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THE CLASH OF 'E' AND 'S' OF ESG: JUST TRANSITION ON THE PATH TO NET ZERO AND THE IMPLICATIONS FOR SUSTAINABLE CORPORATE GOVERNANCE AND FINANCE

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Abstract

Climate change is one of the highest-ranking issues on the political and social agenda. Corporations are one of the main actors that will play a major role in the decarbonisation of the economy. They need to put forward a net zero strategy and targets, transitioning to net-zero emissions by 2050. Yet, an important but rather overlooked stakeholder group in the sustainability debates can pose a significant stumbling block in this transition: employees. Although climate action has huge benefits by ameliorating adverse environmental events and is expected to have overall positive impact on employment, net zero transition in companies, especially in certain sectors (such as energy) and regions, will cause substantial adverse employment effects for the workforce, indicating a potential clash of environmental (E) and social (S) aspects of the ESG agenda. In other words, although the outlook is positive from a social welfare perspective, the net zero transition may not be utility maximising for some.

This will probably create stakeholder conflicts in companies where the green transition will mostly take place. If the labour has any countervailing power via corporate governance, contract, or labour laws, then this has the potential to slow down, or dilute, or even derail the necessary climate action in companies. In this regard, the concept of just transition has been promoted, which calls for a swift and decisive climate action in corporations while taking account of and mitigating adverse effects for their workforce. Although 'just' implies an equitable deal, actions in the name of *just* transition can be no more than a Coasian bargain between the company (and shareholders) and the labour.

Potential stakeholder conflicts and their ramifications for the pace and shape of the net zero transition offer a few initial observations regarding the corporate governance and finance initiatives and debate, especially for directors' duties & executive remuneration, sustainability disclosures, institutional investors' engagement, and green finance.

Keywords: climate change, sustainability, ESG, stakeholder, employees, labour, net zero transition, corporate governance, institutional investors, green finance.

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I. INTRODUCTION

While the world community is still recovering from the COVID-19 crisis, a more existential crisis looms large: climate change. Unless decisive and swift actions are taken on various levels by several actors, climate change is on its path to become an existential threat for the humankind – a terminology used by the United Nations Secretary-General.[1] While the necessity of climate action is long known and moderate steps in this direction have been taken,[2] recently, the need for a more substantial response has become high-ranking on the social and political agenda. An important milestone is the Paris Agreement where 196 Parties agreed to take action in order to limit global warming to tolerable levels, namely well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels.[3] To attain this target, global emissions need to be halved by 2030s and reach net zero by 2050.[4]

Corporations are one of the main contributors to climate change as they imposed significant externalities on the environment and have become main GHG emitters.[5] Without achieving sustainability in corporations and their transition in line with the net zero carbon goals, it will not be possible to keep global warming in check. Sustainability (or environmental, social and governance, 'ESG') issues have recently become mainstream issues both for companies and for their institutional investors. Regulators or lawmakers around the world also scramble to have companies and their

[1] See https://news.un.org/en/story/2018/05/1009782, last accessed Feb. 02, 2022.
[2] For a summary, see Lisa Benjamin, *Companies and Climate Change: Theory and Law in The United Kingdom* (CUP 2021), pp. 80–90.
[3] On the Paris Agreement, see https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement, last accessed Feb. 02, 2022.
[4] See, e.g., IPCC, 'Special Report: Global Warming of 1.5°C, Summary for Policymakers' (2018), p. 12, available at https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf. Net zero means that any remaining emissions are offset by the total of active removals of GHG from the atmosphere.
[5] See, e.g., Richard Heede, *Tracing Anthropogenic Carbon Dioxide And Methane Emissions To Fossil Fuel and Cement Producers, 1854–2010*, (2014) 122 Climatic Change 229 (tracing 63% of cumulative worldwide greenhouse gas emissions to the 90 'carbon major' entities); Carbon Disclosure Project, 'Carbon Majors Report 2017' (Jul. 2017), https://www.cdp.net/en/articles/media/new-report-shows-just-100-companies-are-source-of-over-70-of-emissions (linking 'carbon majors' to 71% of industrial greenhouse gas emissions since 1988).

investors incorporate and achieve sustainability to reduce adverse environmental impacts emanating from business operations.

Yet, a big part of this sustainability or ESG story remains missing: *workforce*.[6] Although due to the urgency of climate change, environmental aspects have come to the forefront, sustainability as a concept also encompasses 'social' sustainability which embraces the idea of "identifying and managing business impacts, both positive and negative, on people" including the employees of a company.[7] ESG has similarly a 'social' part in it.[8] But, there are inherently tensions between environmental and social concerns, especially in terms of climate action in companies.

Clearly, unmitigated climate change without adaptation measures will result in substantial harms for employees. They may be forced to migrate to other areas, lose their jobs in industries that depend on a stable and sustainable ecosystem (such as agriculture or fisheries), or may have more work-related stress, for example, due to extreme temperatures.[9] Climate action that reduces GHG emissions and promotes transition to an environment-friendly set-up is also projected to have overall a positive impact on employment, especially by creating new and diverse employment opportunities.[10] However, unfortunately, "the intended transition to an environmentally sustainable, climate-neutral economy is not socially inclusive by default."[11] Adverse employment impacts are to be expected in companies in certain sectors such as energy and some regions that will have to execute an extensive

[6] Workforce, employees, and labour are used interchangeably in this article to indicate people working in a company or country (mostly blue-colour).
[7] See https://www.unglobalcompact.org/what-is-gc/our-work/social, last accessed Feb. 02, 2022. UN's Sustainable Development Goals also include this social dimension. The goal #8 aims at "[p]romoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all." See https://sdgs.un.org/goals/goal8, last accessed Feb. 02, 2022.
[8] See, e.g., https://www.spglobal.com/en/research-insights/articles/what-is-the-s-in-esg, last accessed Feb. 02, 2022.
[9] See, e.g., International Labour Organization ('ILO'), 'The Employment Impact of Climate Change Adaptation: Input Document for the G20 Climate Sustainability Working Group' (Aug. 2018), p. 13–19, available at https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_645572.pdf.
[10] See *ibid*, at 21 et seq.; European Commission, 'Employment and Social Developments in Europe: Sustainable Growth for All: Choice for The Future of Social Europe' (Jun. 2019), p. 203, available at https://op.europa.eu/en/publication-detail/-/publication/747fefa1-d085-11e9-b4bf-01aa75ed71a1/language-en.
[11] European Commission, 'Employment and Social Developments in Europe', *supra* note 10, at 172.

transformation to reduce their GHG emissions and to ultimately stay on a path consistent with the net zero ambitions.[12] In this regard, the concept of *just transition* has been promoted, which is employed to mean sharing widely the benefits of transition to a green economy and supporting those who stand to lose economically in this transition.[13]

In this article, I argue that there is a great potential for a clash between environmental (climate) and social (employment) interests in the net zero transition of companies, especially in certain sectors and regions. Past experiences show that environmental concerns and labour interests are not always reconcilable,[14] and that worker-oriented governance does not always lead to the best outcome for the environment.[15] Stakeholder conflicts in green transition seem inevitable, especially when shareholders' interests or preferences are aligned with a swift and decisive climate action.[16]

If labour has any countervailing power, this potential clash may slow down or derail the necessary and swift climate action in those societies and companies. In any case, a net zero transition without efforts to ameliorate potential losses for the workforce has been argued to be incompatible with social equity.[17] In those sectors and regions

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[12] See *ibid.*, at 170.

[13] On this concept, see Raphael J. Heffron & Darren McCauley, *What is the 'Just Transition'?*, (2018) 88 Geoforum 74.

[14] See the text accompanying *infra* notes 38–39.

[15] Especially, in the Volkswagen diesel scandal, it has been argued that worker-oriented governance may have contributed to the non-compliance with the environmental rules. See Martin Gelter, 'Employee Participation in Corporate Governance and Corporate Social Responsibility', ECGI Law Working Paper No. 322/2016, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2798717, pp. 25–28; John Armour, 'Volkswagen's Emissions Scandal: Lessons for Corporate Governance? (Part 2)' (May. 18, 2016), https://www.law.ox.ac.uk/business-law-blog/blog/2016/05/volkswagen%E2%80%99s-emissions-scandal-lessons-corporate-governance-part-2; Charles M. Elson, Craig Ferrere; Nicholas J. Goossen, *The Bug At Volkswagen: Lessons in Co-Determination, Ownership, and Board Structure*, (2015) 27 Journal of Applied Corporate Finance 36.

[16] Generally, there is a changing coalition between shareholders, labour, and the environmental interests. Employees' interests are aligned with shareholders' interests in the cases where the company's success (which should benefit employees and increase the share value) stems from polluting. On rent-sharing between employees and shareholders, see generally Zoe Adams & Simon Deakin, 'Corporate Governance and Employment Relations', in *The Oxford Handbook of Corporate Law and Governance*, Jeffrey N. Gordon & Wolf-Georg Ringe (eds.), 2018, 1037–62.

[17] Social equity implies an equitable balance of costs and benefits of climate action across different parts of society.

where the conflict is particularly acute, companies and their institutional investors (which are considered and encouraged as likely candidates to promote sustainability in investee companies) will need to take account of the implications of this potential conflict between employees and climate action.

Although a full account of stakeholder conflicts involving (controlling, institutional or activist) shareholders, managers, labour, and the environment depends on a detailed examination of their incentives and preferences shaped by the relevant institutional framework,[18] I offer a few general observations for the sustainable corporate governance and finance initiatives and debate.

In brief, I argue that how directors' duties and executive remuneration are shaped and designed might have different implications for addressing the potential conflicts in the companies' decarbonisation while case studies regarding the utilities sector show that the former might not matter much. Furthermore, information regarding such conflicts and they are addressed can be relevant in terms of climate-risk disclosures and thus should be within the scope of sustainability disclosures that are mandated across the world. These elements are also relevant to institutional investors from a financial risk perspective. Their engagement on *just* transition also indicates that investors' preferences may extend to social (not only environmental) issues. Lastly, green finance might play a similarly important role in not only achieving net zero transition but also in solving these conflicts.

Overall, the purpose of this article is not to paint company workforce as the ultimate barrier to a speedy transition to net zero but to highlight underappreciated tensions that can happen between different stakeholders of a company and discuss their implications for the climate action in companies. In doing so, it aims to inform legal or market reforms and contribute to achieving sustainable corporate governance in a just and effective way.

[18] In a separate project, I attend to these issues in a more detailed and comprehensive way.

The article is structured as follows. Section II examines and discusses the impact of the net zero transition on workforce in general. Section III scrutinizes and addresses the implications of the potential clash between environmental and social interests within the framework of stakeholder conflicts and introduces the concept of just transition, highlighting its underlying rationale for companies that have to undertake costly changes. Section IV incorporates the potential stakeholder conflicts in green transition into the 'sustainable corporate governance and finance' analyses, based on the discussions of directors' duties & executive remuneration, sustainability disclosures, institutional investors' engagement, and green finance.

II. THE IMPACT OF THE GREEN TRANSITION ON WORKFORCE

The transition to net zero is overall expected to have a positive impact on employment.[19] This is thanks to various factors such as the growth of environment-friendly sectors and investment in the 'green' infrastructure, which should create additional jobs.[20] Government policies to support employment (such as recycling of carbon revenues) is also a major driver.[21] For example, in the EU, compared with the baseline, the 1.5°C scenarios (implying net zero emissions by 2050) indicate potential gains of 0.6% to 0.9%, or about 1.5 to 2 million jobs in terms of total employment in 2050.[22] This indicates that on the macro level, from a social welfare perspective, the outlook is positive.[23]

[19] See, e.g., The Secretariat of United Nations Framework Convention on Climate Change, 'Just Transition of the Workforce, and The Creation of Decent Work and Quality Jobs' (Apr. 21, 2020), p. 17, available at https://unfccc.int/documents/226460 ("Most studies that have investigated the net impact on employment of environmental policy measures suggest that it is positive."); ILO, 'The Employment Impact of Climate Change Adaptation', *supra* note 9, at 21 ("The transition to a low-GHG economy is expected to lead to a net creation of jobs."); OECD, 'Employment Implications of Green Growth: Linking Jobs, Growth, and Green Policies' (Jun. 2017), p. 2, available at https://www.oecd.org/environment/Employment-Implications-of-Green-Growth-OECD-Report-G7-Environment-Ministers.pdf ("Ambitious green policies that improve environmental quality while maintaining economic growth do not have to harm overall employment – if they are well implemented.").

[20] *Ibid.*

[21] *Ibid.*

[22] European Commission, 'Employment and Social Developments in Europe', *supra* note 10, at 181.

[23] Social welfare reflects the well-being of a society at the aggregate level.

However, the net zero transition may not be a situation that maximizes the utility for some.[24] On the micro level, there will be job-related losses for a significant number of people, at least in the short-term, which are aggravated for certain sectors and regions.[25] The usual suspects include fuel extraction and mining, utilities, transport, manufacturing (especially steel, cement and chemicals) and agriculture.[26] According to a UN report, there are 1.47 billion jobs in these sectors critical to climate stability.[27] Especially, 'stranded assets' present an important problem because they can directly translate into 'stranded jobs'.[28] For example, in the fossil fuel extractive industries, a loss of up to 60% of jobs is expected.[29] In certain communities, direct job losses can amplify the effect by creating indirect job losses.[30]

An important point is that the creation of new jobs may not necessarily offset the job-related losses, especially due to labour market frictions.[31] First, labour force might not

[24] Utility function indicates how an individual makes a preference ordering among a set of alternatives.
[25] See Nick Robins & James Rydge, 'Why A Just Transition Is Crucial For Effective Climate Action' (Sept. 2019), p. 3, available at https://www.unpri.org/inevitable-policy-response/why-a-just-transition-is-crucial-for-effective-climate-action/4785.article (stating that "…there will be significant implications [of the low-carbon transition] in key sectors and regions, raising profound issues for workers and communities."); Francesco Vona, *Job Losses and Political Acceptability of Climate Policies: Why The 'Job-Killing' Argument Is So Persistent And How to Overturn It*, (2019) 19 Climate Policy 524, 525 ("… evidence suggests that, although the aggregate effect of climate policies is unquestionably positive in terms of health and probably neutral in terms of employment, losses for displaced workers in polluting industries can be large."); The Secretariat of UNFCCC, 'Just Transition of the Workforce, and The Creation of Decent Work and Quality Jobs', *supra* note 19, at 17 ("The likelihood that the overall net employment outcome will be positive should not obscure the reality that far-reaching mitigation policies will change global, regional and national economies in potentially profound ways and severely disrupt the lives of affected workers and their communities.").
[26] These sectors together account for close to 90% of all CO_2 emissions in the EU. See European Commission, 'Employment and Social Developments in Europe', *supra* note 10, at 175.
[27] The Secretariat of UNFCCC, 'Just Transition of the Workforce, and The Creation of Decent Work and Quality Jobs', *supra* note 19, at 35–36.
[28] See Robins & Rydge, *supra* note 25, at 9 (writing that if the net zero transition is poorly managed, "countries and regions could see not only 'stranded assets' but also 'stranded workers' and 'stranded communities'.").
[29] European Commission, 'Employment and Social Developments in Europe', *supra* note 10, at 181.
[30] See Eric Rosenbaum, 'Biden's Climate Change Plan and The Battle For America's Most Threatened Workers', CNBC (Jan. 31, 2021), https://www.cnbc.com/2021/01/31/bidens-climate-change-plan-and-americas-most-threatened-workers.html, last accessed (Feb. 02, 2022) (citing the executive director of the Just Transition Fund who notes that "[f]or every direct job lost in a power plant or in mining, the community loses four indirect jobs…").
[31] European Commission, 'Employment and Social Developments in Europe', *supra* note 10, at 188 (acknowledging this fact); Georg Zachmann, Gustav Fredriksson & Grégory Claeys, *The Distributional Effects of Climate Policies* (Bruegel 2018), p. 64 (stating that "… given the specific nature of the skills needed, combined with the EU's low labour mobility, between sectors and between geographical areas, the transition could result in severe bottlenecks in the economy, which could lead to transitional unemployment and to unfilled vacancies.").

adapt to new skill requirements in the green economy, at least not as fast as may be necessary, which will leave some workers unemployed.[32] Second, companies or regions that have a lead in certain sectors and employ a substantial number of people may not have the same lead when transitioning to green economy, which may mean the employment of fewer people.[33] For example, a car company that has a lead in the manufacture of conventional cars with internal combustion engines may not be able to maintain that lead in the manufacture of electric vehicles. Third, new employment opportunities might not appear at the right time and place to offset job losses.[34] The loss of employment is reinforced by the 'stickiness' of workers who may be unable or unwilling to move to other regions to find employment in the transformed sector or a totally new sector.[35] What also matters is the qualitative considerations, namely, jobs that are created must be decent jobs on par with the jobs lost, especially in terms of financial considerations, if the former is to counterbalance the latter.[36]

Therefore, the transition to net zero by 2050 will necessarily affect workforce and create strains between it and the environmental interests. Obviously, the utility of workers and thus their representatives does not only involve employment-related considerations, a liveable planet and environmental concerns can also be relevant for

[32] European Commission, 'Employment and Social Developments in Europe', *supra* note 10, at 188. See also Vona, *supra* note 25, at 525 ("[a] successful relocation from 'brown' to 'green' jobs can … be particularly difficult given the potentially large differences in their skill requirements."). This relates to the idea of firm-specific human capital where employees make firm-specific investments and have non-transferable skills. See, e.g., Margaret Blair, 'Firm-Specific Human Capital and Theories of the Firm', in *Employees and Corporate Governance*, Margaret Blair & Mark Roe (eds.), 2000, pp. 58–90.

[33] European Commission, 'Employment and Social Developments in Europe', *supra* note 10, at 188.

[34] The Secretariat of UNFCCC, 'Just Transition of the Workforce, and The Creation of Decent Work and Quality Jobs', *supra* note 19, at 18 (stating that "[t]he low-carbon economy may not create (sufficient numbers of) jobs in the locations where jobs are lost in the conventional economy. Likewise, green jobs creation may not happen at the same time, or at the same pace, as conventional job losses occur.").

[35] See also Robins & Rydge, *supra* note 25, at 3 (stating that "…there could be significant adjustment issues as workers need to move from declining to expanding sectors, firms and job types"); Rosenbaum, *supra* note 30 (citing the director of the Yale Program on Climate Change Communication who notes that retrenched workers do not want to leave places where they have lived for generations). See also Abhijit B. Banerjee & Esther Duflo, *Good Economics for Hard Times* (Public Affairs 2019), p. 61 (noting that "… labor markets tend to be sticky. People do not move even when labor market conditions would suggest they ought to …").

[36] See Vona, *supra* note 25, at 529 ("[i]t is not only skill gaps that are important, but also average quality of the non-brown jobs available in the local economy."); The Secretariat of UNFCCC, 'Just Transition of the Workforce, and The Creation of Decent Work and Quality Jobs', *supra* note 19, at 18 ("Another dimension which is important – along with the increased number of jobs created, lost or transformed – is the quality of employment. Jobs created in the transition to a low-carbon economy must be 'decent'").

their choices and actions. But it is undeniable that job-related financial considerations can be an overwhelming concern for the most. This can cause stakeholder conflicts in companies, especially if the shareholders' interests and/or preferences lead company managers to undertake a green transition along the following lines: (i) divestment or decommissioning of 'brown' assets (to reduce carbon footprint and free up capital to invest in efficiency) vs. the potential to lay off workers and (ii) transformation of business (for example from internal combustion to electric engines) vs. the potential to lose relevant skills, have lower wage or get laid off.

The clash of the social and environmental concerns is not new, neither the stakeholder conflicts in companies when decisions that are not in everyone's best interest need to be made. In the past, labour interests arguably created adverse consequences for the environment in companies with worker-oriented governance,[37] and led to compromises in societies despite worrying environmental issues. For instance, while the environmental groups were campaigning for the closure of Diablo Canyon, a commercial nuclear power plant in the State of California operated by Pacific Gas and Electric (PG&E), unions representing workers fought hard to keep the plant open as long as possible, which led to a compromise deal in the end to address concerns from both sides.[38] Another example involves one of the Europe's biggest steelworks, ILVA, Taranto in Italy which had an appalling environmental record, causing countless deaths and illnesses in the community. Yet, supported by unions that were against the closure of steel plants, the government allowed it to continue production without any credible environmental engagement to preserve jobs in the region, which was found legitimate by the Italian constitutional court.[39]

[37] See *supra* note 15.
[38] For a more detailed exposition, see Samantha Smith, 'Just Transition: A Report for the OECD' (May 2017), pp. 10–11, available at https://www.oecd.org/environment/cc/g20-climate/collapsecontents/Just-Transition-Centre-report-just-transition.pdf.
[39] See Vona, *supra* note 25, at 527. See also Tom Kington, 'Italian Town Fighting For Its Life Over Polluting Ilva Steelworks' (Aug. 17, 2012), The Guardian, https://www.theguardian.com/world/2012/aug/17/italy-ilva-steelworks-cancer-pollution.

III. THE IMPLICATIONS OF THE POTENTIAL STAKEHOLDER CONFLICTS FOR THE CLIMATE ACTION IN COMPANIES

The potential conflict between environmental interests and workforce that may arise at least in the short-term has already had some repercussions for the country-level measures and targets in terms of climate action. For example, the decision of when to phase out coal is currently highly political in Germany (*Kohleausstieg*) where different political parties argue for different timelines due to its implications for labour,[40] energy and the attainment of climate targets.[41] In Australia, the world's second-biggest exporter of coal by volume, the Liberal-National Coalition prevailed over the Labour party twice in recent elections, unexpectedly with the support of coal-dependent communities and workers which the former promised to protect and bolster while the latter had no credible plan for their future.[42] In France, the environmental agenda of the President Emmanuel Macron, especially higher fuel taxes, triggered highly intensive and disruptive protests across the country, known as 'yellow vests (*gilets jaunes*) protests or movement'. The new carbon tax did not found acceptance among a substantial number of citizens, especially workers who commute or use fuel on the agricultural land.[43] What is worse, populist politics may fuel the anxiety of vulnerable communities at risk from climate policies and use it to promote the anti-climate action as Donald Trump declared "I happen to love the coal miners" when he pulled the US out of the Paris Agreement.[44]

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[40] It is estimated that 60,000 jobs are directly or indirectly dependent on coal. See European Commission, 'Employment and Social Developments in Europe', *supra* note 10, at 184.

[41] See generally Louisa Raitbaur, *The New German Coal Laws: A Difficult Balancing Act*, (2021) 11 Climate Law 176.

[42] See Robins & Rydge, *supra* note 25, at 13, available at https://www.unpri.org/inevitable-policy-response/why-a-just-transition-is-crucial-for-effective-climate-action/4785.article. See also Jamie Smyth, 'Climate Change: Australia Wrestles With Its Coal Mining Dilemma', Financial Times (May 3, 2021), https://www.ft.com/content/262db450-e619-4397-a46d-cce6c8ec83a9, last accessed Feb. 02, 2022 (noting that "[a]nalysts cite the party's pledge to cut 2030 emissions by 45 per cent when compared with 2005 levels, as a key factor that lost Labor coal mining seats…").

[43] See, e.g., Bate Felix, 'France's Macron Learns The Hard Way: Green Taxes Carry Political Risks', Reuters (Dec. 2, 2018), https://www.reuters.com/article/us-climate-change-france-protests-idUSKBN1O10AQ, last accessed Feb. 02, 2022.

[44] Among the reasons why the US during the Trump administration pulled out of the Paris Agreement was the allegation that it would cost millions of jobs in the US. See Robins & Rydge, *supra* note 25, at 12. For further political implications, see *ibid*., at 13, Box 3. For a detailed description of the struggles the Biden administration faces in decarbonising the US economy, see Rosenbaum, *supra* note 30.

Importantly, however, it is the companies where stakeholder conflicts will show their face in the first place when decisions need to be made for the companies' long-term strategy. Shareholders' interests will be largely aligned with the green transition, especially if the transition risk is acute, in terms of shareholder value.[45] Shareholders also may and do have green preferences irrespective of financial returns,[46] and have been shown to engage on the environmental performance of the investee firms.[47] On the contrary, as stated above, labour may not be totally content with the consequences of this green transition.[48]

Negative consequences of the net zero transition in companies for their employees may make them unwilling and resistant to climate action to a certain degree.[49] This is not to say that employees are in denial of climate change or do not accept scientific facts. They may not be also necessarily against the climate action. However, when the latter is directly against the self-interest, then the acknowledgement of climate change

[45] See, e.g., Philip Krueger, Zacharias Sautner & Laura T. Starks, *The Importance of Climate Risks for Institutional Investors*, (2020) 33 The Review of Financial Studies 1067 (finding that "institutional investors believe climate risks have financial implications for their portfolio firms and that these risks, particularly regulatory risks, already have begun to materialize.").

[46] See the seminal paper, Oliver Hart & Luigi Zingales, *Companies Should Maximize Shareholder Welfare Not Market Value*, (2017) 2 Journal of Law, Finance, and Accounting 247. See also Samuel M. Hartzmark & Abigail B. Sussman, *Do Investors Value Sustainability? A Natural Experiment Examining Ranking and Fund Flows*, (2019) 74 The Journal of Finance 2789.

[47] See, e.g., Alexander Dyck, Karl V. Lins, Lukas Roth & Hannes F. Wagner, *Do Institutional Investors Drive Corporate Social Responsibility? International Evidence*, (2019) 131 Journal of Financial Economics 693 (finding that "[a]cross 41 countries, institutional ownership is positively associated with E&S [environmental and social] performance [of firms] with additional tests suggesting this relation is casual."); José Azar, Miguel Duro, Igor Kadach & Gaizka Ormazabal, *The Big Three and Corporate Emissions Around The World*, (2021) 142 Journal of Financial Economics 674 (finding that "the Big Three focus their engagement effort on large firms with high CO2 emissions in which these investors hold a significant stake" and observing "a strong and robust negative association between Big Three ownership and subsequent carbon emissions among MSCI index constituents…").

[48] For example, in an attempt to divest its assets out of step with the electric transformation and free up capital to invest in this transformation, Volkswagen management wanted to perform an extensive restructuring, including selling its Lamborghini and Ducati brands, which reportedly resulted in a clash with labour and led to these brands being kept. See Michael Taylor, 'Points Win for Diess on Boardroom Battle Over Volkswagen's EV Future', Forbes (Dec. 14, 2020), https://www.forbes.com/sites/michaeltaylor/2020/12/14/points-win-for-diess-in-boardroom-battle-over-volkswagens-ev-future/?sh=5c141c227c57, last accessed Feb. 02, 2022; Peter Campbell & Joe Miller, 'Electric Hypercar Group Rimac To Take Control of VW's Bugatti', Financial Times (Jul. 5, 2021), https://www.ft.com/content/56be5f08-fe6e-481f-ba6d-71ef49d2cfc4

[49] This can be amplified by the negative consequences of globalisation and automation, especially for low-skilled workers, which can lead to distortions in the perceptions in terms of what is the real cause of job loss. See Vona, *supra* note 25, at 527.

and the support for the necessary climate action will not translate into a frictionless transition in companies.[50]

For example, a survey among a large sample of private sector employees in Germany found that although they are largely in favour of climate protection measures in companies, their support drops significantly when they become directly impacted.[51] A study conducting a general review of case-studies and empirical evidence finds that "the job losses ascribed (correctly or incorrectly) to climate policies have substantial impacts on the willingness of affected workers to support these policies."[52]

Furthermore, employees' understanding of causes and effects of climate change may be poor.[53] Even if they have sufficient and valid information regarding the climate risk, their judgement can be clouded by cognitive biases that work against an accurate assessment of not-easily discernible long-term processes such as climate change.[54] These combined may lead employees to weigh negative short-term personal consequences more against the fuzzily comprehended climate change.

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[50] See also European Commission, 'Employment and Social Developments in Europe', *supra* note 10, at 185 (noting that discontent and backlash may "reduce public support for climate action and related policies, thereby compromising the effective transition to a green, more circular and climate-neutral economy") and at 191 (stating that "[d]espite widespread awareness of climate change and of the responsibility and urgency to act, support for climate action is mixed, and stronger for standards than taxation."); Rosenbaum, *supra* note 30 (citing the head of the Office of Just Transition in the state of Colorado, who states that coal communities "are [now] being told for the good of humanity they need to stop. That is a hard message to take, even if you understand and believe in it, and if you don't, it becomes even harder."). See also Martin Gelter, *Sustainability and Corporate Stakeholders* (Jul. 7, 2021), Oxford Business Law Blog, https://www.law.ox.ac.uk/business-law-blog/blog/2021/07/sustainability-and-corporate-stakeholders (suggesting that for a more environmentalist policy, employees may not be willing to sacrifice their jobs which are "more salient for one's identity than investment positions, and more visible within the respective social group.").

[51] See for the survey, https://www.bertelsmann-stiftung.de/de/themen/aktuelle-meldungen/2021/september/beschaeftigte-fordern-mehr-klimaschutz-der-unternehmen, last accessed Feb. 02, 2022 (in German). For a summary in English, see https://www.cleanenergywire.org/news/german-employees-mostly-back-more-climate-action-companies-are-reluctant-take-part-survey, last accessed Feb. 02, 2022.

[52] Vona, *supra* note 25, at 524.

[53] See, e.g., Monika Taddicken, Anne Reif & Imke Hoppe, *What Do People Know About Climate Change – And How Confident Are They? On Measurements and Analysis of Science Related Knowledge,* (2018) 17 Journal of Science Communication 1.

[54] For an explanation of biases in play in the context of climate change, see Madison Condon, *Market Myopia's Climate Bubble*, (2022) 1 Utah Law Review 63. 95–102.

The potential negative consequences for the employees, particularly the job loss that may not be easy to replace, may especially exacerbate the existent and acute collective action problems for the protection of the environment.[55] Although the necessity of climate action is accepted, employees may push for the deferment of substantial transition in their companies because they see no or very little similar action in other companies in the same or different jurisdiction. If the same happens in every company, then climate action will unravel.

Unsurprisingly, unions have started to express their voice and concerns and mobilise action to affect the direction of climate action in companies.[56] The following quote from the president of one of the biggest unions in Australia (CFMEU Mining and Energy Union) reflects this purpose:

> "[c]limate policies can achieve energy transition with or without justice. That may suit people who are solely focused on the emissions outcome. It may also suit some business leaders who like to remind us of the terrible consequences of stranded assets and investment uncertainty. It certainly doesn't suit the thousands of workers and their communities who face certain unemployment, the destruction of communities and generations of social crisis. The real problem will be stranded workers and stranded communities."[57]

In general, unions navigate between strategies of *opposition*, *hedging* or *support* when it comes to climate change mitigation policies, where only in the last case, they show genuine support for climate action.[58]

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[55] Environment is a common good, and the protection of common goods suffers under the collective action problem. This is also known as the 'tragedy of the commons'. Garrett Hardin, *The Tragedy of the Commons*, (1968) 162 Science 1243.

[56] See also Brian R. Cheffins, *Corporate Governance and Countervailing Power*, (2019) 74 The Business Lawyer 1 (counting "organized labor" as one of the external mechanisms that can operate as significant constraints on managerial discretion).

[57] See Smith, *supra* note 38, at 9. See also *ibid.*, at 10 (quoting a business manager of IBEW (a big labour union in North America): "I do not believe there can ever be a sustainable energy economy that is based on a disposable workforce…").

[58] Adrien Thomas & Nadja Doerflinger, *Trade Union Strategies on Climate Change Mitigation: Between Opposition, Hedging and Support*, (2020) 26(4) European Journal of Industrial Relations 383. *Opposition* involves denying the scientific consensus on climate change and outright opposing climate change mitigation policies, which remains rare. *Ibid.*, at 388–89. *Hedging* involves accepting the scientific consensus on climate change and supporting in principle the need of decarbonisation but also seeking

If labour has any countervailing power via corporate governance such as co-determination,[59] or contractual arrangements,[60] or labour laws,[61] the potential conflict of interests may delay, dilute, or lead companies to abandon the necessary swift and decisive action.[62] There may be also a negative feedback loop: as companies delay the adequate action, the more change will need to happen on a compressed timescale, which means more severe impacts on the workforce.[63]

Dilution in the decarbonisation of companies can take several forms. First, companies may defer the actual and significant reduction of the GHG emissions in their operations, which will save jobs, and rely on the emergence of large-scale, reasonably-priced carbon capture technologies.[64] However, unless the latter is available in the short-term, it will be very difficult for companies to get on a path in line with net zero by 2050 if they defer climate action.[65] Second, to be able to hit their climate targets, companies will increasingly depend on carbon offsets (other than carbon capture),[66] rather than making their operations more sustainable. However, carbon offsets are

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to minimise potential attempts that could expose them to negative employment implications. *Ibid.*, at 390. *Support* entails outright support for decarbonisation policies and proactively engaging with potential negative impacts. *Ibid.*, at 391.

[59] On co-determination, see, e.g., Klaus Hopt & Patrick C. Leyens, *The Structure of the Board of Directors: Boards and Governance Strategies in the US, the UK and Germany*, ECGI Law Working Paper No. 567/2021, pp. 40–44, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3804717; Jens Dammann & Horst Eidenmüller, *Codetermination: A Poor Fit For U.S. Corporations*, 2020 Columbia Business Law Review 870.

[60] Unions increasingly request to have a voice on major corporate decisions in the transition (such as a consent requirement). See, e.g., https://igbce.de/igbce/themen/transformation/transformation-gestalten-177858, last accessed Feb. 02, 2022 (IG BCE, one of the largest trade unions in Germany, proposing a new decision process in the case of far-reaching corporate decisions such as company sales, plant closures or mass layoffs).

[61] For example, strict labour laws may make it difficult or costly for the firms to lay off employees.

[62] See also Committee on Climate Change, 'Net Zero: The UK's contribution to stopping global warming' (May 2019), p. 255, available at https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/ ("[i]f the impact of the move to net-zero emissions on employment and cost of living is not addressed and managed, and if those most affected are not engaged in the debate, there is a significant risk that there will be resistance to change, which could lead the transition to stall.").

[63] The Secretariat of UNFCCC, 'Just Transition of the Workforce, and The Creation of Decent Work and Quality Jobs', *supra* note 19, at 18.

[64] See also Smyth, *supra* note 42 (stating that the Australian government wants to rely on new technology to meet its modest emission reduction targets).

[65] See Eric Rosenbaum, 'Climate Experts Are Worried About the Toughest Carbon Emissions For Companies To Capture', CNBC (Aug. 28, 2021), https://www.cnbc.com/2021/08/18/apple-amazon-exxon-and-the-toughest-carbon-emissions-to-capture.html, last accessed Feb. 02, 2022.

[66] Carbon offsets are means to offset any remaining carbon emissions from the company operations by removing carbon from the planet (for example by forestation).

necessarily limited and should be only a last resort to address carbon emissions.[67] If most companies prefer carbon offsets to a large degree to maintain 'business as usual' and thus save jobs, there will not be enough opportunities for all of them. Third, in order to invest in research and development to develop green services and products, most companies need capital.[68] Some companies may prefer to free up some capital by shutting down carbon-intensive business and invest proceeds in green operations. Yet, this may not be possible if the shutdown means substantial job losses that cannot be compensated in the short-term by re-deploying employees.[69] Lastly, the protection of workforce interests may serve as an excuse for directors/managers who prefer a 'quite life' and are not prepared to execute a substantial green transition in the companies they manage.[70]

A relatively frictionless transition in companies that serves the interests of the shareholders and environment but also employees can be possible. This transition has been called *just* transition, originally by the unions,[71] which later took root and was also included in the preamble of the Paris Agreement.[72] It is generally used to mean

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[67] See Catherine Clifford, 'Bank of America: Carbon Offset Market May Need to Grow Fiftyfold to Meet 2050 Net-zero Emissions Goals', CNBC (Sept. 27, 2021), https://www.cnbc.com/2021/09/27/bank-of-america-carbon-offset-market-to-x-50-to-meet-net-zero-goals.html, last accessed Feb. 02, 2022. See also Raphael Calel, Jonathan Colmer, Antoince Dechezleprêtre & Matthieu Glachant, 'Do Carbon Offsets Offset Carbon?', CESifo Working Paper No. 9368 (2021), available at https://www.cesifo.org/DocDL/cesifo1_wp9368.pdf.

[68] According to a recent IPCC report, "…limiting global warming to 1.5°C are projected to involve the annual average investment needs in the energy system of around 2.4 trillion USD2010 between 2016 and 2035, representing about 2.5% of the world GDP." See IPCC, 'Special Report', *supra* note 4, at 22.

[69] See *supra* note 48 (recounting the Volkswagen story).

[70] See, e.g., Ryan Flugum & Matthew E. Souther, 'Stakeholder Value: A Convenient Excuse for Underperforming Managers?' (Aug. 2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3725828 (suggesting that "the push for stakeholder-focused objectives provides managers with a convenient excuse that reduces accountability for poor firm performance."). See also *infra* note 91.

[71] See Adrien Thomas, *Framing the Just Transition: How International Trade Unions Engage With UN Climate Negotiations*, (2021) 70 Global Environmental Change 102347.

[72] "…*Taking into account* the imperatives of a just transition of the workforce and the creation of decent work and quality of jobs in accordance with nationally defined development priorities,…". See *supra* note 3. Furthermore, at the COP 24 climate change conference in 2018, 53 countries signed a just transition declaration, stressing that it is "crucial to ensure an effective and inclusive transition to low greenhouse gas emission and climate resilient development, and to enhance the public support for achieving the long term goals of the Paris Agreement." The full name of the declaration is 'Solidarity and Just Transition Silesia Declaration', available at https://cop24.gov.pl/presidency/initiatives/just-transition-declaration/. See also https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_721144/lang--en/index.htm, last accessed Feb. 02, 2022 (noting just transition commitments made by close to 50 countries at an UN Climate Action Summit). There are also

supporting those who stand to lose economically in the decarbonisation of economy and making companies sustainable.[73]

Different actors on various levels (companies, communities, regional or national governments) can contribute to *just* transition. For companies, it translates into entering into a social dialogue with the workers and their representatives and "creating decent jobs, reskilling and retaining workers, ensuring a social floor for workers who are retrenched and investing in communities" while they design and implement their net zero strategy.[74]

A growing number of companies whose business operations depend(ed) on large GHG emissions have identified the stakeholder conflicts and attended to the interests of the employees.[75] A vivid example is Enel.[76] It is a multinational listed company with a significant share ownership by the Italian state and operates in the utilities sector. Being one of the world's major producers of clean energy, Enel has committed itself

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ILO guidelines to help countries manage just transition. See ILO, 'Guidelines for A Just Transition towards Environmentally Sustainable Economies and Societies for All' (2015), available at https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_432859.pdf.

[73] Just transition in a narrow sense focuses on the implications of the transition mainly for workers, also in the Paris Agreement. In a wider sense, it may cover implications for consumers, communities, and citizens etc. See Robins & Rydge, *supra* note 25, at 3.

[74] Smith, *supra* note 38, at 6. See also GRI draft standards for coal, *infra* note 105, at 14 (stating that "[e]xamples of potential actions from coal organizations to ensure a just transition include providing plenty of notice of closures, collaborating with governments and unions, retraining and redeploying workers, and providing alternate investments in affected communities.").

[75] See Nick Robins, Sabrina Muller & Katarzyna Szwarc, 'From the Grand to the Granular: Translating Just Transition Ambitions into Investor Action' (Jul. 2021), available at https://www.lse.ac.uk/granthaminstitute/publication/from-the-grand-to-the-granular-translating-just-transition-ambitions-into-investor-action/ (providing case studies of five European power utility companies (ENEL, EDF, E.ON, SSE, ZE PAK) in terms of their just transition action). See also Smyth, *supra* note 42 (noting that "[i]n a growing number of companies and communities across Australia, the discussion is changing from how to save coal to the need for a just economic transition to compensate for the loss of well-paying and related jobs.").

[76] See generally Serena Rugiero, 'Decarbonisation in the Italian Energy Sector: The Role of Social Dialogue in Achieving A Just Transition – The Case of Enel', in *Towards A Just Transition: Coals, Cars and The World of Work*, Béla Galgóczi (ed.), 2019, pp. 109–134; Robins, Muller & Szwarc, *supra* note 75, at 20–23. See also Anmar Frangoul, 'The Risk of The Energy Transition Is That It Only Benefits A Few', CNBC (Jun. 23, 2021), https://www.cnbc.com/2021/06/23/risk-of-the-energy-transition-is-that-it-only-benefits-a-few-ceo-says.html last accessed Feb. 02, 2022 (featuring an interview with the CEO of Enel where he emphasised the risks of an unjust transition and the importance of reskilling for the employment in green sectors).

to a net zero strategy that is in line with the 1.5°C global warming goal.[77] To achieve its decarbonisation goals, Enel launched a plan to close or repurpose its power stations representing 13 GW of capacity and a coal mine, which will affect more than 68.000 workers.[78] To address challenges for its employees, Enel has entered into a social dialogue and a framework just transition agreement with trade unions which covers retention, redeployment, reskilling and early retirement for elderly workers.[79] It is operationalised through several initiatives, including (i) early retirement incentives for elderly workers; (ii) a recruitment plan for young workers, using vocational apprenticeships designed to build skills relevant for the green energy sector; (iii) "[t]raining and reskilling to ensure workers are qualified and employable … throughout their careers"; (iv) "[r]elocation of workers through agreements negotiated between the company, the workers and their representatives."[80] As of 2019, Enel claimed that all affected workers had found new jobs or retired.[81]

Although 'just' in the name of *just* transition implies an equitable concept, it may actually reflect a Coasian bargaining[82] between rational value-maximisers to solve a material conflict. If managers want to decarbonize the company in line with shareholder value or shareholder welfare (which involves additionally the green (non-financial) preferences) but labour has countervailing power, this can create a situation where managers need to give the workforce some concessions (a Coasian bribe) which may involve material and adaptation benefits (as enumerated above in the Enel's case) if the cost of diluted, delayed or abandoned transition is higher (which will be in the most cases). Indeed, some companies signed international framework agreements with union federations, containing provisions to deal with the consequences of climate change adaptation.[83]

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[77] See https://sciencebasedtargets.org/companies-taking-action#table, last accessed Feb. 02, 2022.
[78] See https://www.wri.org/just-transitions/italy, last accessed Feb. 02, 2022.
[79] See *ibid.*; Smith, *supra* note 38, at 6.
[80] *Ibid.*
[81] *Ibid.*
[82] This indicates a bargaining between two sides to achieve a Pareto efficient outcome, based on the seminal paper of Ronald Coase. See Ronald H. Coase, *The Problem of Social Cost*, (1960) 3 The Journal of Law & Economics 1.
[83] The agreement signed by ENGIE (previously known as GDF Suez), a French multinational utility company, stipulates that "any necessary adaptation takes place in a way that protects the rights and interests of workers and that the impact of any such changes are [sic] designed and implemented in an

The situation may of course be more complex than this as institutional and governance structures are different in each case (which I will explore in an accompanying project). For example, the existence of controlling shareholder, especially in the form of state, can change incentives. The state has generally incentives to address the social impacts of net zero transition for various reasons, and it may address these directly in the carbon-intensive companies it controls – as in the case of Enel. Given that carbon majors are often state-owned, this may be important. In doing so, however, the state may have consumed some private benefits of control at the expense of (minority) shareholders.

Overall, stakeholder conflicts and their solution will be particularly important for carbon majors; in other words, companies operating in industries which are expected (and urged) to undergo an extensive transformation (such as fossil fuel, utilities etc.).[84] Decarbonisation of these companies will have the most positive environmental impact as they are the major GHG emitters,[85] but, at the same time, the social impact will also be huge. In other words, the positive environmental impact of the transition in terms of climate change mitigation will be negatively correlated with its social impact, necessitating bargaining to ease the impact and thus possible tension.

Labour may not have any countervailing power to obtain some concessions from the company. In this case and irrespective of whether there is any optimal bargaining between different stakeholders, *just* transition is also argued to contribute to an 'equitable' transition which ameliorates the possible negative distributional consequences of climate action in the short-term.[86] Furthermore, it brings home the point of an integrated approach to ESG factors to prevent what can be called as "sustainability arbitrage" (both for companies and for investors), indicating good performance on environmental matters masking poor labour practices.[87]

agreed, fair manner." See https://www.world-psi.org/sites/default/files/documents/research/gdf-gfa-english.pdf, last accessed Feb. 02, 2022.

[84] See *supra* notes 26–27 and accompanying text.

[85] See *supra* note 5.

[86] See Robins & Rydge, *supra* note 25, at 9 (noting the 'equity' aspect of transition so that those less well-off as a result do not bear a disproportionate share of costs).

[87] Nick Robins, Vanda Brunstig & David Wood, 'Climate Change and The Just Transition: A Guide for Investor Action' (Dec. 2018), p. 18, available at https://www.unpri.org/download?ac=9452.

IV. THE IMPLICATIONS FOR 'SUSTAINABLE' CORPORATE GOVERNANCE AND FINANCE

It is possible to offer a few general observations for the sustainable corporate governance and finance initiatives and debate in terms of potential stakeholder conflicts in green transition.

(a) Directors' duties and executive remuneration

Proponents of stakeholder theory[88] claim that environmental externalities can be better addressed if directors do not serve only shareholders' interests.[89] One may further argue that in the case of directors' duties where they serve the stakeholders' interests, companies may better manage the social implications of their transition to the low-carbon operations as directors need to take account of and balance different interests (including employees). However, it is also possible that balancing of different interests is too difficult and the process of net transition comes often to the deadlock.[90] As hinted above, managerial discretion in this regard can also be used to cloak potential managerial slack in putting their companies on a sustainable path.[91]

[88] For a detailed survey of stakeholder theories, see Cynthia A. Williams, 'Corporate Social Responsibility and Corporate Governance', in *The Oxford Handbook of Corporate Law and Governance*, Jeffrey N. Gordon & Wolf-Georg Ringe (eds.), 2018, 634–78.

[89] See, e.g., Beate Sjåfjell, *Sustainable Value Creation Within Planetary Boundaries – Reforming Corporate Purpose and Duties of the Corporate Board*, (2020) 12 Sustainability 6245; Colin Mayer, *Prosperity: Better Business Makes Greater Good* (OUP 2018); Lynn Stout, *The Shareholder Value Myth: How Putting Shareholders First Harms Investors, Corporations, and The Public* (Berrett-Koehler Publishers, Inc. 2012); Simon Deakin, 'Shareholder Value and the Legal Reform of Corporate Governance', in *Corporate Governance in Contention*, Ciaran Driver & Grahame Thompson (eds.), 2018, pp. 25–41.

[90] See also Gelter, *supra* note 50 (suggesting that broad-based stakeholder orientation can make decision-making processes more complex); Lucian A. Bebchuk & Roberto Tallarita, *The Illusory Promise of Stakeholder Governance*, (2020) 106 Cornell Law Review 91, at 115 (noting that "… the task that stakeholderism assigns to corporate leaders is Herculean.") and at 119 (the exercise of weighing and balancing different stakeholders' interests "raises very difficult questions regarding conflicts between groups of stakeholders …"); Mark Roe, Holger Spamann, Jesse Fried & Charles Wang, *The Sustainable Corporate Governance Initiative in Europe*, (2021) 38 Yale Journal on Regulation Bulletin 133, 146 (stating that the employees' interest in stable employment is in tension with the interests of the environment and expressing scepticism that deputizing corporate boards to balance these interests and make complicated trade-offs is a good idea).

[91] See also Bebchuk & Tallarita, *supra* note 90, at 164–68 (explaining how stakeholderism can be used by managers to increase insulation and reduce accountability).

Furthermore, as long as managerial incentives remain aligned with shareholders' interest, stakeholder-orientation of directors' duties will not create much difference.[92]

In a regime where shareholders' interests are primary in terms of directors' duties, there are different scenarios as well. On the one hand, directors may address the social implications of the transition and implement a plan that is negotiated with the labour when the latter has countervailing power. This would help the company directors to realise their decarbonisation plan in line with the shareholder value (in other words, to address the transition risk), or more broadly shareholder welfare. On the other hand, if the labour has no bargaining power, companies may transition without a due consideration of social impacts as it may not be in the interest of shareholders.[93] However, as noted below, shareholders may have preferences for attending to social concerns along with their green preferences.[94]

Ultimately, the fact that utility companies which have addressed stakeholder conflicts (albeit to a different degree) come from different jurisdictions where different models of directors' duties apply shows that how directors' duties are shaped may not matter much in the end in this respect: Enel (Italy), EDF (France), SSE (the UK), E.ON (Germany), and ZE PAK (Poland).[95] It is noteworthy however that in the first two

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[92] *Ibid.*, at 92 (indicating that "because corporate leaders have strong incentives not to protect stakeholders beyond what would serve shareholder value, acceptance of stakeholderism should not be expected to produce material benefits for stakeholders."); Lucian A. Bebchuk, Kobi Kastiel & Roberto Tallarita, *For Whom Corporate Leaders Bargain*, *forthcoming in* Southern California Law Review (2021), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3677155 (arguing that the reason why corporate leaders did not use their discretion to negotiate for any stakeholder protections in private equity acquisitions is their incentives not to protect stakeholders beyond what would serve shareholder value).

[93] Nevertheless, considering social impacts may be in companies' and thus shareholders' interest from another perspective: companies that do not engage with workers and communities and thus poorly manage the social impacts of their transition may face worse reputations in a way that impacts their 'social licence to operate'. See Robins, Brunstig & Wood, *supra* note 87, at 12. See also SSE, 'Supporting A Just Transition' (Nov. 2020), p. 3, available at https://www.sse.com/media/km5ff0fx/sse-just-transition-strategy-final.pdf (the CEO of SSE, a FTSE 100 energy company in the UK, saying that "[t]he prize of a fair and just transition to net zero is that the actions and investments required to decarbonise energy systems attract long-term public support and legitimacy.").

[94] See the text accompanying *infra* notes 137–148.

[95] For how these companies address the potential impacts for the workforce, see Robins, Muller & Szwarc, *supra* note 75, at 20–33. For an account of how boards function in these jurisdictions, see Paul Davies, Klaus J. Hopt, Richard Nowak & Gerard Van Solinge (eds.), *Corporate Boards in Law and Practice: A Comparative Analysis in Europe* (OUP 2013).

companies, the respective states have considerable share-ownership. As stated above, states have generally an interest in ameliorating the potential negative consequences of net zero transition for employees and this may lead them to address these issues directly in the utilities companies they control as a shareholder. In the other cases, the share-ownership is either dispersed (SSE) or controlled (E.ON controlled by another company and ZE PAK controlled by individual).[96]

Tying executive remuneration to key metrics of sustainability performance (such as environmental score or GHG emissions etc.) of the company is on the rise.[97] As it aligns the financial interests of directors/managers with the environmental performance of the company, they are incentivised to improve the latter.[98] However, it appears to be a double-edged sword in the context of reconciling environmental and social interests in the net zero transition in companies. As directors/managers are (financially) incentivised to undertake a transition to lower-carbon operations, they are also incentivised to enter into a Coasian bargain and give labour some concessions to accelerate this transition. Or, if they can afford to do so (i.e. labour has no countervailing power), they may become fixated only on the environmental side of the net zero transition without considering the social impacts. If desirable, this outcome can be addressed by designing the components of executive remuneration in

[96] For the current share-ownership of these companies, see https://www.marketscreener.com, last accessed Feb. 02, 2022.

[97] See, e.g., Robert A. Ritz, *Climate Targets, Executive Compensation, and Corporate Strategy*, Cambridge Working Paper in Economics 2098, available at https://www.repository.cam.ac.uk/handle/1810/315202 (stating that "[a] novel aspect of the emerging corporate response is that executive compensation is being linked to climate targets."); Karen Maas & Sanne Rosendaal, *Sustainability Targets in Executive Remuneration: Targets, Time Frame, Country and Sector Specification*, 25 Business Strategy and the Environment 390 (2016) (examining the current status of the use of sustainability targets in executive remuneration specified by country, sector and targets).

[98] See, e.g., Douglas A. Adu, Antoinette Flynn & Colette Grey, *Executive Compensation and Sustainable Business Practices: The Moderating Role of Sustainability-Based Compensation*, forthcoming in Business Strategy and the Environment, available at https://onlinelibrary.wiley.com/doi/10.1002/bse.2913?af=R; Patrick Velte, *Sustainable Management Compensation and ESG Performance – The German Case*, 14 Problems and Perspectives in Management 17 (2016). *Cf.* Bebchuk & Tallarita, *supra* note 90, at 160 (noting that in identifying and incorporating sustainability metrics into pay arrangements, "executives and their advisors would have the opportunity to influence pay settings in ways that would favor executives' private interests.").

a broader way that combines environmental and social aspects of net zero transition of the company.[99]

(b) Sustainability disclosures

Companies are increasingly subject to disclosing climate-related information. This ranges from divulging raw data such as greenhouse gas emissions or more generally environmental impact[100] to net zero targets and strategies and climate-related financial risks.[101]

Arguably, a related disclosure should be whether and to what extent companies identify and address the social impacts of their net zero transition. This relates to disclosures on climate-related risks. If there are frictions between climate action and the employees' interest and the latter has countervailing power, there is a risk that the progress of green transition could be slowed down or stalled. This in turn amplifies the *transition risk*.[102] Therefore, information on whether companies manage well their transition in terms of social impacts and the ramifications for the pace and shape of the transition can be important from this perspective.

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[99] See also Bebchuk & Tallarita, *supra* note 90, at 160 ("… tying compensation to the interests of one group of stakeholders but not to the interests of a second relevant group of stakeholders might strengthen, not weaken, the incentive of corporate leaders not to give independent weight to the interests of the second group.").

[100] In the EU, the Non-Financial Reporting Directive requires large and listed companies to publish information related to environmental matters. See Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups, OJ L 330, 15.11.2014, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014L0095. This directive will be revised by the Corporate Sustainability Reporting Directive. In the UK, there is a quantitative emissions reporting requirement for quoted companies. See Part 7 of The Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013, available at https://www.legislation.gov.uk/ukdsi/2013/9780111540169/regulation/7. The Streamlined Energy and Carbon Reporting (SECR) framework extended this to large unquoted companies as well. See https://www.carbontrust.com/news-and-events/insights/secr-explained-streamlined-energy-carbon-reporting-framework-for-uk.

[101] The Task Force on Climate-Related Financial Disclosures (TCFD) provides a widely adopted framework for the disclosure of climate-related risks. In the UK, companies with a premium or standard listing are required to disclose, on a comply or explain basis, whether their climate-related disclosures are in line with the TCFD disclosures. See https://www.fca.org.uk/firms/climate-change-sustainable-finance/reporting-requirements.

[102] Transition risk refers to risks associated with transition to a low carbon economy which entails extensive policy, legal, technology, and market changes.

However, the current framework promoted by the Task Force on Climate-Related Financial Disclosures (TCFD) does not cover this.[103] Other widespread voluntary sustainability-related transparency initiatives also do not seem to involve this issue at the moment. Sustainability Accounting Standards Board's (SASB) standards (for "coal operations", "oil & gas – exploration & production", "electric utilities & power generators", and "gas utilities & distributors") and Global Reporting Initiative's (GRI) general standards do not refer to related disclosures.[104] However, with GRI's new sector standards project, there are developments in this regard. For example, the draft sector standards for 'coal' refer to "an organization's strategy in relation to the transition to a low-carbon economy and the impacts of that transition on workers and local communities" in its "climate adaptation and resilience" section, and demand the disclosure of "any commitments, policies, and actions taken to mitigate the impacts of the transition to a low-carbon economy on workers and communities."[105] Furthermore, in the "closure and rehabilitation" section, requested disclosures involve describing "how workers are consulted in advance of significant operational changes" and "the labor transition plans in place to help workers manage the transition to post-closure phase of operations (which can include redeployment, assistance with re-employment, resettlement, and redundancy payments)."[106]

In terms of mandatory sustainability reporting, in the EU, the newly-proposed Corporate Sustainability Reporting Directive (CSRD) which updates and broadens the requirements of the Non-Financial Reporting Directive for large undertakings, demands, among others, the disclosure of net zero targets & strategies, and

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[103] See TCFD, 'Recommendations of the Task Force on Climate-related Financial Disclosures' (Jun. 2017), pp. 5–6, available at https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf. See also Smith, *supra* note 38, at 18 (arguing that recommendations of the Task Force on Climate-Related Disclosures should be expanded to include disclosure of just transition plans for vulnerable workers and communities). For a 'just transition' disclosure framework that builds on that of TCFD (strategy, governance, and risk management), see Robins, Brunstig & Wood, *supra* note 87, at 20.

[104] See respectively https://www.sasb.org/standards/download/, last accessed Feb. 02, 2021 and https://www.globalreporting.org/how-to-use-the-gri-standards/gri-standards-english-language/, last accessed Feb. 02, 2021.

[105] GRI, 'GRI Sector Standards Project for Coal – Exposure Draft' (Aug. 2, 2021), pp. 13–14, available at https://www.globalreporting.org/standards/standards-development/sector-standard-project-for-coal/.

[106] *Ibid.*, at 20.

implementation thereof.[107] The proposal also entails the disclosure of "how the undertaking's business model and strategy take account of the interests of the undertaking's stakeholders and of the impacts of the undertaking on sustainability matters" (art. 19a/2(a)(iv)).[108] This language is not clear enough to discern whether disclosures on stakeholder conflicts in green transition are relevant for the purposes of the proposed Directive.[109] However, there are indications that second-level standard setting will consider these issues more closely.[110]

These disclosures can be important for a couple of reasons. First, they add credibility to the net zero transition plans of companies who need to execute a major transformation. It would be naïve to think that they can smoothly conduct their net zero transition and achieve their targets without addressing social impacts (even if the labour has not any *formal* countervailing power). Therefore, net transition strategies and targets that do not involve social dialogue and engagement with workforce lose their credibility to a certain extent.[111] Secondly, if *just* transition is desirable as an end in itself (not a means for a swift transition), these disclosures can serve as a kind of nudge for companies to proactively identify and engage with social impacts of their climate action. Governments are also actively identifying, tracking and addressing

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[107] See Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2013/34/EU, Directive 2004/109/EC, Directive 2006/43/EC and Regulation (EU) No 537/2014, as regards corporate sustainability reporting, COM/2021/189 final, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0189.

[108] *Ibid.*

[109] Note that the EU sustainability disclosure regime follows double materiality approach. These disclosures can be relevant for shareholders from a financial risk perspective or for stakeholders, including employees from their well-being perspective.

[110] Delegated acts will be adopted in accordance with the Article 19b of the proposed CSRD to provide for sustainability reporting standards that shall specify the sustainability information that undertakings are to report. The draft standards would be developed by the European Financial Reporting Advisory Group (EFRAG). A recent report prepared by a taskforce established by the EFRAG that proposes a roadmap for the development of a comprehensive set of EU sustainability reporting standards notes that "a number of key objectives, policies and regulations are relevant to the work of [the EU standard-setter]", including the EU Green Deal which "addresses[] just transition issues …" See European Reporting Lab, 'Final Report: Proposals for A Relevant and Dynamic EU Sustainability Reporting Standard-Setting' (February 2021), p. 63, available at https://ec.europa.eu/info/publications/210308-efrag-reports_en.

[111] In explaining why this is important for them, two UK institutional investors state that "[c]ompanies that acknowledge this challenge and plan for a Just Transition, will be more likely to deliver on their commitment to low-carbon growth." See Royal London Asset Management & Friends Provident Foundation, 'Expectations For Energy Utilities' Just Transition Strategies' (Nov. 17, 2020), available at https://www.rlam.co.uk/institutional-investors/our-views/2020/expectations-for-energy-utilities-just-transition-strategies/.

social impacts of climate action.[112] Private sector solutions from companies whose net zero transition results in such impacts can be reinforcing and arguably in most cases more efficient.[113] A recent report by Vigeo Eiris, a provider of ESG research and services for investors and public & private organisations, however, shows that this is mostly lacking.[114] To understand whether companies are considering the social impacts of their transition, 365 companies generating more than 20% of their revenue from fossil-fuel related activities were analysed across the dimensions of leadership,[115] implementation,[116] and results,[117] and were found to show mostly weak or limited performance.[118] Thirdly, when standardised, disclosures may better enable institutional investors (whose preferences also include social concerns) and other stakeholders to hold companies to account by increasing comparability and measurability.[119]

(c) The Relevance for Institutional Investors and Their Engagement

The frictions between environmental action and social concerns on the path to net zero and potential stakeholder conflicts also concern institutional investors as

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[112] There are several government policies, funds and structures that can ease social strains and tensions and achieve a speedy and just transition. See generally, Smith, *supra* note 38, at 17. For example, governments can recycle their carbon revenues (for example carbon taxes) and form just transition funds to support vulnerable communities. See, e.g., European Commission, 'Employment and Social Developments in Europe', *supra* note 10, at 185–86. See also the EU's Just Transition Mechanism, https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/finance-and-green-deal/just-transition-mechanism_en, last accessed Feb. 02, 2022. Especially, governments can invest in vocational education and training for retraining and reskilling of retrenched workers. ILO, 'The Employment Impact of Climate Change Adaptation', *supra* note 9, at 27–28.

[113] See also Rosenbaum, *supra* note 30 (noting the funding problems of states' (just transition) programmes and their mixed track record, which create scepticism); Robins, Muller & Szwarc, *supra* note 75, at 9 (noting that the efforts by governments are welcome but still need to be scaled up across all countries and sectors, and deepened to produce real-world outcomes.).

[114] See for the report, Robins, Brunstig & Wood, *supra* note 87, at 17.

[115] It is defined as "[c]ompanies' commitments to minimising the number of lay-offs and framework agreements with employees". See *ibid.*

[116] It is defined as "[i]nitiatives adopted to mitigate the impacts of restructuring on affected individuals". See *ibid.*

[117] It is defined as "[s]takeholder feedback on company restructuring processes and related actions, including by trade unions", and avoiding layoffs and promoting alternatives. See *ibid.*

[118] The same report found that North American companies' performance was noticeably worse than those from European economies. See *ibid.*

[119] See also Robins, Muller & Szwarc, *supra* note 75, at 33 (noting that "[d]isclosure is essential for investors and other stakeholders to hold companies to account" but currently "[just transition] reporting is bespoke with limited consistency between companies.").

shareholders/fiduciaries.[120] Solving these conflicts will address the transition risk and thus climate-related financial risk (in case labour has countervailing power) by making the shift to a low-carbon economy more likely in investee companies.[121] This is especially relevant for institutional investors who are increasingly concerned with the transition to net zero in investee companies, especially for those that are subject to it as a systematic risk, namely index funds.[122]

Robins, Brunstig & Wood further point to another systematic risk concern: a transition achieved at high social cost can potentially deepen inequality, harming the sustainability and pace of economic growth which should affect long-term investor returns.[123] Jeffrey Gordon also argues that a heightening sense of social instability, through the dislocation in careers and life circumstances, and the growing sense of a set-up producing an unacceptable distribution of gains create a systematic risk in the form of a social stability risk.[124]

When viewed from these lenses, fiduciary duties (towards ultimate beneficiaries) would arguably require the integration of the risks emanating from the potential clash between environmental and social interests, and stakeholder conflicts into investment and engagement processes.[125] If addressing labour problems are not deemed

[120] See also Robins & Rydge, *supra* note 25, at 41 (stating that "[t]he just transition agenda extends the materiality assessment of climate change to include the social dimension. This means that climate action can no longer be considered by investors as an environmental issue on its own.").
[121] *Ibid*, at 42 (stating that "[o]ne systemic concern [for investors] is that failing to take account of the social dimension will generate pressures to delay, dilute or abandon climate policy."); Robins, Brunstig & Wood, *supra* note 87, at 11.
[122] See, e.g., Philip Krueger, Zacharias Sautner & Laura T. Starks, *The Importance of Climate Risks for Institutional Investors*, (2020) 33 The Review of Financial Studies 1067 (finding that "institutional investors believe climate risks have financial implications for their portfolio firms and that these risks, particularly regulatory risks, already have begun to materialize.").
[123] Robins, Brunstig & Wood, *supra* note 87, at 11; David Wood, 'Why and How Might Investors Respond to Economic Inequality?' (2016), available at https://www.unpri.org/research/why-and-how-might-investors-respond-to-economic-inequality/555.article. See also Jonathan D. Ostry et al., *Redistribution, Inequality, and Growth*, IMF Staff Discussion Note 14/02 (Feb. 2014), available at https://www.imf.org/external/pubs/ft/sdn/2014/sdn1402.pdf; Era Dabla-Norris et al., *Causes and Consequences of Income Inequality: A Global Perspective*, IMF Staff Discussion Note 15/13 (Jun. 2015), available at https://www.imf.org/external/pubs/ft/sdn/2015/sdn1513.pdf.
[124] See Jeffrey N. Gordon, *Systematic Stewardship*, ECGI Law Working Paper No. 566/2021 (Feb. 2022), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3782814&download=yes, p. 30.
[125] See also *ibid.*, at 33 (stating that "[t]he resulting social stability risk is a cost … that the sponsors of … investment vehicles should be mindful of and could well produce support for efforts to mitigate, in the name of improving risk-adjusted returns.").

(financially) relevant by institutional investors, we may face a scenario where they push for a swift and decisive climate action in investee companies without a consideration of social impacts.[126]

Apart from financial concerns, a *just* transition can be relevant for 'socially responsible' investors that (claim to) situate their investment and engagement policies around environmental *and* social concerns.[127] The UN Principles for Responsible Investing (PRI) Initiative, which promotes ESG issues and boasts thousands of signatories with over USD $100 trillion worth of assets,[128] also recently initiated a pledge for investor action on just transition (called "Statement of Investor Commitment to Support a Just Transition on Climate Change").[129] The statement is however currently only endorsed by 161 investors representing USD $10.2 trillion in assets.[130] Limited take-up of the just transition issue by 'ESG' or 'socially responsible' investors can add to the doubts of to what extent these investors 'walk the talk'.[131]

Institutional investors' engagement in this regard can include "gauging companies' just transition awareness levels and investigating whether considerations on workforce were included in their climate policies and practices … [including] potential lay-offs due to climate transition, and strategies to limit the negative impact

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[126] See also Zohar Goshen & Doron Levit, *Common Ownership and The Decline of the American Worker*, ECGI Law Working Paper No. 584/2021, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3832069 (suggesting that a few institutional investors known as common owners shift wealth from labour to capital, exacerbating income inequality); Leo E. Strine, Jr. & Kirby M. Smith, *Toward Fair Gainsharing and a Quality Workplace For Employees: How a Reconceived Compensation Committee Might Help Make Corporations More Responsible Employers and Restore Faith in American Capitalism*, 76 The Business Lawyer 31 (2020–2021).

[127] See also Robins, Brunstig & Wood, *supra* note 87, at 10 (noting that "the just transition points to the need for [socially responsible] institutional investors to develop a comprehensive response to climate change that connects" environmental, social and governance factors).

[128] For the principles of responsible investment, see https://www.unpri.org/pri/what-are-the-principles-for-responsible-investment, last accessed Feb. 02, 2022.

[129] The statement is available at https://www.unpri.org/research/climate-change-and-the-just-transition-a-guide-for-investor-action/3202.article#Produced_in_collaboration_with, last accessed Feb. 02, 2022.

[130] *Ibid.* There are also some national initiatives which bring together institutional investors pursuing just transition agenda. See for example French Finance for Tomorrow's taskforce on the just transition (https://financefortomorrow.com/en/just-transition/) and the UK Financing a Just Transition Alliance (https://www.lse.ac.uk/granthaminstitute/financing-a-just-transition/).

[131] See, e.g., Rajna Gibson Brandon et al., *Do Responsible Investors Invest Responsibly?*, ECGI Finance Working Paper No. 712/2020 (May 2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3525530.

on employees, such as reorganisation plans and re-training programmes."[132] Institutional investors' engagement can be particularly beneficial for the achievement of just transition as they can transfer and disseminate successful measures and initiatives among their investee companies.[133] Especially, index funds who invest in a market portfolio and amass large stakes can be important for this cross-pollination.[134] Furthermore, as investors increasingly demand and obtain power over transition plans in companies via the 'say on climate' votes, they can make investee companies address social impacts through these votes.[135]

The following account actually confirms and demonstrates that institutional investors do not only have green preferences but also share social concerns (as part of their utility function or in line with their beneficiaries' interests).[136] A primary example is pension funds which, whether public or private, are becoming increasingly active in this arena, engaging on addressing social impacts of the transition with investee companies.[137] Other examples also exist where institutional investors incorporate these issues into their engagement policy on an individual or collective basis.[138] For

[132] See https://www.unpri.org/pri-blog/incorporating-the-just-transition-in-climate-engagement-an-example-from-italy/7973.article, last accessed Feb. 02, 2022. See also Robins, Brunstig & Wood, *supra* note 87, at 19–21 (detailing institutional investors' engagement on just transition which includes setting expectations, promoting disclosure, benchmarking company performance, pressing for improvement through dialogue with management and shareholder resolutions, and considering consequences, especially, capital reallocation when companies fail to perform).

[133] See, e.g., https://www.unpri.org/pri-blog/incorporating-the-just-transition-in-climate-engagement-an-example-from-italy/7973.article, last accessed Feb. 02, 2022 (giving an example of institutional shareholder engagement in investee companies which aims at, *inter alia*, "collect[ing] examples of actions undertaken and best practices to benchmark peer companies.").

[134] This links to the literature on the stewardship potential of index funds as common or universal owners. See Madison Condon, *Externalities and the Common Owner*, (2020) 96 Washington Law Review 1; Gordon, *supra* note 124. Offset to this potential is the possible anti-competitive effects of common ownership. See, e.g., José Azar, Martin C. Schmalz & Isabel Tecu, Anticompetitive Effects of Common Ownership, (2018) 73 Journal of Finance 1513.

[135] The 'say on climate' initiative requests disclosure by companies of their emission reduction targets and a climate action plan, and ultimately a shareholder vote on this. See https://sayonclimate.org, last accessed Feb. 02, 2022. Although credibility of climate action plans seems important under this initiative, it does not currently feature workforce-related component, which should add credibility to these plans.

[136] Although recounted initiatives refer to *just* transition as a motive, it may actually reflect a financial risk perspective as well. See, e.g., *infra* note 142.

[137] Smith, *supra* note 38, at 9. See also https://www.unpri.org/pri-blog/the-just-transition-how-two-investors-are-tackling-its-social-implications/5534.article, last accessed Feb. 02, 2022 (detailing how two labour-related funds took on the just transition agenda).

[138] In the EU, Article 3g of the Shareholders' Rights Directive II requires institutional investors and asset managers (on a comply or explain basis) to develop and disclose an engagement policy (and

example, Generali, the Italian insurance company, states in its Group Strategy on Climate Change that "in countries in which the economy and employment depend heavily on the coal sector, Generali will engage the clients and the investees impacted by the Group's restrictions on coal in line with the 'Just Transition' principles."[139] Amundi, the French asset manager, developed a just transition rating system to measure the performance of investee companies and engages with them by strengthening its dialogue on ESG topics, including the just transition.[140]

On a collective basis, for instance, Climate Action 100+, an investor-led initiative to ensure sustainability in the world's largest corporate GHG emitters,[141] will introduce 'just transition' related indicators into its 'Net-Zero Company Benchmark', which is used to assess the performance of focus companies against the initiative's goals, and thus to inform investment and corporate engagement strategies.[142] SHARE (Shareholder Association for Research & Education), which provides various investment services to its investor clients,[143] engages (on behalf of these clients) with

implementation thereof), describing how they monitor investee companies on relevant matters, including *social* and *environmental* impact. See Directive (EU) 2017/828 of the European Parliament and of the Council of 17 May 2017 amending Directive 2007/36/EC as regards the encouragement of long-term shareholder engagement, OJ L 132, 20.5.2017, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32017L0828.

[139] See 'Generali Group Strategy on Climate Change: Technical Note' (Update Jun. 2021), available at https://www.generali.com/our-responsibilities/our-commitment-to-the-environment-and-climate. It is also stated that "[t]he aim of this engagement is to accelerate … [investee companies'] efforts towards the Just Transition with decarbonisation plans that combine climate action with the adoption of protective measures for workers and the local communities."). See *ibid.*

[140] See Case Study, Amundi: Facilitating a just transition for climate, https://www.unpri.org/investment-tools/amundi-facilitating-a-just-transition-for-climate/8957.article (last accessed Feb. 02, 2022) (stating that the main purpose of this engagement is "to support investees in their own transition, but also to disseminate best practices in an effort to drive the better integration of sustainability…").

[141] Currently, it boasts more than 615 investors responsible for over $55 trillion in assets. They are engaging companies on improving climate change governance, cutting emissions, and strengthening climate-related financial disclosures. See https://www.climateaction100.org/about/, last accessed Feb. 02, 2022.

[142] See https://www.climateaction100.org/progress/net-zero-company-benchmark/background/ and https://www.climateaction100.org/news/climate-action-100-calls-for-net-zero-business-strategies-sets-out-benchmark-of-largest-corporate-emitters/, last accessed Feb. 02, 2022. See also Climate Action 100+, '2020 Progress Report' (Dec. 2020), pp. 79–80 (explaining just transition and stating that it is "crucial for companies and investors as it is interlinked with the systemic risk posed by delayed climate action. This contributes to the transition risks faced by companies, including their employees and social or legal licence to operate.").

[143] It provides responsible investment services (shareholder engagement, proxy voting and consulting) to leading Canadian institutional investors with more than $22 billion in assets under management. See https://share.ca/about/clients/, last accessed Feb. 02, 2022.

investee companies to set and meet ambitious GHG reduction targets while accounting for the impacts on workers and communities.[144] Another indication that social impacts are on the radar of institutional investors is the statement of the Investor Agenda,[145] signed by 587 investors representing over USD $46 trillion in assets, which calls for "the development of just transition plans for affected workers and communities."[146]

There are also cases where high-level commitments of investors translated into action. SSE, a multinational FTSE 100 energy company located in the UK, produced a 'just transition strategy', following engagement by shareholders led by two UK institutional investors who entered into an ongoing dialogue with management and requested a formal strategy at the annual meeting.[147] The same coalition of investors has led E.ON, a German listed energy company, to include considerations of 'social aspects and a just transition' in its climate-related disclosures.[148]

(d) Green Finance

Green finance has a big role to play in the decarbonisation and resilience of economy by allocating capital to green assets and climate-resilient activities. To unleash this potential, lawmakers provide increasingly complex sustainability regime for financial market participants, mainly depending on disclosure requirements in order to bring

[144] See SHARE, '2021 Engagement Snapshot: Canadian, US & Global Equities Plan', available at https://share.ca/wp-content/uploads/2021/03/SHARE-engagement-snapshot-2021.pdf.
[145] It is formed by major groups working with investors to provide "a common leadership agenda on the climate crisis that is unifying, comprehensive, and focused on accelerating investor action for a net-zero emissions economy." See https://theinvestoragenda.org/about-the-agenda/, last accessed Feb. 02, 2022.
[146] See the Investor Agenda, '2021 Global Investor Statement to Governments on the Climate Crisis', p. 2, available at https://theinvestoragenda.org/focus-areas/policy-advocacy-2021-gis/.
[147] See Robins, Muller & Szwarc, *supra* note 75, at 26. See also https://www.friendsprovidentfoundation.org/news/applause-for-sses-sector-first-just-transition-strategy/, last accessed Feb. 02, 2022.
[148] See E.ON, 'On Course For Net Zero: Supporting Paper for E.ON's Decarbonization Strategy and Climate-related Disclosures' (Mar. 2021), pp. 17–20, available at https://www.eon.com/content/dam/eon/eon-com/eon-com-assets/documents/sustainability/en/tcfd/EON_2021_On_course_for_net_zero.pdf.

these market players in line with ultimate investors' preferences.[149] Regulators also tighten their grip on these financial players to prevent greenwashing.[150]

Green finance may also play a significant role in *just* transition as an end in itself by integrating the impacts on affected workers and communities – social factors – into capital allocation as well as by targeting investments that contribute to easing or eradicating adverse social impacts.[151] To this end, for capital markets, just transition factors can be included into stock/bond selection, index design and benchmarking.[152] To accelerate the integration of just transition into capital allocation, providers of investment research, rating and consulting services can help investors with necessary insights into the risks and opportunities around just transition.[153] Banks may also integrate just transition factors into their ESG loans, and develop lending strategies for exposed regions.[154]

Growing in size and sophistication, green bonds currently contribute to financing assets needed for the low-carbon transition.[155] Such bonds are now extended to

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[149] See, e.g., Tobias Tröger & Sebastian Steuer, *The Role of Disclosure in Green Finance*, ECGI Law Working Paper No. 604/2021, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3908617.

[150] For example, regulators on both sides of the Atlantic are currently probing into allegations against DWS, the asset management arm of Deutsche Bank, for unjustified claims about sustainability practices. See Attracta Mooney & Chris Flood, 'DWS probes spark fears of greenwashing claims across investment industry' (Aug. 31, 2021), Financial Times, https://www.ft.com/content/a3d6a8d1-0800-41c9-ab92-c0d9fce1f6e1, last accessed Feb. 02, 2022 (suggesting that "regulatory investigations into DWS are unlikely to be a one-off.").

[151] For more detail on capital allocation for the just transition across asset classes, see Robins, Brunstig & Wood, *supra* note 87, at 22.

[152] *Ibid.*

[153] *Ibid.* Abovementioned examples can be useful in this regard. See the text accompanying *supra* notes 141–142 (Climate Alliance 100+ providing Net-Zero Company Benchmark with just transition-related indicators) and 114–117 (Vigeo Eiris evaluating major corporate GHG emitters' performance on just transition). In addition, the World Benchmarking Alliance has developed a framework for assessing the performance of 450 high emitting companies on just transition. See https://www.worldbenchmarkingalliance.org/research/just-transition-launch-of-the-methodology/, last accessed Feb. 02, 2022.

[154] Robins, Brunstig & Wood, *supra* note 87, at 22. See also Nick Robins, Sophia Tickell, William Irwin & Andrew Sudmant, 'Financing Climate Action with Positive Social Impact: How Banking Can Support A Just Transition in the UK' (Jul. 2020), available at https://www.lse.ac.uk/granthaminstitute/publication/financing-climate-action-with-positive-social-impact-how-banking-can-support-a-just-transition-in-the-uk/.

[155] See, e.g., Caroline Flammer, 'Green Bonds: Effectiveness and Implications for Public Policy', in *Environmental and Energy Policy and the Economy*, Matthew J. Kotchen, Tatyana Deryugina & James H. Stock (eds.), 2020 (vol. 1), pp. 95–128; Serena Fatica & Roberto Panzica, *Green Bonds As A Tool Against Climate Change?*, (2021) 30 Business Strategy and the Environment 2688.

include social and other sustainability factors under the brand of 'sustainability bonds'.[156] These bonds can also make a significant contribution to ameliorating social impacts. For example, companies, using the proceeds to invest in green assets and operations, can simultaneously create jobs for workers bearing the brunt of green transition by employing them directly or after reskilling and retraining (by using part of the proceeds for this purpose).[157]

Is the regulatory framework conducive to financial players taking into account social impacts and potential stakeholder conflicts in line with their beneficiaries' interests/preferences? In the EU, the Sustainable Finance Disclosure Regulation ('SFDR') already covers the 'social' aspect of the sustainability.[158] For example, if investments are made in companies where there can be frictions between labour and environmental interests in the net zero transition, and the potential stakeholder conflicts amplify the transition risk resulting therefrom, there will arise a "sustainability risk"[159] which produces a few disclosure requirements for 'financial market participants' and 'financial advisers'.[160] If ultimate investors (equipped with this information) are concerned with such a sustainability risk,[161] investment

[156] See, e.g., https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/sustainability-bond-guidelines-sbg/, last accessed Feb. 02, 2022.

[157] In its green sovereign bond programme, the UK government, for example, will report on the social co-benefits in addition to the environmental impact of the proceeds invested. See Her Majesty's Treasury, 'UK Government Green Financing Framework' (Jun. 2021), p. 11, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1002578/20210630_UK_Government_Green_Financing_Framework.pdf.

[158] See the definitions of 'sustainable investment', 'sustainability risk' and 'sustainability factors' under Article 2 of Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector, OJ L 317, 9.12.2019, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32019R2088 (henceforth SFDR).

[159] Because there will be "[a social] … event or condition that, if it occurs, could cause an actual or a potential material negative impact on the value of the investment." See *ibid.*

[160] For the definitions of 'financial market participant' and 'financial adviser' see Article 2. Under article 3, financial market participants or financial advisers are required to publish on their websites information about their policies on the integration of sustainability risks in their investment decision-making process. Under article 6, they are required to include in pre-contractual disclosures, (a) the manner in which sustainability risks are integrated into their investment decisions; and (b) the results of the assessment of the likely impacts of sustainability risks on the returns of the financial products they make available. If they deem sustainability risks not to be relevant, they need to disclose a clear and concise explanation of the reasons therefor. See *ibid.*

[161] An important problem is that investor preferences may not be reflected in their actual investment behaviour. See, e.g., Veerle Colaert, 'Integrating Sustainable Finance into the MIFID II and IDD Investor Protection Frameworks', in *Sustainable Finance in Europe: Corporate Governance, Financial Stability and Financial Markets*, Danny Busch, Guido Ferrarini & Seraina Grünewald (eds.), 2021, pp. 445–475.

intermediaries will need to take action: exit (in other words, divestment which is not possible for every investor and does not really address the issue) or voice (in other words, engagement with investee companies to ameliorate this risk). Furthermore, if financial products offered make investments related to *just* transition (for example, assets providing decent job opportunities for retrenched workers after retraining and reskilling), they promote 'social characteristics' or have 'sustainable investment' as their objective,[162] which triggers further disclosure.[163] The latter should help these products attract capital, for example, by providing more credible (and standardised) information.[164]

The most ambitious but controversial part of the EU's Sustainable Finance Package, the Taxonomy Regulation, currently concerns only *environmental* sustainability.[165] But, the European Commission is considering extending it to social factors, developing a social taxonomy. A sub-group of the Platform on Sustainable Finance, the advisory body which assists the Commission in developing its sustainable finance policies, particularly the further development of the EU taxonomy,[166] works on extending it to social objectives.[167] A recent draft report by this group on the merits and possible structure of a social taxonomy counts "[t]he need for investment in a just transition"

[162] Under article 2, sustainable investment is defined as "… an investment in an economic activity that contributes to a social objective, in particular an investment that contributes to tackling inequality or that fosters social cohesion, social integration and labour relations, or an investment in human capital or economically or socially disadvantaged communities …" Social characteristics are not defined by the regulation. See SFDR, *supra* note 158.
[163] See articles 8, 9, 10 of SFDR, *supra* note 158 (detailing the disclosures to be made in pre-contractual documents, websites, and annual reports)
[164] See, e.g., Tröger & Steuer, *supra* note 149, at 37–45 (on the question of why such disclosures should be mandatory).
[165] See Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, OJ L 198, 22.6.2020, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32020R0852.
[166] On this Platform, see https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/overview-sustainable-finance/platform-sustainable-finance_en, last accessed Feb. 02, 2022.
[167] *Ibid.*

among the merits of the social dimension,[168] and recommends "ensuring decent work" as one of the objectives in a future social taxonomy.[169]

Furthermore, a recent Communication from the European Commission on the 'Strategy for Financing the Transition to a Sustainable Economy' (also known as 'Renewed Sustainable Finance Strategy') notes, under the heading of 'supporting credible social investments', that "[t]he recovery from the pandemic has highlighted the need for a just transition that supports workers and their communities affected by the transitioning of economic activities."[170] This has apparently prompted the Commission to take further action, which states that "[s]ustainable finance disclosure requirements for financial market participants already include certain social factors, but further steps are needed", especially with regard to the SFDR and social taxonomy.[171]

V. CONCLUSION

Climate change is currently one of the biggest challenges of our world, which requires a swift and decisive action. As main contributors to climate change, companies need to be part of the solution by transitioning to net zero by 2050. As a result, the incorporation of sustainability or ESG factors into company operations has become a

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[168] See Platform on Sustainable Finance, 'Draft Report by Subgroup 4: Social Taxonomy' (Jul. 2021), pp. 11 – 12, available at https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/sf-draft-report-social-taxonomy-july2021_en.pdf (stating that "[t]he transition to a sustainable, zero net emissions, climate-resilient economy requires crucial changes in sectors such as mining, manufacturing, agriculture and forestry. These changes will have an impact – not necessarily positive – on the lives of workers in these sectors and their communities … The term 'just transition' is used to describe the need to avoid unilaterally imposing the burden of these inevitable but necessary changes on workers and disadvantaged communities.").

[169] See *ibid.*, at 34. Substantial contribution to this objective would include "employment generation for certain groups of people as it also relates to the 'just transition'." *Ibid.*, at 37.

[170] See COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS, Strategy for Financing the Transition to a Sustainable Economy, COM/2021/390 final (Jul. 6, 2021), p. 9, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0390. It further states that "[t]he steep increase in social bond issuance shows that investors are increasingly looking for investment opportunities with positive social outcomes and promoting human rights." *Ibid.*

[171] *Ibid*, at 9–10.

paramount concern on the part of policymakers, regulators, and various stakeholders such as investors. However, as the 'environmental' aspect of sustainability or ESG agenda comes to the forefront, its potential clash with the social aspect or interests should be noted.[172] Especially, in the context of climate change, the net zero transition will not be inclusive by default. In certain regions and sectors such as energy, there can be significant negative effects for the workforce and communities.

If history is any guide, this is bound to create stakeholder conflicts in companies where the green transition will mostly take place. If the labour has any countervailing power, we may observe a slowed-down or hampered net zero transition process in companies, as already seen on the country level.

This may lead to a Coasian bargain between the labour and the company (representing shareholders' interests which are aligned with the environment). Or, it has been argued that a transition without addressing social impacts may result in an unbalanced distribution of costs and benefits of climate action, harming the social fabric, hence the concept of *just* transition.[173] Both considerations will lead to the same outcome: companies will gauge the impact of their policies on their workforce and the communities where they operate, enter a social dialogue with them, and actively address negative consequences, for example, by reskilling and retraining their employees, easing their move to other locations, or to (early) retirement. Some utilities companies already acted in this regard with (varying) success.

The (potential) stakeholder conflicts in green transition and their implications offer a few observations regarding the sustainable corporate governance and finance initiatives and debates. First, how directors' duties are shaped may have different repercussions for how companies approach the problem and its solution, but ultimately does not seem to play a significant role for the end result. Using key

[172] See also Robins, Muller & Szwarc, *supra* note 75, at 10 ("[u]ntil recently, most investors have managed climate change primarily as an environmental driver of risk, return and responsibility. Yet, with the structural economic and social change required for the net-zero transition, a rounded perspective is needed to move away from economic, social and governance (ESG) silos that look at the 'E', 'S', and 'G' issues separately.").
[173] Robins, Brunstig & Wood, *supra* note 87, at 28.

sustainability performance indicators in executive remuneration seems promising for the environmental performance of the firm but should be extended to the social aspects of decarbonising company operations if we desire a *just* transition as an end in itself. Second, company sustainability disclosures can extend to this issue. Most importantly, the potential friction between employees' interests and climate action may render the latter slower or less likely, which makes it a part of the transition risk (a climate-related financial risk). Therefore, whether such a risk exists and how the company addresses this risk are pertinent disclosures to be made. Third, the same considerations make this conflict relevant for institutional investors as fiduciaries which face increased systematic risk (in terms of transition risk and increased inequality/social instability).[174] 'Socially responsible' investors may also be intrinsically motivated to address this issue. Institutional investors' engagement can be particularly helpful in spurring and disseminating the needed or desirable action for a conflict-free transition in companies. Lastly, green finance has a role to play not only in assisting the net zero transition in companies but also in easing and eradicating adverse social impacts. Banks and capital markets, especially sustainable bonds, can make a significant contribution to this end in a regulatory environment conducive to it.

[174] *Ibid.*, at 14 ("… there is now a concern that the failure to effectively manage the social dimension of the climate transition could generate a new set of investment risks in terms of political instability, depressed economic activity and insufficient progress in the delivery of climate targets. What the just transition approach does is anticipate these risks and deliver strategies that help to realise a strong social dimension to climate action.").