books & ideas

Green Money

About: Pierre Ducret and Maria Scolan, *Climat. Un défi pour la finance,* Les petits matins

by Sébastien Duchêne

Socially responsible investment, green bonds, extra-financial rating agencies: 'climate finance' has developed over the last few years. Without State involvement, will these tools suffice to finance the transition toward a carbon neutral global economy?

Today, global warming has become a major challenge for our societies. According to the World Meteorological Organization, the past three years have been the 'hottest on record' and the United Nations describes the pace of global warming as 'exceptional'. The Institute For Climate Economics states that greenhouse gas emissions have increased by 70% since 1970. And the prospects look bleak: of the four scenarios envisaged by the intergovernmental panel on climate change (IPCC) only the most optimistic one estimates that there is more than a fifty per cent chance that the increase in global temperature will not be above 2 degrees by 2100.

It is an accepted fact that greenhouse gases cannot be reduced unless all the political, economic and non-state actors work together. The very ambitious COP 21 was a perfect illustration of this. Indeed, the presence of numerous companies, banks and members of civil society at this conference, and the commitments made by States, highlighted the need for a collective approach. In a system driven by increasing capital flows, finance in the wide sense, defined as 'all the activities that enable and organise the financing of economic agents',[1] is an inevitable component of any attempt to achieve the ambitious objectives defined by the 196 delegations gathered in Paris at the end of 2015. Over the past few years, government and economic actors have used the term 'climate finance' to describe the sector of finance that includes contributing to fighting climate change as one of its objectives.

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1 For the complete definition see: https://www.lesechos.fr/finance-marches/vernimmen/definition_finance.html

But what exactly does climate finance involve? Who are the stakeholders, what are their aims? How did financiers come to include environmental issues in their insurance, lending or investment activities?

Pierre Ducret and Maria Scolan's book answers all these questions in great detail. Without naïve optimism, but positively nonetheless, the authors compile a panorama of recent developments in the field of finance associated with climate issues, and emphasise the need to continue to act quickly and forcefully.

A fragile development with a range of challenges

Climate finance, according to the authors, 'aims to finance the transition towards a carbon neutral economy, resilient to climate change' (p. 16). This wide interpretation allows P. Ducret and M. Scolan to study the variety of private financial actors (banks, insurers, investors, pension funds, companies…) involved in funding the energy transition, as well as the public policies implemented by governments to develop and direct funding toward this transition. Given the heterogeneity of the actors, whose aims may at times be contradictory, the authors seek to analyse the developments that encourage an inclusion of the climate challenge in financial choices.

The authors first introduce and explain the development of climate finance using a quick cartography of the sources of greenhouse gas emissions. They go on to describe the various types of funding for projects that support the transition towards a carbon neutral economy. These are public-private partnerships, self-financing, specialist or innovation funds and venture capital. Then, tracing the birth and development of environmental finance since the 1992 Earth Summit held in Rio, they show the progress made by certain political and economic actors in terms of addressing the climate challenge. In his 2006 report, Stern (an economist mandated by the British government) recommended intervening as quickly as possible to protect the climate, by increasing financing before the cost of the transition became impossible. The successive agreements, Copenhagen in 2009, then Rio+20 in 2012, progressively led to a formalisation of the concept of green growth, seen as a combination of support for economic growth, preservation of the environment and helping orient countries with divergent interests towards common goals. Nonetheless, the authors quite rightly underscore the low level of investment to support the energy transition. In 2014 the International Energy Agency stated:

> based on current trends, the energy scenario will not manage to achieve the goal of stabilising the climate (p. 44).

In addition, financing the adaptation to climate change, which involves large investments in developing countries (over 70 billion euros a year) is not a priority and only represents 20% of the overall funding.

The authors go on to list the different public policies that seek to encourage the financing of the transition: regulations, incitement to support renewable energy, transparency obligations, carbon pricing that introduces the idea that the polluter must pay for the CO_2 he emits. Moreover they provide a detailed analysis of a measure supported by numerous economists and by financial circles: the introduction of global carbon pricing and negotiable emission rights. These mechanisms make it possible to 'increase the competitiveness of low carbon activities' (p. 76) and to reorient investment. The main obstacle these measures encounter is linked to the economic disparities between countries and the fact that the latter have diverging aims and ambitions in terms of reducing greenhouse gasses (p. 81). Can we charge the same price for a ton of carbon in the United States and in Chad? If the answer is yes, how do we create clear redistribution systems acceptable to all the parties? While the theory seems attractive, political and economic realities reveal the model's limitations. But despite its shortcomings, carbon pricing remains a useful incentive amongst others, in the fight against global warming.

Towards a low carbon economy

Beyond public policy, the financial world has introduced several innovations that encourage the financing of energy transition projects. Today, socially responsible investment that includes a set of environmental, social and good governance (ESG) criteria represents 60% of the financial assets managed in Europe, and 30% worldwide. This information can help people choose the companies to invest in.[2] Similarly, the extra-financial rating agencies which have emerged do not directly evaluate a company's economic performance, but they look specifically at their environmental, social and governance policies.[3] In addition, green bonds, loans made on stock markets to finance projects promoting the ecological transition, are growing steadily with over 120 billion dollars of bonds issued in 2017, as against 90 billion in 2016.[4]

'Carbon risk' is also slowly being included in the financial assessment of assets. Stock market shares (assets) of companies that produce fossil fuels involve a carbon risk, for

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2 For a more complete defintion see: http://lexicon.ft.com/Term?term=ESG
3 For a more complete defintion of extra-financial rating agencies, see: https://www.novethic.com/ri-basics/extra-financial-rating.html
https://www.novethic.com/fileadmin/user_upload/tx_ausynovethicetudes/pdf_complets/2014_Overview-of-ESG-rating-agencies.pdf
4 https://www.investopedia.com/terms/g/green-bond.asp

example, because they are likely to suddenly lose a large amount of their value in the energy transition process as a result of changing regulations and new environmental restrictions. Asset managers hence tend increasingly to 'limit the carbon risk in portfolios' and 'grasp low carbon transition opportunities' (p. 111) by decreasing their investment in companies that are high emitters and by financing 'green' companies.

The innovations affect all types of financing methods related to the environment. Banks offer 'green loans' to fund the renovation of housing for example; similarly, insurance companies offer green insurance products, with premiums calculated on the basis of the greenhouse gases emitted by the insured. Car insurance companies offer 'pay as you go/drive' schemes that charge the client according to the distance he or she drives.

Here again, the authors emphasise the need to develop these innovations and types of financing that still represent low volumes, by encouraging banks and investors to increase their inclusion of climate risk, by standardising green products or by developing securitization to refinance the risks taken (transfer of certain risks by an entity to a third party to allow the entity to reduce its own risk levels). They also suggest reducing the cost of information on company greenhouse gas emissions, or providing public authority support in the form of guarantees, for example, and positive regulations. All these proposals have the same aim: to reduce the cost of capital for green investments, which is still too high.

Time marches on

What direction will climate finance take in the coming years? Some declarations mentioned by the authors seem encouraging: the COP 21 agreements in Paris; the involvement of banking supervisors like Mark Carney and the financial stability advisory board; the French law on energy transition; the creation of a working group to improve the information related to climate disclosed by companies, like greenhouse gas emissions.

It is difficult to put these recent developments into practice. The Norwegian Pension Fund, cited by the authors, did actually introduce a criterion of exclusion related to climate in 2015. Nonetheless, the Fund's 2016 Council on Ethics report explains the difficulty in evaluating this criterion given the current vagueness of the definition and the opacity of the information provided by companies.[5] The authors also mention the 13th Chinese five-year plan (2016-2020) 'which will make green growth one of its five priorities' (p. 167). However, the mechanism of the carbon emissions trading scheme that has just begun in China, is facing difficulty developing. The system will only be effective in 2020, and will only affect a third of

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5 'There are no regulatory frameworks or internationally accepted norms for what is acceptable' (p. 17). http://etikkradet.no/files/2017/02/Etikkraadet_annual_report_2016_uu.pdf

the country's emissions.[6] The authors also discuss numerous possibilities enabled by monetary policies, quoting the example of the Central Bank of Bangladesh that gives 'green bank loans preferential refinancing terms' (p. 171). Here too, these numerous intellectually stimulating avenues seem far from becoming a reality. The Paris agreement has been weakened by the election of Donald Trump and the subsequent withdrawal of the United States, the second largest polluter in the world. Similarly, uncertainties remain around the ratification of the agreement by Russia (the world's fifth largest polluter).

Undeniably, progress has been made, but is it sufficient for the time scale available to us to preserve the equilibrium of the planet? In their conclusion, the authors recognise the numerous challenges yet to be overcome, such as the best use of public funds or carbon pricing at the local scale. The key message of this work is that we need to go beyond the 'tragedy of the horizon' that refers to the fact that 'there's a wide gap between the timing of potential catastrophic impacts of climate change and the typical horizons for analysis and planning;…' (p. 178). Financiers, who evaluate their risks and returns on periods that are too short, do not include climate risk, or they do so at too small a scale, and thus invest too weakly in long term green projects that are necessary for the energy transition. The authors hence ask the public authorities to reduce the cost of capital in green investment and thus shift the allocation of resources toward green projects.

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6 http://www.lemonde.fr/planete/article/2017/12/26/dans-sa-lutte-pour-le-climat-la-chine-lance-un-marche-du-carbone_5234596_3244.html