

INCENTIVES FOR FINANCING SUSTAINABLE DEVELOPMENT

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Abstract

Green investments that comply with the principles of sustainable development represent a challenge for investors and funders, given the fact that their costs are higher than those of investments in polluting traditional technologies. However, there are several incentives for the shift from traditional investments to green investments. This transition is urgently needed because otherwise the negative effects of pollution will endanger food security and welfare of a number of increasingly large communities, particularly in emerging countries and the Third World. Governments play an important role in stimulating green investment and they can promote them by tax measures, public-private partnerships or stimulating technological innovation. Beyond government interventions that can make them attractive for private investors and financial companies, green investments have the advantage of lower full costs on the long run, compared to traditional investment in intensive fossil fuels technologies. Although on the short run these investments may have high costs, over the long run, they favor all types of economic agents, including financial companies that could better assess and manage their risks, given the fact that development trends would fulfill the principles of sustainability on the long run.

Keywords: sustainable development, green investment, financing, public policy

JEL Classification: G11, O10, O16, O31, Q20, Q28, Q48

1. Introduction and context

Private funding of activities and domains specific to sustainable development is a challenge for financial companies and investors, given the fact that the principles that guide sustainable development on the one hand, and those of financial companies and investors, on the other hand, are divergent. For example, according to some empirical studies, in emerging countries, financial liberalization can be harmful for the quality of the environment, if it is not done within a solid institutional framework (Tamazian and Rao, 2010).

Sustainable development requires, among other things, channeling funds to developing or Third World countries, where the level of risk associated to investments is higher compared to developed countries. The allocation of funds to such countries and regions occurs when the risk associated to such investments seems acceptable for financial companies and investors. First, an acceptable level of risk requires that the global economic conjuncture is a favorable one, because under such circumstance investors' risk aversion stands at a normal level. Second, the beneficiary country must be characterized by political and economic stability, free markets, clearly regulated property rights, democratic political governance and consistent and effective structural government policies.

Although in recent years progress has been made in terms of green investment for sustainable economic development, in this direction there is still a long way ahead, which involves allocating large sums of money. Given the fact that the global economy is recovering after heavy financial and economic crisis, financing investment for sustainable economic development is constrained by issues of public finance, market uncertainty and preference of private investors for short-term gains, at the expense of scale projects for sustainable development.

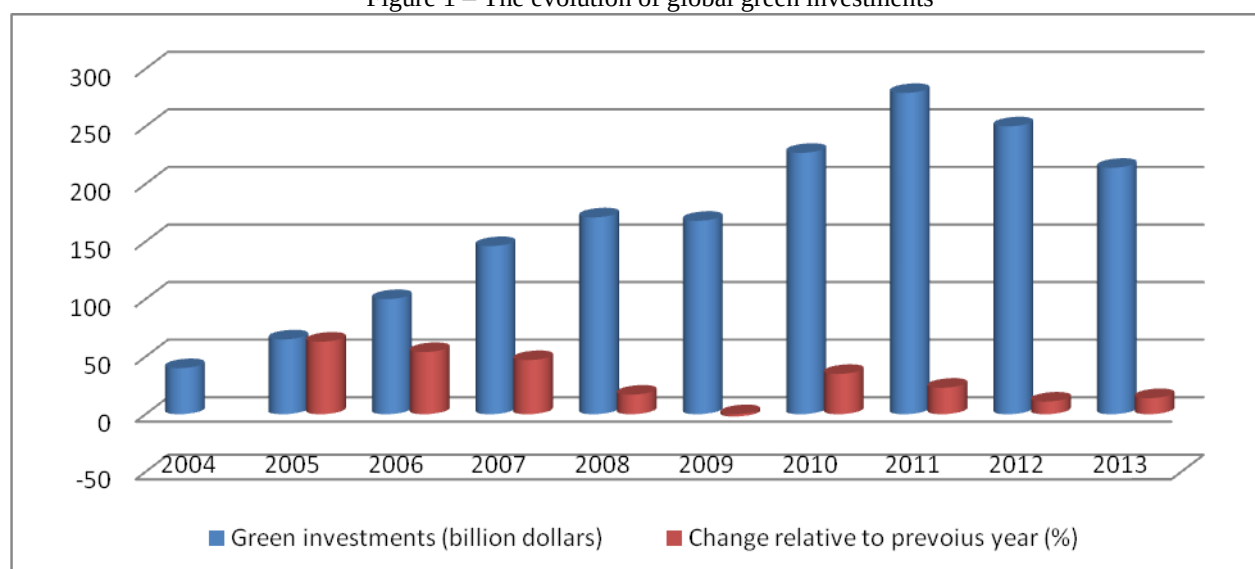
However, there are several incentives for investing in and financing green technologies that comply with the principles of sustainable development. This paper consists of two sections. The first one highlights the global evolutions regarding green investments and their importance for sustainable development, while the second one presents several incentives for financing green investment and investing in green technologies.

2. Global evolutions regarding green investment

In order to achieve the objectives of sustainable development a shift in the nature of investments is required, as current trends will not bring the desired results in this respect. For example, the investments in fossil fuels technologies are increasing every year, exceeding the value of green investments. International Energy Agency warns that, in order to avoid dangerous climate change, an unprecedented shift to long-run green investment is necessary (World Economic Forum, 2013). Such change is meant to eliminate the resource inefficiency and environmental pollution caused by the intensive use of fossil fuels, so as to avoid climate change and to achieve the goals of sustainable development.

Globally, new investments in renewable energy decreased both in 2012 and 2013, reaching 214 billion dollars, after having reached a record of 279 billion dollars in 2011 (Figure 1). This was due, in part, to the reduction of investment costs, but nevertheless the decline disappointed expectations for increasing the allocation of funds in this sector. Overall, however, the foundations for further growth in investment in renewable energy sources have been founded, given the declining costs, return on profit of the industry and investors' warm attitude towards renewables (UNEP Collaborating Centre Frankfurt-School for Climate & Sustainable Energy Finance, 2014).

Figure 1 – The evolution of global green investments

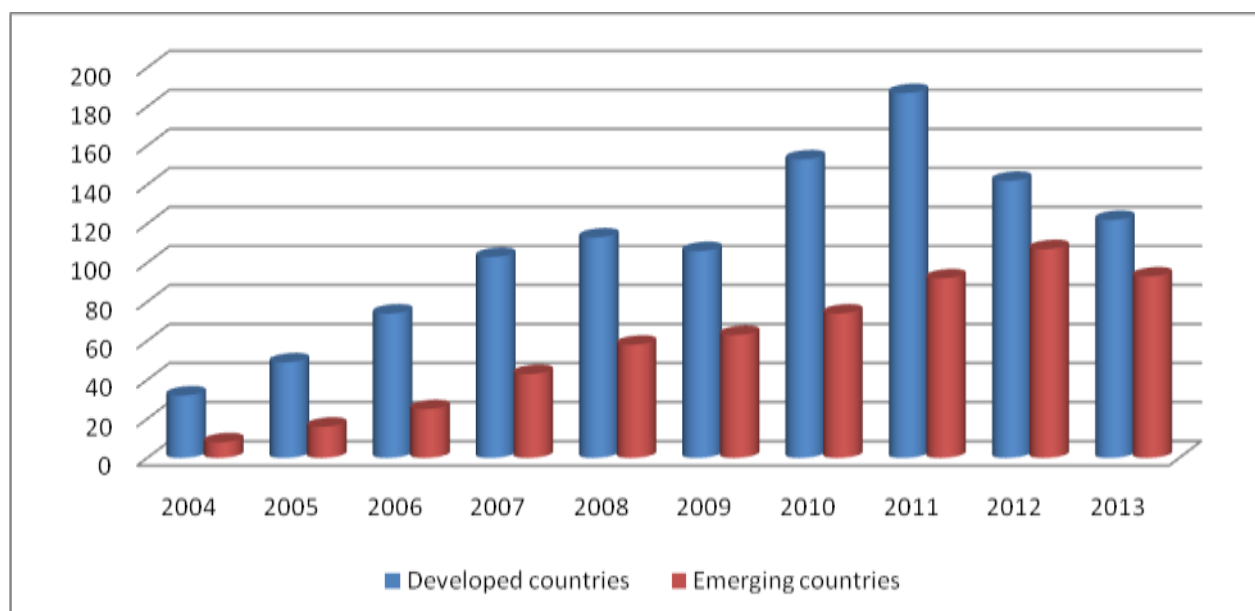


Source: Frankfurt School-UNEP Collaborating Centre for Climate&Sustainable Energy Finance, 2014

Beyond reducing costs, another important factor which led to less investment in countries like USA, Germany, India, UK, France, Sweden, Romania and Poland was represented by concerns about future policy support for renewable energy investments. Of the 214 billion dollar global green investment, 145 billions were private investments and the rest were financed by governments or represented corporate investments for research and development. About a quarter of these investments were made in China (56 billion dollars), while the value of investments in Europe amounted to 48.4 billion dollars, and in the US was nearly \$ 36 billion (Frankfurt UNEP Collaborating Centre for School-Climate & Sustainable Energy Finance, 2014).

The share of investments in renewables implemented in developing countries in total global green investments increased between 2004 - 2013, reaching around the level of 43% in 2012 and 2013. The volume of these investments in emerging countries registered continuous growth between 2004 - 2012 and 2013 was the first year it recorded a rebound (Figure 2).

Figure 2 – Green investments in emerging and developed countries



Source: Frankfurt School-UNEP Collaborating Centre for Climate&Sustainable Energy Finance, 2014

Unfortunately, green investments continue to be far outweighed by polluting technologies investments based on intensive use of fossil fuels. As a result, emissions of greenhouse gases continue to rise, soil erosion is accelerating and increases in resource productivity are insufficient to offset the massive consumption of natural resources such as water or forests. All these, combined with the dangers of global warming, endanger food security and welfare of a number of increasingly large communities, and under these circumstances, stimulating green investment becomes a burning issue.

3. How to stimulate green investment for sustainable development?

Given the current global financial and economic context and the austerity measures imposed by many states, public financing of investment for sustainable development suffers, so private fundraising should be stimulated. Private funding for such activities faces a number of obstacles such as uncertainty, technological and market risk or investors' aversion regarding long-term investment. However, interventions and government policies are likely to eliminate these obstacles and to determine the effectiveness of private investment in favor of sustainable development.

According to a report of the World Economic Forum, if public green investments would amount to 130 billion dollars annually, this could result in attracting private funding amounting to 570 billion dollars, so that the total investment would be amounted to 700 billion, which is the level of investment necessary to place the world on the path of green growth (World Economic Forum, 2013). However, the same report states that converting all infrastructure investments, worth \$ 5 trillion per year, in green investment is a major challenge.

Allocation of funds for green investment can be stimulated by providing investors, financial companies and investment decision factors with accurate and complete information, as they can identify a number of advantages of green investments, and also by implementing government consistent and coherent policies for sustainable development. In order to achieve the goals of sustainable development, macroeconomic or sectoral interventions that are expected to deepen the business environment must be complemented with microeconomic policies, so as to increase productivity, accelerate investment and the creation of decent jobs (Davidescu, 2014).

Stimulating green investments can be achieved by the following:

- *Getting aware of the importance of sustainable development*

Lack of awareness of the importance of sustainable development among financial companies and private investors and the continued use and investment in polluting technologies restrict progress towards sustainable development. An important role for the awareness of sustainability is allocated to governments, which should conduct informational programs and provide incentives to encourage investment directed towards sustainability.

Investors and financiers need to become aware of the importance of sustainable development and of the fact that activities dissonant to sustainable development may affect their projects and profitability. For instance, investment in cleaner technologies affect the health of employees, so that companies could be forced to bear higher costs on employee health insurance.

➤ *Discouraging investments in polluting technologies through effective fiscal measures*

The development of polluting activities should be extra charged by the authorities, and non-compliance with environmental regulations amended by the competent authorities. Also, governments should discourage investment in traditional fossil fuels technologies by eliminating subsidies to economic activities that do not subscribe to the principles of sustainable development and redirecting these funds to ensure access to water and energy to disadvantaged population, or by fostering any other objective of sustainable development. Such measures are likely to diminish fiscal imbalances, contribute to lower carbon emissions and reduce the costs of mitigating climate change (World Economic Forum, 2013).

➤ *Encouraging technological innovation*

Governments can encourage green technological innovation by redirecting funds raised from environmental taxes to research and development activities. Such measures can support the development of solutions for efficient use of resources and reduce emissions, increase competitiveness and create business opportunities to stimulate the process of healthy, sustainable, long-term economic growth (World Economic Forum, 2013).

Moreover, as time passes, alongside with the emergence of more efficient technologies, the cost of investing in environmental friendly projects is becoming smaller and smaller, so that they could become tempting for financial companies and investors.

➤ *The long-term, full cost of polluting technologies can be very high*

Consideration should be given to the comparison between green technologies` costs and full, long-term costs of traditional fossil fuels technologies. For example, a polluting technology can have a lower initial cost than a clean technology, but in the long run its full cost can actually be higher, if it included a number of elements, such as fees paid for pollution, the cost of carbon credits and waste generated by inefficient use of resources. In this regard, international cooperation is very important to ensure a high and stable price of carbon credits (by creating a high demand internationally), as this is likely to bring about changes in the behavior and decisions of investors and financial companies, in favor of investment in clean technologies.

➤ *Public-private partnerships, a viable solution*

An overview of the economy and society in the long run can also add costs related to treatment of diseases caused by pollution, or other additional social costs incurred by the inadequacy of economic activities to the principles of sustainable development. Therefore, the government should encourage public-private partnerships designed to finance expensive investment projects. For example, the government could support the difference between the cost of green technologies and the cost of polluting technologies, in order to encourage green investments.

➤ *Financial innovations*

Financing sustainable development can be stimulated by achieving appropriate financial innovations in order to offset the high cost of green investment and to help mitigate the associated risks.

➤ *Elimination of customs duties on goods and services for green investments*

Free trade for goods and services required for green investment are likely to reduce their costs, which makes them more attractive to investors. Also, the elimination of customs duties should be completed by the removal of non-

tariff barriers that hinder trade with such goods and services, and all these would result in the expansion of the use of green technologies, helping to reduce greenhouse gas emissions, while stimulating economic growth, energy access and energy security (World Economic Forum, 2013).

➤ *Incentives for financiers*

Beyond the objective of achieving rapid gains in the short run, there are incentives for financial companies so that they promote green investment by facilitating their financing. It is in favor of banks or insurance companies to deal with eco-efficient activities that respect the principles of sustainable development while being profitable, as creditworthiness of such companies is higher and their associated risk is lower. This is because such firms comply with environmental regulations, so it is unlikely for them to be the subject of sanctions that might affect their business or profitability. Also, it is favorable for financial companies to finance activities that comply with the principles of sustainable development whereas, on the long run, global warming, climate change and natural disasters reduce the accuracy by which they can assess the risks they are exposed to (Moldovan, 2014).

4. Conclusions

According to a World Bank report, given the current trends of emissions, global temperature is likely to increase by 4°C compared to pre-industrial levels, which could cause extreme heat waves, hurricanes, drought phenomena and floods, with major impact on ecosystems and communities. Such climate change can be avoided if technological and economic measures are implemented for reducing carbon emissions, and in such case, global warming might be below 2°C. In this regard, an unprecedented shift to green investments is necessary.

Given the current global economic context, financing investment for sustainable development from public sources is limited, so that it should be stimulated by private financing. Private finance for activities specific to sustainable development is a challenge for financial companies and investors, given the fact that sustainable development principles and those that guide financial companies and investors are divergent. Private finance for these activities faces a number of obstacles, such as uncertainty, technological and market risk and investors' aversion with regard to long-run investment. However, government policies are likely to eliminate these obstacles and to determine the efficiency of private investment for sustainable development.

Governments play an important role in stimulating green investment, which they can promote through fiscal measures, such as high taxes and eliminating subsidies for polluting companies, public-private partnerships for co-financing green investments, stimulating technological innovation by redirecting funds collected from fines to research and development, etc. Beyond government interventions that can make green investments attractive, they have the advantage of comparable or even lower full costs on the long run compared to investment in traditional polluting technologies. Although on the short run these investments may have high costs, on the long run, they favor all types of economic agents, including financial companies that could better assess and manage risks if development trends fulfill the principles of sustainability on the long run.

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