Introduction

Project lending is a type of financing where the loan is repaid by the revenue generated by the project and the project itself is also the security (Equator Principles 2006). Project lending is the primary way projects are financed and commercial banks (Valentine et al 2003; Ganzi et al 1998). The launch of Equator Principles in 2003 has been hailed as an opportunity to ensure that environmental and social impacts of projects are considered in banks’ lending decisions (Lazarus 2005; Yeomans 2005; Monahan 2005). Signatories of this voluntary initiative commit to only financing projects, with a capital cost of at least $US 10 million, that demonstrate that the environmental and social impacts of the projects are managed effectively. Currently 68 banks have signed the initiative (Equator Principles 2010).

The Equator Principles are not the first effort banks have made to tackle the challenges of managing the environmental impacts—the United Nations Environmental Program (UNEP) Finance Initiative Statement of 1991 is a notable example. While its aim was promising many believed that it did not achieve desired changes in banks’ activities (Grey and Bebbington 2001; Richardson 2002). Studies proved the sceptics right, revealing that signatories to the UNEP Finance Initiative Statement are no more likely to consider environmental issues in lending then banks who have not signed the agreement (Coulson and Monks 1999; Thompson and Cowton 2004; Weber 2005). While Thompson and Cowton (2004) expressed their disappointment over the signatories’ performance they found it encouraging that many banks that have not signed the UNEP FI Statement considered the environmental in their lending decisions as ‘matter of fact’.

Early studies pinpointed the lack of suitable tools to manage environmental issues as the reason why banks do not consider the environment adequately, if at all, in project lending (Thompson and Cowton 2004; Coulson and Monks 1999). In light of this, banks have been encouraged to develop ‘environmental risk management practices’ complementing the risk management process that is the heart and soul of project lending (Barannik 2001; EBRD 2008; Case 1999). However, a study of over 200 European banks in 2008 found that integration of environmental risk into the credit risk management is still in its infancy, characterised by the proliferation of environmental risk-rating tools Weber (2008). In other words, despite banks’ evident desire to address the environment in project lending there are still no suitable tools. This begs the questions what has prevented the development of such tools for over a decade; what has stood between the ambitious aims, goals and targets and the integration of the environment into project lending.

The authors believe that in order to advise banks on how to consider environmental impacts in project lending processes or develop tools on how to implement measures to manage them; environmental practitioners need to become familiar with the banks’ existing practices. Environmental practitioners must acknowledge that they are trying to penetrate and change a process that is firmly imbedded into these organisations. Furthermore they must accept that in order to offer viable, effective and credible recommendations they first must acquire a solid understanding of banks’ existing processes.

**The main perception of the environment in project lending**

The notion that banks are exposed to financial risk by financing projects that have a negative impact on the environment has been widely addressed in the literature since the 1990s (see for example...
Rutherford 1994; Griggs 1994; Gleason 1994; Missimer 1996; Thompson 1998a, 1998b; Case 1999; Coulson and Monks 1999; Jeucken 2001; Thompson and Cowton 2004; Coulson and Dixon 2004; Weber et al 2008). The environment has been described as representing three types of risks: direct, indirect, and reputational. Direct risk refers to the liability of the bank for cleaning up a contaminated site that the bank has gained possession of (i.e. foreclosed on) when the Borrower filed bankruptcy (Thompson 1998a, 1998b; Case 1999). Indirect risks arise when the Borrower is unable of to repay a loan as a result of spending on managing and remedying the environmental impacts of projects (such as paying for environmental fines, upgrading existing equipment to meet environmental regulations, or covering the cost of remediation) (Thompson 1998a, 1998b; Case 1999). Reputational risks are associated with large-scale projects in the energy-sector, infrastructure, mining, for example that attract considerable public and media attention (Thompson 1998a, 1998b; Case 1999). Reputational risks are considered to be the most substantial, but they are difficult to predict and quantify (Case 1999; Thompson and Cowton 2004; Jeucken 2001).

Many authors have identified the risk management component of the lending process as the best place to integrate environmental issues (Barannik 2001; Gleason 1994; Missimer 1996; Case 1999; Coulson and Dixon 2004). However, research into how risk assessment works and whether it accommodates the integration of environmental risks has been scarce (Weber et al 2008; Coulson 2001). Recognising these trends in past research, we have decided to take a step back and look at how environmental issues are manifested in banks’ project lending practices afresh. This approach has taken us outside banks’ credit risk management practices at times, revealing the various role of environment in bank lending.

Study design
A case-study of two commercial banks was conducted. One bank operated in Hungary, the other in Australia. The names of the banks and the informants who were interviewed are not revealed so as not to disclose their identities. Together the banks are referred to as the ‘Study Banks’ in this paper. Data was collected from the Hungarian bank in 2006 and in 2007 from the Australian bank.

Twenty-two semi-structured interviews were conducted with staff members involved in project lending (referred to as ‘informants’). Members of the Study Banks’ management assisted with identifying possible informants representing every level of the organisations. Further participants were identified by informants. Two individuals who were not employees of the participating institutions were also interviewed. They were identified by staff members as experts in the area of project lending and commercial banks’ environmental management practices.

Documents that provided information about the Study Banks’ project lending practices were also collected. These documents were identified by informants and included internal policies, guidelines, forms, letters and emails, etc. The Study Banks’ web-sites and Annual Reports were also examined. Summaries were prepared of all documents (the original documents were not allowed to be removed or photocopied) and together with the transcribed interviews, were analysed with NVivo (Version 7) based on the coding technique recommended by Richards (2005).

Description of the Study Banks
The Study Banks represented the banking arm of larger holding companies that included a number of other companies as well. The Hungarian bank was affiliated with companies involved in leasing, investment management, real estate development, and energy projects. The Australian bank had subsidiaries that included eight insurance companies (three that offered services overseas), two wealth management and three investment management companies.

The Study Banks were described by informants as “middle-size” banks in terms of the domestic market placed among the top ten, but not the top five commercial banks. The Study Banks offered a
similar range of business and retail banking services to businesses, governments and private individuals, which is characteristic of commercial banks (Rose and Hudgins 2005; Hogan et al 2004). Their activities were restricted to the domestic market.

The Hungarian bank was part of a large international financial institution, represented in many other countries as well (although not in Australia). The international institution did not intervene with the day to day activities of the Bank, but transactions over a certain size required approval from the top management of the mother organisation.

**Project lending in the Study Banks**
The Study Banks financed a wide range of projects. The Hungarian Bank financed projects in the energy sector, social infrastructure (sewerage networks and landfills), commercial, light industrial and residential developments, manufacturing plants, other industrial projects, and ‘exotic’ projects (a ski resort and a water park). The Australian bank was mostly involved in developing property for commercial, residential, but also financed in industrial activities and projects in the energy and infrastructure sector. Departments usually did not specialise in financing certain types of projects: rather, bankers were expected, as the National Director of the Australian Bank’s Project Finance department described “…to be a bit of a jack-of-all-trades”.

Transactions were typically large and financed over several years. The Hungarian Bank provided loans between 500 000 and 4 million Euros over five to 30 years. The Australian Bank’s loans were on the scale of one to 500 million Australian dollars over one to 50 years.

The Study Banks’ project lending practices exhibited extensive similarity, based on which a framework model of project lending was devised. This model helped understand how bankers dealt with environmental issues. The model consists of nine steps, but transactions only entered the last step if the Banks were concerned that the borrower will not be able to repay the loan, which, according to the informants was about one percent of transactions per year.

![Figure 1. Main steps of the project lending framework model](image)

Each step represents a set of activities and the input and output documents, the staff members involved and the typical timeframe was recorded for each step. Reference is made to this model in the later part of this paper.

**The concerns the environment represented and how they were managed in project lending**
The environmental issues that informants encountered in project lending represented three main categories:
- suspected, or known contamination on the site of the proposed project
- potential negative environmental impacts of projects
- potential positive environmental impacts projects

The first two issues represented risks, while the third represented a business opportunity in lending.

Site contamination was the most common concern. Seven informants from the Hungarian Bank and eight informants from the Australian Bank had encountered contaminated sites. Contamination was often the result of leaking underground gasoline or oil tanks on sites that used to operate as former
service-stations and army bases and airfields, or suspected on sites where hazardous chemicals were used and stored (such as on a chicken farm, a smelter and on agricultural lands). Contamination was never the result of the projects the Banks financed, but the activities carried out by the previous occupants of the sites. The type of activity the Banks financed had no bearing on the incidence of site contamination. Still, site contamination was a major concern in the Study Banks because the Banks may be held liable to clean up the site. Informants explained that loans always included some form of security that the Banks could collect on in the event that the borrower was unable to repay the loan. In project lending transactions, the property where the project was to be built and the project itself were the most common forms of security. When a borrower defaulted on a loan, the Bank took control of the project, thereby assuming responsibility for the contamination. The General Manager for Property Finance in the Australian bank highlighted the banks’ responsibility to remediate sites “…contamination clean-up can end up being the responsibility of the lending institution. In a bad situation…If a bank was to become mortgagee and have possession and control of that site they could be responsible for cleaning up”. Contamination would also reduce the value of the property. In this case, the danger was that the price the Banks could sell the property for may not be enough to cover the outstanding debt.

To ensure that contamination on the site of the proposed project did not pose a threat to the Banks projects were not finance until the extent of the contamination was quantified and expressed in financial terms and until the responsibility for cleaning up the site was not settled. The Banks expected Valuers who were contracted during the Indicative Proposal step (Figure 1) to assess the value of the properties to highlight the possibility that a site may be contaminated. Summoning Valuers was a standard practice the Study Banks in all cases when property was involved in transactions. Some of the informants in the Australian Bank took an additional precautionary measure, also during the Indicative Proposal step, by checking if properties were on the government’s two databases listing potential, known, or remediated sites. Such databases did not exist in Hungary.

The second type of environmental issues that informants encountered in project lending involved the potential negative environmental impacts of projects that the Banks financed. Informants knew that activities in certain sectors could cause pollution and in these cases expected environmental issues to be a problem. For example informants expected that environmental issues would surface when the transaction involved a project in the energy, transport infrastructure, chemical, or food processing sector. Bankers were also aware of a diverse range of possible negative impacts and said they have encountered projects where air emission, surface- and groundwater pollution, soil contamination, clearing existing vegetation and impacts on protected species.

The potential negative environmental impacts of projects were a concern for bankers for various reasons. First of all, projects that were likely to have an adverse impact on the environment needed approval from the environmental authorities (in Hungary and in Australia). Without an approval a project could not materialise and construction could not begin, which was a threat to financiers (and the borrowers) who relied on project to generate cash-flow to repay the loan. Therefore it was standard practice in the Study Banks to ask borrowers to provide a copy of the environmental approval (as well as all other approvals required for projects). This was set out in the Loan Conditions, which was an integral part of the Contract, but it was drawn up in step 3 (Figure 1). The Loan Conditions had to be satisfied in order for the borrowers to access to the loan. Only in a few cases was this requirement relinquished in the Hungarian Bank.

At this point it must be mentioned that while the environmental approvals are based on the environmental impact assessment in Hungary and in Australia, few informants knew about this process or that it culminates in a final report. Only three informants (two from the Australian and
one from the Hungarian Bank) had ever seen an environmental impact assessment and they described them as “long”, “technical”, “cumbersome” and “too difficult to interpret”.

Bankers were also concerned about the negative impact of projects because on-going management of environmental impacts was costly. Although it was the borrowers’ responsibility to manage environmental impacts, the bankers made certain that these costs would not hinder the borrower’s ability to repay the loan. In one example, the Hungarian Bank was concerned that a coal-burning power plant would not be able to repay the loan to upgrade its facilities because it had an impending obligation to recultivation its strip mine. In this case, the informant said “…the environment became important issue from a decision-making point of view”. This potential for a project to require environmental management was identified as early as the Credit Application step or the Indicative Proposal step (Figure 1).

The Banks however were not concerned about the sanctions that could result from non-compliance with environmental regulations. According to the informants the size of the sanctions were negligible compared to the magnitude of the projects, or because they were “calculated into the cash-flow anyway”.

The Study Banks financed a number of projects that had a positive impact on the environment, they referred to as “environmental projects”. Many of these projects were in the energy sector, or related to enhancing energy-efficiency, wind farms, power plant upgrades and the construction of office and mix-use buildings that incorporated energy or water efficient designs. A common feature of these projects was that they attracted some form of financial support. Governments provided subsidies on the interest charged on loans to realise environmental projects, fixed prices on the services provided by these projects, or implemented regulations creating a market. The multinational organisation provided a favourable bank guarantee on loans to undertake projects that incorporated energy efficient designs. Bankers actively sought out these projects because they wanted to take advantage of these incentives. Therefore the business opportunities that projects had a positive impact on the environment were identified much earlier in the lending process than the risks that site contamination and potential negative impacts represented. Projects with positive impacts were identified during the Project Acquisition step (Figure 1).

**Conclusion**

The results support previous studies (such as Weber (2005) and Thompson and Cowton (2004)) that commercial banks that have not signed voluntary environmental initiatives do in fact consider the environment in their lending practices. Whether and how environmental impacts were considered in project lending depended on how environmental impacts translated into financial implications. Negative impacts were seen as undermining the borrower’s ability to repay the loan and in some circumstanced could reflect unfavourably on the lender. Contamination on the site endangered the bank’s ability to cover outstanding debt if the borrower defaulted. Therefore, the environment was still perceived primarily as direct, indirect or reputational risk. However, the environment was also seen as a business opportunity as the Study Banks took advantage of financial incentives for projects that had a positive impact on the environment. This suggests that banks respond well to financial initiatives; therefore governments and international finance institutions should continue to develop and promote these tools.

The study also revealed that Study Banks were confident that the mechanisms they have in place are effective in managing environmental risks, as the number of project lending transactions that required work-out was small. The authors believe this is the primary reason why banks are reluctant to implement environmental management practices, as opposed to the lack of useful tools.
References


