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**Finance and Private Equity:**  
**Infrastructures and Environmental**  
**Sustainability**

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## **ABSTRACT**

This study, structured over three chapters, originates with the aim of describing the evolution of finance and private equity towards infrastructures and environmental sustainability.

Global phenomena – population and wealth growth in emerging countries, deficits in public budgets, climate changes, scarcity of energy resources and the resulting problem of supply safety – have, in fact, been driving the financial world towards infrastructure and environmental sectors for the last few years.

The recent financial markets crisis has strengthened and accelerated this trend, as investors flee from so called “derivative finance”, searching for stability and real assets.

The plot starts with a first chapter that introduces private equity, describing the characteristics that have made it an important factor for economic developments, and today a mature industry with decreasing performance, destined to grow again in the infrastructure world.

From the United States, where the idea of managing financial resources for “wealthy people” started, a new industry, that currently operates on a global level, managing capital mainly for institutional investors, has developed.

If, by definition, with Private Equity people generally mean “the activity of investors in risk capital, in investment operations realized in phases of a firm life-cycle”, in the last four years its development in the economic infrastructures and sustainable finance sectors has been strong, as a consequence of institutional investors’ new needs, now looking at safe and real investments, in a world burned by derivative finance.

The second chapter explores the characteristics and developments of the infrastructure world, connoted by an important growth in project finance investments. Infrastructures, as a result of important global dynamics (demographic development, growing needs of emerging countries, scarcity of energy and natural resources),

represent the competitiveness engine for “country-systems”, so the centre of their economic policies.

The chapter continues describing the foreseen evolution in those sub-sectors linked to the environmental sustainability matter: water, energy and transportation.

It also explores the characteristics of an infrastructure investment and the reasons why institutional investors are so attracted to this form of investment, today defined as a new and autonomous asset class.

An interesting new development in the infrastructure financing scenario is the birth of the so-called infrastructure funds, private equity vehicles specialized in these kinds of investments.

By the description of their growth dynamics, a strong link between infrastructure and climate change issues is evident, and is strengthened by the recent development of the carbon funds, viewed as an intermediate stage towards investments in environmental sustainability.

Climate change and safety of energy-supply issues, united with the necessity of responding to the increase of energy demands coming from developing countries and a longer-living global population, have in fact forced the financial system to pay attention to the issue of sustainability, that, in few years, has gone from being a constraint to great financial opportunity. The third and last chapter starts from this point.

The Kyoto Protocol ratification and the following development of Carbon Finance have opened the door to the development of sustainable finance and “*Clean Economy*”.

In just a few years, the *Emission Trading Scheme* (ETS), born in Kyoto, has gone from being a small European-based market and has led to the creation of exchange-markets for emission - certificates worldwide.

During the Bali meeting, held in December 2007, after many years of scepticism from some countries (in particular United States), the entire world is taking the road of environmental sustainability, further strengthened by the election of the “green”

Barack Obama as new President of United States, and the birth of a global carbon market, which should be ratified during the Copenhagen Summit, at the end of 2009.

A new industrial sector has emerged, one centred around the so-called “clean technologies”, “infrastructures” that allow the production of a zero emission energy.

At market level, this assertion is made evident by the development of infrastructure funds, carbon funds and SRI (*Sustainable responsible investment*), that have actually become the object of an enormous investment demand generated by institutional and private investors.

These new investment tools will be the place where new industrial and economic policies will be experimented, and where innovation and sustainable growth objectives will converge with purely financial ones.

All this is verifiable at a firm level, with the new behaviour of the main large corporations that, pressed by the new needs of a consumer “suddenly” conscious of his own investments and buying choices, and by the ever more severe environmental politics, are steadily heading towards green business.

Finally, the major institutional investors (mainly pension funds, foundations and insurance companies), searching for long-life and low-risk social assets, have become the main supporters of those investment funds dedicated to financing sustainable investments and clean economy.

In this new scenario, the private equity world, in its role of intermediation between public and private institutional investors and the entrepreneurial world, will play an important role in driving the “green companies” growth.

The financial crisis in which we are living, along with the sudden collapse of “green” investment banks like Lehman Brothers, the following decrease in commodities and oil prices, and the consequent impacts on real economies (take the current crisis in the automobile sector) have clearly slowed these developments.

A short-term slow down, at the end: it is the message we present here.

In a recent meeting with Silicon Valley entrepreneurs, Nobel Prize winner Al Gore declared that the “green revolution” represents the solution to this financial crisis.

According to a July 2008 Freshfield Bruckhaus Deringer study, renewable energies will be the highest growth rated investment sector in the world from now over next 10 years.

A change of paradigm, comparable to what happened with the dot.coms in the last decade, is in effect, and will see financial markets attracted by this new “sexy asset class”, the clean technology, produced by the meeting of the infrastructure and environmental sustainability worlds.

President Obama touched on this in a speech in December, when he talked about the enactment of a large U.S. investment plan for infrastructure and energy efficiency.

The final part of this study refers to a specific question: is the (environmental) sustainability a cost or a profit to companies?

The study aims to answer this question with the analysis of some important international studies on the theme “sustainability politics and extra performance” that confirm the positive relationship between sustainable behaviour and financial returns. In such a turbulent time for financial markets, with the standard financial market analysis models now obsolete, elaborating and reaching quantitative conclusions is difficult.

It is nevertheless certain that, if these studies are validated in the next few years, an enormous flow of finance and private equity will move towards clean technologies to create a first cycle of sustainable development for our planet.

This study ends with the hope of having contributed to the development of a new research pattern on “private equity role in the third industrial revolution, centred on environmental sustainability”, that has been largely unstudied to date.