



GREEN
FINANCE
OBSERVATORY

POLICY REPORT
MARCH 2020

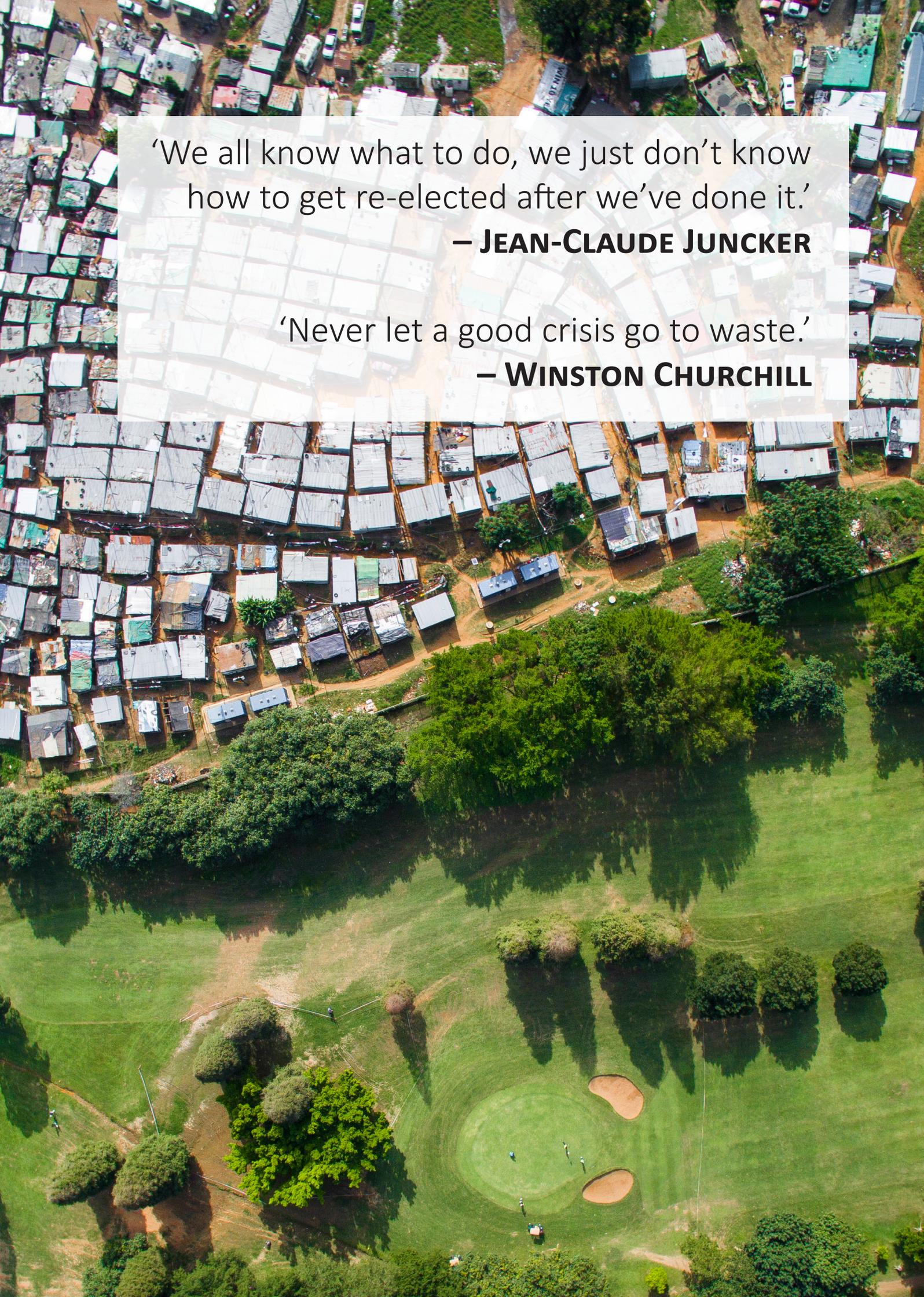
50 SHADES OF GREEN

SUSTAINABLE FINANCE 2.0

The securitization of climate and biodiversity policies

FRÉDÉRIC HACHE

PART III

An aerial photograph showing a stark contrast between a densely packed slum on the left and a well-maintained golf course on the right. The slum consists of numerous small, makeshift structures with corrugated metal roofs. The golf course is a large, green field with several sand traps and trees. The text is overlaid on a semi-transparent white box in the upper portion of the image.

‘We all know what to do, we just don’t know how to get re-elected after we’ve done it.’

– **JEAN-CLAUDE JUNCKER**

‘Never let a good crisis go to waste.’

– **WINSTON CHURCHILL**

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EXECUTIVE SUMMARY

The new EU sustainable finance agenda:

- a. **Is a political choice to subsidize private finance rather than curb environmentally harmful activities** via binding environmental regulation, which would automatically make all finance green.
- b. Can be understood as **the 4th piece of a jigsaw fostering an unprecedented financialization of the policy response to climate change and biodiversity loss.**
- c. **Is arguably not compatible with what science tells us** we need to do in terms of timing and ambition.
- d. Could foster **doomed policy tools such as carbon and biodiversity offsetting**, which would worsen the issue.
- e. **Might increase inequalities** by obfuscating the trade-offs being made under the unrealistic promise of sustainable growth, through the remodelling of the role of the State and via adaptation policies subcontracting natural disaster insurance to financial markets.
- f. **Will likely weaken financial stability**, if it is to promote new procyclical assets classes on carbon and biodiversity with highly uncertain valuations and a high risk of contagion to other asset classes and the broader economy. Green securitisation would create additional risks, as would a green supporting factor weakening EU banks' solvency, unless matched by a brown penalizing factor.
- g. **Shifts the debate away from phasing out fossil fuels** and towards finding the right financial incentives for private finance. As sustainable finance's role takes on greater political importance, it is also likely to come instead of and not in addition to appropriate environmental policies - deemed no longer necessary as markets take care of the issue.
- h. **Could arguably be described as a climate policy for the 25%.** As its ambition is not compatible with science and as it fosters broken policy tools, it is arguably unlikely to meaningfully alter the current 3+°C degree trajectory. It could therefore arguably be described as an implicit political choice to accept the human consequences of such a trajectory over truly changing our way of life and risking an economic depression.

As many of the crucial elements have yet to be defined via delegated acts, we hope that the European Parliament will closely monitor these acts and not hesitate to use its veto power if deemed necessary.

RECOMMENDATIONS

1. Technical screening criteria for climate change mitigation

Carbon sequestration in geological formations, soils and trees should only be included in the taxonomy under the strict conditions that it is not used as offset, and that it is not financed by offset market schemes.

2. Technical screening criteria for the protection of biodiversity and ecosystems

Biodiversity offsetting and other market-based solutions for ecosystem services such as water quality trading should be explicitly excluded.

3. Technical screening criteria for climate change adaptation

Only affordable insurance for natural disasters where the coverage is provided in a continuous fashion contributes meaningfully to climate change adaptation and deserves to be allowed in the taxonomy and subsidized, not insurance cover that can be withdrawn or where the premiums can be multiplied after a loss and ultimately leave the State to deal with the issue.

We therefore hope that the technical screening criteria will introduce conditions for the allowance of non-life insurance in the taxonomy, such as the requirement that insurance cover be provided in a continuous fashion and with limits on premium fluctuations at renewal.

We also propose that sovereign catastrophe bonds be excluded from the taxonomy, as they offer only a partial transfer of risk and create moral hazard.

4. Green Bond Standard

Securitization should be explicitly excluded from the Green Bond Standard, as should other structured bonds embedding financial derivatives. This would reduce greenwashing risks and financial stability risks. Carbon and biodiversity offset credits should also be excluded.

We suggest removing any exemptions for 'innovative nature', complexity or location of green projects, and removing the allowance for presenting information in generic terms or on an aggregated basis.

We hope that the standard will not allow a green supporting factor, unless matched by a similar brown penalising factor, in order to maintain EU banks' solvency.

Last but not least, we hope that the standard will limit any financial and prudential incentives to green activities, and exclude enabling and transitional activities.

5. Ecolabel

We hope that the future Ecolabel will:

- ▣ Only allow green economic activities and exclude enabling and transitional activities, as they create a higher risk of mis-selling.
- ▣ Go much beyond the taxonomy via a comprehensive list of total exclusions, in order to align the label with what science tells us.
- ▣ Mandate that 100% of the products be invested in green activities.
- ▣ Replace in the definition of green investment '*without reducing the production and consumption of non-energy goods*' by '*while*' or alternatively delete this section.
- ▣ Explicitly exclude structured products and derivatives.
- ▣ Explicitly exclude carbon and biodiversity offsets, due to their unsolvable issues.

6. 2030 EU biodiversity strategy

We hope that the European Commission will reject the call '*to promote the establishment of additional international financial mechanisms for biodiversity protection and conservation linked to the CBD.*'¹ Such an international financial mechanism, combined with a mandatory objective of restoring at least 30% of degraded ecosystems, would allow for the creation of an EU offset market on biodiversity destruction. Yet, it has been shown that such a market would have unsolvable conceptual issues and be doomed to failure.

1 European Parliament, Motion for a resolution on the 15th meeting of the Conference of Parties (COP15) to the Convention on Biological Diversity https://www.europarl.europa.eu/doceo/document/B-9-2020-0035_EN.html

INTRODUCTION

The past four years have seen a **growing hype about sustainable finance**. We started hearing more and more about the urgent need to ‘green’ finance², about the ‘critical role’ that the financial system has to play in the fight against climate change,³ and about the importance of ‘harnessing the vast power of capital markets in the fight against climate change’.⁴ Articles started to explain ‘how the finance industry can save the world’,⁵ or as senior banker puts it, ‘there is no time to lose: sustainable finance is the answer.’⁶

It is argued that following the financial crisis, public finances are too stretched to be able to meet the investment needs linked to our international climate commitments.⁷ As a result, private capital must be reoriented towards more sustainable investments. It is considered that the best way to reorient private capital is by using public finance to incentivise and catalyse private climate finance,⁸ via public subsidies, public guarantees and so-called blended finance.⁹ Sustainable finance can thus be understood as **private finance subsidized by public finance in order to incentivise the financing of sustainable activities**.

Framed as a collaboration between government, business and civil society¹⁰ where business must lead to achieve sustainable development¹¹, **sustainable finance foresees a new role for the State** ‘to set the policy framework and create the necessary incentives that unleash the power of the market to deliver.’¹²

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- 2 UNEP enquiry, Green Finance – A Growing Imperative; http://unepinquiry.org/wp-content/uploads/2016/05/Green_Finance_A_Growing_Imperative.pdf
 - 3 European Commission, ‘The financial sector has a key role to play in reaching those goals’; https://ec.europa.eu/info/business-economy-euro/banking-and-finance/green-finance_en
Bloomberg M, ‘Thanks for the productive conversation Michel Barnier on this important transition & the critical role of sustainable finance in the fight against climate change’ <https://twitter.com/MikeBloomberg/status/977186072554868737>
EU High Level Expert Group on Sustainable Finance, ‘Sustainability is the theme of our time – and the financial system has a key role to play in delivering that set of ambitions.’ HLEG report; https://www.wwf.fr/sites/default/files/doc-2018-01/180131_Rapport-Hleg.pdf
 - 4 https://ec.europa.eu/info/sites/info/files/180524-sustainable-finance-factsheet_en.pdf
 - 5 Wichmann J, How the finance industry can save the world, World Economic Forum, 11 December 2018; <https://www.weforum.org/agenda/2018/12/how-the-finance-industry-can-save-the-world-regenerative-capitalism/>
 - 6 Knight Z, Financial Times, Opinion: sustainable finance can tackle climate change, 9 October 2018; <https://www.ft.com/content/37697376-bcec-11e8-8dfd-2f1cbc7ee27c>
 - 7 European Commission press release, Sustainable Finance: High-Level Conference takes global cooperation on sustainable finance to the next stage, 21 March 2019; https://ec.europa.eu/commission/presscorner/detail/en/IP_19_1734
 - 8 World Bank ‘Public finance plays critical role in catalyzing private climate finance,’ 7 September 2014; <https://twitter.com/WorldBank/status/508648444471562240>
 - 9 OECD, Blended finance is the strategic use of development finance for the mobilisation of additional finance towards sustainable development in developing countries; <http://www.oecd.org/development/financing-sustainable-development/development-finance-topics/blended-finance.htm>
 - 10 World Economic Forum, Why collaboration will be key to achieving the Sustainable Development Goals, 31 January 2017; <https://www.weforum.org/agenda/2017/01/realising-the-potential-of-cross-sector-partnerships/>
Kuhlow M, WWF International ‘There is no way we can deliver what we need, unless finance, business and society work together.’; <https://twitter.com/BfNCoalition/status/1206884068354379779>
 - 11 Rockefeller Foundation, Collaboration: How Businesses Must Lead to Achieve Sustainable Development; <https://www.rockefellerfoundation.org/blog/collaboration-businesses-must-lead-achieve-sustainable-development/>
 - 12 United Nations, Climate Action - Getting Greener: Getting Slimmer and Going Digital, December 2008 <https://www.amazon.com/Climate-Action-Getting-Greener-Slimmer-and-Going-Digital/dp/0955440882>

Sustainability is also perceived as *'history's biggest investment opportunity'*¹³ and the path to growth that *'could lead to an economic boost of \$26 trillion up to 2030'*.¹⁴ An article provocatively titled *'only ecology can save capitalism'* recently explained that *'capitalism lacks projects. Companies are giving back capital to shareholders instead of investing it where it would be useful. Only the ecological transition can feed it.'*¹⁵

It is in this context that the European Commission unveiled in 2018 a **new sustainable finance agenda** and related legislative proposals. Three objectives are put forward: reorienting capital flows, managing financial risks linked to climate change, and fostering transparency and long-termism.

The potential impact of this new agenda **promises to be far-reaching**, as it will influence not only which economic sectors will receive subsidies and how our savings are invested, but also likely the European Central Bank (ECB)'s future quantitative easing policies. It will also influence which policy tools and mechanisms are put forward to mitigate climate change and biodiversity loss, and how we deal with climate change adaptation. As such, its impact goes much beyond finance, potentially affecting major social and geopolitical issues ranging from land ownership to climate migration, inequality and democracy.

This new sustainable finance agenda **raises a number of questions**, however, some of which are rarely articulated: does finance have such a key role to play - and which one? How different is this new sustainable finance from the earlier one? How likely is it to achieve its stated environmental, social and economic objectives? Are new risks being created? And how does it fit into the broader policy response to climate change and biodiversity loss?

Answering these questions is the focus of this report.

13 Al Gore, former US Vice President; https://www.wwf.sg/sustainable_finance/

14 Rooney K, World Economic Forum, These countries are leading the way in green finance, 17 March 2016; <https://www.weforum.org/agenda/2019/09/these-countries-are-leading-the-way-in-green-finance/>

15 Vittori JM, Les Echos, Seule l'écologie peut sauver le capitalisme, 10 July 2018, <https://www.lesechos.fr/2018/07/seule-lecologie-peut-sauver-le-capitalisme-975392>

I. SUSTAINABLE FINANCE 1.0



1. What is it

Definition

Sustainable finance is finance raised for the purpose of sustainable projects. The European Commission defines it as “*the provision of finance to investments taking into account environmental, social and governance considerations*”.¹⁶ It aims at supporting economic growth while reducing pressure on the environment, addressing greenhouse gas emissions and improving efficiency in the use of natural resources.

The concept of sustainability was first developed in 1987 by the United Nations.¹⁷ It is based on the acknowledgement that economic development at the cost of environmental health and social inequalities does not lead to long lasting prosperity.

As defined by the UN, sustainable development means “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*”

It includes three pillars: environment, economy and society. Environmental systems are kept in balance, natural resources are consumed at a rate that enables their replenishment, all human communities have access to enough resources to be healthy and secure, personal, labour and cultural rights are respected.

While the concept of sustainability is a relatively new idea, socially responsible investing is quite old and often traced back to the Quakers around 1750 who prohibited their members from participating in the slave trade. Historically, socially responsible investing typically excluded investments in alcohol, tobacco, gambling, weapons, animal testing and favoured investments with a positive impact on the environment, human rights, labour relations and employment equality.

Issues

The issues covered today are framed under three categories: Environmental, Social and Governance (ESG). Most ESG frameworks are now based on the 17 Sustainable Development Goals¹⁸ set by the United Nations General Assembly in 2015, as part of the 2030 Agenda for Sustainable Development.



Source: United Nations

16 European Commission, Sustainable Finance; https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance_fr

17 United Nations, Report of the World Commission on Environment and Development: Our Common Future; <http://www.un-documents.net/wced-ocf.htm>

18 United Nations, Sustainable Development Goals; <https://sustainabledevelopment.un.org/?menu=1300>

Strategies

Sustainable investing encompasses 7 main investment strategies.

1. Best in class

This strategy allows investors to select the companies that have the best ESG score in a particular sector. No sector is therefore excluded under this strategy. A fund following a pure 'best in class' strategy could, for example, invest in an oil company if it is among the 'greenest' of oil companies.

Best in class strategies rely on the idea that every sector has a contribution to make, in particular the most polluting sectors, and that including them and rewarding the best players is more conducive to change than excluding them from sustainability investments.

2. Engagement and voting

This strategy is based on the idea that active ownership of companies, expressed via shareholder votes and engagement with companies, can influence their strategy regarding ESG matters.

3. ESG integration

This strategy aims at including ESG factors in traditional financial analysis and investment decisions via an explicit process that focuses on the potential impact of ESG integration on company financials.

4. Exclusions / negative screening:

This approach excludes from its investment universe those specific companies or sectors that are involved in activities deemed unacceptable or controversial (e.g. animal testing, tobacco, pornography, weapons, alcohol).

5. Impact investing

This type of strategy aims not only at avoiding harm but also at making a positive social and/or environmental impact, by investing in activities such as microfinance or community investing. It is an extension of philanthropy where the investor retains ownership and expects a financial return.

6. Norms-based screening

Involves excluding from portfolios those companies that fail to meet internationally accepted 'norms' such as the UN Global Compact, the Kyoto Protocol or the Universal Declaration of Human Rights.

7. Sustainability-themed investing

Funds investing based on one or more specific themes, such as climate change or health.

While Exclusions is the most prevalent strategy, as measured by assets under managements in Europe, Best-in-Class has been growing over the past 8 years.¹⁹

19 Eurosif, European SRI study 2018; <http://www.eurosif.org/wp-content/uploads/2018/11/European-SRI-2018-Study.pdf>

Frameworks

A number of heterogeneous frameworks have been developed over time around these issues and strategies. They are all voluntary and largely defined by the financial industry. They include:

- ▣ *The UN Principles for Responsible Investment*: this is a voluntary framework developed in 2006 by the UN and investors, that focuses on integrating ESG factors into investment decisions and active ownership. Each signatory organisation is free to define its own ESG policy as long as it respects a generic set of principles.
- ▣ *The Climate Bonds Standard and Certification Scheme*²⁰ is a labelling scheme launched in 2010 for bonds aimed at ensuring consistency with the 2 degrees Celsius warming limit established by the Paris Agreement. It includes sectors such as forestry, solar energy, low carbon buildings.
- ▣ *The Green Bond Principles*²¹: a set of voluntary guidelines created in 2014 by the International Capital Markets Association and focussed on financing projects with ‘*clear environmental benefits*.’ Eligible projects include projects contributing to climate change mitigation, climate change adaptation, natural resource & biodiversity conservation, and pollution prevention and control.

Other frameworks also include the MSCI ESG Indexes,²² the FTSE Russell ESG indices²³, the APG approach,²⁴ the Nordic Investment Bank’s Sustainability Policy Guidelines²⁵ and the MDB/IDFC Common Principles for Climate Mitigation Finance Tracking.²⁶

2. Track record

A lack of clear metrics and definitions

The heterogeneity of the frameworks, strategies and values combined with a lack of data makes it very hard in practice to assess the social and environmental impact of most funds. In the words of the CFA institute, ‘**methodologies for impact measurement are still in development.**’²⁷ These concerns are echoed by the leading SRI organisation, whose latest report stated that ‘**the lack of definitions and clear metrics still hampers our industry (...)** leading to a more general concern for greenwashing.’²⁸

To illustrate this difficulty, let’s take the example of JP Morgan’s Global Socially Responsible Fund. This Luxembourg-based fund invests at least 67% of its assets in shares of socially responsible companies anywhere in the world. It ‘*uses negative screening to exclude specific*

20 Climate Bonds Initiative; <https://www.climatebonds.net/standard/about>

21 ICMA, Green bond principles; <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>

22 MSCI ESG Indexes <https://www.msci.com/esg-indexes>

23 Sustainalytics, FTSE Russell & Sustainalytics announce global ESG partnership, 5 December 2018; <https://www.sustainalytics.com/press-release/ftse-russell-sustainalytics-esg-global-partnership/>

24 APG, Responsible investing; <https://www.apg.nl/en/asset-management/responsible-investing>

25 NIB, Sustainability policy and guidelines; https://www.nib.int/filebank/a/1332328414/506da9436eb1c0d4ec17b8b5a929d820/56-Sustainability_Policy_Guidelines-2012.pdf

26 Climate Action in Financial Institutions; https://www.mainstreamingclimate.org/wp-content/uploads/2017/10/P4_MDBs.pdf

27 CFA Institute Magazine, How Should Investors Measure the Societal Impact of Investing? 28 September 2018; <https://www.cfainstitute.org/en/research/cfa-magazine/2018/how-should-investors-measure-the-societal-impact-of-investing>

28 Eurosif, European SRI Study 2018; <http://www.eurosif.org/wp-content/uploads/2018/11/European-SRI-2018-Study.pdf>

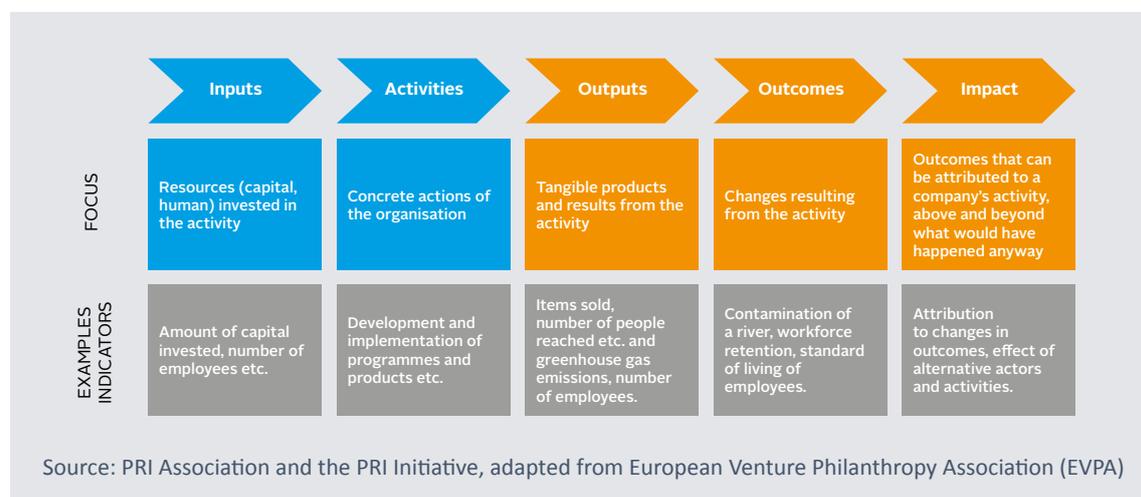
companies²⁹ involved in controversial activities such as alcohol, gambling, weapons and violence, tobacco, pornography, nuclear energy, GMO and contraceptives.³⁰ The fund's top 10 holdings as of 30/11/2018 included Microsoft, Amazon, Alphabet (Google), Apple and Coca-Cola.

First, this fund illustrates the eminently subjective nature of what is considered socially responsible: contraceptives are excluded but tax avoidance is not – as the fund is based in a notorious tax haven. Likewise, the fund's top ten holdings at the time were mostly in the tech sector – a sector not known for its environmental friendliness due to its massive use of IT servers, and in Coca-Cola, a company that some may consider controversial due to its water practices and extensive use of plastic bottles.³¹ Yet, these holdings are consistent with its list of excluded activities.

Secondly, how do you measure the ESG impact? And on what? If we take the example of excluding investments in manufacturers of contraceptives, should the impact be measured with respect to sales of contraceptives, statistical data on unwanted pregnancies or on the share price of contraceptive manufacturers? Over which period and which geographical scope? And how can you untangle the impact of not investing in these companies from the myriad other factors affecting the outcome being measured?

Metrics that focus on output and outcomes rather than on impact

The impact chain below is commonly used to frame the different stages of measuring environmental and social performance:



29 JPMorgan Asset Management - Global Socially Responsible Fund; <http://www.jpmmorganassetmanagement.lu/en/showpage.aspx?pageid=44&FundID=6008&ShareclassID=88>

30 ECPI Index rules; https://www.ecpigroup.com/wp-content/uploads/rules/ECPI_GLOBAL_ETHICAL_EQUITY_Index_Rules.pdf

31 Agerholm H, The Independent, Coca-Cola sucking wells dry in indigenous Mexican town - forcing residents to buy bottled water, 18 September 2017; <https://www.independent.co.uk/news/world/americas/coca-cola-mexico-wells-dry-bottled-water-sucking-san-felipe-ecatepec-chiapas-a7953026.html>;
MacDonald C, The Verge, Coke claims to give back as much water as it uses. An investigation shows it isn't even close, 31 May 2018; <https://www.theverge.com/2018/5/31/17377964/coca-cola-water-sustainability-recycling-controversy-investigation>;
Gabbatiss J, The Independent, Coca-Cola and Nestle among worst plastic polluters based on global clean-ups, 9 October 2018; <https://www.independent.co.uk/environment/plastic-pollution-coca-cola-nestle-pepsico-nestle-beach-clean-greenpeace-a8576276.html>

Unfortunately, as stated by the UN PRI,³² *'measuring impact requires counterfactual analysis and is therefore rarely feasible for investors. It is more common to track outputs and outcomes, using indicators that imply rather than prove impact.'*

As an example, MSCI ESG Indexes measure outcomes rather than impact, derived from the percentage of company revenues tied to activities contributing to MSCI's impact themes.³³ Pharma company Novo Nordisk, for example, is considered to derive 96% of its revenues from 'major disease treatment', an activity belonging to one of the impact themes. From this 96% figure and annual revenues, MSCI will derive the amount of annual revenues of a given investment associated with major disease treatment.

While an outcome has been measured, impact has not: MSCI does not assess the impact of purchasing a number of its shares on the secondary market on the company's ability to provide more treatments.

An increase in revenue may also come from an increase in the number of patients being treated – thus increasing impact, or from an increase in price making the drug less affordable – thereby arguably reducing impact. In this respect, a class-action lawsuit against Novo Nordisk and two other drug makers was allowed to proceed in 2019 *'on consumer-fraud allegations tied to skyrocketing insulin prices (...)* The suit accuses the companies of raising insulin sticker prices by more than 150 percent over five years, forcing diabetics to forgo the drug, take less insulin than needed or use expired versions.³⁴ This anecdotal example illustrates the major difference between outcome and impact.

Major inconsistencies in ratings

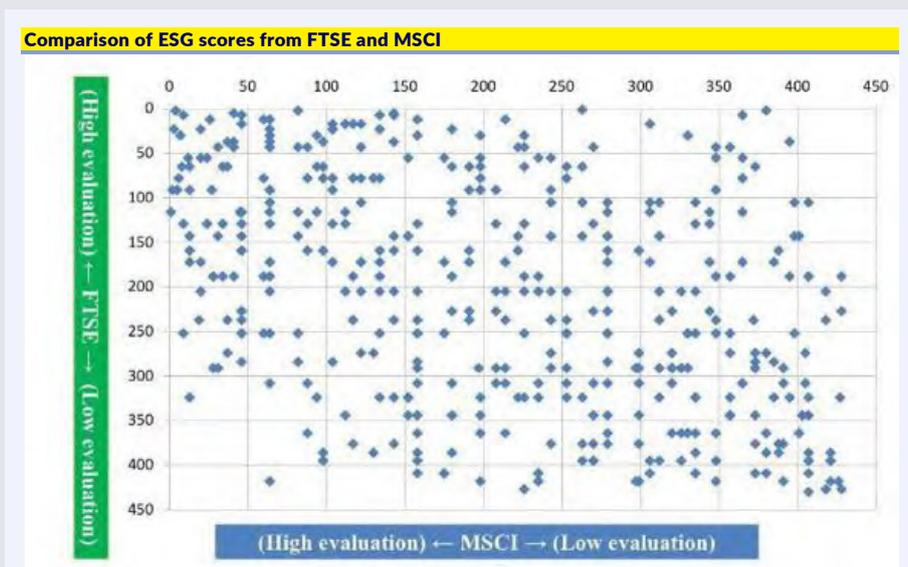
A recent report³⁵ comparing 2 popular ESG rating methodologies by FTSE and MSCI also provided a powerful picture of the inconsistency in ratings: Tesla's global auto ESG for instance was rated first by MSCI, last by FTSE and mid-range by Sustainalytics. Unfortunately, this discrepancy was not the exception but rather the rule, as shown in the chart below (similar ratings with both methodologies would have shown a declining straight line).

32 <https://www.unpri.org/download?ac=294>

33 MSCI, Towards sustainable impact through public markets, April 2016; <https://www.msci.com/documents/10199/23bf87bc-df61-4d2d-8e17-468c92c26b38>

34 Feeley J, Langreth R, Bloomberg, Novo Nordisk, Lilly, Sanofi Must Face Insulin Drug Pricing Suit, 16 February 2019; <https://www.bloomberg.com/news/articles/2019-02-15/novo-nordisk-lilly-sanofi-must-face-insulin-drug-pricing-suit>
Novo Nordisk had also agreed in 2017 to pay millions to settle claims that it had 'downplayed the importance of U.S. Food and Drug Administration-mandated warnings about the cancer risks of its diabetes medication Victoza.'
Raymond N, Reuters, Novo Nordisk settles U.S. probe over diabetes drug for nearly \$58.7 million, 5 September 2017; <https://www.reuters.com/article/us-novo-nordisk-settlement/novo-nordisk-settles-u-s-probe-over-diabetes-drug-for-nearly-58-7-million-idUSKCN1BG315>

35 Allen K, FT Alphaville, Lies, damned lies and ESG rating methodologies, 6 December 2018; <https://ftalphaville.ft.com/2018/12/06/1544076001000/Lies--damned-lies-and-ESG-rating-methodologies/>



Source: CLSA, GPIF

Controversial deals

The great deal of latitude in the definition of sustainable finance has also led to a number of controversial deals and some scandals, from the repackaging of existing loans into a social impact bond³⁶ to ESG funds claiming not to invest in fossil fuel stocks but investing in them,³⁷ a sovereign green bond issued by a coal focused economy³⁸ and a green bond financing a controversial hydro dam project in the Amazon region.³⁹

The voluntary nature and heterogeneity of the frameworks combined with a lack of data and impact metrics unfortunately means that **in most cases it is not yet possible to assess the social and environmental track record of sustainable finance.**

It is in part to address the inherent risk of greenwashing that the European Commission decided to harmonize at EU levels the frameworks and definition of sustainable finance.

36 Grene S, Ftm, The dark side of green bonds, 14 June 2015; <https://www.ft.com/content/16bd9a48-0f76-11e5-b968-00144feabdc0>

37 Rennison J Nauman B, Financial Times, Vanguard 'green' fund invests in oil and gas-related stocks, 10 July 2019; <https://www.ft.com/content/fbdb36d0-a293-11e9-974c-ad1c6ab5efd1>

38 Allen K, Shotter J, Financial Times, Environmental qualms cloud Poland's green bond sale, 6 February 2018; <https://www.ft.com/content/634b4fe8-074b-11e8-9650-9c0ad2d7c5b5>

39 Observatoire des multinationales, Quand la finance verte détruit l'Amazonie, 12 November 2014; <http://multinationales.org/Quand-la-finance-verte-detruit-l-Amazonie>

II. GREEN IS THE NEW BLACK: THE NEW SUSTAINABLE FINANCE AGENDA



1. Action plan

The new European sustainable agenda is both part of the Capital Markets Union, a legislative initiative aimed at building a single EU market for capital, and one of the key steps towards implementing the Paris Agreement and the UN 2030 Agenda for Sustainable Development.⁴⁰

As explained by the Commission, sustainability and the transition to a low carbon economy are key to ensure the long-term competitiveness of the EU economy, and the *'financial system has a key role to play here.'*⁴¹

Work on the new agenda started in 2016, when the Commission set up a High-Level Expert Group (HLEG) on sustainable finance charged with formulating recommendations. In January 2018, the group published its final report.⁴² The recommendations included establishing a common classification system of sustainable activities, clarifying investors' duties and developing green standards and labels.

The recommendations of the High-Level Expert Group formed the basis of the subsequent **action plan on financing sustainable growth**⁴³ that was adopted in March 2018. 3 objectives were put forward:

- ▣ **reorient capital flows towards financing sustainable and inclusive growth.** As it explains, *'transforming Europe's economy into a greener, more resilient and circular system will not just reduce our environmental footprint on the planet and address existing inequalities. It will also boost competitiveness.'*
- ▣ **manage financial risks** stemming from climate change, environmental degradation and social issues;
- ▣ **foster transparency and long-termism** in financial and economic activity.

According to the Commission, **2 problems need to be addressed in order to achieve these objectives:** first, end-investors face high search cost in identifying what are sustainable economic activities and in assessing how ESG factors are integrated in the investment and advisory process. Secondly, institutional investors and asset managers lack incentives to explicitly consider ESG factors.

What is surprising is what is not included in the list of problems: for example, the **lack of measurable impact of ESG investments** is not listed as a problem to be addressed.

The framing of the second problem is also surprising: there are indeed several complementary ways to reorient capital flows, including binding regulations, financial penalties and financial incentives. Yet, **the first two tools are not even considered** among the range of possible options, despite the fact that curbing financing flows to brown activities or increasing their financing cost would arguably be effective to reorient capital flows and achieve the SDGs.

40 European Commission, press release, supra

41 European Commission, Action plan on financing sustainable growth, 8 March 2018; <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018DC0097&from=EN>

42 EU High Level Expert Group on Sustainable Finance final report, Financing a sustainable European economy, 2018; https://ec.europa.eu/info/sites/info/files/180131-sustainable-finance-final-report_en.pdf

43 European Commission, Sustainable Finance; https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance_en

3 relevant drivers have been identified behind the problems:

- i. a lack of clarity and coherence on the duties of investors with respect to ESG integration in the investment and advisory process;
- ii. a lack of disclosure regarding the level of ESG integration;
- iii. a lack of clarity on what can be considered a sustainable economic activity.

As a result, the action plan has put forward **5 key actions** aimed at addressing these problem drivers and achieving the objectives:

- ▣ **Taxonomy:** establishing a harmonized EU classification system for sustainable activities;
- ▣ **Ecolabel:** creating green standards and labels for financial products;
- ▣ **ESG mandates:** introducing measures to clarify investors' sustainability duties;
- ▣ **ESG disclosure:** strengthening the transparency of companies' ESG reporting;
- ▣ **Green supporting factor:** introducing a 'green supporting factor' in EU prudential rules, i.e. softer prudential rules amounting to a subsidy for green investments by banks and insurance companies.

To assist the Commission in developing the related proposals, the action plan foresees the **establishment of a new Technical Expert Group on sustainable finance (TEG)**, that will replace the earlier High-Level Expert Group (HLEG). Of the 35 members of the new group, 7 are from civil society whereas 19 represent the financial industry. This makes it even more unbalanced than the earlier HLEG, whose 20 members included 12 from the financial sector versus 6 from civil society – 5 of which held views mostly aligned with business.

Such unbalances seem not the exception: a report from the European Parliament had already found that the European Commission's expert groups showed '*issues over balance and bias*,' and '*an overall decrease in the number of non-economic members (e.g. NGOs experienced a 10% decrease since 2013), paralleled by an increase in the number of corporate members (by 5% since 2013).*'⁴⁴ These major unbalances put into question the representativeness of these expert groups and the real diversity of views expressed.

Overall, the action plan displays a **surprising lack of ambition**, given the stated emphasis on the '*key role*' finance has to play. To be clear, setting up harmonized criteria for sustainable economic activities is a welcome and much needed initiative, as is improving transparency and reporting. It is, however, unclear how increased transparency, harmonization and some green quality labels will contribute meaningfully to meeting the Paris Agreement pledges and achieving the SDGs.

The framing of the problems to be addressed and the solutions put forward – and those not put forward – seem to indicate in our view a greater focus on competitiveness, economic growth and cost-effectiveness than on achieving our international climate and biodiversity commitments.

44 European Parliament, Composition of the Commission's expert groups and the status of the register of expert groups, 2015; [http://www.europarl.europa.eu/RegData/etudes/STUD/2015/552301/IPOL_STU\(2015\)552301_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2015/552301/IPOL_STU(2015)552301_EN.pdf)

2. An assumption of continued economic growth

The assumption of continued (sustainable) economic growth underlying the action plan is surprising: the many references to sustainable economic growth suggest a neoclassical / environmental economics framing that relies on the belief that infinite economic growth is compatible with a planet with finite resources.⁴⁵ So does the Commission's definition of green investment as *'the financing of investments that provide environmental benefits (...) without reducing the production and consumption of non-energy goods.'*⁴⁶

This is rather surprising, as it **contradicts the view of the European Environmental Agency**, which recently stated that *'Europe will not achieve its sustainability vision of 'living well within the limits of the planet' by continuing to promote economic growth and seeking to manage the environmental and social impacts.'*⁴⁷

A report commissioned by a **group of scientists appointed by the UN Secretary-General** concurred, stating that *'today's dominant economic theories, approaches, and models were developed during the era of energetic and material abundance. These theories were challenged only temporarily by the oil crises of the 1970s and the 1990s; no significant theoretical or political changes were made. Thus, dominant economic theories as well as policy-related economic modelling rely on the presupposition of continued energetic and material growth. The theories and models anticipate only incremental changes in the existing economic order. Hence, they are inadequate for explaining the current turmoil.'*⁴⁸ In plain English, **today's dominant economic theories, i.e. neoclassical economics, rely on continued growth and are therefore inadequate to address climate change and should be abandoned.**

Even the Financial Times stated in an article titled the myth of green growth⁴⁹ that *'green growth probably doesn't exist — at least not for the next couple of decades, during which time we'll have to cut most of our carbon emissions to keep the planet habitable. Our generation has to choose: we can be green or we can have growth, but we can't have both together. (...) The sad truth is that moving from dirty to green growth will take much more time than we have. The infrastructure we'll be using these next crucial decades has largely already been built, and it isn't green. Most of today's planes and container ships will still be in use by 2040. If green growth doesn't exist, the only way to prevent climate catastrophe is "degrowth" now, not in 2050.'*

One of the foremost experts on the topic concurs and goes further, stating that **decarbonization means de-growth.**⁵⁰ As renewable energies will never fully replace our current use of fossil fuels we have to choose between GDP and curbing CO₂. In fact, as he explains, **this is not even any**

45 See Hache, 50 shades of green part I: carbon, pages 22-24; <https://greenfinanceobservatory.org/2019/03/11/50-shades/>

46 European Commission's science and knowledge service Joint Research Centre, EU Ecolabel Criteria for Financial Products, Technical report and criteria proposal (1st Draft), 4th April 2019; https://susproc.jrc.ec.europa.eu/Financial_products/docs/1AHWG%20meeting_Financial%20Products%2004042019.pdf

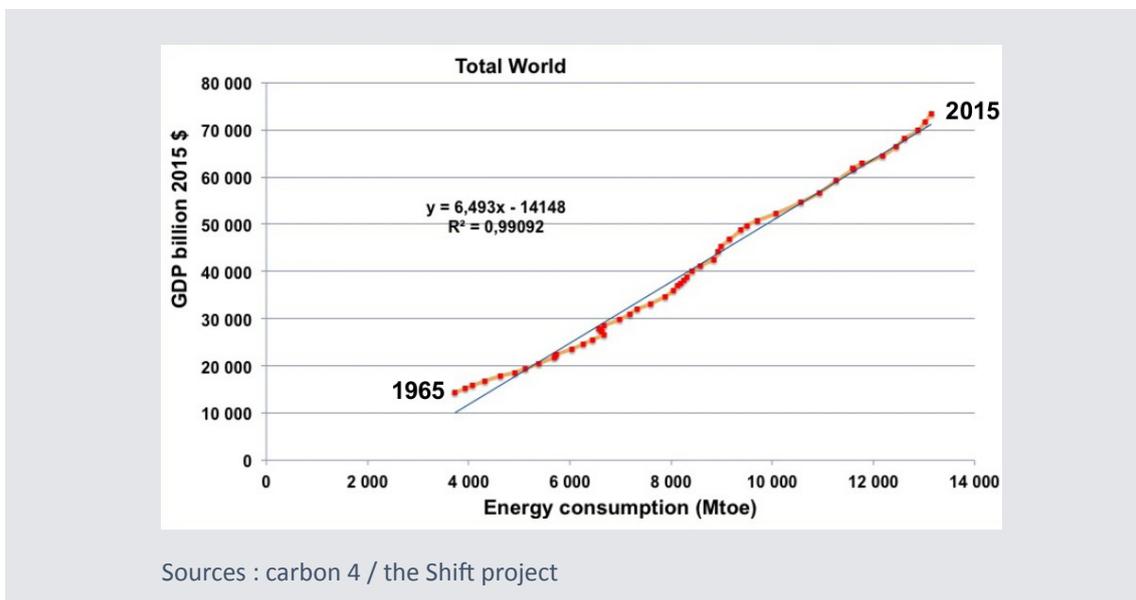
47 European Environmental Agency, Europe's state of the environment 2020: change of direction urgently needed to face climate change challenges, reverse degradation and ensure future prosperity, 4 December 2019; <https://www.eea.europa.eu/highlights/soer2020-europes-environment-state-and-outlook-report#tab-related-briefings>

48 Paavo Järvensivu (1*,2*), Tero Toivanen (1,3*), Tere Vadén (1), Ville Lähde (1), Antti Majava (1), Jussi T. Eronen (1,4*), Global Sustainable Development Report 2019 drafted by the Group of independent scientists - Invited background document on economic transformation, 14 August 2018; https://bios.fi/bios-governance_of_economic_transition.pdf

49 Kuper S, Financial Times, the myth of green growth, 24 October 2019; <https://www.ft.com/content/47b0917c-f523-11e9-a79c-bc9acae3b654>

50 Jancovici J.M., CO2 ou PIB il faut choisir, leçon inaugurale Sciences Po 2019; <https://www.sciencespo.fr/fr/actualites/actualite/C3%A9s/%E2%80%9Cco2-ou-pib-il-faut-choisir%E2%80%9D/4307>; Also see Meadows D, Randers J, Meadows D, Limits to growth – the 30 year update; <http://www.peakoilindia.org/wp-content/uploads/2013/10/Limits-to-Growth-updated.pdf>

longer a choice, as we already reached the peak for conventional oil around 2008 and we will reach the peak for all types of oil around 2020, plus or minus 5 years, and oil output is the best forward indicator of GDP per capita. As a result, climate and environmental policies based on sustainable growth are fundamentally unrealistic and misleading.



The push for sustainable growth is often linked to a belief in so-called ‘**decoupling**’. Decoupling refers to the idea that it would be possible to have economic growth without a corresponding increase in environmental pressure, and in fact with a decrease in environmental pressure. Put differently, the amount of carbon to produce 1 euro of GDP has to drop significantly through the use of renewable energy.

Yet, several recent reports⁵¹ reviewing the empirical and theoretical literature found no empirical evidence that absolute decoupling from resource use can be achieved on a global scale against a background of continued economic growth, and that absolute decoupling from carbon emissions is highly unlikely to be achieved at a rate rapid enough to prevent global warming over 1.5°C or 2°C, even under optimistic policy conditions. They conclude that ‘*policy-makers have to acknowledge the fact that **addressing environmental breakdown may require a direct downscaling of economic production and consumption in the wealthiest countries.***’⁵² In other words, there will not be decoupling on anywhere near the scale and the timeframe needed, and **sustainable growth, while desirable, should thus not be the main basis of our climate policies.**

Politically however, the promise of green growth is very useful: acknowledging that there are limits to growth would remove the promise of a share of a bigger pie as an alternative to curbing inequalities, and would open the politically fraught question of distribution. By

51 European Environmental Bureau, decoupling debunked, July 2019; <https://mk0eeborgicuyptuf7e.kinstacdn.com/wp-content/uploads/2019/07/Decoupling-Debunked.pdf>; Hickel J, Kallis G, Is Green Growth Possible? 17 April 2019; <https://www.tandfonline.com/doi/abs/10.1080/13563467.2019.1598964>

52 European Environmental Bureau, supra; An article also explained that ‘*models from the Intergovernmental Panel on Climate Change (IPCC) for how we might stabilise the climate while also growing global GDP rely heavily on negative emissions technologies such as carbon capture, which are often unproven or dangerous at scale.*’ Mastini R, Kallis G, Hickel J, New Statesman, Europe’s Green Deal is a tepid response to the climate crisis, 3 December 2019; <https://www.newstatesman.com/politics/environment/2019/12/europes-green-deal-tepid-response-climate-crisis>

dismissing the existence of trade-offs between growth, climate change and inequalities, the current green growth framing instead makes the trade-offs invisible and depoliticizes the political discourse. It also shifts the focus away from downscaling consumption in the wealthiest countries, and towards other topics such as technological innovation, negative emissions in developing countries or controlling overpopulation and migration.

3. Does finance have a key role to play?

a. A political choice

While all sectors have to contribute to addressing climate change and biodiversity loss, why is finance deemed to have such a prominent role to play?

Finance is arguably not the most obvious starting point to ensure that natural resources are consumed at a rate that does not compromise the ability of future generations to meet their own needs. Intuitively, one might expect the priority to be rather environmental and socio-economic policies mandating the sustainable use of natural resources, while ensuring that access to enough resources is maintained for all.

Granted, financing the transition will require considerable amounts of investment in R&D and infrastructure and *'the scale of the investment challenge is beyond the capacity of the public sector alone,'*⁵³ but **we live in a world structurally awash in capital**⁵⁴ desperately looking for investment opportunities, where financial assets are a multiple of the value of the global output of all goods and services. While the investment gap to be closed is €180 billion per year until 2030,⁵⁵ assets under management in Europe represent €23.1 trillion,⁵⁶ investors managing more than \$34 trillion in assets have already demanded urgent action on climate change⁵⁷ and the Principles for Responsible Investing (PRI) have gathered signatures representing \$90 trillion of assets under management.⁵⁸

There are two main ways for any government to reorient the economy from brown activities relying on fossil fuels to green ones: mandate a progressive withdrawal from brown technologies and activities, which would automatically reorient capital flows towards green ones, or provide subsidies and favourable tax treatment to green ones in order to make them more profitable relative to brown ones. It is the traditional policy choice between the carrot and the stick, and the carrot has been chosen.

No justification is provided for this choice. It is merely stated that *'offering financial products which pursue environmentally sustainable objectives is an effective way of channelling private*

53 European Commission, *ibid*; <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018DC0097&from=EN>

54 Bain & Company, *A World awash in Money*, 2012; http://www2.bain.com/Images/BAIN_REPORT_A_world_awash_in_money.pdf

55 European Commission, *ibid*; <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018DC0097&from=EN>

56 EFAMA, 11th annual Asset Management Report, 17th September 2019; <https://www.efama.org/Pages/Submitted%20after%202018-03-12T16%2022%2007/European-assets-under-management-have-more-than-doubled-in-the-last-decade.aspx>

57 Jessop S, Chestney N, Reuters, Exclusive: Investors with \$34 trillion demand urgent climate change action, 26 June 2019; <https://www.reuters.com/article/us-climatechange-investment-letter-exclu/exclusive-investors-with-34-trillion-demand-urgent-climate-change-action-idUSKCN1TQ31X>

58 Jancovici JM, A resolution for the PRI: From fairy tales to real commitments, Responsible investor, 3 January 2020; <https://www.responsible-investor.com/articles/a-resolution-for-the-pri-from-fairytales-to-real-commitments>

investments into sustainable activities,⁵⁹ without explaining on what ground it is deemed more effective than alternatives.

Had we chosen binding environmental regulations instead, there would arguably be no great need for sustainable finance – understood as a package of measures to subsidize a niche part of the financial system – as **appropriate environmental regulations would make all finance sustainable**: the expected risk-adjusted returns of all economic activities and companies would automatically adjust to the new requirements such as phasing out fossil fuels, and capital flows would shift accordingly.

This puts into perspective the current political focus on softening prudential regulation and providing subsidies in exchange for a modest greening of banks' balance sheets and asset managers' investments. From this angle, sustainable finance appears as a plan 'B' compared to environmental regulations that would make all finance sustainable.

The 'key role' of sustainable finance is therefore not a given but can be understood instead as a **political choice to financially incentivise a shift in investments towards green activities via financial regulations, rather than induce it via binding environmental regulations**.⁶⁰ Put differently, **it is a political choice to subsidize private finance rather than regulate and curb brown economic activities**.

As French mathematician Nicolas Bouleau explained, **focusing on who will pay for the transition is a very biased framing**: *'who will pay for the transition? Is this the right question? In any case, it is the framework for most of the political or economic debates led by journalists in the mainstream media. But taking the problem of the planet in this way is a formidable bias. This brings back what is desirable to what the economy declares possible.'⁶¹*

b. Prioritizing competitiveness, avoiding short-term economic disruption and stranded assets

This raises the question of why? At first glance, it is quite a surprising choice: no major environmental or social issue was ever addressed by giving a more prominent role to the financial system. Environmental regulations have traditionally been chosen over financial ones to address environmental issues and they have an excellent track record, from addressing the hole in the ozone layer to the use of asbestos, and catalytic converters.

Furthermore, the environmental and social impact of sustainable finance – to the extent that it is measurable – is far from impressive and does not warrant such trust.

It is also worth noting that citizens acting as responsible consumers have had a significant impact but nowhere near what is needed, and it is not clear why we would expect them to have an infinitively greater impact as responsible savers and investors.

Political ambition (or lack thereof) on a given issue impacts all policy tools equally. Therefore, on what grounds do we believe that the lack of political ambition to set up appropriate climate

59 Council of the European Union, Proposal for a regulation of the European Parliament and of the Council on the establishment of a framework to facilitate sustainable investment - Approval of the final compromise text, 17 December 2019; <https://data.consilium.europa.eu/doc/document/ST-14970-2019-ADD-1/en/pdf>

60 Choosing to locate policy incentives in environmental regulations would obviously not preclude complementary targeted subsidies to ensure a smooth and viable transition, nor the existence of a specific sub-segment of finance targeting specific non-financial outcomes. Sustainable finance policy would thus still exist, but its role would not be considered essential at all.

61 Nicolas Bouleau, Combien coûte la nature?, 10 October 2018; <http://www.nicolasbouleau.eu/combien-coute-la-nature/>

policies over the past decades will somehow not equally translate into inadequate sustainable finance policies?

The answer is political and reflects stated priorities:

- ▣ **Fostering economic growth:** phasing out fossil fuels could reduce economic growth, whereas the alternative – subsidizing sustainable finance while not restricting anything – is more incremental and will have a less disruptive impact on short-term economic growth. The obvious flipside is that a more progressive approach will most certainly lead to a later but more abrupt and socially uncertain change.
- ▣ **Avoiding stranded assets:**⁶² no government is currently ready to give up its oil reserves and the tremendous economic and political power attached them. Governments also fear the short-term economic disruption that would be caused by the rapid decarbonisation of the economy and the related questions of distribution that would inevitably arise. In this regard, sustainable finance offers not only an incremental approach, but also the opportunity to shift the debate away from phasing out fossil fuels and towards finding the right incentives to ‘shift the trillions.’ Environmental issues are reframed as a question of making returns attractive enough for private investors.

It is worth noting here that while it faces strong political resistance, from an environmental perspective, stranding fossil assets should arguably be an objective *per se* rather than something to avoid. Secondly, the whole concept of stranded assets relies on the idea of unanticipated write-downs; yet, the fossil fuel industry has known for decades that GHG cause global warming.⁶³ The idea that potential losses related to leaving fossil fuels in the ground are unanticipated is thus preposterous, all the more given that these potential losses are in large part linked to the €45 billion spent by oil and gas companies since 2018 ‘on investment projects that undermine the Paris Agreement.’⁶⁴

- ▣ **Fostering competitiveness:** linked to this objective is the view that business should be subsidized rather than regulated, as it creates jobs and growth, and the view that as long as other countries are not decarbonizing in earnest, we should not either. The first idea relies on debunked trickle-down economics. As for competitiveness concerns, they can be addressed via a carbon border tax.

62 Stranded assets are assets that have suffered from unanticipated loss in their value due to external factors. ‘The private sector will be key to financing the green transition. Long-term signals are needed to direct financial and capital flows to green investment and to avoid stranded assets.’ European Commission, Communication on the European green deal, 11 December 2019; https://ec.europa.eu/info/sites/info/files/european-green-deal-communication_en.pdf

63 Lavelle M, Inside Climate News, Former Exxon Scientists Tell Congress of Oil Giant’s Climate Research Before Exxon Turned to Denial, 24 October 2019; <https://insideclimatenews.org/news/23102019/exxon-scientists-climate-research-testify-congress-denial>

64 Mace M, Euractiv, Oil and gas companies risking \$2.2trn in stranded assets during low-carbon transition, report warns, 6 September 2019; <https://www.euractiv.com/section/energy/news/oil-and-gas-companies-risking-2-2trn-in-stranded-assets-during-low-carbon-transition-report-warns/>; In addition, according to UBS research, stranded assets do not mean that investors should divest from fossil fuels companies, as ‘these companies can return the entire value of the investment in cash flows over the next 15 years if the price of oil is high.’ ‘Our analysis, informed by a net present value of cash flow calculation, reveals that many public oil and gas companies appear to be reasonably valued in several scenarios, even under a “strong form” of the stranded assets hypothesis.’ ‘Once discounted, the vast majority of the value of future cash flows generated by these reserves is captured in the first 5 to 10 years. This implies that a significant amount of the value is preserved even in our extreme cash flow cliff scenarios.’ UBS, Stranded assets: what lies beneath, 2015; https://www.ubs.com/global/en/asset-management/insights/sustainable-and-impact-investing/si-insights/2017/stranded-assets/_jcr_content/mainpar/toplevelgrid/col1/action-button.1427483992.file/bGluay9wYXR0PS9jb250ZW50L2RhbS91YnMvaW5zaWdodHMvc3VzdGFpbmFibGUtaW52ZXN0aW5nLXN0cmFuZGVkLWFzc2V0cy5wZGY=/sustainable-investing-stranded-assets.pdf

- ▣ **Seizing an enormous profit opportunity:** sustainable finance promises to offer tremendous new profit and investment opportunities. It is *'history's biggest investment opportunity'* in the words of former US Vice President Al Gore. There are enormous green infrastructure needs, and new and profitable asset classes for pollution and biodiversity destruction are being created. There is, however, no intrinsic reason why we would expect addressing climate change to be profitable, when there is no analogous expectation placed on other key areas of policy such as nuclear safety, national security, fighting terrorism or food security.
- ▣ **Maximising political flexibility:** binding environmental policies to curb brown economic activities require addressing distributional issues and making explicit trade-offs. Sustainable finance, on the other hand, requires no such thing, as it promises both future economic growth and to address climate change and biodiversity loss. It appears to reconcile diverging interests, thereby obfuscating the trade-offs being made and depoliticizing the issues. Such reduced accountability is obviously appealing politically.

Based on the above, we understand the prominent role carved for sustainable finance as a **political choice to prioritize competitiveness, economic growth and avoid stranded assets.**

c. A specific type of sustainable finance

Obviously, fostering these objectives requires a specific type of sustainable finance that is soft and incremental rather than ambitious.

An alternative sustainable finance agenda relying on assumptions of degrowth, fostering only green technologies and activities – defined as contributing to a reduction in the consumption of natural resources and fossil energy per capita – and financially penalising or curbing the financing of brown economic activities would not have been compatible with these objectives.

In this respect, the type of sustainable finance promoted by the EU agenda is fully compatible: it is based on an assumption of continued economic growth, does not financially disincentivise or ban any brown activity, and also rewards 'transitional' activities that are not green today (as we will discuss later). It is essentially about setting up a green quality label with attached subsidies and improving transparency.

d. A new role for the State

It is worth noting that while these policies foster a greater role for private finance, they do not foresee the retreat of the State and public finance, but instead a **new role for the State**, charged with setting up new markets frameworks and using public finances not for direct investing but instead to subsidize private financial actors.⁶⁵

Financial markets indeed require States to establish regulatory frameworks and rules to function. They also require public institutions to monitor and enforce the rules, ensure financial stability and protect retail savers. A large number of market participants further rely either explicitly or implicitly on public safety nets, as evidenced during the 2008 crisis.

65 United Nations, Climate Action - Getting Greener: Getting Slimmer and Going Digital, December 2008; <https://www.amazon.com/Climate-Action-Getting-Greener-Slimmer/dp/0955440882>

The recent EU green deal investment plan explicitly states that the funding plan ‘will use the EU budget to leverage private funds for green projects’ ‘by making investments more attractive’ and will ‘create the right regulatory incentives.’ ‘A greater share of spending (...) from the EU budget than ever before will crowd in private funding.’⁶⁶

All of this suggests not a smaller role for the State but rather a different one, which will no longer be expected to set up and enforce appropriate binding regulations but merely to assist the private sector. Such a role raises interesting questions about sovereignty, democracy, public interest, and use of taxpayer money.

4. The fourth piece of the jigsaw

Last but not least, assessing the importance and role of sustainable finance in addressing climate change and biodiversity loss requires looking at where it fits into the broader policy response.

Three major developments are currently happening:

a. EU Green Deal, nature-based solutions & extension of the EU ETS

In December 2019, the new European Commission unveiled its Green Deal⁶⁷ to address climate change and other environmental challenges. In the words of the Commission, ‘It is a new growth strategy that aims to transform the EU into a (...) competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use.’

The green deal puts forward many proposals in 10 areas, including a plan to increase the EU’s greenhouse gas emission reductions target for 2030 to at least 50% and towards 55%, the development of renewable energies, the phasing out of coal and an end to fossil fuel subsidies.



66 European Commission, Financing the green transition: The European Green Deal Investment Plan and Just Transition Mechanism, 14 January 2020; https://ec.europa.eu/regional_policy/en/newsroom/news/2020/01/14-01-2020-financing-the-green-transition-the-european-green-deal-investment-plan-and-just-transition-mechanism

67 European Commission, Communication on the European Green Deal, 11 December 2019; https://ec.europa.eu/info/sites/info/files/european-green-deal-communication_en.pdf

The Green Deal states that *'all EU policies should contribute to preserving and restoring Europe's natural capital'*. A new framing of nature that has emerged over the past decades, natural capital is an extension of the economic concept of capital to the natural environment, where ecosystem functions are assessed in terms of the services they provide to human well-being. This approach is based on the idea that we need to put a price on nature's destruction to save it and fosters market-based mechanisms such as trading permits to destroy biodiversity.

The Green Deal also foresees a **big role for Nature-Based Solutions** in climate adaptation. Defined as *'solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits,'*⁶⁸ Nature-Based Solutions are actions to protect and restore ecosystems, based on the concept of natural capital.

Nature-Based Solutions encompass a number of conservation and restoration actions, such as planting trees, that by themselves are generally good. The issue is that they are almost always financed by offsetting mechanisms, thereby incorrectly assuming that restoration can compensate for destruction taking place elsewhere, and allowing this destruction to happen as long as it is 'compensated,' instead of curbing it. Unfortunately, it has been demonstrated that it is not possible to meaningfully value nature in monetary terms, nor to recreate all of the ecosystem functions that are destroyed,⁶⁹ as we will discuss later.

Nature-Based Solutions without offsetting would be good, but unfortunately this will never happen, as the political appeal of Nature-Based Solutions resides precisely in their 'cost effectiveness' compared to curbing destruction, and their ability to provide 'business opportunities.'⁷⁰ This means that Nature-Based Solutions will always come instead of and not in addition to curbing GHG emissions and biodiversity destruction. They are therefore in practice **only the new name given to carbon and biodiversity offsetting.**

In fact, this is already evidenced by a number of project proposals submitted on the Nature-Based Solutions contribution platform,⁷¹ that promote carbon offset credits and call for the inclusion of Nature-Based Solutions in carbon markets. Other initiatives such as Markets for Natural Climate Solutions⁷² also push for global carbon markets linked to similar projects.

Last but not least, the Green Deal proposes to extend the **European carbon emissions trading market (EU ETS) to new sectors and ultimately all sectors,**⁷³ making it the main policy tool to mitigate climate change in Europe.

68 European Commission, Nature-Based Solutions; <https://ec.europa.eu/research/environment/index.cfm?pg=nbs>

69 Hache F, 50 shades of green part II: the fallacy of environmental markets; <https://greenfinanceobservatory.org/2019/05/23/second-policy-report-50-shades-of-green-part-ii-the-fallacy-of-environmental-markets/>

70 Horizon 2020 Expert Group on 'Nature-Based Solutions and Re-Naturing Cities,' Towards an EU research and innovation policy agenda for nature-based solutions & re-naturing cities, 2015; <https://op.europa.eu/en/publication-detail/-/publication/fb117980-d5aa-46df-8edc-af367cddc202>

71 UN Environment, NBS contribution platform: <https://www.unenvironment.org/nbs-contributions-platform>; The REDD+ Acceleration Facility (RAF): Scaling Finance for Tropical Forest Protection (EDF): https://wedocs.unep.org/bitstream/handle/20.500.11822/28872/REDD_Acceleration.pdf?sequence=1&isAllowed=y; UN-REDD: Supporting countries with complex policy and institutional reforms to scale up climate actions and ambitions on sustainable land and forest management, conservation and restoration: https://wedocs.unep.org/bitstream/handle/20.500.11822/28792/UNREDD_climate.pdf?sequence=1&isAllowed=y; The Architecture for REDD+ Transactions (ART): Attracting New Investment to Protect and Restore Forests: https://wedocs.unep.org/bitstream/handle/20.500.11822/28932/Architecture_REDD%2b.pdf?sequence=1&isAllowed=y; Natural Climate Solutions Alliance (convened by WEF, WBCSD, N4C): <https://wedocs.unep.org/bitstream/handle/20.500.11822/29770/NCSA.pdf?sequence=1&isAllowed=y>

72 Markets for natural climate solutions; <https://www.ncs.ieta.org/>

73 Hache F, Green Deal: the devil is in the (future) details, 11 December 2019; <https://greenfinanceobservatory.org/wp-content/uploads/2019/12/Green-deal-assessment2.pdf>

This is problematic, as this tool has spectacularly failed to reduce emissions for the past 15 years⁷⁴ and has serious practical issues such as the absence of a real cap.⁷⁵ Far more concerning, the EU ETS has also been shown to have unsolvable conceptual issues such as the inexistence of a price signal, which means that it will never be able to achieve its environmental objectives.⁷⁶ Expanding the role of a broken policy tool is a major concern in a context where we have 10 years left to reduce our emissions by about 45% from 2010 levels, according to the IPCC.⁷⁷ The reasons for this expansion are likely motivated by political rather than environmental concerns, and likely linked to China's launch of its own emissions trading scheme that will create the largest commodity market in the world.

The Investment Plan and Just Transition Mechanism⁷⁸ accompanying the Green Deal foresee for their part that *'a greater share of spending on climate and environmental action from the EU budget than ever before will crowd in private funding'*: it is thus foreseen that the EU budget will be used *'to leverage private funds for green projects'*, *'create the right regulatory incentives'* and make investments more attractive.

The explicit objective of economic growth, the reliance on the idea of decoupling and the prominent role given to private finance and market-based solutions mean that the Green Deal is fully consistent with the sustainable finance agenda.

74 While emissions have indeed decreased since 2005, according to scientific studies and a report from the European Commission the economic crisis rather than the market mechanism has been the major cause of the emission reductions, as it led to a decline in growth and energy demand.

Nature, Feng K, Davis S, Sun L, Hubacek K, Drivers of the US CO₂ emissions 1997–2013, 21 July 2015; <https://www.nature.com/articles/ncomms8714>

European Commission, The state of the European carbon market in 2012, 2012; <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012DC0652&from=EN>

Former CEO of ExxonMobil Rex Tillerson also recently famously declared *"we had to be part of the trading system, and we saw a number of flaws with that system. In fact, if you look at what it has accomplished over its existence, it never has accomplished what it was intended to do. It hasn't reduced any emissions."* Sidney Morning Herald, 'We knew': Ex oil boss says climate change 'with us forevermore', Nov 1 2019; <https://amp.smh.com.au/business/companies/we-knew-ex-oil-boss-says-climate-change-with-us-forevermore-20191101-p536fb.html>

75 This cap and trade market has not had a cap for most of its existence, due to the allowance for using Kyoto carbon offset credits, in addition to its own credits. As the Kyoto market ends in 2020, it remains to be seen whether credits from the new carbon offset markets being created will be banned from the EU ETS or will once again remove the cap in cap and trade. Early indications unfortunately suggest the later. Reports that China is likely to avoid setting an absolute cap when it launches its emissions trading scheme, opting instead for an intensity-based approach are also not encouraging. Carbon Pulse, China set to drop absolute emission cap on ETS, says government advisor, 27 September 2019; <http://carbon-pulse.com/83117/>

76 A price signal refers to the existence of a carbon price that progressively increases over time, thereby incentivizing companies to switch to green technologies as the cost of purchasing emission credits increase. It has however been demonstrated that the very high volatility of carbon prices means that there is no observable trend in prices, and thus no incentive effect. i.e. no price signal. The inexistence of a price signal means that even if issues of excess permits and frauds were comprehensively addressed, the ETS would be unable to achieve its objectives. See Hache, 50 shades of green part I: carbon; <https://greenfinanceobservatory.org/wp-content/uploads/2019/03/50-shades-carbon-final.pdf>

77 Intergovernmental Panel on Climate Change, Global warming of 1.5°C – summary for policy makers, 2018; https://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf

78 European Commission, Financing the green transition: The European Green Deal Investment Plan and Just Transition Mechanism, 14 January 2020; https://ec.europa.eu/regional_policy/en/newsroom/news/2020/01/14-01-2020-financing-the-green-transition-the-european-green-deal-investment-plan-and-just-transition-mechanism

b. New international carbon offset⁷⁹ markets

Two new international carbon offset markets are in the process of being created: CORSIA⁸⁰, a market to offset the greenhouse gas emissions of civil aviation flights, and the Sustainable Development Mechanism, a new market linked to the Paris Agreement and designed to replace the Kyoto offset mechanisms.

While most of the demand for international offset credits used to come from the EU ETS, it is not yet clear whether credits from these new offset markets will be allowed in the EU ETS.⁸¹ **Significant demand will however come from so-called carbon sequestration**, as this activity tends to increasingly replace emissions reductions within net zero emissions targets and in Countries' Nationally Determined Contributions.⁸² Carbon sequestration is also typically financed through offset market schemes.

The creation of these new carbon offset markets and the growing prominence of carbon sequestration financed by offset markets is consistent with the overall trend towards a greater financialization of the policy response to climate change.

c. A new international financial market on biodiversity destruction

A new post 2020 international biodiversity strategy fostered by the United Nations, the European Commission, the World Bank, the OECD, IPBES and IUCN is emerging, rooted in the belief that we need to put a price on nature to save it – or '*internalize its value*' to use the new terminology.

Attempts at putting a monetary value on ecosystem functions and integrating them in national accounts are well underway. 'No loss' of biodiversity policies have been replaced by 'no net loss' policies, thus opening the door for biodiversity offsetting (now euphemistically rebranded

79 Carbon offsetting is an action, such as planting trees to store carbon dioxide, made to compensate for emissions of CO₂ or other greenhouse gases into the atmosphere, on the assumption that both are equivalent. Yet there is a fundamental difference between capturing carbon in trees and soils where it is stored for a few decades at best and emissions from fossil fuels which stay in the atmosphere for approximately 100 years.

80 Under this new agreement, called CORSIA (Carbon Offsetting and Reduction Scheme for International Aviation), airlines will be required to buy carbon offsets to compensate for their growth in CO₂ emissions. Carbon offsets will be generated through the implementation of carbon reduction projects in developing countries. Flights subject to CORSIA are expected to account on average for over 600 million tons of CO₂ per year between 2021 and 2035, making CORSIA one of the largest carbon pricing instruments in the world. ICAO, Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA); <https://www.icao.int/environmental-protection/CORSIA/Pages/default.aspx>

81 Even if new offset credits were not directly allowed in the EU Emissions trading scheme, its phase IV reform foresees mutual recognition agreement and linkages with other emissions trading schemes that may allow these new offsets. EU Directive 2018/410 amending Directive 2003/87/EC to enhance cost-effective emission reductions and low-carbon investments, and Decision (EU) 2015/1814; <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L0410&from=EN>

In this respect, it is interesting to note that South Korea has already confirmed that it plans to allow limited use of international emissions units issued under Paris Agreement rules in its emissions trading scheme after 2020. Carbon Pulse, South Korea prepares for use of Paris-era international credits in its ETS, 29 October 2019; <http://carbon-pulse.com/85257/>

Also noteworthy is the bilateral cooperation between the EU and China on emissions trading and the news that the China Emissions Exchange in Guangzhou enabled trial swaps between the Guangdong and EU carbon markets, bearing in mind that the Chinese emission trading scheme will authorize the use of Chinese offset credits. Carbon Pulse, China's Guangdong enables EU allowance swaps as trial deal struck, 26 November 2019; <https://carbon-pulse.com/87465/>

82 Nationally determined contributions are the commitments made by each country in the Paris Agreement to reduce their national emissions and adapt to climate change. As the programme of the COP25 stated, '*the revision of the Nationally Determined Contributions in 2020 is a key moment to include (...) Nature-Based Solutions in climate strategies*', where nature-based solutions is the new name given to carbon and biodiversity offsetting. European Commission, EU Programme of Side Events, COP25 – UN Climate Change Conference; https://ec.europa.eu/clima/sites/calendar/0138/calendar_en.htm#schedule

‘nature-based solutions’); and a new international offset market framework on biodiversity destruction is expected to be unveiled at the CBD COP15 conference in China in October 2020.⁸³ Other financial markets are expected to follow on water quality trading and other ecosystem services.

Overall, **these 3 developments show a remarkable alignment and consistency despite the different geographical scopes and different institutions leading them.** They all foster market-based mechanisms as the primary tools to address climate change and biodiversity loss. They all foster an incremental approach that not only seeks to minimize the impact of the transition on economic growth, but also to generate new growth and profits opportunities from it. They equally share a strong focus on ‘compensating’ rather than curbing environmentally damaging activities and a reframing of environmental policies as a question of financial return.

From this perspective, the sustainable finance agenda is consistent with these three developments as it also fosters a financialization of the policy response to climate change and biodiversity loss, does not seek to curb directly any brown activity but seeks instead to minimize the impact of the transition on growth and make environmental policies profitable.

The sustainable finance agenda can thus be understood as the fourth piece of the jigsaw: it will create additional demand for these new environmental markets by repackaging them as green securitisations of offset projects with a green bond label, a risk/return profile and rating tailored to attract asset managers, **and make them more profitable** thanks to the new subsidies attached to green bonds.

83 The recently published first draft on the post-2020 biodiversity framework called on governments to ‘internalize the value of nature’ and rely on ‘nature-based solutions’ for climate change mitigation, adaptation and clean water. Convention on Biological Diversity, Zero draft of the post-2020 global biodiversity framework, 5 January 2020; <https://www.cbd.int/doc/c/efb0/1f84/a892b98d2982a829962b6371/wg2020-02-03-en.pdf>

A number of initiatives have paved the way for the CBD conference and the financialization of biodiversity protection, starting with the 2017 EU – China collaboration initiative aimed at mainstreaming natural capital accounting and valuation of ecosystem services in data driven decision and policy making. Other recent initiatives preparing the ground for international biodiversity offsetting include IPBES 2019’s report calling for ‘*economic instruments for financing conservation both non-market and market based, including for example payment for ecosystem services, biodiversity offset schemes, blue-carbon sequestration, cap-and-trade programmes.*’; https://www.ipbes.net/system/tdf/spm_3bi_ldr_digital.pdf?file=1&type=node&id=28335

They also include the 2018 World Bank environmental and social framework that required for all its new project financing the mandatory offsetting of residual adverse biodiversity impacts. <https://www.worldbank.org/en/projects-operations/environmental-and-social-framework/brief/environmental-and-social-standards#ess6>

They include as well a recent OECD report that explained that ‘*there exists a strong business case for scaling up action on biodiversity (...) while harnessing new business opportunities.*’ The report also noted that ‘*governments can influence both public and private finance flows for biodiversity, including through economic instruments such as payments for ecosystem services and biodiversity offsets.*’ OECD, Biodiversity: Finance and the Economic and Business Case for Action, 2019; <http://www.oecd.org/environment/resources/biodiversity/G7-report-Biodiversity-Finance-and-the-Economic-and-Business-Case-for-Action.pdf>

Lastly, a recent resolution from the European Parliament called to ‘*promote the establishment of additional international financial mechanisms for biodiversity protection and conservation linked to the CBD.*’ https://www.europarl.europa.eu/doceo/document/B-9-2020-0035_EN.html

III. EARLY LEGISLATIVE PROPOSALS



Following the action plan, the Commission adopted a package of measures implementing several key actions. Below is our analysis of these proposals, except the proposal to strengthen disclosure regimes on sustainable investments, as it is the proposal with the lowest expected impact in our view and much has already been written about it.

1. Low carbon benchmarks

Two main categories of low carbon indices exist: ‘mainstream low-carbon’ indices and a ‘pure-play low-carbon’ indices. The former is defined as a *‘benchmark where the underlying assets (...) are selected so that the resulting benchmark portfolio has less carbon emissions when compared to the assets that comprise a standard capital-weighted benchmark’*.⁸⁴ In other words, it is a simple rebalancing of existing indices, where companies with a high carbon footprint are removed or underweighted.

As stated by the Commission, mainstream low carbon indices *‘do not aim to align with the 2°C objective, and hence may not result in a significant contribution to climate mitigation policies’*.⁸⁵ In the Commission’s words, *‘In terms of environmental impact, decarbonisation of investment portfolios is still expected to be aligned with a temperature rise of 4-6°C (in contrast to the 2°C objective) as they mainly reproduce the universe of the parent benchmark’*.⁸⁶ Asset managers see them merely as *‘a tool for managing the risk of possible future regulatory intervention that might lead to stranded’ assets.* In other words, these indices are used by asset managers to protect themselves against future climate regulations that would mandate a phase out of fossil fuels.

The second type, the so-called ‘pure play’ or ‘positive carbon impact’ benchmarks are more stringent and align with the 2°C objective. They are defined as benchmarks *‘where the underlying assets (...) are selected on the basis that their carbon emissions savings exceed the asset’s carbon footprint.’* They are designed on the basis of the carbon impact ratio of companies, that is their ‘avoided emissions’ divided by their ‘induced emissions’, both measured in terms of their tCO₂ equivalent.

If the ratio is zero, it means that the company has not avoided emissions. If the ratio is equal to 10, it means that the products of the company have enabled the avoidance of 10x the quantity of emissions that would have been emitted if the products had been produced by the average company of the sector.

After considering 4 options – do nothing, establish harmonized standards only for low carbon indices, only for positive carbon impact or for both – **the Commission decided to establish harmonized EU standards for both low-carbon and positive-carbon benchmarks.**

84 European Commission, Proposal for a regulation amending Regulation (EU) 2016/1011 on low carbon benchmarks and positive carbon impact benchmarks, 24 May 2018; <https://ec.europa.eu/transparency/regdoc/rep/1/2018/EN/COM-2018-355-F1-EN-MAIN-PART-1.PDF>

85 European commission, supra

86 Commission Staff working document, impact assessment accompanying the document Proposal for a Regulation of the European Parliament and of the Council on the establishment of a framework to facilitate sustainable investment and Proposal for a Regulation of the European Parliament and of the Council on disclosures relating to sustainable investments and sustainability risks and amending Directive (EU) 2016/2341 and Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) 2016/1011 on low carbon benchmarks and positive carbon impact benchmarks; https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2017-5524115_en#pe-2018-3333

This choice raises at least 2 questions:

First, shouldn't we only promote low carbon indices that are aligned with the Paris Agreement?

The justification provided is that doing so *'may concentrate investments only in some sectors' and is 'not perceived as suitable for building a core equity portfolio by a large group of stakeholders, resulting in a risk of limited market uptake of the benchmark.'*⁸⁷ The TEG report provided a similar justification, explaining that low carbon indices that are incompatible with the Paris Agreement *'allow for greater diversification and serve the needs of institutional investors in their core asset allocation.'*⁸⁸

Serving the needs of institutional investors and preventing a limited market uptake hardly seem convincing reasons to foster indices that are incompatible with the Paris Agreement but are still called 'low carbon.' Not only is it incompatible with our commitments, but it could also create a severe risk of mis-selling: retail investors investing in low-carbon indices endorsed by the European Commission are likely to assume that they are compatible with the Paris Agreement.

While it is stated that *'the proposal has no significant direct or indirect social impacts,'*⁸⁹ it could be argued that **fostering EU sustainable investment indices that are 'still expected to be aligned with a temperature rise of 4-6° C' will have major indirect social impacts**, given the hundreds of millions of climate migrants and major natural catastrophes associated with a 4-6°C climate warming.

Secondly, should positive-carbon benchmarks be based on hypothetical reductions, a flawed and discredited methodology?

According to the Commission's impact assessment, *'the concept of "avoided emissions" is directly derived from the methodologies that were used in the Clean Development Mechanisms of the Kyoto Protocol. Carbone4 (2015) defines them as "virtual" emissions: emissions which would exist unless the company had actively made an effort to decrease them.'*

It is quite surprising to find a reference to the methodologies used in the Kyoto Clean Development Mechanism (CDM), as this mechanism has been a spectacular failure by the Commission's own assessment: A 2017 study published by the European Commission found that 85% of the offset projects used by the EU under the UN's Clean Development Mechanism failed to reduce emissions.⁹⁰

87 European Commission, benchmark proposal, ibid

88 EU Technical Expert Group, Report on benchmarks, September 2019; https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/190930-sustainable-finance-teg-final-report-climate-benchmarks-and-disclosures_en.pdf

89 European Commission, benchmark proposal, ibid

90 Öko Institut, Study prepared for DG CLIMA, How additional is the Clean Development Mechanism?, March 2016; https://ec.europa.eu/clima/sites/clima/files/ets/docs/clean_dev_mechanism_en.pdf

2. The taxonomy proposal

a. What is it?

The taxonomy proposal aims at establishing a **harmonised classification of sustainable economic activities** at EU level. The reasoning behind the proposal is that, as more and more Member States are likely to set up sustainable labelling schemes for financial products, a lack of harmonization could discourage investors and increase the costs of providing cross-border financial instruments.

As stated by the taxonomy proposal, *‘the establishment of a unified classification system for sustainable activities is the most important and urgent action envisaged by the Action Plan.’*⁹¹ While only financial products marketed as sustainable are required to follow this taxonomy, other financial products will be required to provide a statement that they do not take into account sustainability criteria.

An activity is considered environmentally sustainable if:

- ▣ it **complies substantially with one or more of six environmental objectives**;
- ▣ it **does not significantly harm** any of the environmental objectives, i.e. it does not cause more harm to the environment than the benefits it brings;
- ▣ it is carried out in compliance with **minimum social safeguards**, i.e. is aligned with international social and human rights agreements such as the UN Guiding Principles on Business and Human Rights, the eight ILO core conventions and the International Bill of Human Rights;
- ▣ it complies with technical screening criteria to be developed later.

The six environmental objectives are:

i. Climate change mitigation

Activities in this category substantially contribute to stabilizing GHG concentrations in the atmosphere, by *‘avoiding or reducing greenhouse gas emissions or enhancing greenhouse gas removals.’*

This can be achieved through a number of means, including generating renewable energy, improving energy efficiency, increasing climate neutral mobility, *‘increasing the use of (...) carbon capture and storage (CCS) technologies that deliver a net reduction in GHG emissions’* and *‘strengthening land carbon sinks, including through avoided deforestation and forest degradation, restoration of forests, sustainable management and restoration of croplands, grasslands and wetlands, afforestation, and regenerative agriculture.’*

In addition to the economic activities that fulfil the above criteria, two other categories of activities are considered sustainable:

91 Council of the European Union, Proposal for a regulation of the European Parliament and of the Council on the establishment of a framework to facilitate sustainable investment - Approval of the final compromise text, 17 December 2019; <https://data.consilium.europa.eu/doc/document/ST-14970-2019-ADD-1/en/pdf>

- ▣ **Enabling activities:** These are activities that, while not meeting the above criteria, directly enable other activities to make a substantial contribution to the environmental objective. These activities must also not lead to a lock-in of brown assets. As an example, manufacturing a windmill is not by itself environmentally friendly and does not contribute to mitigating climate change, but enables the production of renewable energy, and a choice has been made to also consider these activities as sustainable.
- ▣ **Transitional activities:** Economic activities *‘for which there is no technologically and economically feasible low carbon alternative’* are also *‘considered to contribute substantially to climate change mitigation,’* where these activities have *‘greenhouse gas emission levels that correspond to the best performance in the sector or industry’* and do *‘not hamper the development and deployment of low-carbon alternatives’* nor lead to a lock-in of brown assets.

In other words, brown economic activities for which no low-carbon alternative exist are considered green if they have the least-worst GHG emissions of their sector or industry. A choice has thus been made to **include in the taxonomy brown economic activities based on a best-in-class approach.**

The arguments given are that we need to *‘avoid that sustainable investments are only a niche of the market that is overburdened by sustainable finance requirements’*⁹² and that the transition also requires substantial reductions in GHG emissions in brown sectors for which there are *‘no technologically and economically feasible low carbon alternatives.’*⁹³ As an example, the TEG report⁹⁴ mentions livestock production, passenger cars, data processing, steel and cement manufacturing, all notoriously brown activities, meaning for example that the farmers, cement and steel manufacturers with the best performance / lowest emissions will be considered sustainable.

What ‘best’ exactly means will unfortunately be defined only at a later stage, as will ‘substantial contribution,’ through future technical screening criteria. These criteria will be defined by the European Commission via delegated acts by 31 December 2020. The only vague indication provided is that these activities require *‘a substantial improvement in environmental performance compared to, inter alia, the industry average.’*

The reference to the absence of *‘economically feasible low carbon alternative’* is already a concern, as it may open the door to brown activities where low carbon alternatives do exist but are deemed economically undesirable.

The technical screening criteria will identify the most relevant potential contributions to the

92 *‘The conceptual difference between the Parliament report and the Council general approach on the taxonomy. Where the Council has opted to follow the Commission proposal by laying down a definition of a single category of “environmentally sustainable economic activities”, the Parliament has altered this provision in order to establish a more differentiated classification, which would include a scaled approach to the ‘greenness’ of an economic activity as well as a category of activities with a significant negative environmental impact. With this approach, the European Parliament wants to avoid that sustainable investments are only a niche of the market that is overburdened by sustainable finance requirements.’* Regulation tomorrow, EU co-legislators hold second round of trilogue negotiations on Sustainable Finance Taxonomy, 13 November 2019; <https://www.regulationtomorrow.com/eu/eu-co-legislators-hold-second-round-of-trilogue-negotiations-on-sustainable-finance-taxonomy/>

93 Council of the European Union, *ibid*

94 EU Technical Expert Group on Sustainable Finance, Taxonomy technical report, June 2019; https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/190618-sustainable-finance-teg-report-taxonomy_en.pdf

given objective and specify the minimum requirements to avoid significant harm. They are also required to take into account the potential *'impact on capital markets'* of the transition, *'including the risk of certain assets becoming stranded as a result'* and *'their potential impact on the valuation of assets that until the adoption of the technical screening criteria were considered as environmentally sustainable assets under existing market practices.'*

At least one clear indication is provided on the future screening criteria: *'power generation activities that use **solid fossil fuels** are not considered environmentally sustainable.'* **Coal power generation is thus the ONLY activity explicitly excluded from the taxonomy**, whereas improving energy efficiency for oil could be allowed, for example.

It is worth noting that the original Commission's proposal⁹⁵ included activities *'phasing out anthropogenic emissions of greenhouse gases, including from fossil fuel'* that were deleted in the final compromise text, to be replaced by the narrower reference to only solid fossil fuels. The final compromise text also added the reference to land carbon sinks. Crucially, it also added the enabling and transitional activities that were not part of the original proposal.⁹⁶ Lobbyists 4 – Climate 0.

ii. Climate change adaptation

The activities considered to contribute substantially to climate change adaptation are as follows:

- ▣ activities that include adaptation solutions, substantially reducing the risk of an adverse impact or the adverse impact on the activity itself;
- ▣ activities that provide adaptation solutions that enable the above activities, and also contribute to preventing or reducing the risk of the adverse impact or the adverse impact itself.

In plain language, activities contributing to climate change adaptation include:

- ▣ economic activities improving their own resilience by adopting solutions that reduce the risk of adverse impacts or the extent of the impacts on themselves – for example a water utility adopting a flood early warning system, or an electricity company installing conductors with operating limits at higher temperature thresholds;
- ▣ economic activities developing the solutions that improve the resilience of other activities – for example, the company developing the technology for flood early warning systems, or developing drought resistant crops.

According to the TEG report,⁹⁷ this latter category would also include non-life insurance, i.e. insurance against droughts, floods, hurricanes, wildfires, sea level rise, etc. The report explains that insurance against climate-related hazard contributes to reduce physical climate risk in a number of ways, including by *'developing innovative risk transfer mechanisms as part of*

95 European Commission, Proposal for a regulation of the European Parliament and of the Council 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

96 The TEG report on the taxonomy had however recommended the inclusion of enabling and transitional activities; https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/190618-sustainable-finance-teg-report-taxonomy_en.pdf

97 TEG report on taxonomy, ibid

broader risk management solutions to help under-insured or uninsured communities to meet the challenges of a changing climate (for example, the Caribbean Catastrophe Risk Insurance Facility or the African Risk Capacity).'

iii. Sustainable use and protection of water and marine resources

These are activities that substantially contribute to a good quality or prevent the deterioration of surface waters, ground water and marine waters.

This can be achieved via several means, including '*ensuring the sustainable use of marine ecosystem services or contributing to good environmental status of marine waters, including by protecting, preserving or restoring the marine environment.*'

iv. Transition to a circular economy

Related activities include waste-prevention, re-use and recycling, including via reducing the use of primary raw materials or increasing the durability and reparability of products.

v. Pollution prevention and control

This category encompasses activities that prevent or reduce pollutant emissions other than GHG into air, water or land, or improve air, water or soil quality in the area where the economic activity takes place.

vi. Protection and restoration of biodiversity and ecosystems

These are activities that contribute substantially to '*protecting, conserving or restoring biodiversity*' and ecosystems through a number of means, including conservation of ecosystem to '*enhance their capacity to provide services*,' sustainable land use and management including '*land degradation neutrality*' and sustainable agricultural practices contributing to '*enhancing biodiversity*'. Activities enabling all of the above are also part of this category.

The Commission will adopt delegated acts establishing technical screening criteria by 31 December 2021.

By that date, the Commission will also publish a report assessing the possible extension of the scope of this regulation beyond environmentally sustainable economic activities and to activities that do not have a significant impact on environmental sustainability, as well as to activities that do significantly harm environmental sustainability, and to cover as well social objectives by 2026.

The extension to social objectives reflects the fact that the current focus of the taxonomy is on the 'E' part of ESG. It is, however, expected that such an extension would be fairly contentious, as it could be instrumentalized to replace existing social standards and regulations by market-based incentives, and expand the concept of natural capital to that of human capital.⁹⁸

The European Parliament is given two ways to influence the future technical screening criteria: it can veto the adoption of delegated acts by expressing an objection within two months of notification of that act. It can also revoke at any time the delegation of powers to the Commission to adopt delegated acts.

⁹⁸ World Bank, Human capital; <https://www.worldbank.org/en/publication/human-capital>
Social and Human Capital Coalition; <https://social-human-capital.org/social-human-capital/>

b. A taxonomy whose ambition and timing are not aligned with the science

The new EU sustainable finance agenda is in essence mostly a **very broad quality label with attached subsidies**.

It is based on assumptions of continued economic growth and decoupling that have been debunked, which means that it promotes a greater consumption of energy and resources.

The inclusion of brown ‘enabling’ and ‘transitional’ activities - the latter under a best-in-class approach only requiring activities to be ‘beyond industry average’ - means that the taxonomy will foster a very wide scope of activities going much beyond green activities.

In fact, we are told by the TEG report that *‘the taxonomy will provide a wider investment universe than is currently available under traditional ‘green’ investment criteria.’*⁹⁹ As the current universe of green investment products is widely acknowledged to include a significant proportion of greenwashing, a new universe that would be wider – not narrower - is a serious concern and potentially contradicts the objective to curb greenwashing.

As the taxonomy and broader sustainable finance agenda are essentially about setting up a label and giving subsidies but not about banning anything, one might have expected a robust and strict list of purely green economic activities – the remaining activities being allowed to continue as usual outside the framework. Instead, the choice has been made to expand the scope way beyond green activities.

The likely allowance for securitisation within the forthcoming Green Bond Standard would aggravate the issue, as this financing technique would provide *‘greenness enhancement’*. Just as traditional securitisation transformed risky loans into AAA rated securities thanks to financial engineering techniques such as overcollateralization or tranching, green securitisation could use similar mechanisms to transform offset projects and activities of dubious environmental integrity into green labelled financial products.

No activity is banned or curbed – except for coal, the phasing out of fossil fuels emissions has been removed from the final text, and financial penalties for brown economic activities mirroring the subsidies for green ones are entirely missing.

The **timing of the agenda also raises concerns**: The technical screening criteria for climate change mitigation and adaptation will be adopted on 31 December 2020 for entry into application on 31 December 2021, while those for water management, pollution control and biodiversity protection will be adopted on 31 December 2021 for entry into application on 31 December 2022. They will then need to be implemented in the future Green Bond Standard and Ecolabel on financial products, both of which await a regulation proposal.

Assuming the tremendous success and uptake of the new green bonds and ecolabel, we could then reasonably expect significant capital flows shifting from 2022 and 2023 onwards to the most profitable economic activities within the taxonomy. Only coal should directly suffer from financing issues. In practice, we are likely to see some increased financing for wind turbines and solar panels, but mostly **capital flows shifting from financing cement and steel manufacturing, cattle farming, data hosting and passenger cars to financing the best-in-class cement and steel manufacturers, cattle farms, data centres and cars**. In turn, this is likely to incentivise primarily maintenance and efficiency improvements over a shift to green technologies and a reduction in energy and natural resources consumption.

99 TEG report, ibid

It will also likely lead to a **boost in financing flows for carbon sequestration**. As we will discuss in the next section, if used to compensate for fossil fuel emissions, it is likely to have at best a marginal impact and at worst lead to a net increase in GHG emissions, given the documented track record of carbon offsetting.

The requirements for the technical screening criteria to prevent a negative impact on existing green investment products, capital markets and to avoid stranded assets indicate a choice to favour a soft approach with a **limited impact by design**, over designing a new sustainable finance strategy that would be a radical departure from the existing one.

In addition, past experience suggests that this taxonomy and related proposals are likely to **strengthen the opposition to stricter environmental policies**, under the argument that the issue is already being addressed, thus further weakening the political momentum for phasing out fossil fuels.

While we have no issue per se with a very broad taxonomy, **the only relevant question is whether it is compatible with what the science tells us we need to do and by when**. In this respect, it is unclear how we can reconcile these proposals with the IPCC 2018 report that stated that *'to keep warming under 1.5°C, countries will have to cut global CO₂ emissions 45 percent below 2010 levels by 2030 and reach net zero by around 2050.'*¹⁰⁰

According to the earlier 2014 IPCC assessment report, there were around 120 gigatons of CO₂ remaining from the beginning of 2018 – or around **three years of current emissions – for a 66% chance of avoiding 1.5°C warming**.¹⁰¹

The IPCC's 2018 report revised up the budget for a **66% chance of avoiding 1.5°C warming to 420GtCO₂ – or 10 years of current emissions**, but only as it **compensated by the large-scale use of negative emissions in the future**.

Indeed, according to prominent climate experts, **the models on which IPCC relies 'assume a large-scale use of negative emission technologies (...)** *In many scenarios, the level of negative emissions is comparable in size with the remaining carbon budget.'* *'If we rely on these and they are not deployed or are unsuccessful at removing CO₂ from the atmosphere at the levels assumed, society will be locked into high temperature pathway.'* *'It is not well understood by policy-makers, or indeed many academics, that [Integrated Assessment Models] IAMs assume such a massive deployment of negative-emission technologies.'*¹⁰²

BECCS,¹⁰³ one of the major negative emission technologies has failed to demonstrate technical and economic viability despite two decades of research and pilot plants, yet many scenarios propose its mature and large-scale roll out as soon as 2030. Moreover, the scale of biomass assumed in models – typically, one to two times the area of India – raises profound questions about carbon neutrality, land availability and competition with food production.

Negative-emission technologies are thus 'not an insurance policy, but rather an unjust and high-stakes gamble. There is a real risk they will be unable to deliver on the scale of their

100 IPCC special report Global Warming of 1.5 °C; <https://www.ipcc.ch/sr15/>

101 Carbon Brief Analysis, Analysis: Why the IPCC 1.5C report expanded the carbon budget, 8 October 2018; <https://www.carbonbrief.org/analysis-why-the-ipcc-1-5c-report-expanded-the-carbon-budget>

102 Anderson K, Peters G, The trouble with negative emissions, 13 October 2016, Science; <http://smartstones.nl/wp-content/uploads/2016/12/Kevin-Anderson-2016.10.13-the-Trouble-with-Negative-Emissions-Science-2016.pdf>

103 Bio-energy with carbon capture and storage is the process of extracting bio-energy from biomass and capturing and storing the carbon, thus removing it from the atmosphere.

*promise (...) This is not to say that they should be abandoned, (...) but the mitigation agenda should proceed on the premise that they will not work at scale. The implications of failing to do otherwise are a moral hazard par excellence.*¹⁰⁴

What this means in practice is that depending on the assumptions made on the use of negative emissions, **our remaining carbon budget consists of between 3 and 10 years of current emissions. In other words, limiting global warming to 1.5°C requires immediately cutting drastically our emissions of greenhouse gases.** Practically this would require drastic new environmental policies immediately banning or severely curtailing the majority of brown economic activities in developed countries, where most of the emissions take place.

What 3 years left means is NOT that we can continue as usual for 3 more years, but instead that we need to start changing immediately, in order to spread and use frugally this remaining budget over the coming decades.

Compare that to the taxonomy - and more broadly the new EU sustainable finance agenda - that does not ban, curb or even financially penalise any activity except for coal, but instead subsidizes not only green activities, but also best-in-class brown activities. It seems fair to conclude that **the taxonomy is not compatible with the science in terms of ambition and timing**, and instead entrenches the status quo.

This is all the more problematic because this taxonomy will be used not only for the future Green Bond Standard and the future Ecolabel on retail savings products, but also likely by the European Central Bank for green Quantitative Easing policies.¹⁰⁵

c. Carbon sequestration & offsetting

The taxonomy proposal states that economic activities that contribute substantially to climate change mitigation include *‘the use of environmentally safe carbon capture and utilisation (CCU) and carbon capture and storage (CCS) technologies that deliver a **net reduction** in greenhouse gas emissions.’* They also include *‘strengthening land carbon sinks, including through avoided deforestation and forest degradation, restoration of forests, sustainable management and restoration of croplands, grasslands and wetlands, afforestation, and regenerative agriculture.’*

It is widely acknowledged that **reducing greenhouse gas emissions will no longer be enough to prevent climate change.** Whilst a fully decarbonised energy system is achievable, emissions cannot be reduced to zero in some sectors.¹⁰⁶ As a result, it is necessary to absorb part of the greenhouse gases already from the atmosphere. This is commonly known as ‘negative emissions’ or carbon sequestration, whether CO₂ is stored in trees and soil or in geological formations.

Capture and storage of CO₂ in geological formations is however controversial for a number of reasons: it’s expensive, unproven, and according to researchers at Duke University, there’s the troubling **possibility that captured carbon could leak into groundwater aquifers,**

104 Anderson K, Peters G, supra

105 Christine Lagarde: *‘I can’t see one reason why the taxonomy determined by the European Parliament would not become the rule that the ECB must respect.’*; https://www.youtube.com/watch?time_continue=59&v=7yweCsuxcZI&feature=emb_logo

106 Anderson K, Brief response to the UK Government’s “net-zero” proposal, June 2019; <https://kevinanderson.info/blog/brief-response-to-the-uk-governments-net-zero-proposal/>

potentially rendering water undrinkable.¹⁰⁷ Captured carbon **could also leak into the atmosphere**, thereby compromising climate mitigation.¹⁰⁸ Two major cases of leakage have already occurred. The first one occurred in 1986, when naturally sequestered CO₂ rose from a lake in Cameroon and asphyxiated 1,700 people. A 2011 study also found evidence of CO₂ leakage in the land above the world's largest carbon capture and storage site in Canada.¹⁰⁹ Beyond the risks of leakage, CCS has documented adverse environmental effects such as the additional use of chemicals, and reductions in air quality.

As for carbon sequestration in soils and trees, **protecting natural forests and planting trees to absorb CO₂ in itself is a good thing** – provided that it is not mono-culture tree plantation.¹¹⁰ There are nevertheless **3 major issues with carbon sequestration in soils and trees**:

- i. **There is considerable evidence that storing carbon in soils and trees is not permanent and highly uncertain.**¹¹¹

Not only are we unable to accurately measure the impact of the projects due to the incredibly high scientific uncertainty, but there is also the very real possibility that stored carbon will be released again after only a short time when trees are cut or burnt, leading to an increase of cumulative atmospheric GHG within a relatively short time frame.

Calculating the impact of carbon sequestration projects would require being able to determine with reasonable certainty a hypothetical world without the project and then assign a single number to the greenhouse gas emissions associated with that world over the next 100 years – the approximate residence time of carbon dioxide in the atmosphere. To put in perspective the staggering level of uncertainty involved, *'if you can imagine Marconi and the Wright brothers getting together to discuss whether in 2009, EasyJet and the internet would be facilitating each other through internet booking, that's the level certainty you'd have to have over that period. You cannot have that.'*¹¹²

107 Fast Company, Schwartz A, The Problem With Carbon Capture: CO2 Doesn't Always Stay Captured, 19 November 2010; <https://www.fastcompany.com/1704105/problem-carbon-capture-co2-doesnt-always-stay-captured>
Barringer F, The New York Times green blog, What if Captured Carbon Makes a Getaway? 19 November 2010; <https://green.blogs.nytimes.com/2010/11/19/what-if-captured-carbon-makes-a-getaway/>

108 Phelps J, Blackford J, Holt J, Polton J, Modelling large-scale CO₂ leakages in the North Sea, International Journal of Greenhouse Gas Control Volume 38, July 2015; <https://www.sciencedirect.com/science/article/pii/S1750583614003144?via%3Dihub>
IPCC Special Report. Carbon Dioxide Capture and Storage. Technical Summary, <http://docplayer.net/20437054-1pcc-special-report-carbon-dioxide-capture-and-storage-technical-summary.html>

109 Geochemical soil gas survey A Site Investigation of SW30-5-13-W2M Weyburn Field, SASKATCHEWAN, 27 August 2010; <https://www.gasoilgeochem.com/reportcameron%20jane%20kerr.pdf>

110 *'Plantations are the most popular restoration plan: 45% of all commitments involve planting vast monocultures of trees as profitable enterprises. (...) Our research demonstrates that (...) land put aside for natural forests to return holds 40 times more carbon than plantations and 6 times more than agroforestry.'* The Conversation, the scandal of calling plantations 'forest restoration' is putting climate targets at risk, April 2019; <https://theconversation.com/the-scandal-of-calling-plantations-forest-restoration-is-putting-climate-targets-at-risk114858>

111 Carbon Market Watch, NOT SMART: climate smart agriculture in carbon markets, November 2014; <https://carbonmarketwatch.org/2014/11/25/promoting-climate-smart-agriculture-with-carbon-markets-would-not-be-a-smartmove/>
FERN, Misleading numbers – the case for separating land and fossil-based carbon emissions, January 2014; https://fern.org/sites/default/files/news-pdf/misleadingnumbers_full%20report.pdf
Hache, 50 shades of Green part II: the fallacy of environmental markets; <https://greenfinanceobservatory.org/wp-content/uploads/2019/05/50-shades-biodiversity-final.pdf>
Luoma J, China's Reforestation Programs: Big Success or Just an Illusion? Yale Environment 360, 17 January 2012; https://e360.yale.edu/features/chinas_reforestation_programs_big_success_or_just_an_illusion
Calma J, The Verge, If forests go up in smoke, so can carbon offsets, 13 September 2019; <https://www.theverge.com/2019/9/13/20859156/forests-fires-carbon-offsets-amazoncalifornia>

112 Lohman L, Uncertainty Markets and Carbon Markets: Variations on Polyanian Themes, New Political Economy; <http://www.thecornerhouse.org.uk/sites/thecornerhouse.org.uk/files/NPE2high.pdf>

This is also the reason why forest conservation was excluded from the UN Clean Development Mechanism, and the EU decided to ban offset credits from forestry and land use change activities in the European cap and trade market.¹¹³ And for very good reasons: there is an inherent high risk that forests do not represent real emission reductions due to the impermanence of forest carbon, inflated baselines, problematic additionality testing and difficult verification. It was also recently found that tropical forests no longer act as carbon sinks during droughts and can on the contrary become net carbon emitters.¹¹⁴ No explanation is however provided to explain what made the Commission change its mind.

For all these reasons, **carbon sequestration is not comparable to curbing fossil fuel emissions;** it should therefore only come in addition to emission reductions, and not be used to offset avoidable emissions.

ii. Carbon sequestration will in practice likely come INSTEAD OF and not IN ADDITION TO reductions in avoidable fossil fuel emissions.

While in theory carbon sequestration is not supposed to be used as a substitute for reducing avoidable emissions, in practice it can, and already is.

Many countries are planning to set or have already set net zero emission targets, to be reached by or before 2050.¹¹⁵ These net zero emissions national targets are based on the idea that *'if it proved impossible to reduce CO₂ emissions to zero, it would be necessary, in order to halt climate change, to absorb an amount of greenhouse gases from the atmosphere each year equivalent to those emissions that remained. This would bring the world to 'net zero' CO₂ emissions.'*¹¹⁶

The issue is that **net zero targets combine in one metric emission reductions and carbon sequestration, creating a strong risk that carbon sequestration will come instead of and not in addition to avoidable emission reductions,** if the former is cheaper and despite the many documented issues associated with it.

Evidence of this risk can already be seen in the following:

- ▣ As a prominent climate expert recently noted, the British Committee on Climate Change's *'latest report is relying on approximately 40% higher negative emission technologies by 2050 than in their previous analysis. As we fail on mitigation, we simply turn up the negative emission technologies' dial.*¹¹⁷

113 Carbon Market Watch, REDD, April 2013; <https://carbonmarketwatch.org/2013/04/09/redd/>

114 Huet, Le Monde blog, Les forêts tropicales ne capturent plus le CO₂, 30 July 2019; <https://www.lemonde.fr/blog/huet/2019/07/30/les-forets-tropicales-ne-capturent-plus-le-co2/>
Fan L & al, Satellite-observed pantropical carbon dynamics, nature plants, Septembre 2019; <https://www.nature.com/articles/s41477-019-0478-9.epdf>

In addition, according to a new study from the Peterson Institute, the amazon rainforest might become unable to trigger its own rain within 2 years, what it has always done through plant perspiration and evaporation. As a result, it could face major droughts and release millions of tons of CO₂. Clinkemaillié T, Les Echos, Déforestation : l'Amazonie pourrait être condamnée dès 2021, 24 October 2019; <https://www.lesechos.fr/amp/1142774>

115 Energy and climate intelligence unit, Countdown to zero, June 2019; https://ca1-eci.edcdn.com/reports/ECIU_Countdown_to_Net_Zero.pdf

116 Energy and climate intelligence unit, supra

117 Prof Kevin Anderson, <https://twitter.com/KevinClimate/status/1171852678403645442>

- ▣ A number of major oil¹¹⁸ and aviation¹¹⁹ companies have expressed a strong interest in planting trees to offset emissions, while **expanding their activities**.
- ▣ The recent Nature-Based Solutions for Climate Manifesto¹²⁰ developed for the UN climate action summit 2019 also pushed to **scale up exponentially nature-based solutions in Nationally Determined Contributions**¹²¹ without explicit requirements that they come in addition to emission reductions objectives. This would mean further increasing the ability of governments to meet their international climate commitments with carbon sequestration instead of reductions in avoidable fossil fuel emissions.
- ▣ Another recent initiative called ‘*markets for natural climate solutions*’¹²² was unveiled at the COP25. It called for the development of ‘**global markets for carbon credits** generated from Natural Climate Solutions’ – another new name for carbon sequestration in soils and trees¹²³ – in order to ‘**make a critical contribution to meeting the goals of the Paris Agreement.**’

In this respect, the reference in the taxonomy to ‘*carbon capture and storage technologies that deliver a net reduction in greenhouse gas emissions*’ without further explanation is a serious concern.

Carbon sequestration is also typically financed by the granting of tradable offset credits wrongly equating temporary sequestration with permanent fossil fuel emissions.¹²⁴ These credits can then be sold to fossil fuel emitters to ‘offset’ their own emissions. Yet there is a fundamental difference between capturing carbon in trees and soils where it is stored for a few decades at best, and emissions from fossil fuels which stay in the atmosphere for approximately 100 years.

118 ‘By planting trees, which absorb CO2 from the atmosphere, companies like Eni are looking to offset the pollution that their traditional operations create, while still looking to expand production of fossil fuels like oil and gas — arguing they need to meet growing demand in the developing world.’ Sheppard D, Hook L, Financial Times, Eni to plant vast forest in push to cut greenhouse gas emissions, 15 March 2019; <https://www.ft.com/content/7c4d944e-470d-11e9-b168-96a37d002cd3>
Reuters, Shell starts to offset some drivers’ carbon with new trees, 08 April 2019; <https://www.euronews.com/2019/04/08/shell-starts-to-offset-some-drivers-carbon-with-new-trees>

119 ‘The Carbon Offset Reduction Scheme for International Aviation aspires to the “carbon neutral emissions growth” of the global aviation industry, relying primarily on so called “alternative aviation fuels” (mostly biofuels) and carbon offsets, with a large proportion expected to come from forests and tree plantations’ Biofuelwatch, CORSIA: A false solution to the very real threat of emissions from aviation; <https://www.biofuelwatch.org.uk/2019/corsia-briefing/>

120 The Nature-Based Solutions for Climate Manifesto, developed for the UN Climate Action Summit 2019, 14 August 2019; <http://wedocs.unep.org/xmlui/bitstream/handle/20.500.11822/29705/190825NBSManifesto.pdf>

121 Nationally Determined Contributions are the efforts by each country to reduce national emissions and adapt to the impacts of climate change in the context of the Paris Agreement. The list of contributions received under the Nature-Based Solutions initiative already includes projects promoting carbon offset credits and calling for the inclusion of Nature-Based Solutions in carbon markets and Countries’ Nationally Determined Contributions. While it is stated that such proposals should be used only to compensate for emissions that are unavoidable and must address the concerns associated with carbon credits, nothing guarantees that this will be the case.

UN Environment, NBS contribution platform: <https://www.unenvironment.org/nbs-contributions-platform>

The REDD+ Acceleration Facility (RAF): Scaling Finance for Tropical Forest Protection (EDF):

https://wedocs.unep.org/bitstream/handle/20.500.11822/28872/REDD_Acceleration.pdf

UN-REDD: Supporting countries with complex policy and institutional reforms to scale up climate actions and ambitions on sustainable land and forest management, conservation and restoration.

https://wedocs.unep.org/bitstream/handle/20.500.11822/28792/UNREDD_climate.pdf

The Architecture for REDD+ Transactions (ART): Attracting New Investment to Protect and Restore Forests:

https://wedocs.unep.org/bitstream/handle/20.500.11822/28932/Architecture_REDD%2b.pdf

Natural Climate Solutions Alliance (convened by WEF, WBCSD, N4C):

<https://wedocs.unep.org/bitstream/handle/20.500.11822/29770/NCSA.pdf>

122 Markets for Natural Climate Solutions is a new initiative from The International Emissions Trading Association, whose committee members include BHP, BP, Chevron and Shell. IETA, Markets for Natural Climate Solutions; <https://www.ncs.ieta.org/>

123 Natural Climate Solutions; <https://www.naturalclimate.solutions/#breakdown>

124 France 3 Bretagne, L’élevage va recevoir un label pour vendre ses crédits carbone; <https://france3-regions.francetvinfo.fr/bretagne/elevage-va-recevoir-label-vendre-ses-credits-carbone-1721381.html>

The appalling track record of carbon offsets has been amply documented,¹²⁵ including by the 2017 study¹²⁶ published by the European Commission finding that 85% of the carbon offset projects used by the EU under the UN's Clean Development Mechanism had failed to reduce emissions. It has also been found that *'in the EU alone, emissions increased by over 650 million tonnes of CO₂ as a result of the use of CDM credits in the EU Emissions Trading System. This is because an overwhelming majority of CDM projects essentially issue 'junk' credits that do not lead to real-world emission reductions.'*¹²⁷

iii. Large-scale forest carbon sequestration could cause food prices to skyrocket

A recent study published in the journal *Environmental and Resource Economics*¹²⁸ found that *'meeting half the Paris Agreement's goal for atmospheric carbon reduction would send food prices soaring, especially in developing economies. In some places, food prices would get so high that it would never happen (...) Significant forest carbon sequestration leads to reductions in food supply at the same time we're expecting population increases. This is a simple supply and demand problem.'*¹²⁹ As forest carbon sequestration competes with cropland, it can at best only be a small piece of the puzzle. As one of the authors of the study put it, *'if we want to be serious about climate change, there is no way around reducing emissions.'*¹³⁰

Last but not least, **carbon offsetting is already so much cheaper than curbing fossil fuel emissions, that there is no obvious need to further foster it** through inclusion in quality labels and subsidies. On the contrary, doing so might arguably further disincentivize curbing fossil fuel emissions.

We therefore believe that **carbon sequestration should only be included in the taxonomy under the strict conditions that it is not used to offset avoidable fossil fuel emissions and that it is not financed by offset market schemes.** Unless these conditions are met, there is a risk that the inclusion of carbon sequestration could contradict the 'do not harm' principle, by causing *'more harm to the environment than the benefits it brings,'* considering the appalling track record of carbon offsetting.

We strongly hope that the forthcoming technical screening criteria will include these restrictions, in order to refocus climate change mitigation on reducing fossil fuel emissions.

d. Fostering biodiversity offsetting and the monetary valuation of nature

Article 11 of the taxonomy on protecting and restoring biodiversity and ecosystems includes a **number of specific keywords and references that clearly indicate that the taxonomy fosters**

125 Hache F, 50 shades of green: part I carbon, ibid

126 Öko Institut, Study prepared for DG CLIMA, How additional is the Clean Development Mechanism?, March 2016; https://ec.europa.eu/clima/sites/clima/files/ets/docs/clean_dev_mechanism_en.pdf

127 Carbon Market Watch, Open letter to ICAO council representatives & national delegates on ending the Clean Development Mechanism, 29 October 2018; <https://carbonmarketwatch.org/publications/open-letter-to-icaocouncil-representatives-nationaldelegates-on-ending-the-clean-development-mechanism/>

128 Peña-Lévano L.M., Taheripour F., Tyner W.E., Climate Change Interactions with Agriculture, Forestry Sequestration, and Food Security, *Environmental and Resource Economics*, October 2019, Volume 74, Issue 2, pp 653–675; <https://link.springer.com/article/10.1007%2Fs10640-019-00339-6>

129 Wallheimer B, Large-scale forest carbon sequestration could cause food prices to skyrocket, *Phys.org*, 23 April 2019; <https://phys.org/news/2019-04-large-scale-forest-carbon-sequestration-food.html>

130 Wallheimer B, supra

biodiversity offsetting.¹³¹ ‘restoring’ and ‘enhancing’ biodiversity, ‘ecosystem services’ and ‘land degradation neutrality’ are indeed all words belonging to the natural capital approach to nature, that reframes ecosystem functions as services contributing to human well-being, valued in monetary terms, and reframes biodiversity conservation from protection to offsetting its destruction via the restoration or enhancement of degraded areas.

‘Land degradation neutrality’ is a UN concept defined as *‘a unique approach that counterbalances the expected loss of productive land with the recovery of degraded areas.’*¹³² In other words, it aims at offsetting future land degradation with actions to restore degraded areas. It is therefore similar to the Commission’s concept of ‘No Net Loss’ of biodiversity¹³³ that replaced the earlier ‘No Loss’ objective, and also similar to the concept of net zero targets for GHG emissions.

Recital 19 of the taxonomy confirms the likely inclusion of biodiversity offsetting by stating that the environmental objective of protection and restoration of biodiversity and ecosystems should be interpreted in line with existing EU regulations, including ‘Our life insurance, our natural capital: an EU biodiversity strategy to 2020’ and ‘Green Infrastructure – Enhancing Europe’s natural Capital.’ These 2 communications call to **‘give a proper value to ecosystem services,’**¹³⁴ rely on ‘nature-based solutions’, factor *‘the economic value of biodiversity (...) into decision-making and (...) accounting systems’*, develop **‘innovative financing mechanisms, including market-based instruments’** and state that **‘the potential of biodiversity offsets will be looked into as a way of achieving a ‘no net loss’ approach.’**¹³⁵

Such an approach is not surprising as it has been promoted by the European Commission for a decade, from a project to put a monetary value on biodiversity¹³⁶ to a **failed attempt at introducing ‘habitat banking’**¹³⁷ – an extreme form of biodiversity offsetting – in the Habitat

131 Biodiversity offsetting refers to actions aimed at compensating for habitat and biodiversity destruction taking place at a different time and place. Hache F, 50 shades of green part II: the fallacy of environmental markets; <https://greenfinanceobservatory.org/wp-content/uploads/2019/05/50-shades-biodiversity-final.pdf>

132 United Nation, Convention to combat desertification, The LDN Fund: An Impact Investment Fund for Land Degradation Neutrality; <https://www.unccd.int/actions/achieving-land-degradation-neutrality>

133 European Commission, No Net Loss; https://ec.europa.eu/environment/nature/biodiversity/nnl/index_en.htm

134 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Green Infrastructure (GI) — Enhancing Europe’s Natural Capital, 6 May 2013; https://eur-lex.europa.eu/resource.html?uri=cellar:d41348f2-01d5-4abe-b817-4c73e6f1b2df.0014.03/DOC_1&format=PDF

135 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Our life insurance, our natural capital: an EU biodiversity strategy to 2020, 3 May 2011; <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52011DC0244&from=EN>

136 Wejchert Jakob, The KIP INCA project, European Commission – DG Environment; https://circabc.europa.eu/sd/a/c4e84b4e-0a6f-4fdb-8626-5f78eb0eb294/4_KIP%20INCA_ENV.pdf

137 Habitat banking is an extension of biodiversity offsetting, turning offset projects into financial assets that can be traded as the nature, scale and location of compensation projects can differ from the specific resources or services damaged. To fully understand it, let us take the example of an infrastructure company planning on building a new airport in the South of Spain, and doing so would destroy a natural habitat for a rare species of flamingos. While traditional environmental regulation might require the company to build the airport elsewhere, biodiversity offsetting would allow the project, provided the company first tried to avoid the negative impact on biodiversity, then minimized the impact that cannot be avoided, and then offset any residual impact by recreating a habitat for the same species within a few kilometres. Habitat banking on the other hand could require the company to offset the residual impact not within a few kilometres but somewhere in Europe, and not specifically by recreating a habitat for flamingos but more broadly by providing an ecosystem service of equivalent monetary value. The company could for example compensate for the destruction of the flamingo habitat in Spain by creating a habitat for an endangered bat species in Romania. See Hache F, 50 shades of green part II: the fallacy of environmental markets.

and Birds directives in 2014.¹³⁸

Such an approach would also be consistent with a number of other recent initiatives, such as the European Parliament resolution on the CBD COP15 that called to enshrine *‘the objective of restoring at least 30 % of degraded ecosystems’* in the post 2020 framework and *‘promote the establishment of additional international financial mechanisms for biodiversity protection and conservation linked to the CBD.’*¹³⁹ It would also be consistent with the EU Green Deal’s call to *‘protect, conserve and enhance the EU’s natural capital,’*¹⁴⁰ and the Council’s calls to *‘incorporate the value of biodiversity’* and *‘promote (...) nature-based solutions fostering biodiversity.’*¹⁴¹

All of this seems aligned with the forthcoming post-2020 biodiversity framework to be unveiled at the UN CBD COP15, whose early draft stated that *‘governments and societies need to (...) internalize the value of nature’*¹⁴² and rely on *‘nature-based solutions’* for climate change mitigation, adaptation and clean water.

While an international market framework on biodiversity offsetting might be created at the CBD COP15 conference, **the real game changer would be a new EU biodiversity regulation mandating the restoration of 30% of degraded land, together with a new market-based scheme to finance it**, as such a requirement would create the demand for a new biodiversity offset market, just as the EU Emissions Trading Scheme created the demand for carbon credits.

This is arguably what the European Parliament called for in its resolution on the CBD COP15. Likewise, a leaked draft of the EU 2030 biodiversity strategy called for a *‘dedicated nature restoration plan that will improve the conservation trend or status of at least 30% of the habitats and species.’*¹⁴³ *‘By 2021, the Commission will propose an EU legal framework for restoration of healthy ecosystems with a view to setting (...) a legally binding EU restoration target.’* The strategy draft also included a commitment to *‘land degradation neutrality’* by 2030 and stated that *‘the use of market-based instruments will be encouraged at the European semester,’* highlighting that *‘markets should send the correct price signals and so protect biodiversity.’*

There is therefore **hardly any doubt that the taxonomy fosters the monetary valuation of nature and market-based solutions for biodiversity; the real question is thus whether it will be another push for habitat banking or instead for another form of biodiversity offsetting.**

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- 138 Eftec, IEEP et.al (2010) The use of market-based instruments for biodiversity protection –The case of habitat banking – Technical Report; http://ec.europa.eu/environment/enveco/pdf/eftec_habitat_technical_report.pdf
This was followed by a 2016 report to the European Commission on No Net Loss stating that *‘to make a significant contribution to the NNL initiative, offsetting would need to be mandatory rather than reliant on an enhanced voluntary approach’* and require new legislation such as *‘mandatory requirements to offset significant losses of scarce biodiversity and ecosystem services. (After 2020)’* Institute for European Environmental Policy, Supporting the Elaboration of the Impact Assessment for a Future EU Initiative on No Net Loss of Biodiversity and Ecosystem Services, April 2016; https://ec.europa.eu/environment/nature/biodiversity/nnl/pdf/NNL_impact_assessment_support_study.pdf
Neslen Arthur, Conservationists declare victory for wildlife as EU saves nature directives, The Guardian, December 2016; <https://www.theguardian.com/environment/2016/dec/07/eu-nature-directives-birdshabitats-directives>
Morgan Sam, EU decides against tinkering with flagship nature directives, Euractiv, December 2016; <https://www.euractiv.com/section/climate-environment/news/eu-decides-against-tinkering-with-flagship-nature-directives/>
- 139 European Parliament, Motion for a resolution on the 15th meeting of the Conference of Parties (COP15) to the Convention on Biological Diversity (2019/2824(RSP)); https://www.europarl.europa.eu/doceo/document/B-9-2020-0035_EN.html
- 140 European Commission, Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions on the European Green Deal, 11 December 2019; https://ec.europa.eu/info/sites/info/files/european-green-deal-communication_en.pdf
- 141 Council of the European Union, Preparation of the post-2020 global biodiversity framework Convention on Biological Diversity (CBD) - Council conclusions, 19 December 2019; <https://data.consilium.europa.eu/doc/document/ST-15272-2019-INIT/en/pdf>
- 142 Convention on biological diversity, Zero draft of the post-2020 global biodiversity framework, 6 January 2020; <https://www.cbd.int/doc/c/efbo/1f84/a892b98d2982a829962b6371/wg2020-02-03-en.pdf>
- 143 EU 2030 biodiversity strategy leaked draft. The official biodiversity strategy is expected to be unveiled on 25 March 2020.

This is a serious concern for several reasons: first, **biodiversity offsetting has an appalling environmental and social track record. A number of studies have evidenced that the majority of biodiversity offset projects fail to restore biodiversity.** In Australia, a report by the Nature Conservation Council¹⁴⁴ found that *‘in 75% of cases, offsets resulted in “Poor” or “Disastrous” outcomes for wildlife and bushland, while only 25% resulted in “Adequate” outcomes. None resulted in “Good” outcomes for nature.’* It concluded that instead of helping, offsetting pushes species to the brink, adding *‘extinction pressure to the very species these schemes are supposed to protect.’*¹⁴⁵

Another study analysing 558 offset projects between 1990-2011 found that despite offset attempts, the net loss of habitats was 99%. More broadly, a study looking at a broad range of restoration projects around the world found that up to two-thirds of offsets aiming to restore an ecosystem were unsuccessful.¹⁴⁶ The figure was even higher for offsets that created ecosystems from scratch.¹⁴⁷

Biodiversity offsetting has also already **been documented to lead in many cases to land grabbing, community displacements and human rights abuses.**¹⁴⁸ On a big enough scale, biodiversity offsetting would as well likely **exacerbate conflicts for land use and land ownership.**¹⁴⁹

144 Nature Conservation Council of NSW, Paradise Lost - The weakening and widening of NSW, biodiversity offsetting schemes, 2005-2016, 2016; https://www.nature.org.au/media/265228/bio-offsetting-report_v14.pdf

145 Hunter Valley News, Nature Conservation Council believes offsetting pushing species to the brink, March 2017; <https://www.huntervalleynews.net.au/story/4518198/new-study-finds-development-trumps-environment/>
Scientific evaluation studies also found that 2/3 of expected offsets completely failed to materialize in Australia. Source: Nordic Council of Ministers, Planning biodiversity offsets – Twelve Operationally Important Decisions, 2018; <https://norden.diva-portal.org/smash/get/diva2:1201285/FULLTEXT01.pdf>
also see Astier M, Reporterre, Grands projets destructeurs : l'esbroufe de la « compensation écologique »; <https://reporterre.net/Grands-projets-destructeurs-l-esbroufe-de-la-compensation-ecologique>
Loury R, Euractiv, La compensation de la biodiversité ne marche pas, 6 September 2019; <https://www.euractiv.fr/section/plan-te/news/la-compensation-de-la-biodiversite-ne-marche-pas/>

146 FERN, Briefing note 3: Biodiversity offsetting in practice, Jan 14

147 Suding, K.N, Toward an era of restoration in ecology: successes, failures and opportunities ahead. Annu. Rev. Ecol. Evol. Syst. 42, 465–487, 2011; http://nature.berkeley.edu/sudinglab-wp/wp-content/uploads/2012/09/Suding_2011_AREES.pdf

148 As much has already been written on these topics we chose not to expand and instead provide references: Kill Jutta, Franchi Giulia, Rio Tinto's biodiversity offset in Madagascar – Double landgrab in the name of biodiversity?, World Rainforest Movement, Re:Common, March 2016; https://wrm.org.uy/wp-content/uploads/2016/04/RioTintoBiodivOffsetMadagascar_report_EN_web.pdf
Vidal John, The Guardian, The tribes paying the brutal price of conservation, August 2016; <https://www.theguardian.com/global-development/2016/aug/28/exiles-human-cost-of-conservation-indigenous-peoples-eco-tourism>
Re:common, Turning forests into hotels The true cost of biodiversity offsetting in Uganda, Apr 2019; <https://www.recommon.org/eng/turning-forests-into-hotels-the-true-cost-of-biodiversity-offsetting-in-uganda/>
Friends of the Earth UK, New tricks: biodiversity offsetting and mining, February 2019; <https://policy.friendsoftheearth.uk/publications/new-tricks-biodiversity-offsetting-and-mining>
IWGIA, New green powers in the global land grab violate indigenous peoples' rights, October 2017; <https://www.iwgia.org/en/focus/land-rights/2520-new-green-powers-in-the-global-land-grab-violate-indigenous-peoples-rights>
International Institute for Environment and Development, 'Land grabbing': is conservation part of the problem or the solution?, September 2013; <https://pubs.iied.org/pdfs/17166IIED.pdf>
Global Witness, Defenders of the Earth - Global killings of land and environmental defenders in 2016, 2017; https://www.globalwitness.org/documents/19122/Defenders_of_the_earth_report.pdf.pdf
Carbon Trade Watch, A tree for a fish, December 2014; http://www.carbontradewatch.org/downloads/publications/CTW_A_Tree_for_a_Fish-EN.pdf

149 Kill J, Regulated destruction of biodiversity, Heinrich Böll Stiftung, Nov 2018; <https://www.boell.de/en/2018/11/29/regulated-destruction-biodiversity>
A 2018 global assessment of biodiversity offsetting *‘found that the total area managed for conservation under biodiversity offsets was roughly 150,000 square kilometres (with large uncertainty around this number because data is difficult to come by) – an area the size of Bangladesh.’* Ermgassen S, Bull JW, The Conversation, Can we really restore or protect natural habitats to ‘offset’ those we destroy? 5 August 2019; <https://theconversation.com/can-we-really-restore-or-protect-natural-habitats-to-offset-those-we-destroy-121213>;
Bull JW, Strange N, The global extent of biodiversity offset implementation under no net loss policies, Nature Sustainability, 23 November 2018; <https://www.nature.com/articles/s41893-018-0176-z>

As or more importantly, **biodiversity offsetting has been shown to have unsolvable conceptual issues,**¹⁵⁰ **making it a broken policy tool** that will never be able to achieve its environmental objectives:

- ▣ **It is not possible to create financial markets for public goods such as most ecosystem services.**¹⁵¹ As an example, it is not possible to create a market for the protection provided by the ozone layer, as my benefiting from UV protection provided by the ozone layer does not prevent anyone else from benefiting from it, and as it is impossible to prevent people who haven't paid from benefiting from it.
- ▣ High scientific uncertainty and incomplete scientific knowledge mean that **we are unable to measure accurately what is lost and gained.** The best scientists are unable to describe all the benefits of a given species or ecosystem or the impacts of human activities on them.¹⁵² This is because ecosystems exhibit highly complex, non-linear and evolving behaviour, some of which is beyond our perception, and where everything is connected to everything else.
- ▣ We are **unable to recreate comprehensively the ecosystem functions destroyed,**¹⁵³ **and thus unable to offset.**
- ▣ **All monetary valuation methodologies exhibit major well-known flaws and biases, making the values produced meaningless**¹⁵⁴ and related market-prices highly uncertain.
- ▣ **Money as a common metric fosters a dangerous illusion of substitutability** between critical ecosystem functions that are essential for our survival and for which substitution is difficult or impossible. As recognized by the UN,¹⁵⁵ comparing the monetary value of different services may lead to the misleading conclusion that sustainability only requires to maintain the overall value, leading to wrong policy decisions and the destruction or irreplaceable functions.

150 Hache F, 50 shades of green part II: the fallacy of environmental markets.

151 'Markets are only possible when resources are excludable, markets are only efficient when resources are rival. For many services such as climate stability, the role of biodiversity in supporting all services, gas regulation, protection from UV radiation (..), non-excludability is a physical characteristic and not a policy variable. Open access use is unavoidable.' 'One function of price is to ration the use of resources, but if use of a non-rival resource does not diminish the quantity available, if use provides utility and the goal is to maximize utility, then using prices to ration consumption is inefficient. In other words, markets lead to a suboptimal supply of nonexcludable resources and suboptimal demand for nonrival resources.' Farley J, The Role of Prices in Conserving Critical Natural Capital, Conservation Biology 22:6, 1399-1408, 2008; <https://www.ncbi.nlm.nih.gov/pubmed/19076873>

152 'The precise contribution of a functional element in the ecosystem is not known—indeed is probably unknowable—until it ceases to function'—and even then, with a sample size of one unique ecosystem, the resulting knowledge is merely anecdotal.' Vatn A, Bromley D W, Choices Without Prices Without Apologies, Journal of Environmental Economics and Management, Volume 26, Issue 2, March 1994, Pages 129-148; <https://www.sciencedirect.com/science/article/abs/pii/S0095069684710084>

153 'Unlike a building that can be retrofitted for sustainability, once habitat is destroyed it might be impossible to reconstruct. Revegetation and restoration can increase tree cover and create habitat for some species. However, to date recreation of ecosystems with all component species and functions has proved prohibitively expensive or impossible (Wilkins et al. 2003). Bekessy Sarah A., et al. The biodiversity bank cannot be a lending bank, Conservation Letters 3, 151-158, 20190; <https://onlinelibrary.wiley.com/doi/full/10.1111/j.1755-263X.2010.00110.x> 'Major restorations should not be considered an 'offset' to reductions in ecosystem assets due to harvesting of timber and other resources in other ecosystem assets, since the impacts on the flows of ecosystem services from different ecosystem assets are not likely to be directly comparable.' United Nations, System of Environmental Economic Accounting 2012 – Experimental Ecosystems Accounting, 2014; <https://ec.europa.eu/eurostat/documents/3859598/6925551/KS-05-14-103-EN-N.pdf>

154 Hache F, 50 shades of Green part II: the fallacy of environmental markets pages 38-47; <https://greenfinanceobservatory.org/wp-content/uploads/2019/05/50-shades-biodiversity-final.pdf> Also, according to the British office of national statistics, 'the total asset value of the UK's natural capital is estimated to be £951 billion, in 2016,' less than 1 year of GDP. Such a figure illustrates the meaninglessness of environmental accounting, and how it can be used to justify destroying all of nature. Office for National Statistics, UK natural capital accounts: 2019; <https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/uknaturalcapitalaccounts/2019>

155 United Nations, System of Environmental Economic Accounting 2012 – Experimental Ecosystems Accounting, 2014; <https://ec.europa.eu/eurostat/documents/3859598/6925551/KS-05-14-103-EN-N.pdf>

- ▣ **Most valuation frameworks value only some ecosystem services while ignoring the others,¹⁵⁶ wilfully ignore services that do not benefit humans today, and ignore as the crucial interdependencies** between ecosystem services for simplicity purposes. Yet ecosystems function as coherent holistic systems in which the different elements depend upon each other. **As a consequence, what is being valued is not biodiversity, nor even a proxy.**
- ▣ **Most crucially, the whole premise of offset markets rests on 2 flawed core concepts:** as natural resources decline, the price of biodiversity destruction permits is expected to increase gradually, providing an incentive to curb biodiversity loss; this is called a price signal. For it to exist, prices need to follow a gradual and observable uptrend trend. Yet, in reality prices are extremely volatile due to financial speculation, the main activity of financial markets, and they will become more and more volatile as we approach the end of natural resources. As a result, it has been demonstrated¹⁵⁷ that it is impossible to observe any trend on prices. In other words, **there is no price signal.** The large fluctuations of prices also mean that there will always be a moment where it is more profitable to destroy nature than to protect it.¹⁵⁸

Secondly, offsetting relies on the idea that we are able to measure additionality - the impact of offset projects compared to what would have happened without the projects. It has however been demonstrated¹⁵⁹ that **in most cases additionality cannot be measured accurately**, due to the extreme scientific uncertainty involved and to our incomplete scientific knowledge.

The inexistence of a price signal and the inability to calculate accurately additionality mean that financial markets on biodiversity and other ecosystem services will never be able to achieve their environmental objectives.

In addition, biodiversity as an asset class would likely create moral hazard and financial stability issues.¹⁶⁰ While this may sound like a faraway prospect, the financial sector is increasingly preparing for it. As an example, Goldman Sachs recently announced that is targeting \$750 billion in sustainable finance growth themes by 2030, stating on its website that *'through our work in ecosystem services we are monetizing the value of forests, water, and biodiversity and contributing to the sustainable management of natural resources for our clients.'*¹⁶¹

All these issues explain why the Commission's earlier attempt at introducing habitat banking was strongly rejected.

156 'Typically, it is impossible to describe all of the services that an ecosystem provides. Fortunately, to implement HEA, REA, or VEA, it is unnecessary to define all the possible services, but only a few significant ones, that correspond to key functions and the effects of the release.' REMEDE, Deliverable 13 (D13): The Main Toolkit – Toolkit, May 2006; <http://www.envliability.eu/publications.htm>

'When modelling ecosystem services, not all the drivers of change as well as their interactions can be included in the models.' European Commission, Implementing an EU system of accounting for ecosystems and their services, Joint Research Centre, 2017; http://publications.jrc.ec.europa.eu/repository/bitstream/JRC107150/jrc107150_jrc107150_jrc_report_ecosystem_services_accounts_final_pubsy.pdf

157 Bouleau N, Le mensonge de la finance : Les mathématiques, le signal-prix et la planète, Editions de l'atelier 2018; http://www.editionsatelier.com/index.php?page=shop_product_details&flypage=bookshop-flypage.tpl&product_id=735&category_id=1&writer_id=748&option=com_virtuemart&Itemid=1

158 Bouleau N, Combien coûte la nature ?; <http://www.nicolasbouleau.eu/combien-coute-la-nature/>

159 Hache, ibid

160 Hache, 50 shades of green part II: the fallacy of environmental markets, pages 53-58, ibid

161 Goldman Sachs, Sustainable finance, ecosystem services; <https://www.goldmansachs.com/what-we-do/sustainable-finance>

To be clear, **restoring biodiversity is a GOOD thing, as is measuring its physical state. Its monetary valuation is however neither possible nor necessary to protect it. Restoration should also not be financed by offset markets, nor should it be mixed with objectives to curb biodiversity loss within No Net Loss objectives**, as restoring pieces of ecosystems is not comparable to and does not compensate for the destruction of biodiversity elsewhere.

We therefore **hope that the future technical screening criteria will focus on protecting biodiversity over offsetting its destruction, and will explicitly exclude biodiversity offsetting / habitat banking**. Failure to do so would arguably once more contradict the do not harm principle.

On a similar topic, the call in Article 8 of the taxonomy to ensure *‘the sustainable use of marine ecosystem services (...) including by protecting, preserving or restoring the marine environment’* is equally worrying: the reference to ‘ecosystem services’ and ‘restoration’ – words linked to the natural capital approach – may be understood as **fostering water quality trading**. Water quality trading – also called nutrient trading is a market system where companies exchange permits to pollute rivers with nitrogen and phosphorus. A 2012 EEA report on the efficient use of water resources had already stated that tradable permits were a means to deliver efficient outcomes, and that *‘market-based approaches frequently offer a more effective means of achieving environmental policy objectives than traditional environmental policy instruments such as direct regulation of polluting activities.’*¹⁶²

As such markets have similar issues to biodiversity offsetting, **we hope that future technical screening criteria for articles 8 and 10 will explicitly exclude water quality trading**.

e. The financialization of climate change adaptation

As climate change is leading to rapid changes in insurance against natural disasters, 2 trends in particular are worrisome.

1. Sovereign catastrophe bonds

Massive bushfires in Australia killing over 1 billion animals, the biggest crop-eating locust invasion for the past 70 years in Kenya, record heatwaves and 22 million people displaced due to extreme weather in 2019: **how do we deal with natural disasters that are ever increasing in frequency, severity and cost?** The new climate risks are also characterized by **hyper-correlation**¹⁶³ – affecting a large number of people at the same time and involving many lines of insurance simultaneously – meaning that the traditional principles of diversification and mutualization no longer address the risks as well as they used to. **What are the solutions to this issue from the perspective of indemnifying the victims of natural disasters? Should we strengthen States’ capacities, strengthen private actors’ capacities and/or involve new actors?**

Insurance against natural disasters has a long history and can be traced back to the 16th century and the insurance of European ships sailing to the Americas. Reinsurers appeared in the 19th

162 European Environment Agency, Towards efficient use of water resources in Europe, 2012; <https://www.eea.europa.eu/publications/towards-efficient-use-of-water>

163 Keucheyan R, Insuring Climate Change: New Risks and the Financialization of Nature, 02 February 2018; <https://onlinelibrary.wiley.com/doi/abs/10.1111/dech.12367>

century following a series of fires in big cities that bankrupted the entire German insurance industry. The 19th century also saw the emergence of the **State as insurer of last resort for major catastrophes**.

Today, climate risk insurance is composed of three layers: insurers, reinsurers and the State as insurer of last resort, whose intervention is **based on a principle of national solidarity in the face of natural disaster**. This principle is built on the idea that citizens of the same country should be united in the face of natural catastrophe; it is a societal choice focused on people, whereas insurance is a for profit business that compensates based on contract terms and not real damages.

4 main regimes currently exist in Europe, all involving the State: State or quasi-State monopoly, ‘free market’ solutions coupled with State funded ad-hoc relief, public disaster funds, or private insurance providers supplemented by public disaster funds.¹⁶⁴

The French indemnity system for example is hybrid and combines a principle of national solidarity and insurance. It is not a mandatory insurance but rather an insurance extension that is integrated into the most common insurance contracts, financed by an additional premium and reinsured by the State. The solidarity element comes from the fact that everyone pays the same additional premium, regardless of whether they are exposed to a risk of natural catastrophe or whether they live in a more exposed region.

‘Pure market solutions for risk transfer without State intervention are practically not existing in the natural hazards field. In practice, all unregulated systems are linked with some form of state assistance in the case of extreme events. The ‘free market’ is unable to offer extensive and comprehensive insurance against natural hazards. This is, on the one hand, due to its limited capacity and lack of ability to control adverse selection and, on the other hand, due to the fact that private insurance of highly exposed risks is simply uneconomical. State emergency and reconstruction aid in the case of extreme events or for ‘uninsurable risks’ is, therefore, unavoidable.’¹⁶⁵

The role played by the State is even more comprehensive, as **insurability is in essence a political construct**: the State decides whether it is mandatory to hold insurance coverage, can require private insurers to provide natural disaster coverage together with fire insurance as is the case in Belgium for example, or can require insurers to come back into the market as happened in the USA after 9/11. The State equally helps private insurers reach profitability, thereby influencing coverage and the affordability of premiums.

In 1992, hurricane Andrew bankrupted 11 insurance companies and would have bankrupted the whole industry if it had gone into Miami. It was followed within a relatively short period of time by earthquakes in California, European winter storms and the earthquake in Kobe in 1995. Four natural perils had outgrown the insurers’ ability to insure them. **As a response, it was decided to add a 4th layer to the insurance chain: financial markets**. This choice was both a response to new catastrophe risks that couldn’t be diversified away and part of a financialization trend since the 1970s. The argument was that while tens of billions of losses can bankrupt the insurance industry, they would be a drop in the bucket for global capital markets of \$78 trillion.

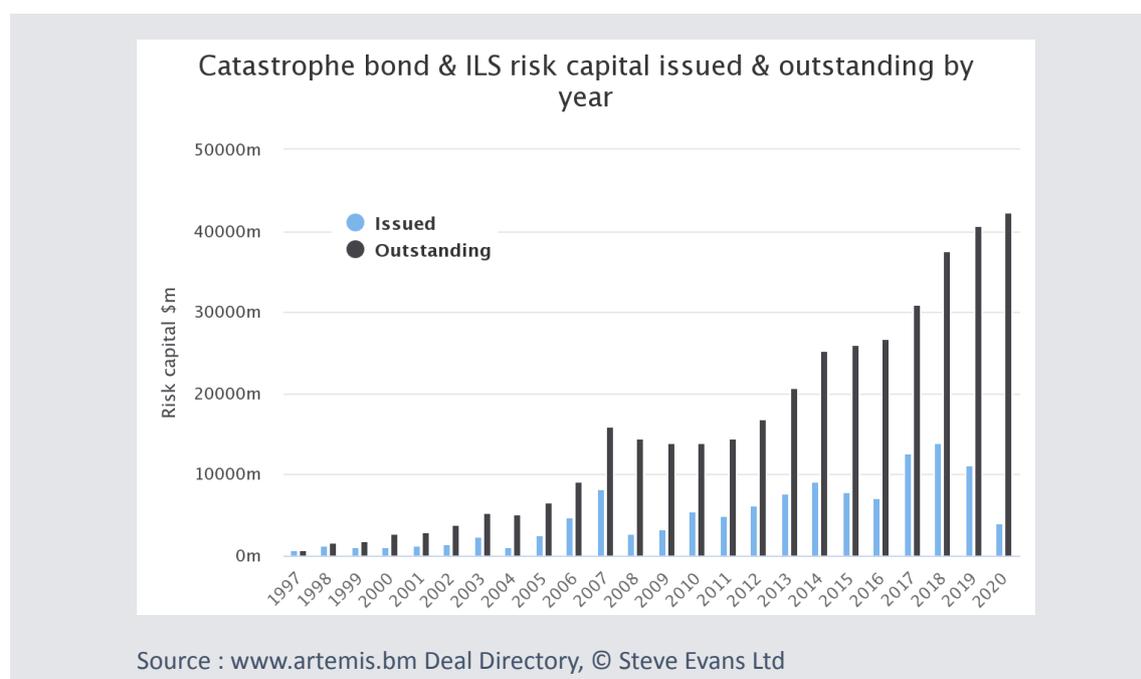
164 Schwarze R; Wagner G, Natural Hazards Insurance in Europe ? Tailored Responses to Climate Change Needed, Working Papers in Economics and Statistics, No. 2009-06, University of Innsbruck, Department of Public Finance, Innsbruck; <https://www.econstor.eu/bitstream/10419/73542/1/742570959.pdf>

165 Schwarze R; Wagner G, supra

Catastrophe bonds are bonds issued by a (re)insurer or a corporation and sold to investors. They pay an interest (typically between 5% and 15%) and usually have a 3 years maturity. If a predetermined type of natural catastrophe occurs within the period and a predetermined geographical area,¹⁶⁶ the investors lose some or all of their principal, which serves to indemnify the victims. If no catastrophe takes place, the investors keep the interests and get their capital back at maturity. The chance of a catastrophe bond being triggered has been estimated at around 1-2% in any year.¹⁶⁷

Catastrophe bonds are securitisations of natural disaster insurance, where the issuer of the bond creates a special purpose vehicle (SPV) typically located in a tax haven. Different types of bonds exist, from catastrophe bonds to pandemic bonds,¹⁶⁸ and others are in the planning stages, such as migrant and refugee bonds.¹⁶⁹ These bonds have been popular with investors since the 2010 European Sovereign debt crisis, in particular among pension funds attracted by their low correlation¹⁷⁰ with their traditional investments.

Today, Insurance Linked Securities (ILS) – the broader category to which catastrophe bonds belong – are a \$100bn+ industry and even have their own traded market, the CATEX (Catastrophe Risk Index).¹⁷¹



166 Payments are often linked to so-called parametric triggers: payment is automatically triggered when objectively observable predefined conditions occur, such as an earthquake with a magnitude greater than 7 occurring within a 50km radius of Tokyo, or the number of reported cases of a pandemic. Other triggers exist, such as indemnity triggers, where the payment is triggered if the loss exceeds a certain threshold. As this requires first assessing the losses, indemnity triggers take much longer to pay off compared to parametric ones.

167 Mortimer 2012, in Keucheyan, supra

168 Cox J, Global Capital, Pandemic bonds: Harnessing the financial markets to scale up humanitarian aid, 15 October 2019; <https://www.globalcapital.com/article/b1h1r1vshgc9/harnessing-the-financial-markets-to-scale-up-humanitarian-aid>
Artemis, Ebola outbreak declared international emergency by WHO, 18 July 2019; <https://www.artemis.bm/news/ebola-outbreak-declared-international-emergency-by-who/>

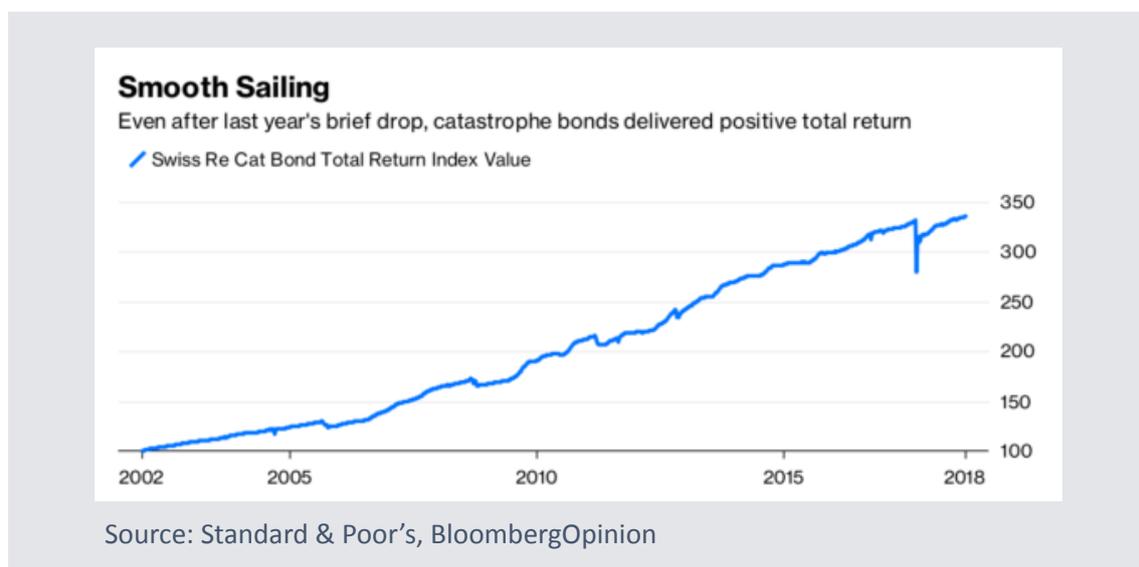
169 Artemis, Red Cross looks to ILS structure for refugee & migration financing, 13 December 2018; <https://www.artemis.bm/news/red-cross-looks-to-ils-structure-for-refugee-migration-financing/>

170 In practice, this low correlation can fail to materialize, as big hurricanes like Sandy impact economic activity.

171 Desfilhes P, Reporterre, Les marchés financiers spéculent sur les catastrophes que provoquera le changement climatique, 27 juin 2014; <https://reporterre.net/Les-marches-financiers-speculent-sur-les-catastrophes-que-provoquera-le>
Bussièrre V, l'express, Le marché juteux des obligations catastrophes, 16 August 2016; https://votreargent.lexpress.fr/le-marche-juteux-des-obligations-catastrophes_1810432.html

ILS is perceived as a *'trillion-dollar opportunity for the insurance industry'*, according to the group chief economist at Swiss Re.¹⁷² Large reinsurers like SCOR have announced that they would place ILS at the heart of their business model,¹⁷³ while others like Swiss Re are planning a big increase in sales of natural catastrophe insurance, highlighting that *'the return on capital for the business will be roughly 18 per cent this year.'*¹⁷⁴

Insurance companies have realised years ago that climate change would present a major new opportunity for them. Warren Buffett famously wrote to that effect a few years ago in his annual shareholder letter: *'As a citizen, you may understandably find climate change keeping you up at night. As a homeowner in a low-lying area, you may wish to consider moving. But when you are thinking only as a shareholder of a major insurer, climate change should not be on your list of worries.'*¹⁷⁵ He explained that as *'insurance policies are customarily written for one year and repriced annually to reflect changing exposures, increased possibilities of loss translate promptly into increased premiums.'* As a result, *'Berkshire Hathaway's insurance business stands to benefit from an increase in property damage caused by the effects of climate change.'*¹⁷⁶ In plain terms, Buffett's view is that climate change will enable insurers to increase their future profits through increases in the damages covered.



Since the mid-2000s, States have also started issuing *'sovereign cat bonds.'* Such an evolution has been actively encouraged by international organizations, among them the World Bank and the OECD. It is clear why insurers and reinsurers would be interested in raising money on financial markets to face the rising costs of natural catastrophes. However, it is less clear why states would choose to do so. According to their promoters, *'because of the global economic*

172 Swiss Re, The world economy is less resilient; insurance can help by closing record-high protection gap of USD 1.2 trillion, sigma says, 07 Sep 2019; <https://www.swissre.com/media/news-releases/nr-20190907-sigma-5-2019.html>

173 Artemis, SCOR to place ILS at heart of "reinsurance company of tomorrow", 4 September 2019; <https://www.artemis.bm/news/scor-to-place-ils-at-heart-of-reinsurance-company-of-tomorrow/>

174 Ralph O, Financial Times, Swiss Re plans natural disaster sales push, 25 November 2019; <https://www.ft.com/content/bf0c4d84-0bc5-11ea-b2d6-9bf4d1957a67>

175 Moodie A, The Guardian, Warren Buffett to shareholders: climate change is nothing to worry about, 2 March 2016; <https://www.theguardian.com/sustainable-business/2016/mar/02/warren-buffett-shareholders-climate-change-insurance-berkshire-hathaway>

176 Oyedele A, Business Insider, Warren Buffett on global warming: 'This issue bears a similarity to Pascal's Wager on the Existence of God,' 27 February 2016; <https://www.businessinsider.com/warren-buffett-on-climate-change-2016-2?r=US&IR=T>

*crisis, the public finances of many countries are fragile. This 'fiscal crisis of the state' (O'Connor, 1973/2001) implies that states are less and less able to assume the insurance costs of natural catastrophes by conventional means — national solidarity in the face of a disaster, through taxation. States, in other words, are less and less capable of performing their traditional function of insurer of last resort (...) **Financialization is conceived as an alternative to taxes and national solidarity in the case of a catastrophe.**'¹⁷⁷ Sovereign cat bonds are thus presented as a way to 'protect public finances' and 'strengthen the financial resilience' of issuing countries.*

This push for sovereign cat bonds can also be understood as being part of a broader international trend over the past decades to reduce the State's provision of services, while pushing in parallel for lower taxes for the higher incomes. The narrative put forward is that markets are better at allocating resources. Yet, there is plenty of empirical evidence to contradict this narrative, and the efficient market hypothesis itself has been shown to be untrue, except in its weakest form.

The development of sovereign cat bonds raises a number of questions, such as whether Wall Street should get to decide who gets insured and at what cost – and be subsidized to do so, whether the risk is truly transferred and how to prevent moral hazard. **There are in our view 5 significant issues with sovereign cat bonds:**

i. They reduce the government's flexibility to adapt its response, especially in the case of parametric triggers.

In 2017, the World Bank issued its first pandemic bonds.¹⁷⁸ It was the first time that pandemic risk in low-income countries was being transferred to the financial markets. The bonds were developed by the World Bank Treasury in cooperation with leading reinsurance companies Swiss Re and Munich Re.

One of the bonds covered 6 viruses, including influenza, coronavirus and Ebola. Indemnification was based on a parametric trigger linked to several conditions: when an outbreak reaches predetermined levels of contagion, including number of deaths; the speed of the spread of the disease; and whether the disease crosses international borders. The parametric trigger in the contract stated that the total possible insurance pay-out for Ebola was \$150m and came in 3 tranches: when 250, 750 and 2,500 people had died across at least two countries, \$45m, \$45m and \$60m, respectively, would be disbursed. The bond was issued with a coupon of 6M USD Libor + 11.1% and a maturity of 3 years. The trade was hailed at the time as one of the most innovative catastrophe risk insurance instruments in the market to help developing countries manage risk.

One of the eligible countries was the Congo. In August 2018, the Congo faced an Ebola outbreak and the World Health Organisation declared an international emergency. **Despite more than 1700 deaths in Congo, the bond pay-out was not triggered, as it required that 'the disease cross an international border with at least 20 fatalities in the second country,'¹⁷⁹ and**

¹⁷⁷ Keucheyan, supra

¹⁷⁸ World Bank, press release: World Bank Launches First-Ever Pandemic Bonds to Support \$500 Million Pandemic Emergency Financing Facility, 28 June 2017; <https://www.worldbank.org/en/news/press-release/2017/06/28/world-bank-launches-first-ever-pandemic-bonds-to-support-500-million-pandemic-emergency-financing-facility>

¹⁷⁹ Asgari N, Financial Times, Ebola outbreak fails to trigger World Bank pandemic bonds, 27 July 2019; <https://www.ft.com/content/385ed732-ae3-11e9-8030-530adfa879c2>

while a border had been crossed, less than 20 people had died in the neighbouring country. The World Bank has, however, paid a smaller slice from a separate cash window to fight the pandemic.

According to the Financial Times ‘Annette Dixon, vice-president for human development at the World Bank, defended the pay-out criteria, saying the non-payment “is a positive thing” because it shows that the outbreak “has not yet reached the level of a pandemic across countries.”’¹⁸⁰

Some have argued that **the bond was ‘designed to fail (...) given that the WHO lists only one multi-country outbreak amid more than 30 that occurred in a single country.’**¹⁸¹ This seriously puts into question the requirement that 20 deaths occur in a neighbouring country for the payment to be triggered. The same former economist for the World Bank stated that **‘it was a good deal for investors, not for global health. Absurdly, discussions on a second [pandemic bond] are under way. All the resources devoted to the [bond] would have been better used elsewhere.’** The programme was also criticized by none other than Larry Summers, who called it *“financial goofiness” motivated by government and World Bank officials eager to boast about a creative initiative that engaged the private sector.*¹⁸²

This particular case illustrates the reduced flexibility of sovereign cat bonds and parametric triggers: while in theory they are supposed to provide a faster payment than traditional humanitarian aid and emergency funding, governments can find themselves locked-in, eagerly awaiting a payment from the bond that may or may not come, and having already allocated part of their emergency budget to pay for the bond premium.

ii. Should Wall Street get to decide who gets insured and at what cost - and be subsidized by taxpayers?

Transferring natural disaster insurance to investors on financial markets via sovereign cat bonds would have severe implications: as an example, insurability has a direct bearing on what can be built and sold, as without insurance, you cannot sell a property. **This would put adaptation against climate change at the mercy of the erratic behaviour of financial markets.** If history is any guide, Wall Street’s skewed incentives towards short-term profits are also likely to be unsuitable for the purposes of long-term public interest. In fact, exchange-traded products have already been issued to speculate on catastrophe risk.¹⁸³

In addition, as Wall Street is under no obligation to provide affordable coverage in a continuous fashion (unlike States), transferring the role of insurer of last resort to financial markets would replace the principle of national solidarity by private contracts, and transform a public good into a private one.

180 Asgari N, Financial Times, Ebola outbreak fails to trigger World Bank pandemic bonds, 27 July 2019; <https://www.ft.com/content/385ed732-ae3-11e9-8030-530adfa879c2>

181 Jonas O, Nature, Pandemic bonds: designed to fail in Ebola, 13 August 2019; <https://www.nature.com/articles/d41586-019-02415-9>

182 Jonas O, Nature, supra

183 ‘Over the last couple of years, three new exchange-traded products for catastrophe risk have hit the scene. Identical to cat bonds, these futures contracts are designed to provide funding for catastrophic loss due to natural causes except earthquake. Unlike cat bonds, which are technically structured financial products, these products are true derivatives in that they are “contracts for difference.” This means that they are traded anonymously and the traders can make or lose money based only on the price movements of the contracts and need not own the underlying asset, or in this case, the index.’ Riggan D J, IRMI expert commentary, Property Catastrophe Risk and Capital Markets Risk Transfer, August 2008; <https://www.irmi.com/articles/expert-commentary/property-catastrophe-risk-and-capital-markets-risk-transfer>

New Orleans after hurricane Katrina provides a perfect example of how the price of catastrophe risk can shape the city: insurers had paid for the existing contracts, but the money stayed in accounts and rebuilding was slower than it could have been, as insurance companies and cat bond investors bailed on the market or overcharged after the catastrophe, which in turn paralyzed reconstruction. No insurer or investor had expected that a storm striking so far from New Orleans would cause the levees to fail and the city to be underwater. As writer Michael Lewis put it, in New Orleans *'an entire city is now being reshaped by an invisible force: the price of catastrophic risk, but it's the wrong price.'*¹⁸⁴

Following Katrina, the single biggest issue in Florida's 2006 governor's race was the price of insurance. This could read like a warning for us all: the price of natural catastrophe insurance is going to have an ever-increasing influence on our lives over the coming decades. Do we really want to give up national sovereignty and let financial markets decide on this price?

iii. Partial transfer of risk and moral hazard

While sovereign cat bonds transfer the risk to investors for the duration of the bond, i.e. 3 years, **the State remains exposed to the major risks that investors stop offering coverage and do not renew the bond at maturity or ask for a much higher coupon to do so, after having suffered a big loss.** Indeed, insurers and investors typically tend to bill their customers retroactively via increases in premiums for whatever losses they incurred,¹⁸⁵ meaning that the risk is only partially transferred. Insurers (and investors) have also been seen to retreat from the market after experiencing a large loss, as happened in New York after 9/11 where insurers stopped offering coverage and the State had to compel them to return.¹⁸⁶

This means that **sovereign cat bonds only transfer part of the risk to investors - the 'good' risk, but States keep the risk of non-renewal and steep increases in premiums – the 'bad' risk, that they can no longer mutualize against the good one.** And unlike with insurers, the State cannot compel investors to return to the market, as Wall Street is under no obligation to provide continuous coverage. Also, while insurers have an interest to keep premiums affordable as it is their main business, disaster insurance represents a marginal investment for asset managers, and they have therefore no incentive to keep premiums at affordable levels.

This partial transfer of risk shows that subcontracting natural disaster insurance to financial markets cannot replace the role of insurer of last resort of the State. It does not reduce the role of the State, but instead transforms it into a provider of subsidies for investors and a safety net for when investors bail out. The role of the State thus remains central in the financialization of natural disaster insurance.

184 Lewis M, The New York Times, In Nature's Casino, 26 August 2007; <https://www.nytimes.com/2007/08/26/magazine/26neworleans-t.html>

185 *'In effect, the insurers weren't insuring against disaster; they were only pretending to take the risk, without actually doing so, and billing their customers retroactively for whatever losses they incurred. At the same time, they were quietly sneaking away from catastrophe. Before the 1994 Northridge earthquake, more than a third of California homeowners had quake insurance; right after, the insurers fled the market, so that fewer than 15 percent of California homeowners have earthquakes in their policies today.'* Lewis M, supra

186 *'the retreat of insurers in the wake of 9/11 was an attempt to compel the state to take on a greater share of insuring against such attacks. It was not successful, however, as the state forcibly pushed the insurers back onto this market (Ericson and Doyle, 2004).'* Keucheyan, ibid

Sovereign cat bonds also create moral hazard by privatising the profits while leaving the State to pick up the tab after a large loss, as uninsured losses are borne by public finances. In addition, as pension funds invest more in sovereign cat bonds in the future, another form of moral hazard will be created, as it is politically very sensitive to let pension funds experience a big loss.

iv. Adds financial instability to environmental instability

Catastrophe bonds foster the under-pricing of risk, as they attract new stakeholders such as hedge funds. In turns, this lowers insurance prices, as the price of risk fluctuates both with changes in probabilities of disaster and as a function of the supply and demand of investors. As new investors' money pours into this new asset class, the price charged for the insurance declines to unsustainable levels. As an example, the price of disaster risk has already been divided by 2 over the past 10 years. While this may benefits clients in the short term, this can threaten the viability of the sector, foster unsustainable real estate building practices, i.e. building beachfront properties in an area prone to hurricanes. It also increases the risk that investors overreact when a loss occurs, as they have not been properly compensated to take this risk.

In addition, while cat bonds spread the risk to a wider universe of investors, it is important to note that most of these investors are part of a heavily interconnected universe, already linked by a complex web of contracts.

As noted by AXA's chief financial officer, the ILS market is also an **originate to distribute model**,¹⁸⁷ just like pre-financial crisis securitisation, which reduced accountability and led to unsustainable lending practices with the consequences that we know. In addition, while insurers perform a lot of due diligence as insurance is their main business, **cat bonds are only a tiny fraction of the asset allocation of big asset managers, leading to a risk of decline in due diligence and increased adverse selection.**

As investors are less expert than reinsurers at assessing disaster risk, cat bonds may also lead to a **bigger reliance on external ratings and a more uniform view of risk**, potentially causing herding behaviour and sharper price readjustments. In fact, the EU insurance watchdog had already raised an alarm in 2013 about the surge of new investors like pension funds that may *'not have the ability to analyse the underlying risks and complexity of the insurance market'*¹⁸⁸ and could cause systemic risk.

Cat bonds might potentially also **generate other perverse incentives, such as structuring bonds to favour investors** and minimize the risk that the bonds are triggered, **or manufacturing trigger events**, just like manufactured credit events already occur in derivatives markets.¹⁸⁹

Catastrophe bonds also reinforce correlation and increase the volatility of disaster insurance prices: As cat bonds become part of the asset allocation of global asset managers,¹⁹⁰ they will

187 Ralph O, Financial Times, Insurers seek comfort in catastrophe bonds, 5 February 2019; <https://www.ft.com/content/88663f92-2647-11e9-8ce6-5db4543da632>

188 Reuters, EU insurance watchdog highlights "cat" bond market risks, 12 December 2013; <https://www.reuters.com/article/europe-insurance-watchdog/eu-insurance-watchdog-highlights-cat-bond-market-risks-idUSL6N0JQ34520131212>

189 Financial Conduct Authority, Update to June 2019 joint statement on opportunistic strategies in the credit derivatives market, 19 September 2019; <https://www.fca.org.uk/news/statements/update-june-2019-joint-statement-opportunistic-strategies-credit-derivatives-market>

190 Willis Towers Watson, press release: Evolution of Insurance-Linked Securities as an established asset class continues its momentum while facing next stage of development, 22 October 2018; <https://www.willistowerswatson.com/en-KW/News/2018/10/evolution-of-ils-as-an-asset-class-continues-its-momentum-while-facing-next-stage-of-development>

become more correlated with global events and global capital markets due to modern portfolio management techniques: fund managers experiencing a loss in another asset class could decide to compensate by locking-in some gains in their cat bond portfolio, thereby creating a correlation with unrelated events. The reinsurance market is already very cyclical due to the fact that insurers make up for losses by subsequent increased premiums: after a large natural disaster, the price of insurance tends to increase sharply, before slowly declining back as times goes by. Catastrophe bonds would add to this volatility the new supply and demand dynamics of investors, the increased correlation with other asset classes and financial markets' mood swings and irrational exuberance.

Last, subcontracting disaster insurance to financial markets **might trigger a new mortgage default crisis**,¹⁹¹ should abruptly rising insurance premiums lead to homes becoming uninsurable. There is a mismatch between the 20-30 years maturity of mortgages used to buy homes and insurance prices that are reset every year. This mismatch is not priced into the markets and many assume that should a crisis occur, there would be a public safety net. Yet, should the State subcontract its role of insurer of last resort to financial markets prone to withdraw coverage or sharply increase premiums in case of trouble, the likelihood of such a safety net would be greatly reduced.

v. The financialization of climate change adaptation would likely increase inequalities

Subcontracting the role of insurer of last resort of the State to financial markets would **redefine insurability based on the 'Wall Street Consensus'**.¹⁹²

Lower income groups are already disproportionately affected by climate change. As the principle of national solidarity would be replaced by private insurance contracts for those who can afford them, while the State dedicates a portion of its resources to paying for the bond coupons instead of emergencies, this would likely **lead to reduced insurance coverage**.

This financialization would also empower private actors that answer only to their shareholders, are under no obligation to provide affordable coverage. As a result, this could lead to **rises in premiums with related exclusionary effects**, as premiums become too expensive for lower income groups, which would in turn further increase premiums as the number of insured declines. Shifting to an all insurance approach would therefore not be able to replace national solidarity. **On the contrary, this would thus further increase inequalities and potentially threaten social cohesion**, thus directly contradicting the Commission objectives.

A Keucheyan puts it, *'first, financialization's implicit promise to reduce the effects of climate change on societies is a false promise, since finance itself is prone to crisis — as amply demonstrated by the collapse of the subprime market in 2007–08. (...) Adding financial instability to environmental instability can only increase the impact of disasters, while inequalities between those who depend entirely on the market for climate risk insurance and those with other resources (such as savings or property) will grow. And in the event of a financial crisis, the state is once again left to play the role of insurer of last resort.'*¹⁹³

191 Tett G, Financial Times, Climate change could cause a new mortgage default crisis, 26 September 2019; <https://www.ft.com/content/7ec25f94-e04f-11e9-9743-db5a370481bc>

192 Rowden R, Heinrich Böll Stiftung, From the Washington Consensus to the Wall Street Consensus, October 2019; <https://us.boell.org/sites/default/files/2019-11/Rowden%20From%20Washington%20To%20Wall%20Street.pdf>

193 Keucheyan, ibid

All these issues seriously question the current trend towards insurance linked securities, and suggest that from a public interest perspective, **it might be much preferable instead for States to strengthen their emergency response capacities.**

For all the above reasons, the likely allowance of sovereign catastrophe bonds in the taxonomy is a serious concern: as we have seen, the taxonomy proposal allows all activities that provide adaptation solutions and also contribute to preventing or reducing an adverse impact. According to the TEG report,¹⁹⁴ this category will include the (re)insurance sector, and in particular non-life insurance i.e. insurance against droughts, floods, hurricanes, wildfires, sea level rise etc. The report explains that insurance against climate-related hazard contributes to reduce physical climate risk in a number of ways, including by *'developing innovative risk transfer mechanisms as part of broader risk management solutions to help under-insured or uninsured communities to meet the challenges of a changing climate (for example the Caribbean Catastrophe Risk Insurance Facility or the African Risk Capacity).'* Catastrophe bonds are precisely 'innovative' risk transfer mechanisms.

The reference to the Caribbean Catastrophe Risk Insurance Facility and the African Risk Capacity is also noteworthy, as both entities deal in catastrophe bonds and risk transfer to financial markets: the former is a mutual insurance company set up with experts from the World Bank that acts as a risk aggregator between the member countries and buys reinsurance on financial markets including via catastrophe bonds.¹⁹⁵ The African Risk Capacity for its part provides its members with risk pooling, insurance underwriting and interfaces with international markets. It also preparing to launch a catastrophe bond.¹⁹⁶

While more details will be unveiled in the technical screening criteria to be adopted in December 2020, interesting indications are already provided in the text: the climate adaptation objective *'should be interpreted in line with relevant Union law and the Sendai Framework for Disaster Risk Reduction 2015-2030.'* This framework is a *'15-year, voluntary, non-binding agreement which recognizes that the State has the primary role to reduce disaster risk but that responsibility should be shared with other stakeholders including local government, the private sector and other stakeholders.'*¹⁹⁷ **The call for the State to share its primary role to reduce disaster risk with the private sector can be interpreted as a call to give a more prominent role to private (re)insurers and financial markets.**

The broad and unconditional inclusion of private insurance against natural disasters together with the call to give a greater role to the private sector thus **seems to open the door to sovereign catastrophe bonds.**

Such an approach would be consistent with international developments, as cat bonds have been promoted for years by the World Bank, the UN and the OECD. The 2014 IPCC Report on climate change adaptation had already encouraged the implementation of cat bonds as a form of economic adaptation to climate change. The European Commission itself had launched a 2013 consultation about natural disaster risk transfer, stating that *'well-designed insurance*

194 TEG report on taxonomy, *ibid*

195 World Bank, Caribbean Catastrophe Risk Insurance Facility: A solution to the short-term liquidity needs of small island states in the aftermath of natural disasters; <http://siteresources.worldbank.org/PROJECTS/Resources/Catastrophicriskinsurancefacility.pdf>

196 African Risk Capacity <https://www.africanriskcapacity.org/>;
Business Insurance, African Risk Capacity to launch climate cat bond, October 24, 2019;
<https://www.businessinsurance.com/article/20191024/STORY/912331315/African-Risk-Capacity-to-launch-climate-cat-bond->

197 UN Office for Disaster Risk Reduction, Sendai Framework for Disaster Risk Reduction;
<https://www.unisdr.org/we/coordinate/sendai-framework>

*policies can also work as a market-based instrument to (...) mainstream disaster-proofing in economic and financial decisions.*¹⁹⁸

Investors are also pushing for it: PIMCO, one of the biggest asset managers recently stated that it believes catastrophe bonds can be an ESG appropriate investment.¹⁹⁹ As the CEO of the Bermuda stock exchange explained, *'as institutional investors look to asset classes that promote sustainable and responsible investing, increasingly, they are drawn to the environmental, social and governance (ESG) qualities of insurance-linked securities (ILS).'*²⁰⁰

Recommendation for the technical screening criteria:

We saw how **the role of the State as insurer of last resort based on a principle of national solidarity is a public good that cannot be replaced by financial markets**. Consequently, we believe that it should be preserved and strengthened by building up States' financial capacities to deal with natural disasters.

We believe that **only the provision of affordable coverage for natural disasters in a continuous fashion contributes meaningfully to climate change adaptation and deserves to be in the taxonomy and subsidized**, not insurance cover that can withdraw or will multiply its premiums after a loss and ultimately let the State deal with the issue.

We therefore hope that the technical screening criteria will introduce conditions for the allowance of non-life insurance in the taxonomy, such as the requirement that insurance cover be provided in a continuous fashion and with limits on premium fluctuations at renewal. We also hope that the criteria will explicitly exclude sovereign catastrophe bonds.

Insurance products that do not meet these criteria can continue to operate as they currently do and take advantage of the new climate adaptation market, but should just not get the green label and attached subsidies.

2. Microinsurance

The TEG report reference to the Caribbean Catastrophe Risk Insurance Facility or the African Risk Capacity suggests that microinsurance / catastrophe bonds for developing countries could also be included in the taxonomy.

The argument of its proponents is that these countries do not have enough citizens able to pay premiums and a robust enough legal framework to develop an insurance market, and international financial markets are presented as the solution. Microinsurance is also framed as a solution to the *'short-term liquidity needs of small island states in the aftermath of natural disasters (...) whose economic resilience is limited by the combination of soaring vulnerability and high levels of indebtedness,*²⁰¹ or a way to *'help African governments improve their capacities to better (...) respond to extreme weather events and natural disasters (...) through collaboration and innovative finance.*²⁰²

198 Artemis, European Commission consults on natural and man-made disaster risk transfer, 1 May 2013; <https://www.artemis.bm/news/european-commission-consults-on-natural-and-man-made-disaster-risk-transfer/>

199 Artemis, PIMCO cites cat bonds as ESG asset for new multi-strat funds, 31 December 2019; <https://www.artemis.bm/news/pimco-cites-cat-bonds-as-esg-asset-for-new-multi-strat-funds/>

200 Artemis, ESG qualities of ILS driving greater investor interest: Wojciechowski, BSX, 28 January 2020; <https://www.artemis.bm/news/esg-qualities-of-ils-driving-greater-investor-interest-wojciechowski-bsx>

201 World Bank, Caribbean Catastrophe Risk Insurance Facility: A solution to the short-term liquidity needs of small island states in the aftermath of natural disasters; <http://siteresources.worldbank.org/PROJECTS/Resources/Catastrophicriskinsurancefacility.pdf>

202 African Risk Capacity: Transforming disaster risk management & financing in Africa; <https://www.africanriskcapacity.org/>

Resources are pooled on a very large scale, some of the risk is underwritten and the rest is transferred to international financial markets via the issuance of catastrophe bonds, often with State subsidies at least to begin with.

A similar trend is currently happening in development aid, with the financialization of development lending based on a stepped-up use of securitization markets. A recent report²⁰³ highlighted the related risks, that include making national economies more dependent on global capital markets and largely unregulated shadow banking, requirements to deregulate domestic financial sectors that undermine national sovereignty, and increased vulnerabilities linked to the growth of the financial sector relative to the real economy. This report offers useful warnings that policy makers should take into consideration before allowing microinsurance into the taxonomy.

In addition, given the issues discussed above with sovereign catastrophe bonds, it might also be argued that, should the EU want to assist, due to its *'moral duty to help developing countries to adapt to climate change'*,²⁰⁴ it could do so instead by helping local governments build their emergency response capacities (for example by giving them more favourable terms in international trade agreements).

3. Forthcoming standards and labels

a. Green bond standard

As part of the action plan, the Commission has empowered the Technical Expert Group (TEG) on sustainable finance to assist in the development of a Green Bond Standard.

In June 2019, the TEG published a report²⁰⁵ formulating its recommendations. It recommended that the Commission set up a voluntary Green Bond Standard, aligned with the taxonomy and where compliance is verified by accredited verifiers. It also recommended promoting the adoption of the standard through an Ecolabel on financial products, via financial incentives and central bank purchases of green bonds.

The stated purpose of the Green Bond Standard (GBS) is *'making green and climate investible.'* The new standard is expected to increase the *'transparency, accountability, comparability and credibility of the green bond market without disrupting the market.'*²⁰⁶

As stated by the report, *'the European and international green bond market does not suffer from significant market dysfunction and it benefits from (...) best market practice embodied by the Green Bond Principles (...). The TEG has therefore decided to use them as a starting point for the EU-GBS.'*

There is indeed a need to increase transparency, accountability and comparability: a large number of heterogeneous types of green bonds exist, from Eden bonds aimed at rewinding while providing additional income to investors from the sale of carbon credits and credits for

203 Rowden R, From the Washington Consensus to the Wall Street Consensus, Heinrich Böll Stiftung, October 2019; <http://us.boell.org/2019/10/11/washington-consensus-wall-street-consensus>

204 European Parliament resolution of 15 January 2020 on the European Green Deal (2019/2956(RSP)); https://www.europarl.europa.eu/doceo/document/TA-9-2020-0005_EN.html

205 TEG report on the EU Green Bond Standard, June 2019; https://ec.europa.eu/info/sites/info/files/business_economy_euro_banking_and_finance/documents/190618-sustainable-finance-teg-report-green-bond-standard_en.pdf

206 TEG report, supra

the restoration of endangered species,²⁰⁷ to Blue bonds,²⁰⁸ SDG bonds²⁰⁹ and Transition bonds that finance activities ‘not green enough’ to be eligible in green bonds (e.g. gas power plants, shipping).²¹⁰

There is also a strong need to improve the credibility of green bonds, after a number of controversial issuances: they include green bonds issued by a Bermuda-based company owning the largest fleet of oil tankers,²¹¹ green bonds for coal-related projects,²¹² green bonds issued by an oil company²¹³ and green bonds to finance a new airport.²¹⁴

A weak basis and debatable priorities

It is therefore somewhat surprising that the TEG decided to use as a starting point the Green Bond Principles (GBP), a soft set of guidelines managed by the International Capital Markets Association - a lobby group for financial market institutions - that focuses on procedures regarding the management and reporting of use of proceeds, rather than giving a definition of ‘greenness’.²¹⁵

While the majority of outstanding green bonds claim alignment with the Green Bond Principles, there have been growing concerns over the environmental integrity of green bonds²¹⁶ and over their lack of additionality (i.e. the projects would have been financed anyway without a green bond).

Also noteworthy is the focus on improving accountability and credibility ‘*without disrupting the market:*’ if the existing green bond market is sound, then it will not be disrupted by the new standard and there is no need to specify it; if it is unsound and the new standard addresses the issues, then it will disrupt the market and that is a good thing - in fact a necessary condition to address the issue. This statement is therefore problematic in our view and indicates debatable priorities: minimizing disruption is an understandable and legitimate concern for the financial industry, but it should not be a high priority for the legislator when designing a set of principles aimed at substantially contributing to the response to climate change.

As or more important, the alignment of the Green Bond Standard with the taxonomy is logical, but potentially problematic due to all the issues discussed in the earlier section. **Unless the issues with the taxonomy are comprehensively addressed, then the standard will arguably be built upon a weak foundation.**

207 World Economic Forum, ‘Eden bonds’: how rewilding could save the climate and your pension, 14 October 2019; <https://www.weforum.org/agenda/2019/10/rewilding-could-make-money-grow-on-trees-heres-how>

208 Blue Natural Capital Financing Facility, Blue Bonds: Financing Resilience of Coastal Ecosystems, March 2019; https://www.4climate.com/dev/wp-content/uploads/2019/04/Blue-Bonds_final.pdf

209 PIMCO, SDG Bonds: Creating a World of Opportunity for Issuers and Investors, September 2018; <https://global.pimco.com/en-gbl/insights/viewpoints/sdg-bonds-creating-a-world-of-opportunity-for-issuers-and-investors>

210 AXA magazine, Une nouvelle obligation pour accompagner la transition énergétique, 27 November 2019; <https://www.axa.com/fr/magazine/story/une-nouvelle-obligation-pour-accompagner-la-transition-energetique>

211 Nauman B, Financial Times, Investors balk at green bond from group specialising in oil tankers, 18 October 2019; <https://www.ft.com/content/b1d4201c-f142-11e9-bfa4-b25f11f42901>

212 Stanway D, Reuters, China provides \$1 billion in ‘green’ finance to coal projects in first half of the year, 19 August 2019; <https://uk.reuters.com/article/us-china-greenbonds-coal/china-provides-1-billion-in-green-finance-to-coal-projects-in-first-half-of-the-year-idUKKCN1V90FY>

213 Repsol, 2017 Green Bond Report; https://www.repsol.com/imagenes/global/es/green_bond_report_2017_tcm13-134395.pdf

214 Natwest markets, Mexico City Airport: “The green bond that was no longer,” January 2019; https://www.nwm.com/content/dam/natwestmarkets_com/News-and-Insight/Mexico-City-Airport-the-green-bond-that-wasnt.pdf

215 Institute for Climate Economics, Beyond transparency: unlocking the full potential of green bonds, June 2016; https://www.i4ce.org/wp-core/wp-content/uploads/2016/06/I4CE_Green_Bonds-1.pdf

216 Institute for Climate Economics, supra

In addition, the TEG report recommends that green projects shall align with the taxonomy and technical screening criteria, **except ‘for specific cases where these may not be directly applicable as a result of factors such as the innovative nature, the complexity, and/or the location of the Green Project(s).’**²¹⁷ We believe that these exemptions are not justified and should be removed, as they potentially open the door to regulatory arbitrage and greenwashing.

The TEG report states as well that issuers shall disclose a description of the green projects to be financed. It adds, however, that **‘where confidentiality agreements, competitive considerations, or a large number of underlying projects limit the amount of detail that can be made available, information can be presented in generic terms or on an aggregated portfolio basis.’** This provision is problematic in our view, as it can be instrumentalised to reduce scrutiny, due diligence and accountability. It should therefore be removed.

Financial, tax and prudential incentives

The TEG report recommends a number of potential incentives to support the EU green bond market. These include encouraging central banks to lead by example by expressing a preference for EU green bonds and using the green bond standard as a basis for the future ecolabel for financial products. They also include developing a full range of short and long-term financial incentives, including subsidies, co-financing or credit enhancement by partial public guarantee schemes, tax benefits and preferential prudential treatments.

This recommendation gives rise to 2 observations: first, **while there may be a case to subsidize with scarce public funding (remember the earlier ‘fiscal crisis of the State’ used to justify catastrophe bonds?), it should arguably only subsidize truly green activities** – a much narrower set of activities than those included in the taxonomy and green bond standard (which also include enabling and transitional activities). For the sake of sound public finances, it should also be remembered that not so long ago the State was able to achieve its policy objectives via binding regulation, and was not restricted to subsidies.

The suggested use of favourable prudential treatment is equally problematic in our view: there has been an ongoing policy debate around a so-called ‘green supporting factor’ that would reduce the proportion of their own capital that financial institutions are legally required to use to purchase these bonds. This is arguably a political incentive that has no place in prudential regulation as it is not about financial stability. Governor of the Bank of England Mark Carney expressed a similar view, stating that *‘some have suggested we ought to accelerate the financing of a low carbon economy by adjusting the capital regime for banks and insurers. That is flawed. History shows the danger of attempting to use such changes in prudential rules – designed to protect financial stability – for other ends.’*²¹⁸

As importantly, **In the absence of a symmetrical brown penalising factor, a green supporting factor would reduce the mandatory capital of EU banks and thus weaken the solvency of the EU banking sector**, thereby increasing its vulnerability to future financial crises and contradicting the Commission’s objective of strengthening financial stability. We are thus not against such an incentive, but believe that it should be located elsewhere and should be

²¹⁷ TEG report, *ibid*

²¹⁸ Breaking the tragedy of the horizon – climate change and financial stability, Speech by Mr Mark Carney, Governor of the Bank of England and Chairman of the Financial Stability Board, at Lloyd’s of London, London, 29 September 2015; <https://www.bis.org/review/r151009a.pdf>

mirrored by a comparable brown penalizing factor in order to be fiscally neutral, socially fair and avoid weakening banks' solvency.

Green securitization²¹⁹

The TEG report defines a green bond as *'any type of listed or unlisted bond or capital market debt instrument issued by a European or international issuer that is aligned with the EU-GBS,'* as *'verified by an accredited Verifier'* and whose proceeds are *'exclusively used to finance or re-finance in part or in full new and/or existing Green Projects.'*

This definition includes securitization, a financial instrument that enabled the 2008 financial crisis and is known to create systemic risks. It is important to realize that, **far more than loans for energy efficiency, the new sustainable finance will likely consist largely of securitizations of carbon and biodiversity offset projects and natural disaster insurance**, as the latter is far more profitable thanks to financial engineering. To this point, the TEG report provided the example of an asset-backed security backed by forest bonds as an illustrative use of the taxonomy.

A recent call to promote 'contingent climate securitizations' also came from none other than Governor of the Bank of England and UN Special Envoy on Climate Action and Finance Mark Carney.²²⁰

Green securitization already exists and displays impressive creativity: securitizations of carbon offset projects date as far back as 2008, when Credit Suisse announced a securitization that would bundle together carbon credits from 25 offset projects at various stages of UN approval from 3 countries and 5 project developers. More recently, another bank issued the first 'socially responsible synthetic securitization' called Premium Green 2017-2.²²¹ This \$3 billion transaction repackaged a number of existing loans to power, oil and gas, real estate, infrastructure, aviation, shipping, and rail and sold it to investors as a green securitization. The creative 'green' feature was that \$2 billion out of the \$3 billion were earmarked for future loans to green activities. What happened to the last billion was, however, undisclosed.

Allowing securitization in the forthcoming Green Bond Standard in addition to allowing carbon and biodiversity offsetting in the taxonomy would enable the securitization of offset projects, thereby **generating massive additional demand for offset projects**, thanks to the green bond label and to financial engineering tailoring risk adjusted returns and ratings to attract to asset managers. This would also **further increase the profitability of offset projects** via the expected subsidies attached to the green bond standard, further increasing the demand for offset credits.

This push for green securitization may also explain why a few years ago the European Commission inexplicably shifted its view on shadow banking, evolving rapidly from 'we need to regulate shadow banking' to 'we need to promote market-based finance and

219 Securitization is the financial technique whereby a bank pools together and repackages a number of loans already granted and issues bonds backed by these loans that are sold to investors, in order to transfer the risk.

220 Governor of the Bank of England Marc Carney, The road to Glasgow, 27 February 2020; <https://www.bankofengland.co.uk/-/media/boe/files/speech/2020/the-road-to-glasgow-speech-by-mark-carney.pdf>
Also see COP26 private finance strategy to drive Whole Economy Transition; <https://www.bankofengland.co.uk/-/media/boe/files/events/2020/february/cop26-private-finance-strategy.pdf>

221 Global Trade Review, Crédit Agricole completes green securitisation, 08 March 2017; <https://www.gtreview.com/news/global/credit-agricole-completes-green-securitisation/>

securitization' (synonyms for shadow banking). As a result, a loose quality label encompassing the majority of existing securitisations was created and subsidies were provided for this new 'good' securitization. Sound familiar?

The inclusion of securitization in the Green Bond Standard would add the financial stability issues of securitization to the environmental, social and financial stability issues of offsets.

The securitization of offset projects would combine the issues of offset projects:

- ▣ Highly uncertain and volatile prices due to the incredibly high scientific and regulatory uncertainty, creating a high risk of market failure and of brutal loss of confidence from investors;²²²
- ▣ Very low environmental integrity due to the documented inability to accurately measure the impact of offset projects and recreate what has been destroyed;
- ▣ Appalling social impact of many projects with documented human rights violations against indigenous communities;

... With the systemic risks of securitization:

- ▣ Magnification of the risk of adverse selection: as investors find themselves unable to calculate the additionality of offset projects, relying instead on external verifiers, they struggle to distinguish between good and bad offset projects, thereby increasing the risk of choosing projects that will fail. Securitization magnifies this risk by bundling together a very large number of projects of mixed types and origins and by using complex financial structures;
- ▣ 'Originate to distribute' model: offset project developers are less incentivised to make sure that their projects deliver, as the risk is transferred to investors. This is in fact exactly what happened before the financial crisis, when the use of securitization led to a decline in lending standards and reduced accountability;
- ▣ Delegation of due diligence to 3rd party rating agencies, which lead in turn to reduced due diligence efforts being conducted by investors, conflicts of interests, cliff effects²²³ and a dangerously uniform view of risk;
- ▣ Systemic risk factors: interconnectedness; procyclicality of lending; excessive maturity transformation; reliance on wholesale funding; lack of transparency.²²⁴

A 2010 report from the French Ministry of the Economy²²⁵ already highlighted that the development of securitisations of carbon offset projects *'can create risk valuation issues and,*

222 See Hache F, 50 shades of green part: carbon I, pages 41-47 *ibid*, and Hache F, 50 shades of green part II: the fallacy of environmental markets, pages 53-58; <https://greenfinanceobservatory.org/wp-content/uploads/2019/05/50-shades-biodiversity-final.pdf>

223 When a rating downgrade leads a bond to move from investment grade (Aaa to Baa3 from Moody's or AAA to BBB- for Standard & Poor's) to non-investment grade, in turn forcing a number of asset managers to sell it as their mandate requires that they invest only in investment grade bonds.

224 For more details on these systemic risk factors, see Hache F, Finance Watch, A missed opportunity to revive boring finance, 2014, pages 35-59; <https://www.finance-watch.org/wp-content/uploads/2018/08/FW-report-LTF-dec-2014.pdf>

225 La régulation des marchés du CO2 - Rapport de la mission confiée à Michel PRADA, April 2010; <http://www.ladocumentationfrancaise.fr/rapports-publics/104000201/>

should their importance grow significantly, involve a risk of destabilisation of the related market. In the case of CO₂, this risk appears in addition increased by the short maturity of the underlying market that may intensify valuation issues.' The report emphasized that carbon collateralized debt obligations (CDOs) appear more risky than traditional CDOs due to the lack of historical data available to accurately measure the probability of project failure and risk correlations.

The allowance for securitization in the Green Bond Standard would thus contradict the Commission's objective of strengthening financial stability.

Green securitization could also allow for 'greenness enhancement' via financial engineering techniques, just like the securitization of mortgages allows for credit enhancement: Through techniques like overcollateralization and tranching, securitization enables the transformation of risky loans into AAA-rated securities. Overcollateralization refers to the technique of using more loans as collateral than bonds are issued: say for example that you have a €100 million portfolio of loans with a 5% probability of non-repayment. If you issue only €98 millions of securitized bonds whose repayment is linked to the repayment of the €100 million worth of underlying loans, then the probability of non-repayment on the €98 million is lower, and the rating of the bonds improves correspondingly.

Tranching refers to the practice of issuing different types of securities against a pool of underlying assets. One type of security will absorb the first losses in the whole pool of assets and be compensated by a higher return. A second type of security will absorb the losses once they exceed the first tranche, and the same process continues for the senior tranches. Thanks to the buffer provided by the more junior tranches, the senior tranche is usually considered very safe, unlikely to experience losses and consequently often gets the highest rating. Tranching is thus the alchemy that typically permits the transformation of €100 worth of risky loans into €80 of AAA rated bonds (called the senior tranche) – incorrectly considered to be almost risk free – and €20 of super risky bonds. Likewise, **a green securitization pooling together offset projects of debatable environmental integrity and at various stages of regulatory approval may use similar techniques to enable their transformation into securities that are labelled green.**

In addition, and as stated in a recent article, *'securitization is the result of decades of financial deregulation and tax cuts on capital gains and is driven by the thirst for large, instantaneous profits. To persuade the private sector to partner in long-term projects with real world benefits involves offering such enticements as a return of 10% or more. (...) Meeting such guarantees involves subsidies from public resources diminishing the public sector's ability to make its own SDG investments.'*²²⁶

Green securitization would also further disempower indigenous communities: as offset projects are securitized and sold to a multitude of faraway investors, local communities that are adversely impacted by a project can no longer go to the project owner or the regional government to advocate for their interests, as the project may now be owned in part by e.g. an investor in Qatar, a German pension fund and a Chinese asset manager, to which they have no access. While negotiations, however difficult, were until now at least theoretically possible with a unique and local representative, it is effectively impossible to negotiate with a multitude of foreign parties.

²²⁶ Montes M F, Inter Press Services, Private Finance and Agenda 2030: Way Off-Track; <http://www.ipsnews.net/2019/10/private-finance-agenda-2030-way-off-track/>

Recommendations for the future Green Bond Standard:

- i. Based on all of the above, **securitization should be explicitly excluded from the future Green Bond Standard**, and only plain vanilla bonds should be allowed. There is no need for complex financial instruments and financial engineering to finance green activities. Excluding securitization would greatly reduce the risk of greenwashing, and avoid the promotion of doomed offset markets.
- ii. We also hope that the future standard will remove the undue focus on not disrupting the market, **remove the exemptions for ‘innovative nature’, complexity or location of green projects**, and remove the allowance for presenting information in generic terms or on an aggregated basis.
- iii. We hope that the standard will **not allow a green supporting factor unless matched by a similar brown penalising factor**, in order to maintain EU banks’ solvency.
- iv. Last but not least, we hope that the standard **will limit any financial incentives to the green category in the taxonomy and exclude enabling and transitional activities**.

b. A greenish Ecolabel

In its action plan, the Commission expressed its intention to create a voluntary EU-wide labelling scheme for financial instruments offered to retail investors.

It is suggested that the Ecolabel should start with so-called ‘packaged financial products’ before extending its scope to simpler products.

Five criteria are put forward to determine whether a financial product is sufficiently green:

- i. Green economic activities are to be based on the taxonomy via a look-through approach. A minimum threshold is added: it is proposed that **‘70% of the total portfolio asset value shall be invested in green economic activities;’**²²⁷
- ii. Specific sectors will be excluded based on environmental aspects – such as coal, natural gas, and crude oil extraction, illegal deforestation, and production of pesticides not authorized for use in the EU. It is, however, proposed that these exemptions be partial rather than total, with a **‘cut off threshold of 5% of the total revenue derived from each company (...) associated with these excluded activities;’**²²⁸
- iii. Exclusions based on social and ethical aspects: activities that contravene fundamental labour conventions and human rights are excluded, as well as tobacco and weapons production.
- iv. Consumer information shall explain the methodology used as well as the environmental and financial objectives;
- v. Information appearing on the Ecolabel shall include a logo plus an optional statement specifying the chosen environmental objective(s) of the financial product.

227 European Commission Joint Research Centre, EU Ecolabel Criteria for Financial Products Technical report and criteria proposal (1st Draft), 4 April 2019; https://susproc.jrc.ec.europa.eu/Financial_products/docs/1AHWG%20meeting_Financial%20Products%2004042019.pdf

228 European Commission Joint Research Centre, ibid

According to the report, the criteria shall *‘correspond approximately to **the top best (10 – 20 %) environmentally performing products** according to the EU Ecolabel Regulation 66/2010.*²²⁹

The final draft technical criteria are expected around the summer for adoption at the end of 2020.

The proposal raises serious concerns regarding its environmental integrity and the risk of mis-selling:

- ▣ It is **based on a weak taxonomy that is incompatible with what science tells us**. It remains to be seen whether environmental exclusions will meaningfully address this issue, but using a weak taxonomy as a starting point is arguably not a sound basis for a green label;
- ▣ We hope at least that **only the green activities of the taxonomy will be allowed**, and not the enabling and transitional ones.
- ▣ **The Ecolabel is based on fostering economic growth rather than promoting a reduction of our use of energy and natural resources**, as evidenced by the following statement: *‘green investment is the financing of investments that provide environmental benefits such as a reduction in GHG and air pollutant emissions, **without reducing the production and consumption of non-energy goods.***²³⁰ We hope that the final text will replace ‘without’ by ‘while’, or at the very least by ‘with or without.’
- ▣ The proposal for a 70% threshold of green economic activities in the investment product has no justification and should be rejected in our view, as well as the 5% allowance for excluded activities. **Only green economic activities should be in the EU ecolabel, i.e. no less than 100%**, and exclusions should be total, not partial. Failure to do so could seriously damage public trust in the Ecolabel, threaten its credibility and that of sustainable finance as a whole. This would contradict the report’s statement that *‘EU standards and labels for sustainable financial products would protect the integrity of and trust in the sustainable financial market.’*
- ▣ This would also create a **significant risk of mis-selling**, as non-professional investors are likely to assume that Ecolabeled investments only invest in green economic activities and are compatible with scientific evidence. We all know that public trust is easy to destroy and very hard and costly to rebuild once lost; an Ecolabel that is not green would be worse than no Ecolabel and a tremendous waste of time and taxpayer money. The recent **FSC certification scandal** shows the danger of a green label with dubious environmental integrity.²³¹
- ▣ The inclusion in the Ecolabel of Packaged Retail Investment Products (PRIIPs) is also a concern: these products typically include complex structured products relying on financial engineering, that create a higher risk of **inappropriate transfer of risk** compared to simpler products. As an example, a few years ago, some banks that were legally required to increase their capital decided to transfer creatively the risk of non-compliance with the new capital regulations to Spanish pensioners via so-called contingent convertible bonds:²³² should the bank’s capital fall below a certain threshold, pensioners buying the

229 European Commission Joint Research Centre, *ibid*

230 European Commission Joint Research Centre, *ibid*

231 FSC Watch, New documentary slams FSC: ‘the ecolabel could not slow down the forest industry,’ Arte documentary; <https://fsc-watch.com/2018/10/18/new-documentary-slams-fsc-the-eco-label-could-not-slow-down-the-forest-industry/>

232 Jenkins P, Johnson M, Financial Times, Santander acts to end ‘valores’ dispute, 3 October 2012; <https://www.ft.com/content/e794e4dc-0d71-11e2-bfcb-00144feabdc0>
Buck T, Financial Times, Santander fined €16.9m over mis-selling scandal, 17 February 2014; <https://www.ft.com/content/afed86dc-97e6-11e3-ab60-00144feab7de>

bonds would see their investment automatically converted into shares of the bank. These unsophisticated investors lacked an informed opinion on the likelihood of such an event happening, or on the consequence of the conversion for their investment. Along the same lines, there is a **non-negligible risk that companies may try to transfer with structured financial products their risk of non-compliance with GHG emissions or biodiversity destruction regulations to retail investors via new types of environmental bonds**. As only 20% of the respondents to the survey²³³ conducted by the European Commission said that structured products should be included, we strongly hope that structured products and financial derivatives will not be allowed in the Ecolabel.

Recommendations

Based on all of the above, we hope that the future Ecolabel will:

- ▣ Only allow green activities and exclude enabling and transitional activities;
- ▣ Go much beyond the taxonomy via a comprehensive list of total exclusions in order to align the label with what science tells us;
- ▣ Mandate that 100% of the product be invested in green activities;
- ▣ Replace in the definition of green investment '*without reducing the production and consumption of non-energy goods*' by '*while*' or delete this section;
- ▣ Explicitly exclude structured products and derivatives;
- ▣ Explicitly exclude carbon and biodiversity offsetting, due to their unsolvable environmental issues and appalling social track record.

233 European Commission Joint Research Centre, *ibid*

IV. CLIMATE POLICIES FOR THE 25%?



1. Better than nothing?

When discussing the glaring gap between the sustainable finance agenda and the climate emergency or the conceptual issues of offsetting and nature-based solutions, the answer that comes most often is ‘ok we know it’s not great and does not really work, but it’s better than nothing.’

First, it is interesting to note that this is a political answer that does not address the issues highlighted. Politics is said to be the art of the possible. But what is possible depends not only on short term negotiations but also on political actors’ ambition, imagination and political courage, i.e. willingness to do the right thing at the risk of not being re-elected.

Secondly and more importantly, **inadequate climate and sustainability policies are not better than nothing but instead worse than nothing**: policies that are incompatible with science and rely on broken tools arguably waste precious time and resources; they also typically come instead of, and not in addition to more robust alternatives: once a policy, however inadequate, has been adopted, the issue is deemed to be addressed and the political momentum shifts to another topic.

Weak new policies can also be instrumentalised to dismantle existing regulations under the argument that they are no longer needed, or to prevent new robust ones. In this respect, **the ‘one in, one out’ policy of the new European Commission is a serious concern**: the new Commission indicated that ‘*when the Commission creates new laws and regulations, it will apply a policy of scrapping an existing law to ‘relieve people and businesses of an equivalent existing burden at EU level in the same policy area.*’²³⁴ It may lead to existing climate and biodiversity regulations being scrapped as new doomed market-based solutions are implemented.

Finally, the question of whether it is better than nothing is a moot one, as it would be impossible to have nothing: no European government could tell its citizens that it decided to not address environmental issues. All of this makes sustainable finance policies not aligned with science and broken policy tools such as offset markets actually worse than nothing.

2. Knowing all the issues, why do we continue?

For the first time in its 15 years history, the top 5 global risks in the Davos risk report were environmental risks.²³⁵ The top 2 short term risks were ‘economic confrontations’ and ‘domestic political polarisation.’

The recent EU Green Deal communication concurred, highlighting that climate change is a significant threat multiplier and a source of instability that will reshape geopolitics, and could become a source of conflict, food insecurity, population displacement and forced migration.²³⁶ While the 22 million people displaced due to extreme weather events in 2019 may sound like a

234 Transport & Environment, VdL’s ‘one in, one out’ policy ‘incompatible’ with climate efforts, 1 October 2019; <https://www.transportenvironment.org/news/vdl%E2%80%99s-%E2%80%98one-one-out%E2%80%99-policy-%E2%80%98incompatible%E2%80%99-climate-efforts>

235 Valero J, Euractiv, ‘Green’ alert: environmental risks top Davos report, 15 Jan 2020; <https://www.euractiv.com/section/climate-environment/news/green-alert-environmental-risks-top-davos-report>

236 European Commission, Green Deal communication, ibid

big number, it pales in comparison with to the 200 million climate refugees expected by 2050,²³⁷ with a worst-case scenario of 1 billion according to the UN.

Also according to the UN,²³⁸ **we are ‘on course for more than 3 degrees spike, even if climate commitments are met’**, and in the absence of policies, global warming is expected to reach 4.1°C – 4.8°C above pre-industrial by the end of the century.²³⁹ Recent research in preparation for the next IPCC report however found that global warming could reach +7°C by 2100.²⁴⁰

Reaching even only 3°C above pre-industrial levels by 2050 could *‘realise the “hothouse Earth” scenario in which the planet would be heading for at least another degree of warming. The reflective sea ice would melt, warming oceans further and raising sea levels rapidly. There would be “widespread permafrost loss and large-scale Amazon drought and dieback”.*²⁴¹

Scientists have already warned that **warming of 4°C is incompatible with an organised global community**. According to the World Bank, the planet may be “beyond adaptation” to such conditions and a report warned that there is a *‘high likelihood of human civilisation coming to an end by 2050.*²⁴²

The director of the Potsdam Institute for Climate Impact Research, one of the leading researchers on climate tipping points recently stated that in a 4°C warmer world, **‘it’s difficult to see how we could accommodate eight billion people or even half of that... There will be a rich minority of people who survive with modern lifestyles, no doubt, but it will be a turbulent, conflict-ridden world.**²⁴³ Another analysis concurred, finding that without major reductions in emissions of greenhouse gases such as CO₂, **up to three in four people will face the threat of dying from heat by 2100.**²⁴⁴

This means that the more we continue to fail at mitigating climate change, the more likely we are to continue on a 3-4°C trajectory, which will in turn be associated with unprecedented migrations, food and water insecurity, conflicts over resources and billions of deaths.

This begs the question: **why do we continue pursuing incremental policies not aligned with science, knowing what awaits us?**

237 The range estimated is 25 million to 1 billion, with 200 million the most widely cited estimate. Kamal B, Inter Presse Services News Agency, Climate Migrants Might Reach One Billion by 2050, 21 August 2017: <http://www.ipsnews.net/2017/08/climate-migrants-might-reach-one-billion-by-2050/>; Bassetti F, Climate Foresight, Environmental Migrants: Up To 1 Billion By 2050; <https://www.climateforesight.eu/migrations/environmental-migrants-up-to-1-billion-by-2050/>

238 UN emissions report: World on course for more than 3 degree spike, even if climate commitments are met; <https://news.un.org/en/story/2019/11/1052171>

Hirji Z, BuzzFeed News, “We Cannot Afford To Fail”: A New UN Report Is Forecasting Potentially Catastrophic Warming, 26 November 2019; <https://www.buzzfeednews.com/article/zahrahirji/climate-crisis-un-report-2019>

239 Climate Action Tracker; <https://climateactiontracker.org/global/temperatures/>

240 Garric A, Le Monde, Jusqu’à + 7 °C en 2100 : les experts français du climat aggravent leurs projections sur le réchauffement, 17 Septembre 2019; https://www.lemonde.fr/planete/article/2019/09/17/jusqu-a-7-c-en-2100-les-experts-francais-du-climat-aggravent-leurs-projections-sur-le-rechauffement_5511336_3244.html

241 Cockburn H, The Independent, ‘High likelihood of human civilisation coming to end’ by 2050, report finds, 4 June 2019; <https://www.independent.co.uk/environment/climate-change-global-warming-end-human-civilisation-research-a8943531.html>

242 The Independent, *ibid*

243 Vince G, The Guardian, the heat is on over the climate crisis. Only radical measures will work, 18 May 2019; <https://www.theguardian.com/environment/2019/may/18/climate-crisis-heat-is-on-global-heating-four-degrees-2100-change-way-we-live>

244 Leahy S, National Geographic, By 2100, Deadly Heat May Threaten Majority of Humankind, 19 June 2017; <https://www.nationalgeographic.com/news/2017/06/heatwaves-climate-change-global-warming/>

There are several partial answers to this complicated question:

Entrenched economic and political interests favour maintaining the status quo: many elected officials fear that truly addressing climate change would create an economic recession, generate a public backlash and cost them their re-election, and find it easier to shoot the can down the road to the next government. To be fair, a large proportion of citizens of developed countries are also not ready to accept the lifestyle changes that are required.

The push to protect the status quo generally goes hand in hand with an **over-optimistic reliance on future technological innovation** to address the issue without changing our lifestyles and abandoning economic growth. While technological innovation will certainly play a major role, there is no silver bullet unique solution, and dismissing the necessary change in developed countries' lifestyles is a dangerous illusion. The magic technofix illusion was exemplified by a recent article in the Financial Times stating that *'we will not stop relying on fossil fuels by choosing universal impoverishment (...) So we must massively accelerate technological progress away from burning fossil fuels (...) If we do achieve that, the size of our economy ceases to be the issue: however big it becomes, it ceases to emit greenhouse gases.'*²⁴⁵ It is of course logical and legitimate to first see if the issue can be addressed without changing our way of life and giving up on growth, but scientific evidence simply doesn't support the idea that this will be sufficient.

Alternative views asking for more ambitious climate policies aligned with science are often dismissed as being 'radical' or 'extreme.' Yet, **proposing drastic solutions in the face of an extreme and unprecedented situation threatening our civilisation is simply pragmatic and rational.** What is radical, on the contrary, is to propose lukewarm soft solutions to address an extreme situation. As Executive Vice President of the European Commission Frans Timmermans recently stated: *'let's imagine a big comet is hurtling towards earth and will hit us in a decade or so. Will we then say 'yes, we have to do something, but not too disruptive please?' No, we would fix it.'*²⁴⁶

This is **compounded by the failure of economists to estimate the true costs of climate change**, leading to world leaders understanding neither the magnitude of the risks to lives and livelihoods, nor the urgency of action.²⁴⁷ As an extreme example, economist William Nordhaus received the 2018 Nobel prize in economics for his work integrating climate change into long-run macroeconomic analyses, in which he famously described a 4°C rise compared to pre-industrial levels as being 'optimal.' His model was subsequently debunked by economist Steve Keen and others;²⁴⁸ the mere suggestion that a 4°C world where the tropics are inhabitable, entire cities are drowned, large agricultural zones become unproductive would be optimal also

245 Wolf M, Financial Times, Last chance for the climate transition, 18 February 2020; <https://www.ft.com/content/3090b1fe-51a6-11ea-8841-482eed0038b1>

246 Frans Timmermans, 5 December 2019; <https://twitter.com/TimmermansEU/status/1202538438366547973>

247 Oreskes N, Stern N, The New York Times, Climate Change Will Cost Us Even More Than We Think, 23 October 2019; <https://www.nytimes.com/2019/10/23/opinion/climate-change-costs.html#click=https://t.co/l6SYLRPMaY>
DeFries & al, The missing economic risks in assessments of climate change impacts, 20 September 2019, Grantham Research Institute on Climate Change and the Environment; <http://www.lse.ac.uk/GranthamInstitute/publication/the-missing-economic-risks-in-assessments-of-climate-change-impacts/>

248 Steve Keen, OECD conference 'Averting systemic collapse'; <https://twitter.com/Jumpsteady/status/1186762088666075136>
Keen S, The Conversation, '4°C of global warming is optimal' – even Nobel Prize winners are getting things catastrophically wrong, 14 November 2019; <https://theconversation.com/amp/4-c-of-global-warming-is-optimal-even-nobel-prize-winners-are-getting-things-catastrophically-wrong-125802>
Turner A, Il n'y a pas de réchauffement climatique optimal, Alternatives Economiques, 19 August 2019; <https://www.alternatives-economiques.fr/adair-turner/ny-a-de-rechauffement-climatique-optimal/00090060>

shows a colossal failure of common sense. A number of scientists have also been co-opted by the established system, believing that they need to keep their advice in line with current economic thinking, or they will be ignored.²⁴⁹

Intense lobbying from the industry and co-opted parts of civil society further prevents meaningful action. A recent report documented how BP, Exxon, Shell, Total and Chevron have spent €250 million between 2010 and 2018 to *'delay, weaken and sabotage climate action.'*²⁵⁰ Shell CEO also recently famously stated that *'despite what a lot of activists say, it is entirely legitimate to invest in oil and gas because the world demands it.'*²⁵¹ A leaked memo from Business Europe, the most influential business lobby, had earlier revealed its plans to oppose any increase in EU climate ambitions, stating that *'the main line to take about the EU's climate policy should be "rather positive, as long as it remains a political statement with no implications."*²⁵² These lobbying efforts are reinforced by several co-opted international NGOs, which also favour a soft approach and support the financialization of nature, as funding pressure or personal ambitions have taken precedence over their original mission. This is problematic as these NGOs are then instrumentalized by opponents to meaningful climate action, who can claim that they are merely following civil society's requests.

A political win and an environmental failure: incremental market-based policies have been both an environmental failure and a political success for the past 15 years with the EU carbon market. This makes it very difficult for policy makers to abandon them: their political appeal resides in their ability to reconcile on the surface diverging interests by promising everything to everyone 'once the price is right': environmentalists will save the planet and business interests will get a minimized cost of compliance.

Through the continued hope that everything will work out 'once the price is right', market-based tools are able to maintain more political support over time than alternative policy tools with a comparably poor track record. As an example, a carbon tax set up 15 years ago at the level of the market price of CO₂ would have likely generated far more public outcry for governments to increase it. Likewise, a scheduled phasing out of fossil fuels implemented 15 years ago but planning no action for the first 15 years would in all likelihood have been politically untenable. Market-based tools, whether carbon offsets, biodiversity offsets or sustainable finance products can thus also be understood as offering more political room for manoeuvre than more binding and robust policy alternatives.

Sustainable finance also depoliticizes the climate and biodiversity debate, by avoiding a discussion of distributional issues linked to the acknowledgement that infinite growth is impossible, by failing to integrate the concept of differentiated responsibilities, and by obfuscating the trade-offs being made. Yet, the financialization and securitization of climate and biodiversity policies will arguably increase inequalities by replacing the role of the State as an actor and insurer of last resort acting on a principle of national solidarity by a role of market supervisor and subsidies provider for private finance, and by likely failing to address climate

249 Kalaugher L, Physics World, Climate scientist or climate activist – where's the line? 20 September 2019; <https://physicsworld.com/a/climate-scientist-or-climate-activist-wheres-the-line/>

250 Gueugneau C, Mediapart, Un rapport pointe le lobbying intense des entreprises fossiles à Bruxelles et Paris, 24 October 2019; <https://www.mediapart.fr/journal/international/241019/un-rapport-pointe-le-lobbying-intense-des-entreprises-fossiles-bruxelles-et-paris>

251 Bousso R, Zhdannikov D, Reuters, Exclusive: No choice but to invest in oil, Shell CEO says, 15 October 2019; <https://www.reuters.com/article/us-shell-climate-exclusive/exclusive-no-choice-but-to-invest-in-oil-shell-ceo-says-idUSKBN1WT2JL>

252 Simon F, Euractiv, Business lobby prepares pushback against EU climate goals update, 19 September 2018; <https://www.euractiv.com/section/climate-environment/news/business-lobby-prepares-pushback-against-eu-climate-goals-update/>

change, which ‘may result in the largest transfer of wealth from poor to rich in US history.’²⁵³

It also shifts the debate away from phasing out fossil fuels and towards secondary topics such as finding the optimal level of green subsidies for banks or the granularity of ESG disclosures. It has also been argued that **green finance may play the additional role of saving capitalism:** ‘financialization seeks to address two pressing problems now facing investors: how to invest the massive amounts of private wealth and liquidity present today in capital markets, and at the same time how to create new financial instruments that will generate additional revenues for the financial industry.’²⁵⁴

Differentiated impact and ‘secession of the elites:’ unlike pandemics, climate change will affect primarily the poorest and most vulnerable populations. In its 2017 book,²⁵⁵ French philosopher Bruno Latour posited that ‘the present ecological mutation has organized the whole political landscape for the last thirty years. This could explain the deadly cocktail of exploding inequalities, massive deregulation, and conversion of the dream of globalization into a nightmare for most people. What holds these three phenomena together is the conviction, shared by some powerful people, that the ecological threat is real and that the only way for them to survive is to abandon any pretence at sharing a common future with the rest of the world (...) It is as though a significant segment of the ruling classes (...) had concluded that the earth no longer had room enough for them and everyone else.’

He continued, ‘the inhabitants of the wealthy countries understand that they will have to change their ways of life completely. The sense of vertigo, almost of panic that traverses all contemporary politics arises owing to the fact that the land is giving way beneath everyone’s feet at once, as if we all felt attacked everywhere, in our habits and in our possessions. Have you noticed how the emotions mobilized are not the same when you’re asked to defend nature – you yawn, you’re bored – as when you’re asked to defend your territory – now you’re wide awake, suddenly mobilized? (...) it’s a question of attachment, of lifestyle that is being pulled out from under us, a question of land, of property giving way beneath us, and this uneasiness gnaws at everyone equally.’ ‘To go back to the well-worn metaphor of the Titanic, the ruling classes understand that the shipwreck is certain; they reserve the lifeboats for themselves and ask the orchestra to play lullabies so that they can take advantage of the darkness to beat their retreat before the ship’s increasing listing alerts the other classes! For a clarifying episode that is not metaphorical in the least: Exxon-Mobil, in the early 1990s, knowing full well what it was doing after publishing excellent scientific articles on the dangers of climate change, chose to invest massively in frenetic extraction of oil and at the same time in an equally frenetic campaign to proclaim the non-existence of the threat.’ ‘These people (...) understood that, if they wanted to survive in comfort, they had to stop pretending, even in their dreams, to share the earth

253 Milman O, The Guardian, Climate change set to worsen inequality in US if greenhouse gases aren’t reduced, 29 June 2017; <https://amp.theguardian.com/environment/2017/jun/29/climate-change-income-inequality-environment>

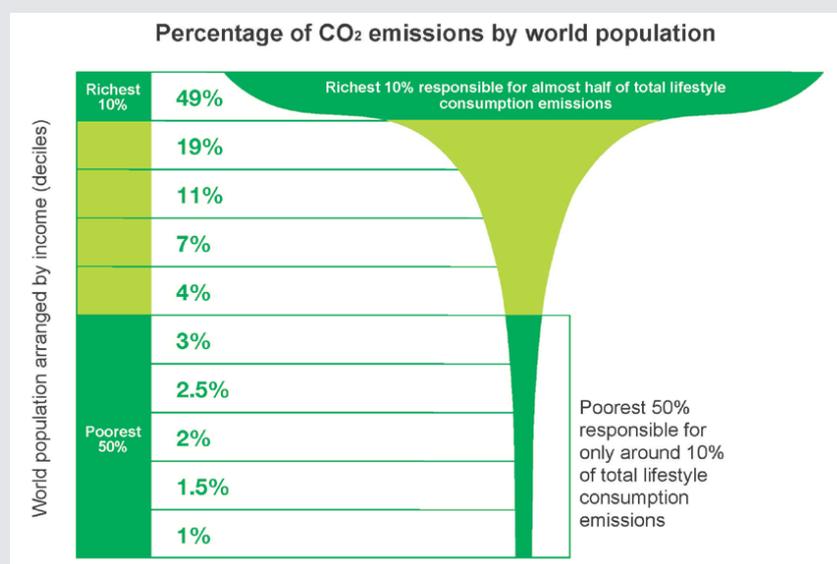
254 Tricarico A, The Coming Financial Enclosure Of The Commons, 22 August 2016; <https://countercurrents.org/2016/08/the-coming-financial-enclosure-of-the-commons>

255 Latour B, Down to Earth: Politics in the New Climatic Regime; <http://www.bruno-latour.fr/node/754>, originally published as *Où atterrir ? Comment s’orienter en politique*; https://www.editionsladelacouverte.fr/catalogue/index-O-atterrir_-9782707197009.html
Sociology professor Ramzig Keucheyan expressed similar ideas, stating that ‘an idea well established in environmental circles is to think that the ruling classes are passive in the face of the environmental crisis. It is often accompanied by a second idea, which is that the short-term logic that underlies capitalism makes it by definition incapable to manage the problem of climate change. These two ideas are false and politically dangerous. What the current evolutions in insurance and finance demonstrate, or in another register military reflections on climate change, is that the ruling classes devote a significant part of their energy to imagine solutions to climate change. Solutions corresponding of course to their interests, and not to the interests of the working classes.’ Keucheyan R, The Financialization of Natural Disasters: Insurance, Finance and Climate Change, 2017; https://www.cairn-int.info/article-E_AMX_061_0079--the-financialization-of-natural.htm

with the rest of the world (...) because they knew, before anyone, that such modernization was impossible – precisely for want of a planet vast enough for their dreams of growth for all.'

Latour's theory of a secession of the elites may explain in no small part current climate policies that are so misaligned with science. They may also explain why many Silicon Valley's billionaires purchased vast pieces of land in New Zealand.²⁵⁶ As anthropologist and economist David Graeber stated, *'whenever you find someone doing something in the name of economic efficiency that seems economically completely irrational (...) one has best to start by asking, as the ancient Romans did "Qui bono?" – who benefits, and how?'*²⁵⁷

In fact, as a senior EU bubble insider recently told me off the record, *'it's pointless to do anything about climate change in Europe, it will only destroy our industry and benefit the Chinese. In any event, we know that all the poor will die. This is a problem of overpopulation.'* Such a view would seem to concur with Latour's theory. The overpopulation myth is however contradicted by the facts, as shown in the chart below.



Source: Oxfam, Extreme Carbon Inequality, Media Briefing, 2015

High Representative of the EU for Foreign Affairs and Security Policy/Vice-President of the European Commission Josep Borrell Fontelles recently declared that *'the idea that young people are seriously committed to stopping climate change – we could call it the 'Greta syndrome'... Permit me my doubts. It is fine to demonstrate against climate change so long as nobody asks you to pay for it. I wonder if young people demonstrating on the streets of Berlin to call for measures against climate change are aware of the cost of these measures; and if they are willing to reduce their living standards to compensate Polish miners, because if we fight seriously against climate change, they will lose their jobs and will have to be subsidized.'*²⁵⁸ In other words, it is assumed that citizens of developed countries will choose to maintain their

256 O'Connell M, The Guardian, Why Silicon Valley billionaires are prepping for the apocalypse in New Zealand, 15 February 2018; <https://www.theguardian.com/news/2018/feb/15/why-silicon-valley-billionaires-are-prepping-for-the-apocalypse-in-new-zealand>

257 Graeber D, Bullshit jobs: a theory, 2018; <https://www.simonandschuster.com/books/Bullshit-Jobs/David-Graeber/9781501143335>

258 <https://twitter.com/DianaRibaGiner/status/1225413312671776769>

living standards over fighting seriously against climate change. While this is certainly true of a significant proportion of EU citizens, it is certainly not true of all when our survival is at stake. It could also be argued that the role of policy makers is precisely to take the long-term view, do the right thing and address the issue.

It is important to realize that **there will be no ecological consensus, because there cannot be one: we have to choose between climate policies for the many and climate policies for the few**, and we will likely never reach a consensus around either of these options.²⁵⁹ Such a view goes against the commonly held view that in order to address climate change, we need to move beyond our divisions. While true, such a statement dismisses the social tensions that need to be addressed in order to get there. In his book 'Nature is a Battlefield,' sociologist Keucheyan explains that diverging interests – social movements, States, financial markets, insurers, international institutions - will fight to promote their agenda, and thereby lead to increased social tensions. As an illustration, he explains that already today, if you want to know where hazardous waste is most likely to be buried, ask yourself where the poor neighbourhoods are.²⁶⁰

To be clear, **we are facing a crucial choice where there is no good option: either act decisively and immediately to curb our GHG emissions and biodiversity destruction, which would most likely be very unpopular, cause an economic recession, or pursue incremental policies that will likely result in billions of deaths.** No government is currently willing to choose the first option because it would most certainly bar any prospect of re-election. A large proportion of EU citizens are also not ready to accept the lifestyle changes that are required. Yet, this is a choice that cannot be avoided, and any action that we take or do not take is an implicit answer to this choice.

In this respect, **incremental policies not aligned with science and relying on doomed policy tools could arguably be described as having implicitly answered that choice**, as they will likely fail to meaningfully alter the current 3+°C trajectory.

A consensual view within EU policy circles is that it would probably take a natural disaster of twice the magnitude of Australia's bushfires taking place in a major European city for us to muster the willingness to act decisively, as we have become addicted to '*being superman thanks to fossil energy*.'²⁶¹ Let's hope that we will show the foresight, courage, solidarity, compassion and ambition that we are sometimes capable of to avoid this gloomy scenario.

259 André Gorz, another French philosopher, had already written 40 years ago that '*when capitalism will incorporate the environmental constraint, it will do so in its own interest, not in the interest of the people. There is "their" ecology, that of the capitalists, and there is "ours", that of the populations.*' Keucheyan R, « *Leur écologie et la nôtre* », quarante ans après, October 2016; <http://www.contretemps.eu/keucheyan-gorz-ecologie/>

260 Keucheyan R, La nature est un champ de bataille – Essai d'écologie politique, 20 March 2014; <https://www.babelio.com/livres/Keucheyan-La-nature-est-un-champ-de-bataille/638324>
Toxic wastes and race in the United State - A National Report on the Racial and Socio-Economic Characteristics of Communities with Hazardous Waste Sites, 1987; <https://www.nrc.gov/docs/ML1310/ML13109A339.pdf>

261 '*For two centuries we have spent our time replacing renewable energies with energies of limited stock, asserts the engineer and climate specialist Jean-Marc Jancovici in his opening remarks to second year students. "Why? Men are not morons: there is a deep physical reason for this (...) It's very simple, we are 7 billion human beings today, on Earth, if we wanted to produce as much power as today without machines, we would have to be 1,400 billion humans." Irresistible Superman clothes, which have multiplied growth, wealth ... and CO₂ emissions into the atmosphere. "We cannot replace all this with 100% renewable energies: it is incompatible with the current functioning of our economic system." Hence the need, according to the engineer, to abandon the idea that the decarbonization of the economy can go hand in hand with the race for the gain of GDP which drives our economic system.*' Jancovici JM, CO₂ ou PIB il faut choisir, leçon inaugurale à Sciences Po, 29 August 2019; <https://www.sciencespo.fr/actualites/actualite/C3%A9s/%E2%80%9Cco2-ou-pib-il-faut-choisir%E2%80%9D/4307>

CONCLUSION

The new sustainable agenda and related policy proposals are unlikely to meet their stated objectives:

1. They will **foster only a modest reorientation of capital flows** to sustainable activities, compared to robust binding environmental policies that would make all finance sustainable. This is linked to their strong focus on (sustainable) economic growth and competitiveness;
2. The taxonomy is arguably **not compatible with what science tells us** we need to do and by when; it could also **foster doomed policy tools** such as carbon and biodiversity offsetting. As a result, it would be unlikely to meaningfully address climate change and biodiversity loss;
3. **Instead of reducing inequalities, it may on the contrary increase them** through the depoliticization of climate policies and the illusion of green growth preventing a public debate on distributional issues, through the remodelling of the role of the State and the partial transfer of natural disaster insurance to financial markets;
4. **Instead of strengthening financial stability, it will arguably likely weaken it** through its fostering of new procyclical asset classes with highly uncertain prices and of green securitization, which would also create moral hazard;
5. It will **not foster transparency** if it is to allow green securitization and other complex financial engineering techniques, and to foster new complex market-based offset schemes.

Given the expected use of the taxonomy for future green bonds, green retail savings products and central bank quantitative easing policies, the implications are tremendous and cannot be overstated.

What we need instead are climate and biodiversity policies that are aligned with science, and do not rely on doomed offsets. **Sustainable finance has a role to play, but a complementary one, and based on a very different sustainable finance:** a sustainable finance based on a reduction in the consumption of energy and natural resources in developed countries instead of green growth; one that is aligned with science; and one who cares for all EU citizens, not just those who can pay. Such a sustainable finance would for example include loans for energy efficiency, passive housing, green public transportation, local organic food production, increasing public healthcare adaptation capabilities, and bulking-up public emergency response capabilities.

This is of course not to say that economic growth will stop tomorrow, but that it should no longer be the main metric against which all policies are measured.

The European Parliament has a historic role to play to **ensure that the forthcoming technical screening criteria correct the course and align the taxonomy with science**, as we will not have a second chance to get it right. We therefore hope that the European Parliament will dedicate adequate resources to these files that are arguably amongst the most important of this legislature and will use its veto right when deemed necessary. Time will tell if we did the right thing.

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Bréf til framtíðarinnar

Ok er fyrsti nafnkunni jökullinn til að missa titil sinn.
Á næstu 200 árum er talið að allir jöklar landsins fari sömu leið.
Þetta minnismerki er til vitnis um að við vitum
hvað er að gerast og hvað þarf að gera.
Aðeins þú veist hvort við gerðum eitthvað.

A letter to the future

Ok is the first Icelandic glacier to lose its status as a glacier.
In the next 200 years all our glaciers are expected to follow the same path.
This monument is to acknowledge that we know
what is happening and what needs to be done.
Only you know if we did it.

Ágúst 2019
415ppm CO₂

A plaque placed at the former location of the Icelandic Okjökull glacier, which disappeared due to climate change. © Rice University, 18 July 2019

Report "50 Shades of Green part III: sustainable finance 2.0 – the securitization of climate and biodiversity policies"

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GREEN FINANCE OBSERVATORY

ABOUT US

The Green Finance Observatory is an independent NGO whose mission is to analyse new financial markets and instruments linked to environmental policies, to assess whether they can meet their stated environmental, economic and social objectives.

We are a small team of ex financial market and policy advocacy professionals. Our respective experiences led us to conclude that while there was a tremendous expertise on environmental matters in the CSO universe, fewer civil society organisations were engaging in complementary and essential angles such as finance, looking at the nuts and bolts of green financial markets and instruments.

Find out more about the organisation on our website:
www.greenfinanceobservatory.org