

GREEN FINANCE

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ABSTRACT: Green finance represents a wide-ranging challenge to the traditional constructs of financial law. New ‘green’ instruments threaten to transform conventional investment practices, lending standards associated with project finance and accounting conventions. To a large extent this process was inspired and motivated by civic forces: environmentally-socially conscious citizens, environmental groups and private financial institutions. International organizations such as the World Bank and UNEP added further impetus to this process. From a legal perspective the phenomenon of ‘green finance’ reflected a highly patchy social process, constituted by segregated contractual instruments and uncoordinated organizational routines, none of which was subject to meaningful global discipline.

The combination of “Community Finance” and “Green Finance”, that is to say, “Community Green Finance (CGF), that local community people by themselves invest and own sustainable energy system e.g. renewable energy generation. Community Green Financing can 1) reduce various risks of sustainable energy investments, 2) raise local acceptance and environmental awareness and 3) create new industries and employment and thereby can be an effective environmental and economic policy tool in achieving local community development and a low-carbon economy in both developed and developing countries.

Keywords: Environmental Finance, Local/Community Development, Sustainable Energy System, Low-carbon Economy, Public-Private-Finance, Green Finance

I. INTRODUCTION:

Green car loans, energy efficiency mortgages, alternative energy venture capital, eco-savings deposits and “green” credit cards; these items represent merely a handful of innovative, “green” financial products that are currently offered around the globe. In an age where environmental risks and opportunities abound, so too have the options for reconciling environmental matters with lending and financing arrangements. The best example is, **Mahindra finance backs the green car, the Reva-i in India** – a unique value proposition is being offered by Mahindra finance to Reva-i customers. An interest-free deposit of Rs. 1 lakh that has to be supplemented by equal monthly installments (EMI) of Rs. 7,999 for 3 years has to be paid by the customer. After the maturity period, the company on its side gives a unique option to Reva-i users to either return the car and redeem the deposit, or keep the car and forfeit the deposit.

The purpose of this paper is to examine the currently available “green” financial products and services, with a focus on lesson learning opportunities, the nature and transferability of best practices and how key designs can potentially increase market share and generate profits, while improving brand recognition and enhancing reputation.

Steering the direction of this paper are several key questions, focused on existing and potential issues related to the demand and supply of “green” financial products and services:

- What are the main drivers and trends behind “green” financial product and service development?
- What is the current and potential demand for “green” financial products and services?
- What “green” financial products and services are currently being offered by different financial institutions?
- What best practices and lessons learned can be identified in terms of experience with “green” financial products and services?

Figure 1 shows the relationship between green growth and green financing. Government should promote and sometimes regulate the green industrial markets for green product dispersion and try to boost the green consumption. Green financing is essential in green growth as it offers companies funds to catch the business opportunities in the market. If green financing is so weak, green industry will not be activated well, and green products will be eliminated in the market and consumers cannot purchase the green products. It will eventually cause the failure of going green on a full scale.

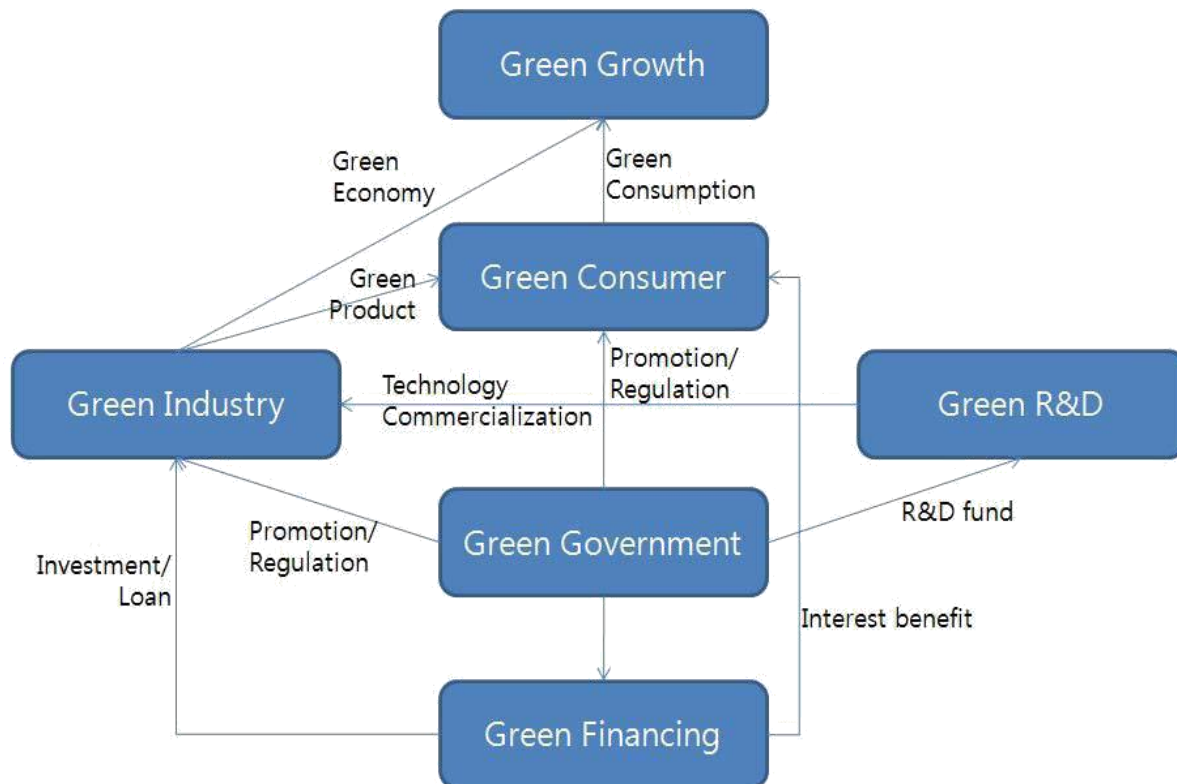


Figure 1: Going green

What is Green Finance?

Green Finance is any market-based investing or lending program that factors environmental impact into risk assessment, or utilizes environmental incentives to drive business decisions. There is green finance for both consumers and producers, with the primary driver being lenders and venture capital investors.

Here's an example of green finance in action. In Australia, a company called Green Finance advertises what it calls a "no-cost, environmentally friendly, carbon-neutral finance program for cars and light commercial vehicles". That means that for every loan it issues, it will plant a number of trees sufficient to offset the carbon emission of the vehicle that is the subject of the loan. The company appears willing to lose a few dollars of profit off their loans in order to help save the planet, but it may also anticipate upside by doing this. And it may capture some borrowers who might otherwise not be inclined to buy a car.

Another example, Financial Institution ING Group also maintains a green finance unit that "provides loans for environmentally friendly projects certified under the Dutch Fiscal Green Finance scheme. Such projects cover areas like renewable energy, nature development and biological agriculture. Projects are eligible as Green Finance projects if they contribute to a better environment and are innovative or unique".

Green India Finance is a finance company that has taken the road less travelled. The journey began on the 5th Feb 1996. On this day, Mr. Vijay Mittal began his mission to correct what had trouble him for years, the sad truth that most Indians couldn't get loan on fair terms. The founder chairman saw the owning of a home as a critical element to the building of identity and confidence of every Indian. Green India Finance was only the second housing finance to lower-and middle-income Indians.

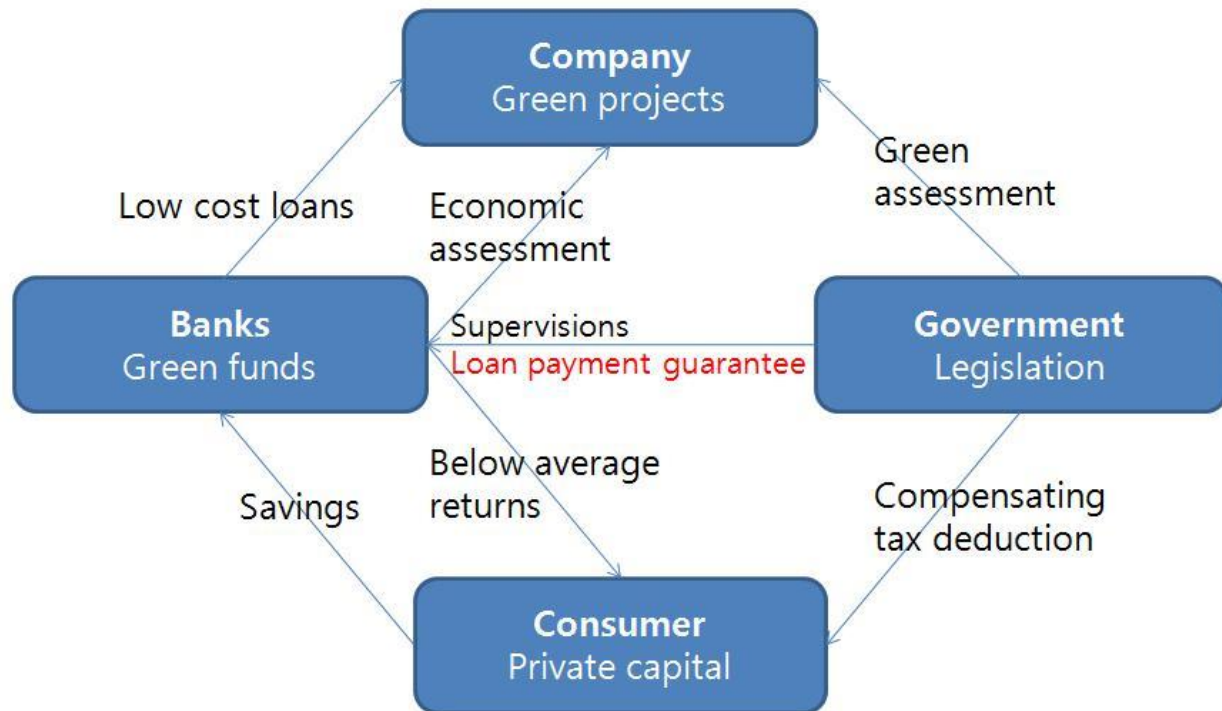


Figure 2: Schematic view of green financing

The above figure depicts that the unique difference is the loan payment guarantee (the red arrow in the middle of Figure), this guarantee takes the very important role in financing start-ups as it induces the banks' participation. Green assessment in Figure represents the green certification, that is, a policy that the government certifies the green technology, business and company. Green certification is the fundamental to implement the green financing.

Green Financial Products & Services:

Until a few years ago, most traditional banks did not practice "green" banking or actively seek investment opportunities in environmentally-friendly sectors or businesses. Only recently have "green" financial products and services become more prevalent and not only among smaller

alternative and cooperative banks, but also among diversified financial service providers, asset management firms and insurance companies. Although these companies may differ with regard to their stated motivations for increasing environmental products (e.g. to enhance long-term growth prospects, or sustainability principles on which a firm is based), the growth, variation and innovation behind such developments indicate that we are in the midst of a promising drive towards “green” financial product development into mainstream banking.

NGO and Shareholder Activism: NGOs and shareholders are increasingly demanding that financial institutions put in place sustainable banking policies and practices. Networks of NGOs and individuals regularly track the operations of financial institutions, worldwide and their impact on environmental sustainability. These groups focus on influencing the activities of banks through research, international campaigns, outreach social and environmental monitoring, strategy development and partnerships with banks. Some of these networks, such as BankTrack, go further and provide advice on improving bank sustainability policies. For example, in 2006, BankTrack engaged with a number of European banks to review existing or new environmental initiatives, including ABN AMRO, Rabobank, HSBC, Calyon and Citigroup. In addition, banks are increasingly driven to satisfy vocal shareholders who demand the integration of sustainable development into lending practices, in order to protect them from future credit and legal risks.

Approaches to Environmental Action & Product Development: Typically, the introduction of environmental financial products and services are either “board-driven” or “client-driven”. In the first case, the bank’s board recognizes the opportunities and/or risks of an environmental issue and then responds by defining one or more optimal “green” products or services. In the second case, the bank recognizes a considerable demand for a certain product or service and responds by filling the niche. For example, in the area of emissions trading, the Board of BNP Paribas took an executive decision to enter the climate change market long before clients expressed the need for a specific service. Conversely, the Italian Banca Intesa waited to establish an emissions trading desk until a considerable number of corporate clients put forth a request for the service, which over time became highly profitable.

Invest in green start-up projects:

Hoping for high returns, venture capitalists look for ways to pump their capital into start-up companies or projects with potential. Perhaps you like risk and want to do something good for the earth, but you’re not yet a multi-millionaire with the financial resources necessary to start your own venture capital firm then opportunities to invest in smaller, green projects do exist.

How to invest in green start-ups: Green start-up investment opportunities come in many shapes and sizes. For the everyday investor, these types of investments are often classed as community development investments. For a succinct overview of the various options, here are a few of the main types:

- 1) **Community development loan funds:** These funds pool investors’ resources to provide affordable financing for new green projects (often nonprofits, both domestic and international). Co-op America’s National Green Pages lists organizations offering these types of loans.
- 2) **Invest in a community venture fund:** Like funds provided by wealthy individual venture capitalists, these funds make loans available to small businesses, but they use a pool of money from many investors. Here’s Co-op America’s listing for these loans too.
- 3) **Microenterprise loans:** By providing funds to individual entrepreneurs at home or abroad, you’ll be helping green-visionaries get their projects off the ground.

10 Ways To Go Green With Credit Cards:

One of the best ways to go green in your daily life is to choose plastic, not paper. Here are 10 ways you can start to reduce your personal carbon foot print by engaging the plastic in your wallet in environmentally friendly ways.

- 1) **Go paperless on account statements.**
Opt for paperless statements for all of your credit card accounts. Many people already bank online, but continue to receive paper statements out of habit and to have a backup copy. Many credit card companies allow access to archived statements online and you can save each statement to your hard drive and send it to an online document service or web-based e-mail account for extra security.

The environmental impact can be significant. With a 50% increase in paperless enrollment rates in the last year, Discover card reports saving an average of 350 trees a month. The Plant-a-Tree program from Citi set a new tree in the ground whenever a customer switched to electronic-only statements, which resulted more than 300,000 trees in the first quarter only.

2) **Toss your checkbook.**

If you're not already making online payments of your credit card accounts – and on all your accounts, for that matter – do it now. You'll save on paper, postage and the fuel required mailing the envelope. Using a debit or credit card instead of a cheque will also eliminate the paper used to print the cheque.

3) **Affiliate environmentally.**

If you belong to an environmental group such as The Sierra Club or The Nature Conservancy, sign up for their affiliate credit card. Every time you use the card, the group will receive a percentage of your purchases to fund eco-friendly projects and initiatives.

4) **Taken carbon offsets.**

Sign up for a card that buys carbon-offset credits every time you use the card. Bank of America's Brighter Planet Visa will give you one EarthSmart point for each dollar you spend; 1,000 points will purchase approximately one ton of carbon offsets.

5) **Go eco-reward.**

Some rewards cards allow customers to convert their earned rewards into cash donations for environmental groups. Chase BP Visa Rewards Card cardholders can donate their rewards to The Conservation Fund. G.E.'s Money Earth Rewards Platinum MasterCard allows customers to designate up to 1 percent of their total yearly purchases to buy carbon offsets to fund projects that reduce greenhouse gas emissions. The only way to apply for the card is online, which saves paper.

6) **Cut junk mail.**

Organizations such as ProQuo.com promise to eliminate all of your junk mail – including unwanted credit card offers – by contacting direct marketing companies.

7) **Buy eco-friendly.**

Use your credit card to make purchases online from eco-friendly companies. "There are great companies making everything from bamboo clothing to earth-friendly toys", says Candita Clayton, author of "Clean Your Home Healthy". She suggests Ecomall.com for a wide selection of products you use every day. PriceGrabber.com now offers a ShopGreen option where you can buy eco-friendly, sustainable merchandise. Even better, it donates 5 percent of its profits to the environmental organization you specify.

8) **Receipt? Nah.**

Whenever you use a credit card to pay for gas at the pumps, always decline when it asks if you want a receipt. And turn off your engine while you're filling it; idling uses up gas.

9) **Put your money where.....**

For your credit cards and all of your financial transactions, choose a bank or credit union that clearly puts the environment first. Bethpage Federal Credit Union in Long Island teamed up with local organization GreenLevittown.com to offer special debit cards to raise the visibility of the group. Customers who build a credit history with the credit union can receive discounted rates on loans and mortgages along with 20 percent savings on the purchase of energy-saving household items from light bulbs to refrigerators.

10) **Re-use that plastic.**

When your credit cards expire, don't cut them up and throw them away. Instead, you can reuse the old plastic in some surprising ways. Candita Clayton suggests using expired credit and debit cards – along with used-up gift and coupon cards – to make fun sculptures with your kids by making slits in the cards so they fit together like a house of cards.

Scope:

The scope of this study includes international markets, with a predominant focus on the evolution of and experiences related to, “green” financial product and service development in Europe and to a lesser degree, Australia and Japan. Relative to their North American counterparts, banks in other developed regions have traditionally been more proactive and innovative with respect to “green” product and service development. Several factors can be identified as:

Geography & Regional Competition: Since larger banks acquire smaller banks at a fairly rapid rate, it becomes more challenging to integrate innovative banking products, including “green” products and services, into their respective portfolios. In a less competitive environment, banks are not given a high incentive to innovate and thus differentiate themselves from peers with state-of-the-art offerings, such as “green” financial products and services.

Heterogeneity: The European banking market, which includes 27 Member States, represents not only a customer potential 60% greater than the American one, but it is also a less homogeneous customer base. Private clients of European banks are characterized by different cultures, consumption patterns, social habits and regulatory constraints. Therefore, such a diversified client base has driven a more diversified supply of banking products, especially in retail sector.

Transparency: Most European banking operations have faced higher degrees of environmental scrutiny from the public and government, compared to North American banks. For several years, most European banks have been required, by law, to publish an annual sustainability report. Because there is reputational risk associated with being exposed as an “unsustainable bank” to an environmentally conscious public, a growing amount of time and resources has been directed into the design and development of corporate environmental policies, products and services. This peer pressure has played a significant role in expediting “green” product and service development and innovation in the increasingly competitive European financial sector.

Shift in Risk Perspective: Where European banks have historically focused on the tangible (e.g. financial) and intangible (e.g. reputational) benefits to going “green”, these types of environmental banking opportunities have traditionally been overlooked by North American banks. Focusing mostly on environmental risk avoidance, rather than environmental product and service opportunities, has arisen due to the region’s largely defensive approach towards environmental affairs. This is a natural development, given that North American banks, unlike European financial institutions, are both legally and financially responsible for environmental degradation caused by clients; a burden that has fuelled the incorporation of environmental risk into their credit risk policies.

Community Development: Driven predominantly by the US Community Development Act, American banks have traditionally veered towards community economic development and engagement over environmental action. Popular project candidates for these types of community-based loans include finance tailored to non-profits and low-income customers, employment generation projects through Small Medium Enterprise (SME) lending and urban revitalization projects. However, experience with community sponsorship activities may well prepare North American banks to capitalize on “green” financial product and service opportunities, particularly in retail banking.

Retail Banking: Retail Banking covers personal and business banking products and services designed for individuals, households and SMEs, rather than large corporate or institutional clients. In general, green mortgages, or energy efficient mortgages (EEMs), provide retail customers with considerably lower interest rates than market level for clients who purchase new energy efficient homes and/or invest in retrofits, energy efficient appliances or green power. Similarly, banks can also choose to provide green mortgages by covering the cost of switching a house from conventional to green power and include this consumer benefit when marketing the product.

II. CONCLUSION:

Green finance is the infrastructure of green growth. Because the green industry is very risky as it is on the initial growth stage, the assistance and support in the aspect of finance is a prerequisite to make the investment harmonized. Green finance is still introductory so the participation of government is a sine qua non to activate the market well. Then, the private finance agencies will actively participate in the green finance for profits. If government guarantees a certain level of profits, the private sector will voluntarily join the market. The current core problem in green financing is that going green does not mean the business success because the green industry is

riskier than other industries that already show the nice performance. If all green technologies succeed in business, banks will invest in green technology companies voluntarily. Back to the reality, the governmental support for bank is needed to induce the bank's participation by guaranteeing the loan payment with the certification. As expanding the guarantee, banks will participate in green financing more than ever.

Impatient policy administration can cause the spontaneous generation of green financing and the impatience should be warned that the performance should come out before constructing the market and it might cause so-called "green bubble" just like the previous IT bubble. Therefore, the government should approach systematically as well as cautiously to prevent the green bubble and the ethical misconducts of both financial agencies and green companies.

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