

## GREEN BANKING – DEFINITION, SCOPE AND PROPOSED BUSINESS MODEL

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### Abstract

*The term "green banking" is gaining more and more popularity in recent years all over the world. It is becoming popular part of PR strategy of many financial institutions, but apart from that behind the advertisement there are initiatives and efforts within the banks to justify it.*

*The aim of the current paper is to present a definition of the term "green banking", to offer a definition of its scope and based on these to propose a working green banking business model. The paper is entirely conceptual and is part of a broader research under way.*

**Key words:** *green banking, climate change, pollution*

### 1. INTRODUCTION

There is no universally accepted definition of the term “green banking”, although it has been widely used both in scientific and in popular literature, and is gaining more and more importance at present times.

The importance of green banking stems from a number of factors. The dominant one is definitely the very role that banks are called to play in the modern economy worldwide. Banks are the main providers of liquidity and credit to the business, to the individuals and to the public sector. In this role they have enormous capacity to influence all types of actors in the economy. In this respect banks cannot stay aside of the processes that are taking place at macroeconomic policy level. For the last 20 and more years, the awareness of climate change and pollution has been gaining strength due to the adverse effects from these phenomena and the increasing research activity dedicated to them. The findings of numerous research papers prove that climate change is due to human activities causing pollution. Thus the vital importance of the fight with climate change and pollution came to the forefront not only through the work of researchers but through policymakers as well.

Currently there is common understanding that efforts at all levels are needed to ensure that humanity is not to be destroyed in the near future by its own actions. This kind of thinking was reflected in the targets that many countries in the world, among which the United Kingdom, Australia, and the European Union as a whole placed on themselves with the aim to manage climate change and pollution. Macro policy has been defining specific targets at micro and macro level with the aim of attaining constraint of spreading of the already existing adverse effects from climate change and pollution.

As a natural result from this banks have started to offer products and services that match the needs of the various types of economic agents. Simultaneously, banks commenced ever-widening staff awareness, public relations (PR) and marketing activities with the aim to position themselves as modern, progressive, responsible, which started to coincide more and more with being “green”, i.e. showing a responsible attitude towards everything that has to do with the preservation of environment.

### 2. DEFINITION OF GREEN BANKING

To date, there is no commonly accepted definition of the term “green banking” outlining its precise meaning and scope. For the past ten years, there are numerous scientific publications related to the importance of various aspects of green business – green marketing, corporate entrepreneurship as a means to achieving sustainable banking, etc.

As part of the research centered around other topics, few papers provide definitions on green banking. In this respect Lalon (2015) defines green banking as "...any form of banking from which the country and nation gets environmental benefits. A conventional bank becomes a green bank by directing its core operations toward the betterment of environment." Bhardwaj and Malhotra (2013) define it as "...an effort by the banks to make the industries grow green and in the process restores the natural environment." Papastergiou and Blanas (2011) in essence discuss green banking under the broader concept of sustainable banking and explain the connection among the various organizational initiatives (including HR, marketing, internal resource management) to achieve sustainability in the services the banks are offering. They build their analysis on the basis of Jeucken (2001) four stage model. Isalm and Das (2013) point out that green banking "...indicates endorsing environment-friendly practices and reducing carbon footprint from banking activities."

The definition proposed by the authors is that green banking is banking in all its business aspects (deposit gathering, credit disbursement, trade finance, leasing operations, mutual funds and custodian services, etc.) which is oriented towards preservation of environment. And here a strict delimitation needs to take place so that the term is understood and used correctly. Green banking in its essence is actually the provision of loans, deposits and other banking products (mutual funds and other investment products, custodian services etc.) that would have positive impact on the environment. Activities such as introduction of paperless statements, electronic communication with clients, internal efforts to save energy, paper and toners, various internal campaigns targeting the building and sustaining of staff awareness vis-à-vis environmental issues, PR and marketing activities in this direction, are not in their nature green banking activities. This is true because all these efforts, though highly important for the organization and for the society, do not represent core banking practices, and could be, and are deployed in many other types of organizations, despite the fact that the latter are not banks. The proposed definition of green banking is more narrow compared to the one proposed by other authors, such as Lalon (2015) who states that all kinds of banking activities, including internal operations generating consumption of paper and other resources could go under the definition of it.

One of the reasons why the understanding and usage of the term green banking is related to the practices described above, and not to the core banking activities, is that these practices are comparatively easy to put in place, and banks use the information on them for PR purposes. At the same time the implementation of product lines targeting the specific and wide-ranging environmental needs requires huge efforts inside the bank, level of education and awareness especially among corporate and risk officers, and last but not least, a lot of time for implementation. Another important hurdle for the fast deployment of such kind of products and services is the fact that oftentimes they are related to accepting higher financial risks on the part of the banks, or/and lower interest rate margin, and in certain cases, even customer attrition (due to increased requirements from the customers which are required to ensure that they operate in an environmentally-friendly way). Also, this is against the interests not only of the bank as a whole but also of the individuals who are supposed to sell those products and services, and whose bonuses depend on the income they have generated.

### **3. SCOPE OF GREEN BANKING**

The scope of green banking, as understood by most authors, could be delineated on the basis of the activities of the banks related to the environment. These activities could be divided into two groups, related to the two types of aspects and hence the two types of impacts on the environment: direct and indirect ones. In the opinion of the authors, the indirect ones are actually the important ones and to them the attention of the bank management should be concentrated.

The direct aspects and consequently – impacts - are related to the usage of resources by the banks for the purpose of its operations – electricity, oil, heating, paper, toners, and others, and the waste related to their consumption, where relevant. Indirect impacts are related to all kinds of activities through which banks can indirectly have influence on the environment. Under this category fall:

- the relations with the clients of the banks and the conditions which the banks place on them in return for granting loans and other services as well as

- the staff awareness, PR and marketing activities that the bank organizes which have relation to the environment, and which impact the level of awareness of the importance of being environmentally cautious at societal level.

Green banking implies not only the creation of green products, but also the incorporation of environmental indicators in the risk assessment and control process. This requires the existence of a pertinent environmental risk management procedure, where the following need to be defined:

- Environmental risk assessment method
- Importance of environmental risk assessment outcome for the loan approval
- Environmental risk follow-up upon loan disbursement
- Measures that are going to be taken by the bank in case the client proves to fall out of compliance with the environmental requirements of the bank related to his risk performance
- Roles and responsibilities related to environmental risk management in the bank
- Reporting to the top management on the exposure the loan portfolio has to this risk, etc.

By the implementation of such a procedure, the bank, even if it does not support a line of green products, actually act as a green bank, because it places specific requirement on its client to abide by certain environmental criteria. In such a way, depending on the strictness of these criteria, the bank has the power to restrict access to finance to polluting industries and to give preferential terms to businesses that are environmentally-friendly.

Here comes another important question: why the banks are not doing this easily? Because at present many industries have medium or high environmental risks, and some of the most lucrative industries are actually the polluting ones. This is evident from the European Bank for Reconstruction and Development categorization list presenting the level of environmental risks associated with each type of industry (EBRD, 2014). The banks do not wish to deprive themselves of the income these industries have the potential to generate. To mention a few the oil industry is polluting, the extracting industries are polluting, almost all kinds of processing industries are polluting. If banks restrict access to finance to those industries, where could they compensate the lost income from? And also, this would pose serious problems to these industries as they would experience problems finding funds for their operation. Another important side effect from restricting access to banking funds could possibly be the increased difficulty for those industries to tap alternative sources of funds for example by issuing securities. The fact that banks are not willing to finance certain activities gives signals to the market that these activities pose risks or are not reliable and this might make investors cautious buying such securities or they could withdraw funds already invested in such securities. This might be one of the factors behind the very low regulation of environmental risks at macro and central bank level, which is a subject that falls out of the scope of the current research paper.

All the above just presents the complexity of green banking as an activity which has a multitude of implications.

Here comes the real challenge ahead of modern banking, which in the opinion of the authors is doomed to become more or less green: how to come up with such products and services, which are green, and which at the same time offer wide margin and customer attraction.

#### **4. PROPOSED GREEN BANKING BUSINESS MODEL**

In line with the definition the authors propose for green banking, namely, that under this term the core banking activities only need to be understood, a model of green banking is proposed. It is schematized in fig. 1 below.

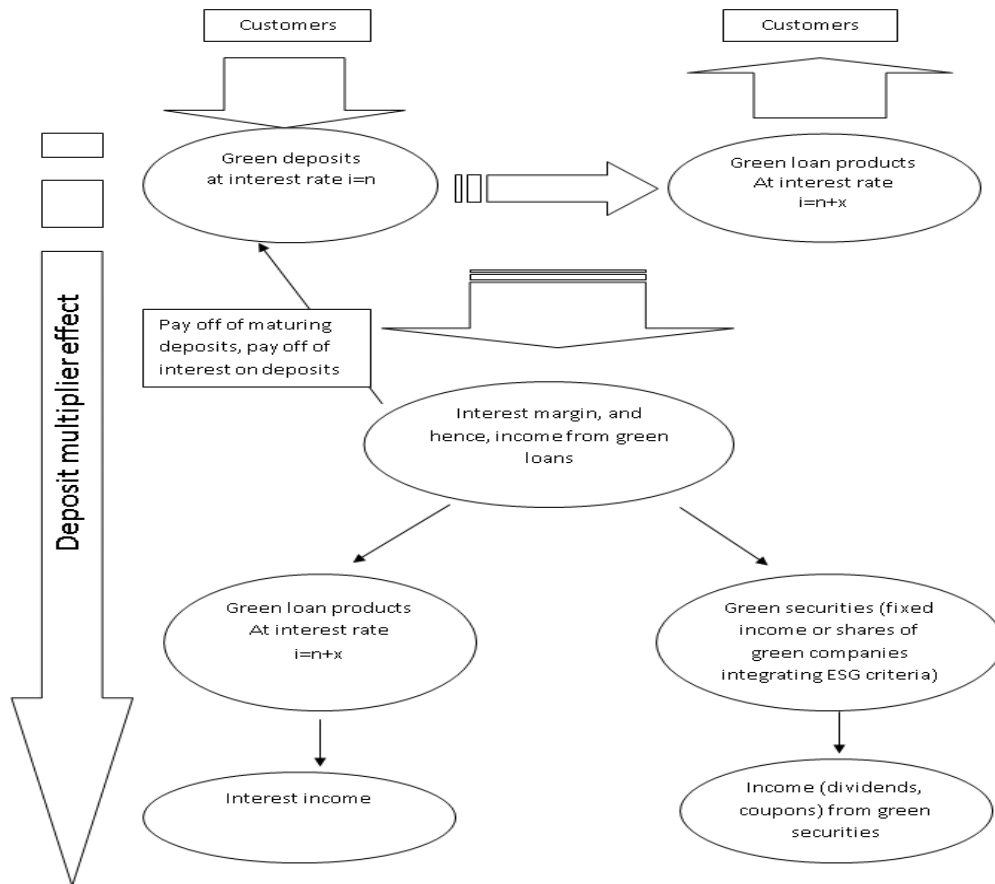


Fig. 1. Proposed green banking business model

The idea behind it is simple and follows the below steps:

- The bank parameterizes a deposit product and market it as “green” by announcing that the funds generated by it will be lent to environmentally-cautions companies or to green projects (the precise definition of environmentally-cautious or green projects is up the bank). In order for the product to be attractive, it could be given a slightly higher interest rate than the current average rate on deposits
- Using the funds collected by this product, the bank lends it to companies that develop some type of green activities. How these activities will be defined, whether they would be related to decreasing the CO2 footprint of polluting companies, to start-ups with green ideas, to energy efficiency project or to some other kind of activities, it is up to the bank to decide depending on the risk appetite of the management and on the current conditions in the respective economy in which the particular bank operates. What level of interest will be place on these loans, whether it will be fixed or variable, whether there will be grace periods, etc., is again in the discretion of the bank management to decide. There are generally two options: if the bank places a slightly higher than average interest on the green deposits, to try to compensate it through placing a slightly higher interest on the green loans, especially if they bear high credit risk considering that in some cases it is so (start-ups and renewable energy development, for example). The other approach is, in order to make the product attractive, to accept the more narrow interest margin by placing a slightly lower than average interest on the green loans. In return for the lower margin, the bank would hope to gain market share, of course.

The exercise might have different parameters in case the bank uses a source of funds other than deposits which cost is lower (for example credit line from international financial institutions, or other types of sources).

- The income collected from the above actions is afterwards invested in new green loans and possibly in fixed income or other securities of companies that fall under the definitions of green. The recent Eurosif's European SRI Studies (2014, 2013 and 2012) point out that the yields and the rates of return in the various spectrum of the so called socially responsible investments (SRI), which incorporate green endeavors of all kinds, are increasing and this market is offering a lot of profit for the investors.

In the view of the authors, only through applying a model like the one presented above or a similar one, a bank can claim that it is truly green.

The application of a green bank business model ensures that the bank is making profit by encouraging environmentally responsible behavior 1) on the part of depositors and 2) on the part of business and individual clients who are going to use the dedicated credit products. In such a way not only the bank will profit from entirely environment-oriented business, but it would also facilitate spreading the awareness of the importance to care for the environment in society. Another inevitable effect from one bank in a market adopting such a course of action is that peers would follow. This will lead to a domino effect in the whole banking system of a country. Also, the banks who have subsidiaries outside of this county would want to disseminate this practice abroad. This would spread even farther the usage of this business model. Let's not forget the provision mentioned above, that the green credit products would be available even to companies with medium and high environmental risks in case they wish to finance with these credit products improvement in their operations which will lead to reducing the harmful impact their activities have on the environment.

Contemplating further over the proposed green banking business model, the credit products could be accompanied with insurance products especially important for the companies having high environmental risk. These products could cover potential losses for the company-beneficiary of a green credit product in case of an accident such as pollution due to incident, even for cases when fines or/and bans are imposed by authorities for non-compliance with environmental legislation and the company is not in a position to service its obligations in front of its clients and creditors.

The implementation of such a business model could definitely bring financial benefits to the bank which adopts it. The success however, could be ensured only after having carefully considered the following minimum factors:

- 1) The products specifications in terms of interest rate type, term, minimum amount for the deposit product(s), currency, and size, term, collateral requirements, currency, purpose for the credit products
- 2) The exact pricing of the products – both the deposit and the credit ones, which would bring the precise interest rate, hence product margin
- 3) The level of credit risk associated with the credit products in terms of loss given default, probability of default, exposure at default, hence the expected losses and the expected level of provisions needed (Credit Risk Management, GARP Series, 2011) as well as the other risks – market and operational related to these products
- 4) The proper marketing and PR of the products.

While the deposit side seems to be easier to come up with – a deposit product with a green purpose could be defined and parameterized considerably easy, this is not the case for the loan products. There is a wide variety of purposes for which green credit products could be designed. It is the bank's management which needs to identify which kind of need of the economic agents could be satisfied by such products so that the bank profit from them and simultaneously contribute to the protection of environment.

In order to find the answer to this question, the authors believe that the bank should start from identifying what kind of activities in the economy in general are polluting, need improvement but lack finance and are not harmful to the environment, but contribute to its protection. Under the umbrella of these three general kinds of activities, the bank could identify multiple subactivities which need finance. Each of these subactivities would of course, have a risk profile of their own, would be in need of specific finance (term of loan, amount, type of collateral), and hence would potentially offer specific expected rate of returns. It is then up to the management of the bank whether the bank would start offering one, two or many loan product with environmental orientation.

It might be wiser to start with a more conventional credit product with comparatively average risk level. The success of the launching product is vital for the success of the business model as a whole, for its sustenance and sustainability in the long run. A successful product would bring the following benefits, the list not being exhaustive:

- 1) Profit for the bank
- 2) Courage to the bank management to go further offering more similar project thus encouraging innovation
- 3) For the peers it would indicate that the model works and that they need to replicate it, which would be good at macrolevel because banks would support the efforts of the government to achieve targets related to the environment
- 4) For the society it would mean that the banking sector is supporting environmental protection and this would be a strong signal that business needs to be green in order to get access to finance.

The main strategic challenge for the implementation of the proposed business model lays with the top management commitment to do it. There needs to be understanding of the importance and sustainability of such a model. Only then the top management would want to engage with it. In order to facilitate this kind of understanding among senior management, in case it does not exist, bottom-up efforts are important. If the top management is presented with a strong case, it would rather accept to go for it.

## **5. CONCLUSION**

Green banking is getting more and more attention in the last years. This is not peculiar on the background of the climate change talk at governmental level and the environmental agenda that the leading economies in the world, EU among the first runners, are adopting. Overcoming climate change and pollution is a *causa perdata* without the active participation of banks. That is why it is important there to be a clear and correct understanding of what green banking is called to be.

In the opinion of the authors, banks should refocus from concentrating internal efforts only towards saving resource consumption within the organization and place energy into coming up with innovative ways of stimulating the environmental protection as part of their core business, which is actually what green banking is. Banks could profit from the green business model, and this is something that the future would prove. The ones that are the first to understand this, would definitely have the potential to gain market share and profit. The challenge at operational level is with devising the product specificities so that the profitability of the model is ensured. The strategic challenge is overcoming top management skepticism.

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