Corporate Social Responsibility in France



Sustainable Finance, Climate Finance: The French and European Impetus for Sustainable Growth

Catherine Malecki

Abstract Developments in finance relating to CSR and, more broadly, to sustainable development (SRI funds, for example) have shown that this emerging finance is not entirely "alternative" in the original sense of the term, meaning another form of finance alongside the financial markets. A genuinely climate-friendly or resilient finance is emerging and its causes are well known: the burgeoning worldwide population and rising levels of GHG (greenhouse gases) driven by the fossil-fuels industry, transport and cities.

The Paris Agreement (http://unfccc.int/resource/docs/2015/cop21/fre/l09f.pdf) signed on 12 December 2015 is an important milestone. Europe is an undisputed leader with the "Juncker Plan" of November 2014 aiming to re-launch investment in Europe and unblock public and private investments. It is in line with the need for decarbonisation already set out in the European Parliament resolution of 5 February 2014 "on a 2030 framework for climate and energy policies" (2013/2135 (INI)) (http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2014-0094+0+DOC+XML+V0//FR) drawing on the Commission Green Paper entitled "A 2030 framework for climate and energy policies" (COM (2013).

However, this climate finance brings specific requirements, despite considerable private-sector efforts, such as the Green Bond Principles or the Carbon Tracker Initiative (CTI): a need for transparency, to combat greenwashing and to establish a genuine market for Green Bonds.

In France, in 2008 the Paris Marketplace launched a major initiative on sustainable finance with a Responsible Investment Charter which was supplemented in 2012 by 10 proposals for Europe on SRI and CSR. Then the TEEC label (*Transition Energétique et Ecologique pour le Climat*—Energy and Ecological Transition for the Climate) launched at the end of 2015 aims to guarantee the transparency and quality of the environmental features of such financial products via an independent external audit. Yet, Article 173 of the French LTECV Act on the Energy Transition for Green Growth is an example to be followed (17th August 2015).

C. Malecki (⋈)

University Rennes 2, Rennes, France e-mail: catherine.malecki@univ-rennes2.fr

1 Introduction: Sustainable Finance, Climate Finance and CSR: Strong Links for Sustainable Growth

The PRI (Principles on responsible investment) indicate a methodology that leaves some manoeuvring room to each signatory that is free to choose the orientation of its reflections and investment products. These principles, launched in April 2006 on the initiative of the UN Secretary General, were established by an international group of institutional investors as a result of the growing importance of environmental, social and corporate governance (ESG) questions in asset management and more generally in finance. In late August 2007, 230 signatories are PRIs¹ spread across the three categories of signatories: 'Asset owners', 'Asset Managers' and 'Service Providers' for a total of more than USD 10,000 billion under management according to the Organisation.

The signals that sustainable development is progressively being taken into account by the law show that the "lines are moving" within the financial industry. Concerns relating to current events are finding some echo within SRI funds. One can assert, not without paradox, that environmental concerns, climate change and corporate governance are all godsends for SRI funds. This tool makes it possible for investment funds to better take social and societal responsibility into account relative to all stakeholders, including the public authorities, civil society, shareholder associations and NGOs.

The Eurosif study,² that measures the evolution of SRI in Europe every two years, had already established that the market was assessed at 2665 billion euros at the end of 2007, i.e. a 102% increase in two years. In France, in particular, SRI money market funds have increased spectacularly since early 2008. SRI funds serve to tackle the intangible risks of a social, environmental and governance nature. Dexia, the European SRI leader, has shown that it is necessary to be thoroughly familiar with the composition of portfolios and the "fundamentals" of companies, States and the various products in which one invests, and that these are aspects that SRI promoters could promote.

The signals that sustainable development is progressively being taken into account by corporate law and by financial law are becoming more pressing. In terms of legislative progress, the *Grenelle I* (Roundtable I) law is one of these strong signals. Nonetheless, a particular type of investment, i.e. socially responsible investment (SRI) that is not mentioned in this law, elicits questions as to its role as a vector both for the good governance of companies, possibly through—though the question is subject to debate—shareholder activism that is however most often decried, and especially as a possible vector of sustainable development (or CSR, to borrow this generic term). SRI weathered the financial crisis well, which is an additional argument as part of its study within the more general context of CSR. SRI is a tool

¹PRI (Principles for Responsible Investment) available at http://www.unpri.org/files/pri.pdf

²Available at http://www.eurosif.org/press_events/eurosif_press_releases accessed on 22 june 2011

that can contribute to improving the quality of extra-financial information. However, one must point out—and wonder about—the small number of studies on SRI within French law,³ while studies and common practices in the English-speaking world have been taking an interest in SRI for several years. This is seemingly logical given that SRI originated in the United States.

Diversification, growing appeal and crisis resistance are all strengths of SRI, but are they enough for sustainable development within the company to advance?

SRI lends itself ideally to an analysis of its link with shareholder activism, a recurring topic within corporate governance, one that is discussed more in the United States than in France. Naturally, other questions do not fail to arise. As such, do SRI funds truly contribute to better governance, especially when they are specifically focused on corporate governance?

SRI therefore allows for questions related to corporate governance to be tackled and, by its very vocation, it provides an inescapable occasion to consider *whether or not it is an operational vector for sustainable development within companies.* How to ensure a reliable rating grid? What are its issues and its future? How can it improve corporate governance? Can SRI attain the economic profitability of a socially responsible initiative that has not been totally proven? Will the movement in favour of financial regulation be useful to SRI?

This contribution will therefore look at the following three issues regarding SRI, as a vector, first, for the dissemination of social and environmental information, then of shareholder activism and, finally, of improving corporate governance.

As the market for sustainable finance has grown exponentially over the last few years there is still a lack of clarity. For example the term "sustainable finance" is a broad one and there is no taxonomy yet. The European Commision submitted proposals for three distinct regulations on sustainable finance. Before getting to the core of these proposals, it is necessary to present the background of sustainable finance and the strong links to corporate social responsibility (CSR).

2 Therotical Background: From Socially Responsible Investment to Sustainable Finance

2.1 SRI and Social and Environmental Information

The specific feature of (Social Responsible Investment)SRI is also its variety. We know that this is a collective or individual investment based on social, ethical, environmental or corporate governance criteria. Its variety is a source of complexity: it is made up of money market funds, sustainable shares, and sustainable or lasting

³Cusacq (2005, p. 129).

OPCVM.⁴ But the distinction between green funds and SRI funds is not always easy for an individual investor.⁵ An investor selects this investment more specifically for primary reasons related to extra-financial criteria (ethics, governance, social, environmental), rather than classical financial criteria (profitability, risk). The various forms that such an investment can take are also known. Legal analysis, primarily in English-speaking countries, took a very early interest in this type of investment. This can involve socially responsible funds or so-called sustainable development funds that focus on the adherence of companies to sustainable development criteria (the Scandinavian countries and Germany are developing more of the "green funds" technique), or of exclusion funds (more faithful to the initial concept of such funds that were born in the United States with the philanthropist Quaker movement, that prohibited its members from investing in weapons, tobacco or even alcohol companies).

2.1.1 Diversity of SRI Funds

Diversity and long-term investment are two common denominators of SRI funds. By tradition, the leading SRI market on its own represents 65% of SRI funds, though it also exists in Canada, South Africa, Asia and Morocco, and naturally in the Scandinavian countries In the United States, pension funds, that like to communicate regarding their values, have an approach that is close to that of SRI and a medium / long-term valuation horizon that is consistent with the notion of sustainable development. In France, the Novethic indicator is indicative of the constant growth of SRI, while the leader on the French market is Dexia AM. Insurance companies, pension funds and collective investment undertakings are increasingly sensitive to SRI. Companies in the chemical and petroleum sectors, clearly the most concerned by SRI, and even more so banking establishments that are in charge of accompanying industrial investments, pay very particular attention to SRI. Since 2005, the CERES annual reports have clearly indicated an obvious change of attitude in the banking sector, which is including environmental data as part of risk management.

⁴"Organismes de placements collectif de valeurs mobilières" (Mutual Funds of securities) such as "FCP" (Fonds Communs de Placement) (Mutual Funds) and "SICAV" (Société d'Investissement à Capital Variable).

⁵Rubinstein (2006).

⁶Richardson (2008).

⁷Geczy, Stambaugh, and Levin (2005), Renneboog, Horst, and Zhang (2008), Landier and Nair (2008).

⁸Novethic, the sustainable development expert medium, available at http://www.novethic.fr/novethic/v3/les-etudes-isr-investissement-socialement responsable.jsp

⁹CERES (Coalition for Environmentally Responsible Economies) available at http://www.ceres.org//Page.aspx?pid=592&srcid=812

SRI funds are very diverse. From the exclusion (negative screening) of certain topics to the focus on societal, social or environmental risk (positive screening), or even a more specific focus on corporate governance, SRI funds offer technically different choices. Moreover, differences also exist between the English-speaking countries that are far ahead in this domain, and European countries. As such, in the English-speaking countries, this is more of an investment process based on shareholder commitment, which is to say an ability to dialogue with companies and to influence their strategies with regard to what is known as "ESG" questions (i.e. environmental, social and governance). These ESG concerns correspond with ESG criteria, and with the types of selections made by the managers of SRI funds (Best in class: the best rated securities with regard to ESG criteria are selected; Best effort: the selected securities are the ones that have been rated the best in terms of their efforts to improve in this domain; Best universe: the selected securities are the best-rated ones, independently of their business sector).

SRI represents an investment in the future for *long-term* institutional investors who are aware that, far from being a "marketing" concern, these funds make it possible to consider, within long-term strategies, questions relative to climate change, to threats to fundamental human rights and to matters surrounding corporate governance.

Nevertheless, SRI funds lend themselves well to many research topics. ¹⁰ Indeed, on the basis of its extra-financial character, let us discuss the methodology selected for its rating, a question that will become essential for the rating agencies that were at the heart of the tempest during the financial crisis. By its very nature, SRI is more a subject of study in which management sciences ¹¹ took an interest very early on, whereas the questions that it brings to light are also legal questions focusing on corporate governance, rating or even inter-culturalism, the latest growing trend that is showing the limits of SRI from a new angle.

Finally, SRI is also at the heart of the notion of stakeholders through the values that it spreads into labour law, thereby inevitably eliciting the following question: can the consideration of labour law within these funds further involve the stakeholders in corporate governance?¹²

The corollary of the success of responsible finance can also be found in extra-financial rating. SRI investment cannot avoid the issue of ratings. There is no universally accepted methodology. Indeed, SRI is based on extra-financial values, as well as on social, environmental and good governance values that are difficult to quantify. The assessment of SRI funds is a delicate matter. Over and above the question of which indices should be selected, and of the multi-criteria grid, the financial communications provided by the funds must also and most importantly be solid. It is symptomatic to emphasize that the recent regulation on rating agencies ¹³

¹⁰Malecki (2009a).

¹¹Wolff (2004).

¹²Bernstein (2008).

¹³Malecki (2009b).

did not specifically mention extra-financial rating (which therefore suits its name well). This silence contrasts sharply with the success of these funds despite the financial crisis, though this can also be explained by the difficulty when it comes to establishing reliable rating grids. Nonetheless, this is an essential field for future investigation. It is certain that there are avenues to study: should there be an international standard (with purely ecological, corporate governance and labour law criteria) or, on the contrary, should the specifics of each State be taken into account (hence the widely studied issue of inter-culturalism, particularly in the Netherlands). The cultural limits of SRI must not be neglected. They relate to cultural differences, notably between the United States and Europe. A very interesting study has shown that such limits are not negligible.¹⁴

SRI rating relies on the documents produced by companies, and primarily on the annual sustainable development report. But are they reliable? In 2005, barely 25% of the companies on the SBF 120 had these data verified by a third party expert, in whole or in part.

It is not possible to paint an idyllic picture of SRI, since difficulties remain: the rate of return and the rating methodology. Indeed, the question of the rate of return of SRI has quite logically been studied by managers and economists. The overall outcome of these studies is positive. SRI finance is profitable SRI indices do not offer poorer performance¹⁵ quite the contrary. However, fewer legal studies have been devoted to the impact of SRI on corporate governance. Similarly, extrafinancial rating agencies have arisen but the question of methodology remains, despite the fine efforts of the ORSE. 16 We would also point out the silence of the AMF annual report on rating agencies relative to any mention of extra-financial rating.¹⁷ The European directive on rating agencies defends the main principles (prevention of conflicts of interest, transparency and methodological rigour) that are intended to apply to all rating agencies, and that will become increasingly important if we recall that SRI funds primarily involve institutional investors. The performances in terms of good governance, as well as the social and environmental performances, are all part of this effort for the rigour and transparency of the rating methods, all the more so since in this domain, there are already exclusive structures, the most important of which are based in Europe.

Finally, a certain pedagogical effort is required. In this sense, a reading of the ISR *European Social Investment Forum* (Eurosif), which has launched a transparency code so as to make SRI more accessible to non-initiates, is welcome. Indeed, information intended for shareholders and stakeholders through a specific SRI *report*

¹⁴Louche and Lydenberg (2006).

¹⁵Dion, Wolff, et al. (2008)

¹⁶ORSE (Observatoire sur la responsabilité sociétale des entreprises, publishes a guide that includes its methodology, available at http://www.orse.org/

¹⁷AMF annual report on rating agencies, 22 January 2009, http://www.amf-france.org/documents/general/8690_1.pdf accessed on

is necessary. This desire for financial communication is essential. ¹⁸ However, it is indeed the quality and reliability of this information that will be essential, despite the delicacy of its implementation at the present time, since no standardised reference exists. Paris Europlace proposes that third parties should be called on in order to certify the extra-financial data included in the annual reports of companies. But to which third party experts should one turn? Should the appointment of "CSR commissioners" or "sustainable company commissioners" not eventually be considered? Especially since SRI funds that are specifically targeted (*positive screening*) on corporate good governance criteria are the ones that are most difficult to manage, but also richest in terms of their outlook. One of their stakes is financial communication.

2.2 Paris Financial Marketplace: Paris Europlace's Impetus

In France, the recommendations of Paris EUROPLACE¹⁹ in order to promote SRI are indicative of its interest. Indeed, on 14 May 2008, the Paris EUROPLACE financial marketplace provided its synopses and recommendations on "socially responsible investment": to begin with, Paris EUROPLACE formally recommends "encouraging initiatives for third party certification of the extra-financial data contained in the annual reports of companies", together with "Clarifying and strengthening the dialogue with companies in order to encourage the dissemination of extra-financial information so as to allow investors to better assess the strengths and risks of companies in this regard". The asset management industry with a predominance of UCITS type SRI funds.

Paris EUROPLACE makes extensive recommendations in terms of corporate governance. It proposes (Proposal n°6) "encouraging the general management teams to present their board of directors or supervisory board with the company's social and environmental policy, as well as with the assessment provisions and methods that will serve to report on the level of the company's control of ESG risks".

In particular, let us mention Proposal n°7 that insists on the need to "encourage third party certification initiatives for the extra-financial data contained in the annual reports of companies". However welcome it may be, such third party certification is not easy to implement. Who will be the certifier? This difficulty touches on that of labels.

The obvious desire of the Paris marketplace to play a growing role in SRI funds is also evident from the proposals of a structural and institutional nature, notably the desire to play the role of a representative body for the Marketplace's various participants. Outside of the unifying framework for the Marketplace and its participants, Proposal $n^{\circ}9$ puts forward an important ambition which is to "appropriate"

¹⁸Clermontel (2009).

¹⁹"Recommendations on socially responsible investment" (2008) http://www.paris-europlace.net/files/rapport_isr_europlace.pdf accessed on 14 May 2008

the PRI initiative and to disseminate it to institutional investors that are not yet signatories.

Proposal n°11 of Paris EUROPLACE for the creation of a "sustainable finance committee" is particularly interesting. The purpose of this committee will be to bring all of its members together, while also involving the other stakeholders. Such a proposal is very constructive insofar as this committee could usefully encourage the integration of extra-financial factors, such as the consideration of employee commitments, or perhaps the company's ability to innovate in the area of sustainable development. Such an initiative would involve identifying and defining matrices that would serve to measure the extra-financial dimensions so that they could be usable, reliable and relevant for companies and investors. The interest value of this initiative would also involve considering long-term interests. Overall, the various works carried out by Paris EUROPLACE provide a very complete appraisal of the French SRI landscape. One thing is certain: public investors have been sensitised to SRI.²⁰

The Paris EUROPLACE group calls on lawmakers. The idea, which is reminiscent of the NRE law, would be to ask institutional investors to prepare an annual public *report* on the manner in which they have taken ESG criteria into account in their investment decisions. This exists in certain European legal systems, notably in Great Britain. According to Paris Europlace, this *ex post reporting* obligation "would result in no obligation to take these criteria into account, or even less so, to standardise the targeted ESG criteria that must remain the responsibility of the competent decision-making bodies of the investors (they can vary according to the preferences of their principals). *This would therefore involve a simple transparency obligation*. This examination would result in a report submitted to the general meeting". Insofar as this report would be submitted to the general meeting of the shareholders, the idea is welcome and would be likely to encourage the interest value and verification of the latter relative to SRI topics.

These proposals would serve to give substance to constructive shareholder activism. Indeed, insofar as the points would have to be examined and approved by the board and then included in the board's report to the general meaning, as well as in the annual financial statements (provisions related to environmental liabilities and hedging of healthcare and retirement...), a debate could be organised during the general meeting. The shareholders would then be sensitised to the questions relative to extra-financial risks that are particularly difficult to assess during large scale financial operations (takeover, acquisitions...). Corporate governance has everything to gain. The AMF (Autorité des marchés financiers, French Market Authority) recommends coming into compliance with the principles of transparency and the delivery of information on the precise definition of sustainable development and of ESG considerations, i.e. the methods and *processes* used in the analysis, assessment and verification of the ESG considerations that are implemented by the management companies and external auditors, the ethical rules applied to their assessment by the external auditors, the impact of sustainable development strategies and ESG

²⁰Such as "CDC", "Caisse des dépôts et consignations".

considerations on the earnings of UCITS and, finally, the impact of ESG issues on the management of UCITS.

One must insist on the role that Paris EUROPLACE—while not included in the categories of possible signatories of the PRI—is fully willing to play so that the Paris marketplace will be recognised within the framework of an initiative of this type, thereby encouraging the French actors involved to commit when their own characteristics or constraints will allow them to do so; the efforts of the FIR (*Forum pour l'Investissement Responsable*) are also contributing to the development of SRI.²¹

Towards the creation of CSR committee: the creation of a board of directors committee dedicated to the company's corporate responsibility, that would involve a mapping of the risks, would naturally find its place alongside the compensation committees... This creation would logically be part of an effort to improve the company's governance. The IFA (*Institut Français des Administrateurs*)²² has already proposed to train more members regarding these sustainable development questions.

In France, there are no regulatory provisions regarding sustainable investment. This means that primarily responsible or sustainable investments, managed within UCITS, are naturally authorised, but provided that they comply with the applicable regulatory and legal provisions. A question cannot fail to be asked in the current context in favour of financial regulation: will a rigorous framework be needed, with the creation of an obligation for investors, notably pension funds, to explain to what degree and how the ESG criteria have been integrated into their investment policy or, on the contrary, should the latter be left to their own appreciation?

2.3 The Paris Agreement and the Need for Climate Risk Management: Paris Europlace and Climate Finance

Alternative finance is often described as finance that operates outside of traditional asset management and which allows investment in a particular type of financial asset plus performance comparison. However, the development of finance linked to CSR and more broadly to sustainable development (SRI funds, for instance) has shown that, in terms of its origins, this constantly evolving finance is not entirely 'alternative'. It emerged as just another form of finance, situated at the margins of the financial markets, with the same need as any other finance for transparency, certification, indexes (performance criteria), clarity and, of course, a market. A good illustration of this is the emergence of the green bonds market (in Japan, China, the United States and in Europe with Luxembourg). This finance is alternative, however, in the sense that it often provides an urgent response to new needs. Admittedly, this is not a totally new phenomenon. We had the famous railway

²¹Available at http://www.frenchsif.org/fr/

²²Available at http://www.ifa-asso.com/ accessed on 22 June 2011

bonds in the nineteenth century, the war bonds at the beginning of the twentieth century and the railway bonds again in the 1960s. The United States has also had ethical funds since the beginning of the twentieth century. However, while climate finance also responds to this type of need, it differs in terms of scale. Its ambition is global. Climate risk management to implement global carbon capital is taking a new institutional step. It is establishing a market, mobilising the banking sector (green bank) and creating public/private partnerships. The Copenhagen Accord has shown that it is essential (as a starting point) to mobilise funds to enable poor and developing countries to adapt and develop.

Climate finance offers the rather sad poverty/ecology duo a more positive perspective. It is described as resilient because it needs to create the conditions of its own growth, a true low-carbon climate resilient (LCR) infrastructure. It is also alternative in the sense that it is developing at the margins of traditional processes. There have never been so many private initiatives, and international influence has never been so important. The institutional intermediary often has difficulty following these initiatives even though this is vital in terms of ensuring the safety and attractiveness of the financial markets that will be dedicated to climate. Being present at the birth (or the adolescence already) of this finance has shown that there will be no shortage of legal issues, including those relating to the legal understanding of purely financial themes.

The causes are well-known. They include global demographic growth and increased greenhouse gas (GHG) emissions from the fossil fuel industry, transport and cities. The energy transition means that low carbon consumption is essential. The figure imposed is that ratified by the Paris Agreement, which states that the global temperature should be kept below 2 °C. Implementing the low-carbon transition involves the convergence of often conflicting global players (China, India and the United States, for example) and more especially the need to create a general LCR infrastructure that takes into account the disproportion between rich and poor countries through public/private partnerships. The low-carbon transition is currently underway. It is a climate constraint that offers the variously labelled climate finance, green finance or climate-friendly finance the opportunity to develop. This does not mean creating new finance so much as mobilising existing finance towards long-ignored sectors (renewable energies, forestry, transport, water, and biodiversity, to name but a few).

The Paris Agreement²³ is important,²⁴ not least because it was able to counter certain understandable misgivings still being voiced in 2014²⁵ concerning the target of maintaining global temperature at below 2 °C and continued efforts to limit it still further to 1.5 °C (UNFCCC 2016). The Paris Agreement, which was signed on 12 December 2015 by 193 countries during the COP 21, sets out the roadmap for global finance in a binding manner.

²³Available in pdf form at: http://unfccc.int/paris_agreement/items/9485.php

²⁴See pdf available at: http://unfccc.int/paris_agreement/items/9485.php

²⁵UNFCCC (2014), Cadman (2014).

Article 2.1 paragraph c of the Agreement is significant. It states that 'This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by:

c) Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.'

The Paris Agreement requires that climate geopolitics are taken into account. The low-carbon transition weighs heavily on the G20 with its often-contrasting priorities, hence there are some major concerns when it comes to the withdrawal of fossil fuel subsidies.

There is also the need for climate risk management. Broadly defined, this risk comprises the physical risks to the climate. The liability linked to the risk, in other words the risk of climate transition, must be taken into consideration.

Although there is no longer any need to demonstrate finance's role in combatting climate change and ensuring the energy transition, the task is nevertheless a huge one. It will involve taking climate risk into account in investments, creating the conditions for financial regulation, structuring the green bonds and social bonds market, combatting greenwashing and ensuring that 'green' undertakings are transparent and monitored. The OECD and the Climate Policy Initiative have set out the challenges for this form of finance, which should involve both public funding (international financial institutions, national banks) and private investors (institutional investors, corporate actors, private equity, and so on).

Decarbonisation: A **Key Objective** The European Parliament resolution of 5 February 2014 entitled 'A 2030 framework for climate and energy policies (2013/2135 [INI])', ²⁶ which is based on the Commission's green paper 'A 2030 framework for climate and energy policies (COM/2013/0169), marks an important stage in terms of setting quantified objectives. The European Council is committed, within the framework of essential reductions for developed countries as a group, to reducing GHG emissions from 80% to 95% by 2050. The European Parliament resolution stresses the need in §10 for 'early agreement on the 2030 framework for climate and energy policies' in order that the EU can 'prepare itself for international negotiations on a new, legally binding international agreement'. This EU objective for decarbonisation by 2050 will only be achieved if the EU increasingly moves away from the use of 'fossil fuels'.²⁷

²⁶http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2014-0094 +0+DOC+XML+V0//EN

²⁷Malecki (2015a).

The Global Carbon Budget The need to reduce GHG emissions is both a scientific constraint and a proven opportunity. ²⁸ Decarbonisation means dispensing with fossil fuels (petrol, gas, coal) and replacing them with renewable energies. International initiatives aimed at combatting GHG emissions are nothing new. What is new is the more insistent and consistent awareness of a number of countries (including developing countries). Humanity's carbon budget is, to a large extent, in the hands of climate finance.

The North–South Dialogue and the Fight against Poverty Not just climate change but also the levers for reducing emissions (energy, construction, mobility, transport, agriculture, forestry, services). The United States, which signed the Paris Agreement, has a special role to play in this since it is the biggest emitter of GHG emissions on the planet and it has the most fossil fuel. There are currently a number of initiatives in California, and there is also the Regional Greenhouse Gas Initiative, ²⁹ which is based on the cooperation of ten states in the northeast of the United States. The United State's role in this area is useful at both European and international level. ³⁰

Green Bonds and Multilateral Climate Funds: An Increasing Role In 2015, the issuance of green bonds reached 41.8 billion dollars. What are they exactly? Green bonds are senior unsecured bonds that have the same financial characteristics as standard bonds issued by a given issuer. The funds raised by green bonds are used to finance social and environmental projects (including the energy transition, combatting global warming, renewable energies, public transport, energy-efficient buildings, adaptation of energy networks, waste management, drinking water management and biodiversity conservation). The emergence of green bonds is, of course, reminiscent of the early days of SRI funds.³¹ These originated from the Principles for Responsible Investment (PRI),³² which were defined in 2005 under the aegis of the UN. This vast 'sustainable' finance family, which takes into account social, environmental and societal aspects, was also given a more precise definition in France on 2 July 2013. The AFG (Association Française de la Gestion Financière—French association of financial management) and the French SIF (Sustainable Investment Forum) jointly proposed a more operational definition of SRI that aimed to be more easily intelligible to the public. According to them, SRI is 'an investment that aims to reconcile economic performance with social and

²⁸The IPCC's (Intergovernmental Panel on Climate Change) 5th report, which appeared in October 2014, is significant in this respect: https://www.ipcc.ch/pdf/press/ipcc_leaflets_2010/ipcc_ar5_leaflet.pdf

²⁹Ulf Moslener and Bodo Sturm, A European Perspective on Recent Trends in U.S. Climate Policy, Discussion Paper No. 08-026, Centre for European Economic Research, ftp://ftp.zew.de/pub/zew-docs/dp/dp08026.pdf

³⁰Mention should also be made of the Warehouse for Energy Efficiency Loans and the Connecticut Green Bank Program.

³¹Malecki (2014).

³²https://www.norges-bank.no/contentassets/.../pm-2006-04-27.pdf

environmental impact by financing businesses and public entities contributing to sustainable development, regardless of their activity sector'. 33

Green bonds are bonds, that is, they are negotiable debt securities. Although introduced only fairly recently, they are experiencing a rapid expansion. They function like other types of bond products but have the advantage of specifically financing development projects in keeping with the objective of reducing GHG emissions.

Multilateral Climate Funds These have been classified (UNFCCC, 2014) according to their respective purposes (for example the Global Climate Change Alliance [GCCA], the Green Climate Fund [GCF], the Indonesia Climate Change Trust Fund, the Forest Investment Program, the Congo Basin Forest Fund, the Amazon Fund, the Biocarbon Fund, the Global Environmental Facility, the Clean Technology Fund, the Least Developed Countries Fund and the Adaptation for Smallholder Agriculture Programme).

3 How to Tackle Climate Risk?

3.1 The Many Initiatives Supporting Climate Risk

There are many private initiatives in this area, which is testament to an awareness of the importance of this finance. They mainly concern organisations, international think tanks and finance and banking professionals' associations operating in the area of domestic law in particular. These multiple initiatives are not in any way opposed to action from the regulators and the legislator, thus ensuring the anticipated attractiveness, confidence and transparency for professional investors and private individuals. The make-up of sustainable finance is a subtle, pragmatic combination of soft law and harder law.

The Carbon Tracker Initiative The association 350.org has not been alone in seizing upon the discourse from Carbon Tracker Initiative. For example, the GCF was created in 2010 at the COP 16, and Climate Investment Funds was set up in 2008 to fund renewable energies, including in particular its Strategic Climate Fund, which is essential for the renowned Pilot Program for Climate Resilience. Also active is the Green Finance Study Group think tank.

- The Climate Bond Initiative: importance of infrastructure projects
- The International Energy Agency—very valuable in this area³⁴
- The New Climate Economy Commission

³³This and all subsequent quotations from French sources have been translated into English.

³⁴CO₂ Emissions from Fuel Combustion 2016, 19 October 2016

The GCF, which was set up at the Cancun Summit (COP 16), has been strengthened.

Many different bodies show the importance of this finance (such as the Climate Risk Initiative and the Global Climate Change Alliance Plus).

The Carbon Disclosure Project The Carbon Disclosure Project (CDP) is an international organisation representing a group of 475 investors. It publishes an annual report on the climate change integration strategies of the world's 500 biggest (in terms of market capitalisation) companies, who are responsible for 11.5% of global GHG emissions. The CDP plays a key role in climate risk management because it collects information on the way these companies identify and manage risk (for details, see article 173 of France's Loi relative à la Transition Énergétique pour la Croissance Verte, or LTECV [law on energy transition for green growth]).

The Global Innovation Lab for Climate Finance This think tank, which is supported by the G7, attempts to facilitate the emergence of innovative financial instruments. The Moroccan chairing of the COP 22 in Marrakech can be taken as a strong sign for developing countries.

The Climate Policy Initiative This is primarily the remit of politicians who have been persuaded of this issue³⁵ and whose work is reinforced by private initiatives, which play an increasing role in this area (hence the Climate Policy Initiative³⁶).

The Role of International Banks: The World Bank ³⁷According to World Bank's 19 November 2012 report entitled 'Turn down the Heat', the current evolution of emissions is projected to cause warming of 2 °C over the next 20 years and 4 °C between now and 2100. Global effort is therefore essential.³⁸ In its latest report, ³⁹ the bank explicitly shows the consequences of investments in coal-fired power stations built in 2012. The World Bank led the way with the launch of its first green bond in 2007 in partnership with the Swedish bank SEB, and others soon followed suit. New indexes were created for these securities, and the number of subscribers has increased, meaning green bond issues exceeded 35 billion dollars in 2014. Green Investment Banks have been developed in England, Australia, Japan and the United States (for example, California and Connecticut).

The OECD: A Pioneer The success of COP 21 resulted in an increase in green finance. On 13 October 2016, the OECD demonstrated its interest in green finance with the creation of its Centre on Green Finance and Investment. The OECD's recent report entitled 'Green Investment Banks: Scaling up Private Investment in Low

³⁵See the Canfin-Grandjean report, (2015), available at http://www.elysee.fr/assets/Report-Commission-Canfin-Grandjean-ENG.pdf and the various French Finance Strategy initiatives.

³⁶http://climatepolicyinitiative.org/wp-content/uploads/2014/10/Moving-to-a-Low-Carbon-Econ omy-The-Financial-Impact-of-the-Low-Carbon-Transition.pdf

³⁷The World Bank (2015).

³⁸Loyell (2015).

³⁹The World Bank (2015).

Carbon, Climate Resilient Infrastructure' is the first study to put forward some valuable reflections for the rapid development of this finance climate up until 2050. It proposes measurement tools, mergers between 'green' banks, and corporate governance methods (with independent members within the boards), and it gives an overview of the largest green banking institutions, including that of China.

The diversity of initiatives is a characteristic of climate finance. It illustrates an awareness from finance professionals, banking institutions and all manner of think tanks. However, standardisation is essential to ensure credibility, transparency, confidence, attractiveness and effectiveness. The legal framework could be the ideal platform for this climate finance since it will combat the greenwashing risk of many financial products.

3.2 The French Leadership: Legalframework and Specific Institutions

Some Clear Legislative Advances France's policy objective to cut national energy consumption by 75% is presented in article L. 100-4-I 1° of its Energy Code as follows: 'To reduce greenhouse gas emissions by 40% between 1990 and 2030 and by 75% between 1990 and 2050. The trajectory is set out in the carbon budgets cited in article L. 222-1 A of the Environment Code'.⁴⁰

The Agence Française de Développement This French development agency issued its first climate bond (worth one billion euros) on 10 September 2014 'to develop energy efficiency projects, clean transport, renewable energies and CO² sequestration'. This increase in the use of green or climate bonds also prefigures that of social bonds.

The leading roles of the public sector financial institution Caisse des Dépôts et Consignations, the development agency Agence Française de Dévelopment and the investment bank Bpifrance Investors will have to indicate their choices and describe their methods, for example, climate risk, the transition risk and the contribution to the $2C^{\circ}$ objective. A genuine financial regulation tool.

The Law on Biodiversity Law no. 2016-1087 of 8 August 2016 on the restoration of biodiversity, nature and landscapes⁴¹ together with the creation of a French agency for biodiversity.

Article L.110-1-I paragraph 3 of the Environment Code reads: 'Biodiversity, or biological diversity, refers to the variability of living organisms from all sources, including terrestrial, marine and other aquatic ecosystems, and the ecological

 $^{^{40}}$ Innovation in the construction sector with the creation of a 'Guarantee Fund for Energy Renovation'.

⁴¹Journal Officiel de la République Française (JORF) n°0184 du 9 août 2016, texte n°2. Available at https://www.legifrance.gouv.fr/eli/loi/2016/8/8/2016.../jo/texte

complexes of which they are a part. It includes diversity within and between species, diversity of ecosystems and interactions between living organisms.'

Financing biodiversity will form an important part of climate funding.⁴² In respect of the more specific question of financing environmental, social and climate protection measures, the EIB and the European Commission have launched the Natural Capital Financing Facility, a financial instrument that contributes to the achievement of objectives, in addition to climate change objectives, relating to nature and biodiversity.

Climate Change and the Circular Economy ⁴³The French Law on Energy Transition and Green Growth of 17 August 2015 (LTECV)⁴⁴ is highly innovative in incorporating the notion of climate change into non-financial reporting in the wake of the COP 21. Article 173, IV, of the LTECV adds the phrase "including the impact of these on climate change and the use of the goods and services produced or provided",45 to the first sentence of paragraph 5 of Article L. 225-102-1 of the French Commercial Code, which is dedicated to annual reports, after the phrase "It shall also include information on the way in which companies take into account the social and environmental impacts of their activities". In addition to providing information on social and environmental issues, CSR reporting will therefore also have to fulfil the tricky role of looking to the future and informing stakeholders about the realistic impact of a company's activities on climate change, as well as the carbon footprint of these and that of the goods and services it produces and provides. Although this extension of CSR reporting to cover a company's goods and services is a significant step forward, its implementation will prove tricky insofar as the use of goods in particular does not depend solely on the company that produces them, but also on consumers or their "users" more generally. In addition to disclosing non-financial information in accordance with the Grenelle II law, companies will also have to play a proactive role in the fight against climate change. Such disclosure will serve as an "open book" for stakeholders, particularly with regard to initiatives relating to companies' use of innovative renewable energy sources (including wind, hydro, marine, geothermal and solar power and biomass), which improve people's everyday lives (e.g. green transport, the sharing economy and air quality). Companies will have to reduce the amount of greenhouse gases produced by their activities.

The aim will also be to combat waste and promote the circular economy, ⁴⁶ which will involve, among other things, extending the life cycle of products, banning

⁴²Cf. the OECD report of 25 August 2014 entitled 'Scaling-up Finance Mechanisms for Biodiversity'.

⁴³Malecki (2015a, 2015b)

⁴⁴Law 2015-992 of 17 August 2015: JO 18 August 2014, p. 14263.

⁴⁵The initial version went further still, adding "as well as on its societal commitments to promote sustainable development and the circular economy".

⁴⁶The "circular economy" is defined as follows in Art. 70 of the *LTECV*, amending Art. L. 110-1-1 of the Environmental Code: "The aim of the transition to a circular economy is to move beyond a linear 'extract-manufacture-consume-dispose' economic model by calling for moderate and

disposable products, promoting moderate and responsible consumption of resources and defining "planned obsolescence". However, even if a company is able to *manage its activities* and *assess its carbon footprint*, it will nonetheless remain difficult for it to evaluate the impact of the actual use made of its products and services by consumers in particular. It is here that Title VIII of the LTECV⁴⁹ comes into its own: tackling climate change will involve "taking action together". Such joint action by government, local authorities and citizens should prevent the production of waste and ensure that it is recovered and recycled, in accordance with a hierarchy of treatment methods. This section of the annual report, which must be included from the financial year ending 31 December 2016, will have to take account of the timetable for transposing the CSR directive. The legal instruments used to implement this directive will be vital.

The French Advance: Article 173 LTECV France's LTEVC⁵² defines the main objectives in terms of energy transition, energy independence, the preservation of human health and the environment and, above all, the fight against climate change. The coordination of French national policy with the EU's decarbonisation policy is explicitly stated in Article L. 100-1 7° of France's Energy Code.⁵³ This law contains the emblematic Article 173.

Article 173 adds the following two paragraphs to Article L. 533-22-1 of France's Monetary and Financial Code: 'The insurance and reinsurance undertakings governed by the Insurance Code, the mutual insurance companies and unions governed by the Mutual Code, the provident institutions and their unions governed by the Social Security Code, the open-ended investment companies, the Caisse des Dépôts et Consignations, the supplementary pension provision institutions governed

responsible consumption of natural resources and primary raw materials, as well as, in order of priority, the prevention of waste, particularly through the reuse of products and in accordance with a hierarchy of waste treatment methods, and the reuse, recycling or, where these are not possible, the recovery of waste, etc."

⁴⁷The initial wording of the law went further as it implied that a company should provide an "analysis of the long-term risks to which it is exposed" in its consolidated annual report.

⁴⁸Art. L. 541-1(2) of the Environmental Code "advocates extending the period for which manufactured products can be used by raising awareness among consumers".

⁴⁹Title VIII is eloquent: "empowering citizens, businesses, local authorities and government to take action together".

⁵⁰Cf. Environmental Code, Art. L. 110-1-1, as amended by Law 2015-992 of 17 August 2015, Art. 70, which sets out a definition of the circular economy.

⁵¹Particularly, once again, on the question of determining whether companies are subject to these disclosure requirements on the basis of their size and the nature of their activities.

 $^{^{52}}$ Loi n°2015-992 du 17 août 2015 relative à la transition énergétique pour la croissance verte, JORF n°0189 du 18 août 2014 page 14263 texte n°1.

⁵³Article L. 100-1 7° of the Energy Code states that the energy policy 'Contributes to the establishment of a European Union of Energy, which aims to guarantee security of supply and to build a competitive low-carbon economy through the development of renewable energies, physical interconnections, support for improving energy efficiency and the implementation of instruments for coordinating national policies'.

by the Social Security Code, the supplementary pension institution for tenured and untenured state employees, the public institution managing the compulsory supplementary public pension scheme and the Caisse Nationale de Retraites des Agents des Collectivités Locales (state insurance fund for local authority employees) mention in their annual report and make available to their subscribers information on how to take into account criteria relating to compliance with social, environmental and quality of governance objectives in their investment policies and on the means implemented to contribute to the energy and ecological transition. They specify the nature of these criteria and the way in which they should be applied according to a standard format established by decree. They indicate how they exercise the voting rights attached to the financial instruments resulting from these choices.' 'The decree provided for in the third paragraph specifies the information that should be provided for each of the objectives depending on whether or not the entities mentioned in the same paragraph exceed the thresholds defined by the decree. Consideration of exposure to climate risks, in particular the measurement of greenhouse gas emissions associated with the assets held, as well as the contribution to compliance with the international objective of limiting global warming and achieving energy and ecological transition objectives feature among the information pertaining to the consideration of environmental objectives. This contribution shall be assessed in particular in light of defined indicative targets according to the nature of their activities and the type of investment and in line with the national low-carbon strategy referred to in Article L. 221-1 B of the Environment Code. Where appropriate, the entities referred to in the third paragraph of this Article shall explain why their contribution falls below these indicative targets for the last complete financial year.'

The Paris Europlace "Green & Sustainable Finance" ⁵⁴The Paris Agreement and the UN's Sustainable Development Objectives (SDGs) have launched a global low-carbon and inclusive economy. For a rapid and massive redirection of the capital flows required by this economy. Paris EUROPLACE launched tFinance for Tomorrow, the new brand that will succeed to its "Green & Sustainable Initiative". It mobilizes and federates the players of the Paris Financail Center committed to a finance compatible with the sustainability issues of our century. ⁵⁵

Paris Europlace launched the Principles for Positive impact finance.⁵⁶ These Principles were developed by the Positive Impact Working Group, a group of UN Environment Finance Initiative banking and investment members as part of the implementation of the roadmap oulined in the Positive Impact Manifesto released in October 2015.

⁵⁴https://www.paris-europlace.com/en/news/paris-europlace-green-sustainable-financeinititive-becomes-finance-tomorrow

⁵⁵https://financefortomorrow.com

 $^{^{56}} https://www.paris-europlace.com/sites/default/files/public/positive-impact-principles-aw-web_0. pdf$

3.3 In the Wake of the European Union

A Long-term Project Supported by Short-term Demands There are already signs of engagement in this movement in Europe in the form, for example, of the European Commission's Climate Action.⁵⁷ The EU's Green Book of 18 February 2015 is 'Building a Capital Markets Union' with the specific aim of 'increasing and diversifying the sources of funding from investors in the EU and all over the world'.⁵⁸ In particular, the European Commission is aware of the 'rapid growth' in the green bonds market and of the need to ensure transparency.⁵⁹ The EU's energy-climate policy for 2030, known as the 2030 climate and energy framework, was published by the European Commission on 22 January 2014.⁶⁰ This will follow on from the framework currently in place (until 2020), which plans to reduce GHG emissions by 20%, increase European consumption of renewable energies to 20% and achieve a 20% saving in energy.

Europe as an Indisputable Leader: The European Investment Fund and the Juncker Plan The Juncker Plan, which was announced in November 2014, is investing 315 billion euros. It aims to boost investment in Europe and to unblock public and private investments. The principal actors in this strategy are the major international financial institutions responsible for implementing funding programmes, particularly the European Investment Bank (EIB). Most notably, this plan aims to make long-term funding available for quality investments. The European Investment Fund plays a part in this framework by designing and developing microfinance instruments aimed specifically at the market segment. In order to do this, it collaborates with a number of European institutions responsible for funding innovation.

The EIB This bank plays a key role in EU climate change policy. It has significant institutional leadership. Hence it was the first issuer, in March 2015, to focus on information on the proceeds of green bonds. It was also the first issuer of green bonds (which it called Climate Awareness Bonds) in euros following a strategic approach focused particularly on the area of renewable energies. The EIB's green bonds have, moreover, been awarded a B+ ('good quality' rating) in the Sustainability Bond Rating category.

⁵⁷Cf. the Green Book 'Building a Capital Markets Union', COM (2015) 63 final, ec.europa.eu/finance/consultations/2015/capital-markets-union/.../green-paper_en.pdf.

⁵⁸Green Book, p. 5.

⁵⁹The Green Book highlights the role of the Green Bond Principles and the 'standardisation process' (p. 15) currently engaged in by the World Bank, the EIB and the European Bank for Reconstruction and Development.

⁶⁰See http://europa.eu/rapid/press-release_IP-14-54_en.htm

⁶¹Production of wind, hydroelectric, wave, tidal, solar and geothermal energy. Linked to energy efficiency (district heating, cogeneration, building insulation, reduction of energy loss during transportation).

The Global Climate Change Alliance (GCCA) Created by the EU, the GCCA supervises 51 projects in 38 states. Targeting the most vulnerable countries facing excessive deforestation in particular, it is the largest climate change initiative. Its funds come from the European budget as well as from Ireland, Sweden, Estonia and the Czech Republic. Energy is key to sustainable and inclusive growth policy. ⁶²

In May 2018 an Accelerated Timetable: The Commission Legislative Proposals on Sustainable Finance For the Commission⁶³ sustainable finance is high on the Agenda of the G20 and the Capital Market Union wants to support globally the transition for a low-carbon, climate resilient, more circular and resource efficient economy. This should allow the EU to maintain international leadership in the development of sustainable markets.

The EU made a positive and constructive contribution to the development of the **2030 Agenda for Sustainable Development.** The Commission responded in June 2000 by launching the European Climate Change Programme (ECCP).

The European Union has long been committed to international efforts to tackle climate change and felt the duty to set an example through robust policy-making at home. At European level a comprehensive package of policy measures to reduce greenhouse gas emissions has been initiated through the European Climate Change Programme (ECCP). Each of the EU Member States has also put in place its own domestic actions that build on the ECCP measures or complement them. The UE wants to set out concrete initiatives on green bonds, on long term investments, and would like to propose a system to ensure transparency for investors on disclosure of non-financial and diversity information including on environmental matters, social and employee aspects, anti-corruption, bribery, respect for human rights.

In the wake of the Commission Action Plan for sustainable finance of 8th March 2018 based on the High-Level Expert Group on Sustainable Finance (E03485)⁶⁴ the Commission said its proposal for a regulation on the ESG duties of financial actors would introduce "consistency and clarity" on how institutional investors should integrate ESG factors into their investment decision-making process.

In May 2018 the Commission presented a significant package of measures as a follow-up to its action plan on financing sustainable growth. The package includes 3 proposals aimed at:

1. Establishing a unified EU classification system of sustainable economic activities

⁶²Figures available at http://www.gcca.eu

⁶³Cf . p. 10 Communication from the Commission to the European Parliament, the Council, The european Economic and Social Committee and the Committee of the Regions, Next steps for a sustainable European future, COM(2016) 739 final, 22th November 2016

⁶⁴http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetail&groupID=3485&NewSearch=1&NewSearch=1&Lang=EN

('taxonomy').65

- (a) Contribute substantially to one or more of the environmental objectives, which are: (i) climate change mitigation; (ii) climate change adaptation; (iii) sustainable use and protection of water and marine resources; (iv) transition to a circular economy, waste prevention, and recycling; (v) pollution prevention and control; and (vi) protection of healthy ecosystems
- (b) Not significantly harm any of the environmental objectives set out above
- (c) Be carried out in compliance with the specified minimum safeguards
- (d) Comply with the following technical screening criteria, if instructed by the EC: (i) being qualitative and/or quantitative, with thresholds if possible; (ii) building upon existing frameworks, such as EU labelling and certification schemes, EU methodologies for assessing environmental footprint, or EU statistical classification systems; (iii) being based on conclusive scientific evidence; (iv) comprising life cycle analysis; (v) avoiding market distortions; and (vi) facilitating verification of compliance
- 2. Improving disclosure requirements on how institutional investors integrate environmental, social and governance (ESG) factors in their risk processes⁶⁶
- 3. Creating a new category of benchmarks which will help investors compare the carbon footprint of their investments. For the Commission it is necessary to introduce a clear distinction between « low-carbon » and « positive carbon » impact benchmarks. The administrators of low-carbon and of positive carbon impact benchmarks should equally publish their methodology used for their calculation.

3.4 The Need for a Sustainable Finance Market

What 'Climate Resilient Infrastructure'? Despite the success of Green Bonds, there is still criticism. This relates to such issues as the lack of transparency, the monitoring of 'green' commitments, rating, the risk of greenwashing highlighted by NGOs (particularly the WWF) and the need for a genuine green bond markets. Here again, there are a few ideas and developments emerging under the aegis of numerous initiatives. The energy and ecological transition is part of the annual

⁶⁵Proposal for a regulation on the establishment of a framework to facilitate sustainable investment, https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2017-5524115_en#pe-2018-3333

 $^{^{66}}$ Proposal for a regulation on disclosures relating to sustainable investments and sustainability risks and amending Directive (EU) 2016/2341

⁶⁷Proposal for a regulation amending Regulation (EU) 2016/1011 on low carbon benchmarks and positive carbon impact benchmarks, https://ec.europa.eu/transparency/regdoc/rep/1/2018/EN/COM-2018-355-F1-EN-MAIN-PART-1.PDF

⁶⁸Malecki (2015c).

report, which presents a 'comply or explain' approach. The main difficulty lies in the 'multiple interpretations' of these green bonds.

The boom in the green bond market is changing investment patterns and investor expectations. While green bonds have always been issued by development banks like the World Bank, which has made the financing of major renewable energy projects possible (for example, solar energy in Peru and Mexico, irrigation in Tunisia), their wider application would be welcomed. Green bonds hold several advantages for investors, not just in terms of liquidity and fixed returns but also in terms of the beneficial effects they can produce. The sectors concerned are energy, transport, agriculture, forestry and water. Businesses and public service operators have also begun to issue green bonds. In France, the multinational electric utility company ENGIE has produced the largest bond issue to date (2.5 billion euros) to finance projects exploiting renewable energy sources (such as the installation of wind turbines) or focused on energy management (like smart meters and integrated district heating networks). ⁶⁹ Local authorities and other public bodies that once used bond securities to raise funds for infrastructure projects have now begun to issue green bonds to support and promote environment- and climate-friendly projects.

3.5 The Need for Transparency: Essential in the Fight against Greenwashing

The Risk of Capital and Labelling Greenwashing? In France, the Energy and Ecological Transition for the Climate (Transition Énergétique et Écologique pour le Climat) label, launched by Novethic at the end of 2015, aims to guarantee the transparency and quality of the environmental characteristics of these green financial products through an independent external audit.

What about the Climate Bonds Standard? Created in 2015, the Climate Bonds Standard and Certification Scheme sets eligibility criteria according to area of activity (solar projects, wind projects, low-carbon buildings, etc.).

The Green Bond Principles Green bonds perfectly illustrate this process with the necessary step of a genuine financial green bonds market. The Green Bond Principles (GBP),⁷⁰ which were approved by more than 70 investors, banks and other issuers, present a series of recommendations in preparation for the standardisation of green bonds⁷¹ (currently four), including the use of funds, the project evaluation and selection process, the management of the funds raised and reporting. These

⁶⁹Mention should also be made of the green bond issuance launched by the Ile-de-France region through Euronext in April 2014.

⁷⁰See Green Bond Principles 2014: Voluntary Process Guidelines for Issuing Green Bonds.

⁷¹Which already in fact exist with renewable energies, sustainable agriculture, sustainable transport and drinking water.

principles are applied on a voluntary basis, coordinated by the International Capital Markets Association (ICMA). All this is the result of highly involved private initiatives. The objective of transparency is the GBP's primary concern. The role of the GBP, which were created and then re-specified in 2014 and which are reminiscent of the PRI initiated by Khofi Annan, is to 'provide a non-exhaustive list of the main areas suitable for the use of green bonds (renewable energies, energy efficiency, sustainable waste management, forestry, water, agriculture)' 'Back-translated from French'.

The Deutsche Bank plays a leading role in GBP (which is a paradox given the existence of the mining sector in Germany). For example, the European Bank for Reconstruction and Development and the EIB are signed up to the GBP. China (with the Bank of China) is also invested in this area (a tool for attracting foreign capital).

3.6 The Need for Standardisation: Essential Climate Finance Regulation

3.6.1 What Are the Indexes?

The S&P Green Bond Index and S&P S&P ESG Pan- Europe Developed **Sovereign Bond Index** Some indexes have begun to emerge, such as the S&P Green Bond Index and the S&P ESG Pan-Europe Developed Sovereign Bond Index, which was launched on 8 April 2015 to measure bond performance. This index covers approximately 150 green bonds worldwide. The European green bonds market is developing gradually. The eligibility criteria for projects financed by green bonds have to be defined and then verified by a specialist organisation. Hence the World Bank has set up a selection process for projects meeting the criteria as well as a separate account reserved for the proceeds of the issuance in order to allocate these funds to eligible projects. The bank also takes into account the projects' environmental impact and ensures compliance. To help investors evaluate green bonds, private actors (mostly banks) have developed specific indexes to rate issuers and verify not only their project selection criteria but also the way in which the proceeds of the issues are managed so that use of the funds is fully transparent and operating as planned. This rating is accompanied by information on the environmental integrity of the proceeds.

The Carbon Disclosure Leadership Index This index is a list of the top 500 companies rated according to precision, transparency, understanding and fullness of response. There is also the Carbon Performance Leadership Index, which is a list of the top 500 companies rated according to their performance in reducing GHG emissions and actions taken to adapt to climate change.

The Low Carbon 100 Europe This index was created on 24 October 2008 by the NYSE Euronext stockbroker group in partnership with the NGOs Agrisud, GoodPlanet and WWF. It selects the top 100 companies for CO² emissions out of

the 300 largest companies in Europe (included in the Stoxx 300 index) and measures their economic performance.

Some Examples of Green Bonds: China and the United States Are Leading the Field China has overtaken the United States as the biggest green bonds issuer. Shanghai Pudong Development Bank alone issued more than 5 billion green bonds at the start of the year. It is companies rather than governments and international organizations who are now dominating with thirteen of the 20 biggest issuers over the past 18 months having been companies. One of the most significant issues has come from Apple, in the first quarter of 2016, with 1.5 billion green bonds issued for projects focusing on more sustainable products. This represents the biggest issuance of green bonds from an American company to date.

Social Impact Bonds Offering more transparency, this index makes an effective link with the reality of the invested capital, giving investors precise knowledge of what is required financially to meet objectives for specific periods. There is still progress to be made, however, particularly with regard to providing better information for investors. Moreover, Social Impact Bonds (SIBs) are not structured like usual bonds. Many SIBs are based on multi-party contracts, and they are not systematically secured. The effectiveness of SIBs lies in their standardization and their accessibility to a wide range of investors.

The International Finance Corporation This corporation's report, published in April 2014,⁷² clearly shows the future importance of developing green bonds, which are rarely used in France at the moment.⁷³ This is an international initiative. The attraction of green bonds is undeniable, but verifying their actual impact on the environment raises a number of questions. Should we therefore consider some form of verification or specific compliance to enhance their effectiveness as well as the confidence of investors and individuals who could 'vote with their money'? Green bonds will play an increasing role in supporting a carbon-free world in the crucial 20 years ahead owing to the essential development of regions in Africa and Asia.

What Kind of Green Bond Market? The case of the Luxembourg Stock Exchange. On 27 September 2016, the Luxembourg Stock Exchange announced the opening of the Luxembourg Green Exchange, a platform for green financial instruments. It became 'the world's first stock exchange' to create such a platform. With this head start on its competitors, it aims to become the main sustainable finance centre in Europe and hopes to establish 'a new benchmark for the strongly

⁷²See the IFC report entitled 'Definitions and Metrics for Climate - Related Activities', April 2014.
Available at http://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/Climate+Business/Resources/

⁷³See the Observatoire sur la Responsabilité Sociétale des Entreprises (ORSE) publication entitled 'Conférence bancaire et financière sur la transition énergétique', 2 June 2014: http://www.strategie.gouv.fr/sites/strategie.gouv.fr/files/atoms/files/analyses-et-propositions-orse-conference-bancaire-et-financiere-te1.pdf

⁷⁴http://www.luxembourg.public.lu/en/actualites/2016/09/27-lgx/index.html

developing market for green securities'. The reports that the issuance of green bonds has really taken off since COP 21 and that it anticipates 'enormous potential'. At the opening of the Luxembourg Green Exchange, 114 green bonds worth more than 45 billion dollars were listed.

Access to this new platform is, most notably, prohibited to securities invested in fossil or nuclear energy production and to trade that is regulated by the Convention on International Trade in Endangered Species. To be eligible, the green bonds have to meet with three 'strict' criteria. First, they have to use 'self-labelling as a green instrument or equivalent (for example, in relation to climate)', announced the Luxembourg Stock Exchange, adding that 'During the application process, the issuer must indicate clearly the green nature of the security'. The second criterion concerns the use of the funds raised. The proceeds must be 'used exclusively for financing or refinancing projects that are 100% green'. To establish the 'green' nature of a project, the platform relies on the ICMA's GBP or the Climate Bonds Initiative (CBI) criteria. Finally, the issuer must undertake to provide implementation reports and an analysis of investments, which should be carried out in advance by an independent third party. These ex-ante and ex-post analyses are 'an unprecedented requirement on the world's capital markets'.

Luxembourg's financial market encourages 'issuers to go beyond the minimum requirements and really take advantage of this platform to create new standards for quality communication with investors'.

3.6.2 The Role of the G20: The G20 Climate Finance Study Group

The Climate Fund Inventory This is a database of bilateral and multilateral green funds that aims to combat the proliferation of climate funds. Its mission is to assist and encourage developing countries in this area by informing them of the most appropriate and accessible financial products for their needs by sector, region and field of activity.

4 Conclusion

As a result of Climate Finance Day,⁷⁹ which was held in Paris on 11 December 2017 under the aegis of Paris Europlace, the conditions for the development of climate finance will be highly favourable as a result of the close collaboration of regulators,

⁷⁵ http://www.luxembourg.public.lu/en/actualites/2016/09/27-lgx/index.html

⁷⁶http://www.luxembourg.public.lu/en/actualites/2016/09/27-lgx/index.html

⁷⁷http://www.luxembourg.public.lu/en/actualites/2016/09/27-lgx/index.html

⁷⁸http://www.luxembourg.public.lu/en/actualites/2016/09/27-lgx/index.html

⁷⁹http://www.climatefinanceday.com

public and private economic actors, and politicians, the ultimate guarantee of their concretization.

The approach taken up the recent EU proposals is relevant for institutionnal investors and asset managers. It will require these actors to disclose there strategy on ESG (environmental, social and governance) factors. The EU proposals hope attract private and public investment in renewable energy, transports, and climate issues. This general framework could foster such investment, offer long-term signals to guide investors, to direct it to clean innovation. This new Governance of the Energy Union integrates also the investment needs. The financial sector will have a key role to play in supporting climate change and the Action Plan on sustainable finance will help ton connect finance with the EU's agenda for sustainable development.

At this stage, France is in the vanguard of sustainable finance with Paris Europlace but, in the future, the supervisory authorities and central banks will have to play an active role in this sustainable finance market. New sources of funding will have to be explored such alternative ways of financing infra-structures. The ultimate test for the effectiveness of ESG factors will also depend on how these markets take sustainability strategies into account.

References

- Bernstein, A. (2008, September 2). *Incorporating labor and human rights risk into investment decisions*. Boston, MA: Harvard Law School. Capital matters. Available at http://www.community-wealth.org/_pdfs/articles-publications/sri/paper-bernstein.pdf
- Cadman, T. (2014). Climate finance in an age of uncertainty. Journal of Sustainable Finance & Investment, 4, 351–356.
- Clermontel, P. (2009). Le droit de la communication financière. In N. Molfessis (Ed.), *Pratique des affaires*. Paris: Joly Editions.
- Cusacq, N. (2005). In M. J. Dupichot (Ed.), Aspects juridiques de l'investissement responsable (p. 129). Bruxelles: Bruylant.
- Dion, M., Wolff, D., et al. (2008). Le développement durable, Théories et applications au management. Paris: Dunod.
- Geczy, C., Stambaugh, R, & Levin, D. (2005). *Investing in socially responsible funds*. Available at http://papers.ssm.com/sol3/papers.cfm?abstract_id=416380
- Landier, A., & Nair, V. B. (2008). *Investing for change, profit from responsible investment*. Oxford: OUP.
- Louche, C., & Lydenberg, S. (2006). Socially responsible investment: Differences between Europe and United States (22 Vlerick Leuven Gent Management School Working Paper Series). Vlerick Leuven Gent Management School.
- Lovell, H. (2015). The making of low carbon economies. London: Routledge.
- Malecki, C. (2009a). L'investissement socialement responsable: quelques problématiques actuelles. Revue Lamy Droit des affaires (RLDA), 61, 64.
- Malecki, C. (2009b). La proposition de règlement du Parlement et du Conseil sur les agences de notation (ou les vertus de la régulation financière). JCP, 1398–1403.
- Malecki, C. (2014). Responsabilité sociale des entreprises, Perspectives de la gouvernance d'entreprise durable, Lextenso, Collection Droit des Affaires, 2014, p. 387.

Malecki, C. (2015a). Les contraintes du changement climatique ou le 'Green New Deal' de la RSE. *Journal Spécial des Sociétés, 135*, 14–17.

Malecki, C. (2015b). L'énergie sera positive, la croissance sera verte, la gouvernance d'entreprise sera participative. *Bulletin Joly Societé*, 114, 616.

Malecki, C. (2015c). Changement climatique: un Green Bond Market à construire. Revue Internationale de la Compliance et de l'Ethique des Affaires, 27, 27–29.

Renneboog, L., Horst, J. R., & Zhang, C. (2008). The price of ethics: Evidence from socially responsible mutual funds. *Journal of Corporate Finance*, 14(3), 302–322. Special Issue: (ECGI): Contractual Corporate Governance, European Corporate Governance Institute.

Richardson, B. J. (2008). Socially responsible investment law, regulating the unseen polluters. London: Oxford University Press.

Rubinstein, M.. (2006). Le développement de la responsabilité sociale de l'entreprise, Une analyse en termes d'isomorphisme institutionnel. n°113, 1st quarter *Revue d'Economie industrielle*, available at http://rei.revues.org/index230.html.

The World Bank. (2015, May 11). Decarbonizing development: Three steps to a zero carbon future. http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2015/07/08/090224b082fde98b/1_0/Rendered/PDF/main0report.pdf

UNFCCC. (2014). Green climate fund. Adopted July 26. 2014.

Wolff, D. (2004). Le concept de développement durable: entre logique de marché et attentes de la société civile. *Revue des Sciences de Gestion*, 207, 119–132.

Catherine Malecki is a Professor of Private Law and a member of the Laboratoire Interdisciplinaire de Recherche en Innovations Sociétales (LiRIS), Rennes 2 University, France, an Associate Member of the Institut Droit Ethique Patrimoine, Paris-Saclay University, France, and an External Member of the Institute of Commercial and Corporate Law, Durham Law School, Durham University, UK

Her main research themes are business law (corporate governance, corporate social responsibility, sustainable finance, corporate law), comparative business law (English-speaking countries), sustainable and climate finance.

She is a member of the European Corporate Governance Institute (ECGI) https://ecgi.global/users/catherine-malecki and the European Centre for Comparative Commercial and Company Law (http://www.c-law.org/index.html)

She has published several papers and books—participating more particularly in the collective work Les Défis actuels du droit financier (The Current Challenges of Financial Law), co-edited with Professor Alain Couret, Paris I Panthéon Sorbonne University, Co-Director of Sorbonne Finance, Editions Joly, June 2010—and writing a book entitled "Responsabilité sociale des entreprises: Perspectives de la gouvernance d'entreprise durable", LGDJ, Lextenso, Droit des Affaires Collection, 2014 (total number of pages: 484) https://www.lgdj.fr/responsabilite-sociale-des-entreprises-9782275043449.html)

Her last book "Corporate Social Responsibility Perspectives for Sustainable Corporate Governance" offers a big picture on CRS and sustainable corporate governance. http://www.e-elgar.com/shop/corporate-social-responsibility-14735

The list of her publications is accessible via the following link http://www.idep.u-psud.fr/equipe/malecki-catherine