LEVELS OF ENVIRONMENTAL RISK MANAGEMENT IN UNIVERSAL BANKS

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Abstract

*Environmental risk management is becoming more and more important for banks around the world for a number of reasons. On the one hand, the regulatory pressure on companies, banks’ customers, to operate in an environmentally friendly way is an exogenous factor affecting risk management practices in the banks. On the other hand, an internal, endogenous understanding of the importance of the implementation of a holistic approach on risk management, including the environmental risks, has been growing. This understanding has gained momentum especially during the years of the financial crisis when many banks were faced with assets burdened with environmental problems.*

The aim of the current paper is to outline the levels of environmental risk management in universal banks. *Four levels have been identified, and they are presented from a high-level, conceptual perspective.*

**Key words:** environmental risk, lending, direct environmental impacts, indirect environmental impacts

1. INTRODUCTION

Environmental risk management has gained momentum for banks for the past ten years. This could be attributed to a number of factors. On the one hand, the regulatory pressure on companies, banks’ customers, to operate in an environmentally friendly way is an exogenous factor affecting risk management practices in banks. On the other hand, an internal, endogenous understanding of the importance of the implementation of a holistic approach on risk management, which implies inclusion of environmental risk, has been growing. This understanding has become vocal within various forums and banking communities, the most prominent of which to date is the United Nations Environmental Program Finance Initiative (UNEP FI). The UNEP FI has been promoting environmental risk management for banks through comprehensive and detailed research on the various aspects of it as well as on the current practices different banks across the world are using.

Environmental risk management for banks has two aspects: one related to the direct impacts from the activity of the organization and another - related to the indirect ones. Direct impacts are associated with everything that the bank does in order to function, i. e. internal resource usage. Internal resource usage is the first area where environmental risk is identified and managed.

Indirect impacts have to do with the core banking activities, and, as their name shows, they are related not to the functioning of the bank itself, but to the operations of its customers. Indirect impacts consequently require a much more complicated management as it needs to be focused on factors external to the bank - the behavior of its clients. But for banks exactly indirect impacts matter more when environmental risk management is concerned, since they are the ones related to the activities bringing both the profits and the risks for them.

Overall, in the opinion of the author, four main levels of materialization of environmental risk management in banks can be outlined, the first two are comparatively easier to comprehend and to implement at present, the third and the fourth are of more abstract nature at present, and belong to the future. The view supported in the current paper is that environmental risk management need to be viewed as an activity impacting all kinds of operations the bank is doing, a holistic approach to it needs to be taken in order for the full benefits of it to be obtained.
2. LEVELS OF ENVIRONMENTAL RISK MANAGEMENT IN BANKS

Naturally, the most evident and immediate aspect of environmental risk management for bank has been the one related to managing the direct environmental aspects from their activities related to internal consumption of resources such as energy, water, paper, as well as waste management. That is why most if not all banks have started from this point.

The next level of environmental risk management, which is actually the more important one for banks, is related to the indirect aspects of their actives, i.e. the ones inherent to the core banking activities.

The third level is also related to the indirect aspects - it is about structuring the loan and the investment portfolio in such a way so as to encourage only green projects, or such ones that are contributing to the establishment of circular economy.

The fourth level is about closing the banking cycle by attracting deposits from green companies or such contributing to the circular economy, and lending the funds (or distributing them though the investment portfolio) to similar companies, thus practically excluding firms that are polluting and unsustainable.

Most banks across the world are currently in level one, and the most innovative are moving towards level two, some of them have already been established there.

In view of the author, level three and fourth are not likely to happen in the near future, given the present structure of the world economy.

![Diagram of the four levels of environmental risk management in a bank](image)

Fig. 1. The four levels of environmental risk management in a bank

2.1. Level 1. Establishing internal resource management

Internal resource management as outlined above is naturally the first step banks undertake on the long path to the implementation of a fully-fledged environmental risk management system. This could be easily understood when side effects such as possible cost containment are hoped for. Initially most banks actually target primarily cost containment through the implementation of internal resource management systems, and the environmental considerations are used as a cover often for PR purposes - internal and external. At this very initial point the top management of the bank embraces the cause fully and more often than not without the need for any additional justifications. The efforts will bring cost reduction, so they are more than welcome. Having this target in mind, middle management as well as all the rest of the staff could understand the aim of the efforts and do the necessary.

The next step is covering the initiative to reduce costs though the optimization of internal resource consumption with the concept of the environmental aspects of it. In this part of the efforts internal communication is very important. There is hardly anyone who would object how vital it is to save the environment. The challenge here is to persuade the staff that even a bank could have and important contribution though changing its own internal consumption patterns. The skepticism embedded in
banks employees originates from the fact that financial institutions are not large consumers of resources that pollute and hence a significant impact on the environment as a result of their efforts could not be expected. It is true that banks do not use large amounts of hazardous substances to create their products or that they do not need huge amount of electricity or other resources to do their activities, but the PR effect their behavior could have on society has vast potential. For the top management to be attracted by this kind of presentation of the management of internal resources, not much is needed. Top management normally votes for any activity which differentiates the bank from the market peers, and if no cost is needed to implement it, it is desired for and supported. Presenting efforts to manage internal resource from a new, modern and ethical side is always positive.

In order, however, for this message to be well heard inside the bank so that the staff embrace the cause and start thinking about the environmental aspects of their consumption, an engaging internal marketing activity is needed. Without staff engagement not much could be achieved. After all, reducing consumption can happen only as a result of the collective efforts of all the employees of the organization.

The challenge at this point is related to finding an efficient way to reach everyone inside the bank, while the opportunity is to trigger staff’s creativity to think deeper on the aspects of everyday life and their impact on the institution bottom line. This could be rather engaging and fruitful since once staff learns and start thinking, a lot of new creative ideas could be born. These ideas could be used for achieving the optimization goals targeted, but they could also bring new ones which to be pursued in the future.

2.2. Level 2. Implementing environmental risk management in core banking activities

Implementing environmental risk management in core banking activities presents the real challenge to banks. It means evaluating customers for environmental risk depending on a number of factors, and, most importantly, using the evaluation in the decision making process for granting loans.

The biggest challenge stems from the fact that oftentimes conflicting interests arise between, on the one hand, the desire to encourage environmentally friendly projects and discourage such that are not, and, on the other - the inherent to banking desire to grant loans to any customer who has sound financial performance (irrespective of whether he is acting in an environmentally friendly way or not), and profit from them. It is extremely difficult to resist the natural profit-oriented business logic in return to meeting purely ethical concerns.

At a personal level, there is no manager who will deny the importance to give preference to environmentally friendly companies providing them with financial means, and to avoid doing so to others who are acting the opposite way. At an organizational level, however, everyone is interested in achieving the goals as set out by the top management related to numbers of customer attracted, annual profits and turnovers. That is why implementation of environmental risk management in core banking activities could happen only when the business logic of it is understood.

The actual reason for embarking on the long path to the deployment of environmental risk management has sound business logic. This needs to be comprehended by the staff. The logic is related to the fact that care for the environment at all levels in society - government, local authorities, companies and households has been gaining momentum for a number of complex considerations. As more and more people become aware of the severity of the consequences of pollution for the next generations, they start acting against it and trying, as much as it is possible for them, to adopt behavior which excludes goods, services, companies which are polluting.

At macro level such behavior leads to a number of shifts, to name the most important:

- Regulation is shifting, including more and more punitive measure for trespassers;
- Reflux, in certain cases even repudiation, of customers from the whole array of products and services dangerous for the environment;
- Changes in whole product lines triggered from the above, adaptation of know-how or the creation of new one, finding new raw materials and their new sources, etc.;

- Flourishing of a large spectrum of educational activities both in schools and in universities, and outside of them, dedicated to the need to build environmental consciousness, to give preference to such products and services, to forsake the ones which have the opposite characteristics.

Since banks are connected to all spheres of society through their core activities, the shift outlined above have a clear and certain impact on the way they are traditionally doing business, and this impact will be becoming more and more pronounced in the years to come.

It is not difficult to understand that this impact has two main directions for banks - one related to an additional aspect of credit risk - environmental risk, and another one - to the need to start developing products which meet the need of customers, first of all corporate ones, to reshape their businesses or create new ones matching the requirements of society.

The first direction is an immediate one while maybe years will pass for the second one to be developed. The first one is related to credit and reputational risk mitigation and management, the second one - to new business creation, to being innovative and to capturing market niches.

Environmental risks can materialize in two ways: when a loan becomes non-performing as a result of environmental problems which the beneficiary is facing (these can be of various nature - implementation of punitive measures on him on behalf of the local authorities because he is acting in an environmentally unfriendly way, lack of market share due to reflux of customers who are seeking environmentally friendly products, reputational issues, etc.) or, after obtaining the collateral of the loan, the bank to be unable to realize it on the market at a proper price due to the fact that it is burdened with environmental problems.

In order to mintage environmental risks, banks develop pertinent scoring models which assists them to quantify these risks. The quantifications are often embedded in the core banking system and are a part of the credit risk scoring models used to assess customers. Risk assessment is the first step to proper risk management (See Gargarov, Kitanov, 2015). That is why it is of vital importance to structure the models in a correct way so that they match the specificities of the respective loan portfolio (Credit Risk Management, GARP Series, 2011).

Environmental risk scoring models normally include the assessment of four main characteristics of the banking product and customer: type of activity of the customer, amount of exposure, term of loan/credit line, etc., type of collateral. The European Bank for Reconstruction and Development (EBRD) has created a model for environmental risk assessment and it has been offered to many commercial banks which have relationship with the EBRD to use it as a starting point in their efforts to assess environmental risk. In this model the four above mentioned characteristics are taken into consideration. The first one - type of collateral - is assigned the highest weight - 40%, while the other three ones - each 20% weight in the final calculation of the environmental risk total score (EBRD Environmental and Social Categorization List n.d.). Depending on the score each deal is categorized as having small, medium or high environmental risk. The deals (or proposed deals for approval) which turn out to have high environmental risk are normally put to additional scrutiny so that the bank is certain that the risk is well understood and controlled. This scrutiny is normally done by external consultants since very specific expertise is needed for such investigations and analysis.

2.3. Level 3. Putting environmentally friendly projects in the limelight of lending

Having implemented an all embracive environmental risk management system capturing all aspects of the banking portfolio, the next step into ensuring risk is mitigated, is transforming the whole business profile of the organization so that is becomes completely oriented towards the financing of environmentally friendly projects. This explicitly means denial of funds to companies which are not acting according to predefined rules implying care for the environment.
These rules could be created inside the bank and initially they could be comparatively loose, so to say, i.e. they do not necessarily need to be purely strict, but to consider excluding from financing only the most hazardous industries. Such practice exists today and it is well known as “exclusion” - when loans are given (or investment is not done) to (in) companies which fall within a predefined list of business activities harmful to the environment, and in many cases, to the society (in this case social risk management is targeted). An example of such lists is the Exclusion List of the International Finance Corporation (IFC) which is similar to the one used by the EBRD. The IFC is applying this list when screening companies which seek funds from it (See IFC Exclusion List, n.d.). It also obliges banks which use its funds to apply it in the cases when their customers approach them for access to money or guarantees initially provided by the IFC. The IFC, as well as the EBRD as some of the pioneers in the field of exclusions strongly encourage banks which use their funds or guarantees to extend application of the exclusion lists to the rest of their portfolios, and not to restrict application only to the segment needed by the EBRD or IFC respectively.

Since the lists in their current form are not very long and complicated, and exclusions are easy to be applied - this practice does not require huge internal efforts and additional procedural complications, banks have started applying them. They have also realized that applying exclusions in this way is beneficial to them as it protects them from embarking on unnecessarily high risk relationships with clients.

Exclusions though are the simplest policy and there is a long way to go to reach the phase when banks would be indeed acting as distributors of funds among business organizations on environmental grounds.

Apart from exclusions, what other practices exist in the financial sphere which could be applied in banking? Banks could draw on experience from the investment community. In its practice, several strategies have been outlined by organization which has been analyzing the industry trends for the last couple of years such as the Global Sustainable Investment Alliance (GSIA) (GSIA Global Sustainable Investment Review, 2014), Eurosif (European SRI Study, 2014), the Principles of Responsible Investment (PRI) and the European Fund and Asset Management Association (EFAMA Report on Responsible Investment, 2014). The investment strategies these organizations have outlined (“socially responsible investments, SRI, as called in their studies) and data on which are following, could be applied by banks in their commercial lending portfolios and thus several corresponding segments could appear.

It should be noted that according to statistics from these organizations all the strategies data which have been followed, have marked a strong growth path. This is indicative of the market sentiment which is undoubtedly giving preference and seeing future growth in environmentally friendly endeavors.

Below typology of these strategies as outlined by the four organizations are presented, and they could be considered by banks for development of segments within the corporate loan portfolios.

2.4. Level 4. Closing the loop of the banking cycle

The fourth stage of environmental risk management represents putting it into a fully holistic perspective. This means considering the sources of deposits and then lending the money to enterprises and endeavors which are contributing to the green economy, i.e. do not pollute, but instead strive for producing minimal waste. Attracting deposits from sustainable enterprises is important for the durability of the portfolios, and is vital from an asset and liabilities management point of view.

The ultimate goal of environmental risk management in a bank needs to be ensuring the overall sustainability not only of the lending part of the bank portfolio but of the institution as a whole. This could be done if only there are the right circumstances in terms of regulatory base and pertinent risk management internally in the bank.
Table 1. Typology of socially responsible investment strategies

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<td>Exclusions</td>
<td>ESG Negative/Exclusionary screening</td>
<td>Negative screening or Exclusion</td>
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<tr>
<td>ESG Integration</td>
<td>ESG Integration</td>
<td>Integration of ESG Issues</td>
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<td>Corporate engagement and shareholder action</td>
<td>Engagement and voting</td>
<td>Engagement (three types)</td>
<td>Engagement (voting)</td>
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<td>Norms-based screening</td>
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<td>ESG positive screening and Best-in-Class</td>
<td>Best-in-Class selection</td>
<td>ESG positive screening and Best-in-Class</td>
<td>Best-in-Class policy</td>
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<td>Sustainability-themed</td>
<td>Sustainability-themed</td>
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<td>Thematic investments</td>
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*ESG stand for Environmental, Social and Governance

Sustainable banking is an imminent part of the efforts across the globe to establish a circular economy model. If banks are not part of the scheme by placing their own requirements to depositors and to organizations which use lending products, no real progress could be done. This is especially valid for Europe where the primary source of financing for the corporations remains bank lending.

The process is schematized on fig. 2 in a simplistic way so that the idea of holistic environmental risk management is perceived.

**Fig. 2.** Schematized process of transferring green deposits to the loan portfolio - holistic E&G risk management

Apart from deposit gathering and their distribution into the form of loans, environmental risk management needs to spread all over the activities of the bank, such as leasing, factoring, and real estate management.
While the need for environmental risk management in lending processes is more straightforward and clear, this is not the case for deposit gathering. At first sight it could be easily argued that deposits do not hold risk the way loans do, as for banks there should be no difference what the source of the money deposited is. This is so only at the surface level. At a closer look it could be observed that deposits attrition rate is one of the major and most important subjects for consideration and internal analysis in banks. In case depositors are sustainable companies, banks can forecast their behavior with higher certainty.

3. CONCLUSION

Comprehensive environmental risk management framework cannot be established at once in a bank. It is important to differentiate levels of environmental risk management and to start building it step by step. The first step is to start with recognizing the direct impacts from the activities of a bank and to establish environmental risk management targeting those impacts. The second it to expand it over the indirect impacts, those that originate from the core banking activities, by starting to evaluate and monitor environmental risks related to them. The third is to place pertinent environmental criteria for providing finance, covering all kind of operations of the bank, including the leasing, trade finance and factoring portfolios. The fourth level of environmental risk management implies the adoption of the understanding that not only the funds lent but the funds gathered from deposits should be evaluated in terms of source. Thus environmental risk monitoring and management would spread over the entire bank, encompassing all its areas of activities. The fourth level is rather a theoretical construction at present, and given the reality it might be expected to be reached in the far future. Having in mind the four proposed levels though gives a perspective to management and places efforts targeting environmental risk management into a broader, truly holistic perspective.

REFERENCES
3. Credit Risk Management, GARP Series, 2011