience and expertise of the project authors and implementers, as well as managers responsible for individual project components (except credit);
c) identifying or creating leverages, including administrative ones, and triggering alternative cash flows;
d) achieving agreement, or preferably concluding contracts with individuals, who will be able to manage the problematic situation at the end of the implementation of individual stages or components of the project;
e) identification and possible negotiation with the borrower (the author and implementer) of the project concerning his desire and willingness to cut expenditures in other directions of scientific or business activities, and possibly personal expenses in order to compensate for the project cash flows losses. In the latter case, it is useful to know the views of his family members;
f) identifying opportunities for the bank to use part of the income and payments passing through the bank to compensate project cash flow losses, based on the agreement with the borrower (the author and implementer of the project);
g) identifying, perhaps, in the course of "Personal visit" the availability of underutilized, relatively unneeded property and making it as collateral or mortgage after relevant evaluation.

It is suggested to use a few methods and tools to manage effectively the productive area of credit risk when the fact of credit risk realization is already evident, i.e. the process is completed, a failure has occurred in the availability, timeliness, and completeness of the project cash flow generation, that has already resulted in appeared losses. In such adverse situations of the pure credit risk manifestation, the following techniques and tools can be applied:

a) impact on undisciplined payers, using documented system of incentives and repressions, and, if necessary, the possibility of introducing new impact measures;
b) the use of documented guarantees and sureties and, if possible, insurances;
c) involvement of authorities interested in the project to the resolution of the situation, as well as local leaders, NGOs, and in particular cases, confessional organizations;
d) informing borrower (the project author and implementer) about the significant probability of the fact that his mistakes, problems, and difficulties will call interest in competent authorities in case of suspicion of fraud, as well as the rating agencies and the press, that may lead to loss of reputation, and aggravate problems;
e) recommendations and possibly demands to the borrower to sell a relatively unused property not involved in the project, including personal property (in critical situation, including the property of relatives), as well as accounts, deposits, and securities;
f) making arrangements with suppliers of the borrower through facilitators of non-credit components of the project on debt restructuring of the project implementers in front of them;
g) identifying in consequence of joint meetings with project authors and implementers, advisers, and managing non-credit components of the project of priority cash flows and concentrating efforts on their stabilization, despite the fact that secondary cash flows can be temporarily reduced or frozen;
h) in case of social or confessional orientation of the project, to intensify marketing efforts, as well as appealing for help through the mass media.

Contemporary views on the risk management terminology distinguish not only pure risks, threats, problems, challenges and losses. They are formed and implemented in the conditions where the target setting of the project is a specific positive event, the achievement of which is highly probable, while the deviation from the planned course of events is negative and undesirable. In this case, risk management is focused on avoidance, neutralization, transfer, minimization or compensation of such pure risks. Besides pure risks there are also their opposites, regarded as the odds, which are formed when target setting, or more correctly, the expectations of the projects authors and implementers represent specific adverse events, while the achievement of possible favorable outcome is extremely unlikely. In such situations, deviation from these negative expectations is not excluded, but can be rather accidental, though with faint hope, but rather desirable. Risk management with regard to odds is designed to identify, activate, stabilize, and possibly strengthening these favorable trends.

Negative expectations, doubts about the success of the project, and sometimes a certain confidence in its failure arise from a number of factors and conditions. These sweepingly include corporate governance scenarios, where a subordinate credit organization gives on the orders of management to the corporate members initially bad loans; urgent instructions of local authorities to provide assistance to the loss-making core businesses under the threat of a ban on the operation of credit organization within their territory; the danger to fall under the influence of criminal structures, which through threats or bribery of bank employees require to give them loans, the repayment of which is not expected at all; the risks of insider transactions (related lending, which in some countries is considered a criminal offense, and is severely persecuted); calls of the authorities to invest in oil and gas-substituting innovative projects, obtaining positive outcomes, which are desirable, though problematic due to the extremely high risks; and finally, the competitive environment, which requires developing in accordance with scientific and technical progress to preserve the competitive position, that implies bank involvement through technical, organizational, technological, legal, as well as human resources, in projects that are little known to the bank or not at all known, requiring the involvement in new industries, regions, social strata, business cycles, legislative areas, and differing sometimes by significant specificity and rigidity of the competition.

In these circumstances, possible credit odds become more real with the involvement of lending bank in project lending (funding), when transferring cash flow management of the project to lending bank. For the lending bank, loan odds at its participation in project lending (funding) consist in the following:

- the project cash flows both adequate (accumulated by the project in the course of its implementation), and common, alternative, and extreme, which are planned as cash flows returns of credit resources, are more available in terms of providing information, they can be easily predicted, calculated, and documented;
- substantiating the need, requesting and obtaining assistance from individuals and organizations interested in the project becomes more accessible;
- ensuring preservation of scheduled cash flows, as well as their protection from redirection to other purposes and misuse becomes easier.

Thus, despite the fact that the banks involved in project lending (funding), experience certain difficulties as opposed to targeted loans (Rusanov, 2004; Rusanov *et al.,* 2017; El-Chaarani, 2014; Bibarsov *et al.,* 2017) (overconcentration of risks, possible conflicts with the author and implementer of the project, as well as curators of the non-credit components of the project, difficulties in enhancing cash flows outside the project), opportunities to minimize pure credit risks, ensuring timely and complete return of funds invested in the project, are quite large. Both lending and credit risk management involve both parties (the counterparties) of credit relations. These are lending bank and the borrower, which in the project crediting are the author and implementer of the project. For him, transferring cash flow management of the project to the bank has both certain problems and difficulties, and significant odds for a successful implementation of not only complex, but also innovative projects. The difficulties and problems in variations of pure credit and reputational risk with regard to the author and implementer of the project include the following:

- the bank does not give money for too fantastic and ill-defined parts of the project, especially if the project is already being implemented;
- the bank does not allow join up to project cash flows of individuals, who initially were not reported as the project participants, although these individuals may be well known and close to the project authors and implementers;
- the bank does not allow the author and implementer of the project using allocated project funds for other purposes;
- transferring of project cash flows to lending bank may adversely affect the business reputation of the author and implementer of the project.

However, these difficulties of the author and implementer of the project largely surpass the credit and reputational odds:

- the monetary resources necessary for the successful implementation of their projects, will be guaranteed to arrive on time, in full and within the required categories;
- no need, often putting considerable efforts, to find the resources for the timely and full fulfillment of obligations to the lending bank;
- the reputation of the project author and implementer as a good organizer, who understands the benefits of joint implementation of his project, is able to assess the qualifications and experience of banking experts, and has entrusted them with cash flow management of the project, will seriously strengthen, and his business contacts will be more successful.

Most economic schools of banking management and banking risk management quite rightly and reasonably believe the credit risk to be the main risk on the top of the hierarchy of pure risks. In the system of banking risks, pure credit risk plays both factorial and productive role of virtually all other risks, directly with respect to the so-called "financial" risks, and indirectly for "non-financial" risks. Among "non-financial" risks, reputational risk occupies a special place. Similarly, as the credit risk, it plays both factorial and productive role of virtually all other banking risks, acting by both direct and indirect schemes.

With regard to reputational risk in banking, factorial area of risk represents a situation, where the bank’s reputation may decrease, or is already slightly decreasing under the influence of inadequate, unprofessional actions of the banking supervisory and regulation authorities, the arbitrariness of the authorities, aggression of NGOs and companies, corrupt mass media, or incompetence of bank employees and managers. The latter becomes the factor determining the level of reputational risk factors, if the bank is actively involved in project lending, managing project cash flows.

The main task of the management of *factorial area of reputational risk in banking* is the need to neutralize the potential and real problem situations, and prevent the reduction or loss of bank’s reputation. Part of the used *methods and techniques* is of general nature. This implies:

- to organize study of external reaction, first and foremost, of customers, partners, supervisory authorities, and public organizations with regard to operation of the bank through attracting outside experts;
- to create a group of specialists to study using the informal methods and monitoring opinions about the bank in representatives of various social groups and business community in a variety of places – from operating halls of the bank to hospitality events, scientific and social gatherings, and places of a mass congestion of people;
- to announce openly, widely, and publicly about restructuring of the domestic banking policy priorities, including the terms and reasons justifying the particular banking policy. Special emphasis should be placed on the implementation of national interests and social priorities;
- to change media, scenarios, and advertising characters of the banks, eliminating the deception, the confusion in terms, epatage and glamour;
- to abandon from the chic interior design of the bank premises, replacing advertising and branding assets (antiques, collections, artwork, etc.) by the available, relevant and understandable information carriers, helping bank customers, organizing comfortable places to learn bank services and doing paperwork, as well as ensuring comfortable seats for waiting in the queue.
- to stop or at least limit holding wide-scale corporate social events, organizing them, if necessary, confidentially;
- to remove from mass media and keeping confidential the expensive flamboyant hobbies of bank top managers, such as simulation games, team competitions in paintball, sailing on a private yacht, car racing, and others.

These methods and tools of the factorial area of reputational risk management are especially important in a situation, where bankers manage the cash flows of the projects, although their impact is indirect. However, we can call methods of reputational risk management in banking, which are directly used in the project lending (funding):

- to select the most experienced and competent bank employees for the cash flow management of the project;
- to evaluate carefully and select projects for lending, not to be involved in dubious, impracticable, fraudulent transactions;
- not to allow participation in the cash flow management of the project, or even completely get rid of ambitious slackers and administrative activists, whose actions are detrimental to the useful work, affecting negatively the reputation of the bank.

Productive area of the reputational risk in banking is formed when the process of reducing the bank's reputation has largely led to its loss, when all or a significant part of the consequences of a bank's reputation loss occurs, and in the first place, the removal of bank staff from managing project cash flows. The time is ripe for a decision: either to restore the lost reputation of the bank that will require significant efforts and cost, or move to the final level of mismanagement – "fraud" and cause the bank to fall by bringing out all the quality assets.

The restoration of a lost reputation, compensation of losses in productive area of the reputational risk in banking is possible using a number of methods and tools, many of which are particularly enhanced if the bank implements the project lending (funding) schemes, that is, its staff manages the cash flows of the project. These methods include:

- to increase the information transparency, while maintaining the required level of confidentiality and security of the bank, its customers and especially the project, that will allow identifying the sources and eliminate false rumors and fraudulent information about the bank, spread by the competitors, engaged politicians, banking supervisory authorities, or NGOs and bribed mass media, the orders, tasks, and requests of which do not coincide with the priorities of the internal policy of the bank;
- to invite actively widely known leading scientists and specialists, including those experienced in project lending (funding) or successful crisis management in banking to conduct an unbiased evaluation of the bank's work, give consultations, participate in meetings, be involved in working group of the project cash flow management, clarify opinions, conclusions, and proposals of this group in the press, as well as to make presentations at forums and press conferences;
- to develop, suggest, and implement new project lending (funding) techniques, banking technologies and products, adequate to the opinions and positions of the bank management elements, the features and parameters of which can positively affect the reputation of the bank, primarily on vocational and social reputations;
- to neutralize the remaining factors of reputational risk, which are manifested in conflicts with the participants of the project implementation, the composition of the staff (this especially concerns administrative activists), public relations, in advertising content and media, range of products, equipment, and decoration of the premises;
- to change symbols, commercial look and slogan, as well as terminology used in the cash flow management of the projects that are associated with the negative reputation of the bank;
- to organize production and widely distribute business, information, and consumer stationery, utensils, clothing, souvenirs, which materially, simply and favorably indicate about the change of priorities of internal policy of the bank;
- to finance, or even better, to self-organize and carry out useful events in the field of culture, ecology, architecture, traditional occupations and crafts, folklore, religious festivals, folk festivals, and other events – from supporting the national political movements to maintenance of memorials and necropolises. Such actions are highly attractive to population, entrepreneurs, civil society leaders and organizations, and religious denomination, which usually do not attract the interest of the officials or are supported by little money. In terms of effect on restoring the bank’s

reputation, these actions are more effective when conducted at regional or local level, where they are both mass and targeted, rather than at national or individual level. Such actions may well fit to the implementation of regional or local projects, including the project cash flow management processes, where a small spending of funds for financing of these events may contribute to a significant influx of funds, including that in problem situations, through the growth of bank's reputation.

Credit risk, included in the banking risks classification to financial risks group, as well as reputational risk as non-financial one, are well-studied by risk management experts (Pomorina, 2014; Sevryuk *et al.*, 2015; Bibarsov *et al.*, 2017), including that with regard to banking, however, in recent years the list of banking risks has been expanded. In particular, theoretical research and methodological developments were carried out in the field of detection, identification, assessment, minimization, and compensation of deposit risk associated with the problems in resource support of banking activities. Cash flow management in banking by bank specialists in innovative project lending (funding) involves the timely and adequate replenishment of the bank resources to ensure needs of the project by loan cash; at that, the problems of resource provision of a bank threaten the very course of the project lending (funding).

The risk management theory distinguishes two varieties of deposit banking risk: temporary or fixed-term, and resource risks. Temporary (fixed-term) deposit risk is associated with the threat of early withdrawal by the depositor of funds earlier transferred to the bank for a fixed term. The resource risk is formed and taking place at failure of creditors and depositors, both new and having been working with the bank, to provide the bank their temporarily free funds through making a term deposit, or buying securities issued by the bank (bonds, promissory notes, deposit and saving certificates). Both temporal (fixed-term) and resource deposit risks are formed at elevated, sometimes dramatically and unexpectedly, needs of depositors in cash, the emergence in the market of more attractive offers from other banks, as well as availability of more profitable investment tools, inadequate actions of banking supervisory and regulation authorities, undermining the confidence of depositors in the banking system institutions, but first and foremost, this is a high-risk internal policy of the bank, deterioration of its position, and loss of reputation.

In project lending (funding), deposit risk in both its guises causes problems with cash flows, ensuring the implementation of the project, because bank, managing cash flows of the project, may experience shortage of resources, and will be forced to look for reserved sources.

Banking risk management has a number of methods and tools for the deposit risk management in project lending (funding). They are designed for the factorial and productive areas of temporary (fixed-term) and resource deposit risks. The following methods and tools can be used in management of factorial area of temporary (fixed-term) banking risk in project lending (funding):

- the agreement on mutual trust and mutual commitments involves both regular depositors and bank creditors;
- regular depositors and creditors of the bank, who made a term deposits are requested to enter into the number of persons involved in the project implementation providing them all the benefits and preferences;
- within the limited framework of the project implementation, as a management tool of its cash flows, bank can establish urgent irrevocable deposits with a special term, interest payments, and benefits;
- according to preliminary agreement with creditors and depositors it is necessary to balance the maturity dates of the deposits with terms of relevant cash flows (project income), which are project loans repayment flows;
- it is possible to warn unreliable depositors and creditors, that their actions on early withdrawal of deposits can harm the implementation of the project, which is of interest to the authorities and the community, and that this may have a negative impact on their reputation.

The following schemes can be used in case of early withdrawal of deposits, that is, the realization of productive area of deposit risk in banking:

- to adjust the income (activate additional income) of relevant cash flows within the set limits agreed with authors, implementers and other stakeholders of the project, that will allow compensating for the loss of a part of deposits as resource provision of the project lending (funding);
- to contact business partners, authorities, and public organizations interested in successful implementation of the project with the request of financial support for the project;
- in case of availability of such opportunity, to apply the alternative cash flows system (guarantees, sureties, insurance, and reserves) to compensate for resource losses in case of early withdrawal of deposits.

The following methods and tools are used in the management of factorial area of resource modification of deposit banking risk in project lending (funding):

- importance and usefulness of the project, for which the bank directs resources, concentrated in the liabilities, are widely announced in the mass media, at conferences, meetings, and negotiations, as well as the interest and support of the project by authorities, community organizations, business partners, and religious denomination;
- the bank as the project implementer, in coordination with the banking supervisory and regulation authorities sets special interest rates, benefits, offers additional services to depositors and creditors;
- upon agreement with the project author and participants, the bank provides the depositor or creditor, whose funds will be invested by the bank in the project, the opportunity to participate in the project cash flows monitoring that is managed by the bank's employees;
- to develop and implement into passive range of bank’s products special purpose deposits for more stable financial support of many projects, and especially

for innovation projects, and intended for the implementation of the current project. These deposits will anticipate resource scoring making it possible to determine the amount of money, which in case of being lost will not cause serious damage to the financial condition of the future depositor, and which can be invested by the latter in the riskiest project – the so called "Innovation projects deposit" (IPD). Realization of productive area of deposit risk in the bank, which manages the cash flow of the project results in lack of resources. To offset losses the bank management may take the following measures:

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– to adjust within certain limits incoming cash flows of the project, their hierarchy, sequence, volume, and timing upon agreement with the author, implementer and other sub-contractors of the project;
– to recompose in assets management schemes against liabilities the direction of placement of credit resources concentrated by the bank to enhance resource provision of project lending (funding);
– to apply the methods and tools of management of productive area of temporary (fixed-term) deposit banking risk.

More recently, in accordance with the recommendations of international banking supervisory and regulation authorities, Russian scientists and specialists of the banking risk management included operational risk into the list of managed banking risks. Operational risk is formed and realized in the event that bank management faces problems with technology used by the bank, or with sources of information, as well as the issues related to its completeness, timeliness, adequacy, qualifications, and competence of bank staff.

In innovative project lending patterns, bank's employees themselves or as the heads of the working group are engaged in the area, which is rather or sometimes considerably distant from banking management. Cash flow management of the project advances its own, often unique requirements with regard to applied techniques and technologies, information security, information quality and, first and foremost, competence, experience, and interpersonal skills of bank employees. This leads to the fact that in the innovative project lending (funding) schemes in the course of cash flow management of the project banking risk management is experiencing increased operational risk, and this circumstance should be taken into account when both selecting and evaluating the project, forming working groups for cash flow management, as well as determining the sources and the information content of the project monitoring, and building the interaction and hierarchy of all project participants. Thus, clear advantage that is acquired by banking risk management in minimization of pure credit risk and enhancement of credit odds, when implementing the cash flow management of the project, is corrected to a certain extent by problems from increased operational risk. Along with this, the bank employees participating in implementation of the projects, gain invaluable experience and knowledge of how borrowers use in reality provided loan recourses, and banking risk management becomes more aware, more cautious, and thus more effective. The results can be briefly formulated in the following Table 1.

Table 1. *Comparative diagram of standard and innovative project lending*

No	Standard position (subject of discussion)	Content of standard regulation (interpretation)	Innovative status (subject of discussion)	Content of innovative regulation (interpretation)
1	Risk	Event that carries a threat, losses, and negative earnings (Pomorina 2014)	1.1. Pure risks (Rusanov 2004) 1.2. Odd (Rusanov 2004) 1.3. Odds ratio (speculative risk) (Rusanov 2004) 1.4. Shock (Rusanov 2004)	Uncertainty in fact that the controlled or observed process will go through the planned scenario and will bring the expected results (Rusanov 2004)
2	Project funding	Return of the funds invested in the project is carried out at the expense of resources accumulated by the project itself (Bektenova 2015)	Project lending	Cash flow managing by bank employees (Rusanov, Nechaeva, Belyanchikova and Bektenova 2017)

The conducted research allowed obtaining the following results and drawing some conclusions and suggestions.

1. Significant differences existing between the basic economic categories such as *finance* (free cash flows) and *loans* (repayable cash flows) have predetermined the difference in the content of their main problems and risks. In financing, this is the misuse of invested funds, while in lending this concerns default of loans.
2. Interpretation of the concept of "project financing" shows that between theoretical and practical variations now there are serious disagreements. From the theoretical viewpoint, the project funding is non-repayable investment in the project implementation, while in practice we are talking about the schemes of the return of funds invested in the project at the expense of resources accumulated by the project. In the banking risk management this scheme is known for a long time and is called "an adequate cash flow return".
3. More close examination of project funding schemes and proposed innovative scheme for project lending (funding), which consists in project cash flows management by bank employees, allows drawing a conclusion that in both the first and the second case, we are talking about lending rather than about funding, though in the second case this is truncated funding, while in the first case this concerns more complete funding.
4. The contemporary risk management theory is ambiguous when interpreting the concept of "risk". On the one hand, risk is an event that carries the threat, danger, and loss, while, on the other hand, risk is the uncertainty in the fact that managed or

monitored process will be held on the planned scenario and will bring the expected results. The second option is a more complete and comprehensive, since it can be realized in variety of risks such as speculative risk (odd risk), shock, and primarily pure risk, bearing losses and threats, and odds that lead to positive developments and favorable outcomes, avoiding hazards.

5. Project financing in the traditional interpretation bears pure risks for lending bank, narrowing the list of loans repayment sources, and for the author and implementer of the project (borrower) it narrows the ability to dispose project revenues. However, this scheme also includes odds for both parties, because project incomes are usually forecasted more in details, computed, and controlled.

6. Project lending (funding) as an innovative organizational scheme consisting in controlling of banking management through cash flows of the project, gives the bank an opportunity to provide targeted, rational use of funds invested in the project, and to achieve the timely and full loan repayment. There is also a chance for the borrower (the author and implementer of the project), because it is ensured by the funds necessary for the project implementation, which are wisely and efficiently used in accordance with their targets. However, this scheme also does not exclude the manifestation of possible pure risks, because almost any projects are more or less innovative in nature that adds certain unpredictability and instability into cash flows, and accordingly complicates the work of the bank employees, who are managing these cash flows. Pure risks of the project authors and implementers can be manifested in case of the limitation of the redistribution of resources, because in this scheme the author (implementer) has no free access to cash flows of the project. In addition, the bank may make a correction in the relationship of the borrower with its former partners.

7. According to the current views on the risk management theory, risks are structured by allocation of factorial area (where the risk is projected onto the still ongoing process) and productive area (where the risk is concentrated at the end of the process). Aims, methods, and management tools of factorial and productive areas vary essentially and are most effective when applied in a complex sequence. In the banking risk management this is implemented in both the so-called financial risks and, primarily, in credit risk, as well as in non-financial risks, and, primarily, in the reputational risk of banking.

8. In innovative organizational area of project lending (funding), where the cash flow management of the project is transferred to the bank employees, the main efforts to manage the credit risk associated with loan defaults, fall in its factorial area, because in the course of project implementation it is necessary to maintain the timeliness, comprehensiveness, purposefulness and stability of its incoming and outgoing cash flows, providing not only investment of funds in the project, but also obtaining project income for timely and full loan repayment.

9. Manifestations of reputational banking risk in an innovative organizational scheme of project lending (funding) is usually concentrated in the productive area, when the project implementation is completed, though completed unsuccessfully with deviations from the expected results, or when the project is completely failed. In this case the professional competence of bank management in the collection and

analysis of information, evaluation and selection of the project, formation of the working group and direct management of cash flows of the project is questioned. In this case one has to exert a lot of efforts to restore the bank's reputation and compensate banking reputational risk.

4. Discussion

Critical analysis of insights and results obtained in this study revealed a number of not fully resolved disagreements, debating points, and incomplete justifications. This concerns the following:

1. Thrift and purposeful use of funds by the bank employees managing the cash flows can cause dissatisfaction and disagreement of the authors and the implementers of the project, other participants, and possibly certain influential persons interested in the speedy implementation of the project. At that, project risks can be substantially enhanced and even reach the level of shocks that will lead to the project failure.
2. It is difficult to find and identify all the potential problems and risks of the project, especially of innovative project. Even the project author may not be fully aware of all the possible risks. Situation with bank employees involved in the project cash flow management can be even more complicated.
3. If among the employees of the bank there are "pure" managers, insiders, sinecures, and administrative activists, then it cannot be guaranteed that they will not penetrate into the cash flow management team, and instead of doing real business, the implementation of the project will turn into the drafting and executing of plans and tasks, calculating performance indicators, drawing reports, and conducting meetings.
4. The project cash flows as the source of repayment of the project loan are narrower than those of the standard loans, which operate in the course of their return not only by adequate (project) cash flows, but also by general, extreme, and alternative cash flows.

A critical analysis of these issues allowed outlining a number of directions for further research in banking risk management and project lending (funding):

1. To develop the best composition of groups for cash flow management of the project based on pre-testing in terms of professional suitability, as well as assigning them authority and responsibility. This should be agreed with the authors, project implementers, and possibly implementers of other segments of the project.
2. To establish a special order to discuss features, possible problems of the project with the involvement of independent recognized experts from all areas that concern the project including the social, cross-cultural, and environmental problems.
3. To develop verification system of practical knowledge and skills, related to the project essence, of all specialists intended for cash flow management of the project to minimize the possibility of being engaged into working groups of project lending

(funding) of "pure" managers and administrative activists having no professional knowledge, experience, and proper expertise.

4. To develop a scheme that gives the project cash flow managers the opportunity to raise an issue of replenishment of resource base of the project at the expense of other funds of the borrower in accordance with their production or consumer hierarchy, in the event of arising problems with the project.

5. Conclusion

The results of the conducted study will allow increasing significantly the possibilities of risk management in banking, primarily with regard to credit and reputational risks, as well as in related areas of asset management, partner relationships, and human capital management. Implementation of formulated proposals will require developing corrections of internal regulations of banks, enhancing practical qualifications, professional competence and experience of bank employees, building reasonable, not administrative hierarchies of personnel, but at that will significantly improve organizational and informational support and tooling of risk management in banking.

Numerous publications on the issues of banking risks management mainly involve the activity of banking management at the early stages of the credit process, when the possibilities and the willingness of the borrower to timely and fully repay taken loans (adequate and total cash flows) are assessed, as well as additional sources of loan repayment (alternative and extreme cash flows) are allocated. At that, only when working with problem loans bank managerial staff starts cooperating with the operational work of the borrower. The proposed innovative organizational scheme of project lending (funding) is based on active management by the bank employees of the project cash flows that is the purpose of the loan at all stages of implementation from the evaluation and selection of the project to the full return of funds invested in the project.

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