

Department of Law

Chair of Green and Sustainable Finance

"JUST TRANSITION AND FINANCIAL INSTITUTIONS: A FRAMEWORK FOR BANKING PRODUCTS"

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Abstract

To close a significant gap in sustainable finance practices, this thesis investigates how financial institutions might incorporate fair transition principles into their operations. Financial institutions are not provided with a comprehensive framework to integrate just transition into banking products and portfolio participation, despite growing awareness of their role in promoting social fairness throughout the green transition. Through qualitative research, including case studies and literature analysis, this work offers a useful framework to assist banks in evaluating the just transition performance of their clients. To support an equitable and inclusive economic transition, the framework seeks to strengthen financial institutions' ability to match their investment strategies with social and environmental sustainability.

Outline

Introduction			
Literature Review			
		7	
1.	Introduction to the Literature Review	7	
2.	The Evolution of the Concept of Just Transition	7	
3.	Conceptual Debates in Defining the Just Transition	16	
4.	Investing in a Just Transition	20	
5.	Comparative Analysis of Frameworks and Policies	23	
6.	Assessment of Policy Guidance for Financial Institutions	36	
7.	Summary of Gaps and Opportunities	41	
Meth	odology		
		42	
Chap	ter 1 – Just Transition and Financial Institutions	45	
1.1	Financial Institutions as Actors in the Just Transition Debate	45	
]	1.1.1.The Employment-related Approach	45	
	1.1.2.Interdependence Between Banks, Enterprises, and Employment: Rethink Engagement in the Face of Governance Gaps	_	
	rter 2 – Risk Management in Banking for a Just Transition: Prudential Challen	U	
2.1	.Just transition and Risks for Banks	63	
2	2.1.1.Understanding Risk Categories in the Context of Just Transition	64	
2	2.1.2.Integrating Just Transition into Prudential Frameworks	69	
	2.1.3.Managing Transition Risks: The Imperative of Client Engagement and Strategic Portfolio Assessment	72	

2.1.4. Translating Client Financial Impacts into Financial Institution Effects:
Transmission Channels for a Just Transition
Chapter 3 – Regulatory Frameworks and Client Engagement for Just Transition: Building Strategic Partnerships
3.1. Transition plans as a Tool for Just Transition Assessment
3.1.1. Transition Plan Regulation: Evolving Landscape and Recent Setbacks 87
3.1.2. The Crucial Role of Transition Plans in Advancing a Just Transition 96
3.1.3.Case Studies: Integrating Just Transition into Banking and Corporate Transition Plans
Chapter 4 – Embedding Just Transition in Portfolio Engagement: A Framework for Financial Institutions
4.1.Methodology: Crafting Qualitative Just Transition Guidelines Through Existing Standards
4.1.1. The first category: workers' rights protection
4.1.2. The second category: stakeholders' engagement
4.1.3.The third category: mitigation efforts
4.1.4. The fourth category: justly managing the transition
4.1.5.Additional category for banks: Client Engagement and Benchmarking 126
4.2.Methodology: Crafting Quantitative Just Transition Guidelines Through Existing Standards
4.2.1.Double Materiality Analysis per Transmission Channels
4.2.2.Aggregation of Double Materiality Findings and Quantitative KPIs Development
4.3.Just Transition Qualitative and Quantitative Framework
4.3.1.Framework assessment
Conclusion
Bibliography

Introduction

This thesis looks at a critical but understudied area of sustainable finance: how financial institutions might incorporate just transition principles into their operations. Financial institutions are known to play a crucial role in advancing a fair and inclusive green transition, but they do not yet have a concrete and workable framework for integrating just transition principles into their operations. By putting forth an organised and functional quantitative and qualitative framework designed especially for banking products and portfolio management, this study seeks to close this gap.

Consequently, this endeavour aimed at providing an answer to the following question: how can financial institutions effectively incorporate just transition considerations into their operations? Therefore, the expected outcome of this research is to provide a thorough set of metrics to help financial institutions incorporate fair transition concepts into their risk management procedures, client portfolio engagement, and investment strategies. By doing this, it aims to convert high-level just transition pledges into useful, routinised banking procedures.

The study uses an exploratory, qualitative and quantitative methodology. It traces the conceptual development of just transition and how it intersects with the financial sector, building on a systematic literature review. Additionally, the study incorporates knowledge gained from active involvement in the Working Groups on Just Transition of the Forum per la Finanza Sostenibile. This partnership has given the research a strong practical basis. Case studies of firms and financial institutions are also included in the research framework to analyse current procedures and pinpoint successful tactics.

Indeed, the thesis is so structured. *Chapter 1 – Just Transition and Financial Institutions* outlines the approach for financial operators to enter the debate surrounding just transition. This section examines the close link between investors, business and workers, highlighting how the failure of the current governance approach imposes to rethink the rules of engagement, thus providing an avenue for financial service providers to become enablers of a just transition. *Chapter 2 – Risk Management in Banking for a*

Just Transition: Prudential Challenges and Client Exposure firstly explores the risk dimension and how a just transition could be a solution towards economic uncertainty and financial instability if embodied within prudential rules and risk management procedures. This section stresses the importance of customer involvement in negotiating a green and social shift. Engaging with customers is crucial to comprehend the financial impacts that could materialise at the financial institutions' level. In this regard, an analysis has been conducted to define the risk transmission channels from the client to the bank. Moreover, Chapter 3 - Regulatory Frameworks and Client Engagement for Just Transition: Building Strategic Partnerships casts a light on recent regulatory developments and setbacks, to stress the importance of adopting a credible transition plan. Net-zero planning is crucial for financial operators to engage with the portfolio; it is thus the first step to address a client's alignment with the just transition. Therefore, through the presentation of case studies, the chapter demonstrates that, despite the importance of embedding just transition into transition plans, this practice is still limited and fragmented, thus advocating for the need for common guidelines. The last section, Chapter 4 - Embedding Just Transition in Portfolio Engagement: A framework for Financial Institutions, provides the final just transition framework for banking products. With a comprehensive methodology, based on the work done with the Forum per la Finanza Sostenibile, relevant qualitative and quantitative standards for just transition have been analysed, divided into categories and compiled into relevant metrics for just transition.

Literature Review

1. Introduction to the Literature Review

This literature review emphasises how banking players might incorporate social and environmental concerns into their operations and explores the relationship between the idea of just transition and the function of financial institutions. Financial institutions are becoming more widely acknowledged as important facilitators of sustainable finance and crucial players in broader socioeconomic transformation as the world economy speeds up its transition towards decarbonisation. Even with this acknowledgement, there is still a significant disconnect between high-level policy pledges and the practical application of just transition principles in financial operations.

The objective of this review is threefold: first, to trace the conceptual development and historical evolution of just transition, highlighting important theoretical debates that have shaped its current interpretations; second, to examine the growing connection between the just transition concept and the financial sector; and third, to compare and contrast legal frameworks and policy tools that directly or indirectly address just transition and, consequently, impact the financial sector's role in promoting a just transition. The review aims to synthesise these elements to create a workable framework for banks to incorporate just transition concepts into their financial products, client portfolio interaction, and strategic planning.

2. The Evolution of the Concept of Just Transition

Firstly, it is crucial to understand the origin of the just transition concept. The just transition idea was born in the United States during the 1970s, within the context of workers' union movements. The strengthening of climate governance at that time negatively impacted employment in sectors that struggled to reach the imposed environmental standards. Indeed, the Oil, Chemical, and Atomic Workers Union

(OCAW) recognised how the ecological dimensions and workers' fate were deeply associated and decided to advocate for a just transition process. The OCAW upheld a "superfund" for worker upskilling and community support to contrast the widespread unemployment spurred by environmental measures. Workers supported just transition as a labour-orientated trajectory that could ensure the well-being of workers and communities while safeguarding the environment.¹

The concept of just transition leaked in the international sphere through international trade union movement, capped by the International Trade Union Confederation (ITUC). Just transition symbolised ITUC's endorsement of climate action while securing social justice for workers. The union worked closely with organisations, such as the International Labour Organisation (ILO), while strengthening its presence during climate negotiations. In 2008, it obtained a constituency status for trade unions within the United Nations Framework Convention on Climate Change. As a result, just transition was brought to the negotiating table of COP15 in Copenhagen in 2009. The concept of laid down in the draft text of the UNFCCC conference, which however failed to be adopted. Nevertheless, this paved the way for just transition to gain resonance in the Cancún Agreements, adopted a year later at COP16.2 Just transition was framed as a "shared vision for long-term cooperative action",3 and it was affirmed that "addressing climate change requires a paradigm shift towards building a low-carbon society, while ensuring a just transition of the workforce that creates decent work and quality jobs". The Cancún Agreements connected the idea of a just transition to the larger UNFCCC pledges to reduce the socioeconomic effects of climate response actions, like climate change policies and programmes. Early UNFCCC talks were heavily

¹Wang, X., & Lo, K. (21, December). Just transition: A conceptual review. Science Direct, 82(102291). https://doi.org/10.1016/j.erss.2021.102291

² Johansson, V. (2023). Just Transition as an Evolving Concept in International Climate Law. Journal of Environmental Law, 35. https://doi.org/10.1093/jel/eqad017

³ UNFCCC. (2011). Decision 1/CP.16, The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Longterm Cooperative Action under the Convention. https://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf

⁴ Idem.

impacted by oil-exporting nations looking for reimbursement for their decreased use of fossil fuels, but the agenda has since broadened to cover topics including workforce transformation, trade, and tourism. Therefore, Parties decided to create a work programme on the effects of response measures at COP 16, and this agreement was formalised at COP 17 in Durban. As support grew and a formal forum for discussion was established, just transition emerged as a key issue within the work programme. Even while there isn't a single, agreed-upon definition of just transition, it acts as a framework for the forum's continuing debates. Just transition has continuously been a priority, demonstrating ongoing involvement from a variety of country groupings, despite revisions to the forum's mission at COP 21 (Paris) and COP 24 (Katowice).⁵

Indeed, just transition became a crucial topic in subsequent negotiations from COP17 and 18. This demonstrates how ITUC has been able to argue for the concept's applicability to global climate change through its ongoing participation in the convention's discussions. During this time, the idea has received more backing from governments, civil organisations, the corporate world, important international organisations like the ILO, and social organisations, as well as the UN Environment Programme. This movement paved the way for just transition to be incorporated into fundamental international agreements.

The turning point for the global expansion of just transition occurred in 2015 with the adoption of two paramount texts. Firstly, the concept of just transition was embodied in the Preamble of the Paris Agreement, which stressed the importance of "taking into account the imperatives of a just transition of the workforce and the creation of decent work and quality jobs following nationally defined development priorities".⁷

⁵ Johansson, V. (2023). Just Transition as an Evolving Concept in International Climate Law. Journal of Environmental Law, 35. https://doi.org/10.1093/jel/eqad017

⁶ Idem.

⁷ UNFCCC. (2015). The Paris Agreement. United Nations Framework Convention on Climate Change.

https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/paris_agreement_english_.p df

In the discussions for the adoption of the Paris Agreement, an alliance between trade unions and civil society organisations supported the incorporation of a common article for framing a rights-based approach to climate, supporting safeguard and fulfilment of human rights and including a just transition of the workforce. Despite the widespread support, the content of the envisioned article was moved up to the preamble. This marked a pivotal development in the development of just transition from a legal standing.⁸

In the same year, the ILO Guidelines for a Just Transition ⁹ were adopted which declared that "a just transition for all towards an environmentally sustainable economy needs to be well managed and contribute to the goals of decent work for all, social inclusion and eradication of poverty". ¹⁰ The laid down of common guidelines "represents an apparent effort to operationalise the concept". ¹¹ The 2015 ILO Guidelines were inspired by the 'Resolution concerning sustainable development, decent work and green jobs' endorsed during the ILO Conference in 2013. Indeed, the text adopted in 2015 signalled an agreement between nations, workers, and employers on the perimeter of just transition. Thus, parties agreed upon basic features of just transition, including "anticipating impacts on employment"; "adequate and sustainable social protection for job losses and displacement"; "skills development and social dialogue, including the effective exercise of the right to organise and bargain collectively". ¹² It is crucial to point out that most of the signatories of the Paris Agreement are also members of the ILO, thus evidencing the "recognition of just transition under the ILO as relevant for the majority of states within the climate regime". ¹³

⁸ Johansson, V. (2023). Just Transition as an Evolving Concept in International Climate Law. Journal of Environmental Law, 35. https://doi.org/10.1093/jel/eqad017

⁹ILO. (2015). Guidelines for a just transition towards environmentally sustainable economies and societies for all. International Labour Organization.

https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_emp/@emp_ent/documents/publication/wcms_432859.pdf

¹⁰ Idem.

^{11 (}Johansson, 2023), supra n. 8

¹² (ILO, 2015), supra n. 9

^{13 (}Johansson, 2023), supra n. 8

During the following years, the just transition concept remained high on the agenda of subsequent COP meetings. Indeed, for a more comprehensive understanding of the concept of just transition, it is paramount to analysed how just transition has been framed by the Parties in successive agreements and practices. As COP initiatives have the specific mandate to implement the treaties by which they are constituted, they represent a fundamental lens. At the same time, it is crucial to point out that "COP decisions do not constitute a way to form new binding obligations, outside the realm of the existing treaty terms. Instead, they are seen to have a unique legal status as *droit dérivé* norms and accordingly have legal validity only within the normative powers delegated to them by the Parties to the constitutive treaty. Yet, as COP meetings within the UNFCCC system have a rather broad mandate, they can, in addition to implementing particular obligations within the constitutive treaty, introduce new institutional arrangements or substantial recommendations, that are seen as relevant for the effective implementation of the Agreement". Moreover, COP meetings serve also to promote ongoing dialogue that support the evolution of climate law and governance.

A key step occurred during the COP24 in Poland, where Heads of State signed the Solidarity and Just Transition Silesia Declaration.¹⁷ The Declaration underlined that the "just transition of the workforce, while supporting sustainable employment and decent work, is vital to spur public support for a low-carbon economy, as well as to achieve the Paris Agreement's objectives". ¹⁸

Further momentum was gained at COP26 in Glasgow, where the just transition became a pillar of climate action. At the summit, the just transition was defined as necessary for shifting to net zero, and five key priorities were identified: (i) make the just

¹⁴ Johansson, V. (2023). Just Transition as an Evolving Concept in International Climate Law. Journal of Environmental Law, 35. https://doi.org/10.1093/jel/eqad017

¹⁶ *Idem*.

¹⁵ Idem.

¹⁷ Council of the European Union. (2018). Silesia Declaration on Solidarity and Just Transition

⁻ Authorisation to support the adoption on behalf of the European Union.

https://data.consilium.europa.eu/doc/document/ST-14545-2018-REV-1/en/pdf

¹⁸ *Idem*.

transition integral to net-zero plans; (ii) focus on emerging and developing economies; (iii) deploy tailored financial instruments and mechanisms; (iv) support just transition policy and regulation; (v) recognise the crucial role of dialogue and participation.¹⁹ Indeed, the conference participants endorsed new initiatives in the just transition field. Among these initiatives, several need to be mentioned. With the Glasgow Climate Pact, governments agreed to the "phase-down of unabated coal power and phase-out of inefficient fossil fuel subsidies". 20 This was markedly tied to "providing targeted support and recognising the need for support towards a just transition"21. Moreover, a strong acknowledgement of the necessity to involve financial institutions was made, with the Pact explicitly declaring "the need to ensure just transitions (...), including through making financial flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development". 22 Moreover, during the COP26, sixteen industrialised countries and the EU published a declaration on "Supporting the Conditions for a Just Transition Internationally". 23 This statement is built upon the previously mentioned Silesia Declaration, and the commitment endorsed by almost 50 countries to "develop just transition plans connecting climate action with social benefit"²⁴ at the UN Climate Action Summit in 2019. The new declaration agreed upon during the COP26 delineates five principles: (i) supporting workers; (ii) social dialogue; (iii) economic strategies; (iv) decent work; and (v) supply chains and reporting.²⁵ With this renovated agreement, the signatories pledged to include the just transition concept

¹⁹ Robins, N., & Muller, S. (2021, December). Lessons from COP26 for financing the just transition. Grantham Research Institute on Climate Change and the Environment. https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2021/12/Lessons-from-COP26-for-financing-the-just-transition.pdf

²⁰ COP26. (2021). The Glasgow Climate Pact. UNFCCC. https://unfccc.int/sites/default/files/resource/cop26_auv_2f_cover_decision.pdf
²¹ Idem.

²² Idem.

²³ COP26. (2021, 11 4). Supporting the Conditions for a Just Transition Internationally. UN Climate Change Conference UK 2021.

 $[\]frac{https://webarchive.nationalarchives.gov.uk/ukgwa/20230313132211/https://ukcop26.org/supporting-the-conditions-for-a-just-transition-internationally/$

²⁴ United Nations Global Compact. (2019). UN Climate Action Summit. https://unglobalcompact.org/take-action/events/climate-action-summit-2019/overview

²⁵ (COP26, 2021), supra n. 12

within their Nationally Determined Contributions (NDCs). Significant partnerships were also formed during the summit, such as between South Africa and the EU, France, Germany, the UK, and the US, to provide \$8.5 billion to facilitate "a just transition to a low-carbon, climate-resilient society that promotes employment and livelihoods".26 These funds were put mainly at the disposal of workers to promote quality green jobs. Furthermore, eight multilateral development banks published a joint statement of highlevel principles. Public finance institutions have been paramount in "leading the practical application of the just transition in the finance sector - these include the Asian Development Bank, CDC, the European Investment Bank, the European Bank for Reconstruction and Development, the World Bank, and the Climate Investment Funds". 27 The principles endorsed were: connecting climate action with the Sustainable Development Goals (SDGs), delivering long-term economic transformation, mobilising public and private finance, mitigating negative socioeconomic impacts, increasing opportunities, and ensuring inclusive and transparent planning.²⁸ Another relevant initiative at COP26 was the 'Coal to Clean' Transition Statement. Within this declaration, more than 40 countries, together with regional authorities and other organisations, committed to provide "a robust framework of financial, technical, and social support to affected workers, sectors, and communities to make a just and inclusive transition away from unabated coal power in a way that benefits them, and expands access to clean energy for all".²⁹ Lastly, several programs stemming from industries, businesses and financial institutions were announced during COP26. Among these initiatives, worth mentioning is the Glasgow Financial Alliance for Net-Zero (GFANZ), through

²⁶ COP26. (2022). Joint Statement: South Africa Just Energy Transition Investment Plan. https://ec.europa.eu/commission/presscorner/api/files/document/print/en/statement_22_666 4/STATEMENT_22_6664_EN.pdf

²⁷ Robins, N., & Muller, S. (2021, December). Lessons from COP26 for financing the just transition. Grantham Research Institute on Climate Change and the Environment. https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2021/12/Lessons-from-COP26-for-financing-the-just-transition.pdf

²⁸ COP26. (2021). Multilateral Development Banks Working Together for Paris Alignment. UN Climate Change Conference 2021. https://www.eib.org/files/events/cop26-joint-mdb-paris-alignment-update-presentation-en.pdf

²⁹ Idem.

which four hundred and fifty banks pledged to reach 50% of net-zero financed emissions by 2030. Additionally, the Alliance stated "the importance of including the just transition in both the real economy and the financial sector transition plans that now need to be designed and implemented". Indeed, it became a prerogative that "banks, insurers, investors, and other financial institutions will need to show how their climate action plans incorporate the interests of workers, communities and consumers". 31 On the industry side, the Just Transition Maritime Task Force³² came to be during the summit. The signatories to this partnership were the International Chamber of Shipping, representing shipowners, the International Transport Workers' Federation, representing seafarers and port workers, and the UN Global Compact. This Taskforce aimed to "support the decarbonisation of shipping while ensuring workers and communities are supported and have access to the opportunities created in the transition". Indeed, it was acknowledged that "building the needed green skills and creating green and decent jobs will be key priorities".33 Lastly, at the corporate accountability level, the World Benchmarking Alliance (WBA) conducted the first Just Transition Assessment of corporate performance. The evaluation encompassed several themes such as human rights, social dialogue, just transition planning, job creation, retaining and retraining, social protection, and policy advocacy. The assessment concluded that "the vast majority of high-emitting companies are failing to demonstrate efforts towards a just transition". 34

https://www.gfanzero.com/about/

https://www.worldbenchmarkingalliance.org/just-

 $\frac{transition/\#:\sim:text=In\%20January\%202026\%2C\%20the\%20World\%20Benchmarking\%20Alliance\%20will, are \%20included\%20and\%20supported\%20throughout\%20the\%20entire\%20process.}$

 $^{^{\}rm 30}$ GFANZ. (2021.). Glasgow Financial Alliance for Net Zero.

³¹ Robins, N., & Muller, S. (2021, December). Lessons from COP26 for financing the just transition. Grantham Research Institute on Climate Change and the Environment. https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2021/12/Lessons-from-COP26-for-financing-the-just-transition.pdf

³² International Chamber of Shipping. (2021). Maritime Just Transition Task Force. https://www.ics-shipping.org/representing-shipping/maritime-just-transition-task-force/#:~:text=The%20%E2%80%98Maritime%20Just%20Transition%20Task%20Force%E2%80%99%20is%20an,solution%2C%20supported%20by%20globally%20established%20Just%20Transition%20princi

³³ (Robins & Muller, 2021), *supra n. 31*

³⁴ World Benchmarking Alliance. (2021). Just Transition Assessment.

Indeed, the report underlined that "people most at risk are being left out of decisions that affect their future, and companies must commit to the reskilling of workers or risk a stranded workforce". Overall, according to Robin and Miller, "two competing realities emerged at COP26 for a just transition to an inclusive, resilient and net-zero economy: while there were unprecedented signals of support, these were set against highly limited real-world actions, and continuing inabilities to deliver climate justice at a strategic level."

Furthermore, in line with the previous conferences, the COP27 in Sharm-el-Sheikh adopted the text "Futures Lab: Just Transition and the Future of Work", which delivered the key message that "a Just Transition means transforming the economy and the economic system in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind. A Just Transition will maximise the social and economic opportunities while carefully managing and minimising any challenges through effective social dialogue among impacted groups and hold respect for fundamental labour principles and rights, all the while recognising the different countries' needs and stages of development".³⁷

Overall, COP 26 and 27 played a paramount role in providing more central meaning to the just transition concept and to the application of the Paris Agreement.

The culmination of these advancements occurred in 2023 when the ILO adopted a Resolution on Just Transition that aimed at reinvigorating the 2015 guidelines, by adopting four interrelated elements: (i) promoting inclusive, sustainable, and job-rich

³⁵ Robins, N., & Muller, S. (2021, December). Lessons from COP26 for financing the just transition. Grantham Research Institute on Climate Change and the Environment. https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2021/12/Lessons-from-COP26-for-financing-the-just-transition.pdf

³⁶ Idem.

³⁷ COP27. (2022). Futures Lab: Just Transition and the Future of Work. UNFCCC. https://unfccc.int/sites/default/files/resource/MPGCA_COP27_FL_OD_Just%20Transition%20and%20the%20Future%20of%20Work.pdf

economies; (ii) advancing social justice; (iii) managing the process of just transition; and (iv) financing a just transition (ILO, 2023).³⁸

The evolution of the concept of just transition signalled how, under this fair and inclusive transition umbrella, an interplay of actors and perspectives is involved. Who is responsible for driving the just transition process? Who is most affected by the green transition and ultimately is at the centre of the just transition pathway? How will the just transition unfold, and what will be the consequences? To answer these questions, it is first and foremost paramount to analyse *how* the concept of just transition has been defined.

3. Conceptual Debates in Defining the Just Transition

It is possible to distinguish two scholarly stands in defining just transition. On one hand, the literature sustained the fact that the just transition was crafted as a labour-orientated concept. Therefore, in line with the "original transition strategy", just transition is firstly about ensuring social protection measures for workers in high-emitting sectors.³⁹ On the other hand, the research has focused on arguing that "the concept of just transition cannot be separated from the broader issues of global climate justice and common but differentiated responsibilities".⁴⁰ The scope of this section is to delve into the scholarly debate to better grasp the wholesome concept of just transition.

³⁸ ILO. (2023). Resolution concerning a just transition towards environmentally sustainable economies and societies for all. International Labour Organization.

https://www.ilo.org/sites/default/files/wcmsp5/groups/public/%40ed_norm/%40relconf/documents/meetingdocument/wcms_886647.pdf

³⁹ Wang, X., & Lo, K. (21, December). Just transition: A conceptual review. Science Direct, 82(102291). https://doi.org/10.1016/j.erss.2021.102291

⁴⁰ UNCDP. (2023). Just Transition. https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/CDP-excerpt-2023-1.pdf

It is possible to identify an "environment vs. job dilemma", where economic production and climate protection's demands conflict.⁴¹ The stand taken will be a "central indicator of the concept's future transformative potential".⁴²

One of the most significant efforts to define just transition beyond its labourunion origins comes from McCauley and Heffron (2018). The authors adopted an "expansive definition of just transition encompassing climate, environmental, and energy justice to achieve a just, holistic societal transition". 43 Indeed, a significant body of literature frames just transition under these terms, "aiming to transcend economic inequality and labour market impacts by placing them in a historical context, broadening their theorisation to elevate societal justice as the core to achieving a sustainable energy transition". 44 In line with the definition of just transition as a redress for climate justice, Stevis and Felli (2020) advocate for a planetary just transition that must be inclusive and just to both nature and society. According to the authors, the just transition path should be evaluated considering socio-ecological goals, specifically "social equality and standing for nature". 45 Moreover, according to the authors, just transition is deeply intertwined with (historical) justice and inclusiveness. Similarly, the Climate Justice Alliance (2018) argues that "the transition must be just and equitable, redressing past harms and creating new relationships of power for the future through reparations". 46 Moreover, Muttitt and Kartha (2020) focused on how to manage social dimensions equitably when rapidly transitioning to a low-carbon economy. Based on their review, "as the government tackles

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⁴¹ Wilgosh, B., Sorman, A. H., & Barcena, I. (2022). When two movements collide: Learning from labour and environmental struggles for future Just Transitions. ELSEVIER, Futures 137(102903). https://doi.org/10.1016/j.futures.2022.102903

⁴² *Idem*.

⁴³ McCauley, D., & Heffron, R. (n.d.). Just transition: Integrating climate, energy and environmental justice. Energy Policy, 119. https://doi.org/10.1016/j.enpol.2018.04.014

⁴⁴ Abram, S. (2022). Just Transition: A whole-systems approach to decarbonisation. CLIMATE POLICY, 22(8). https://doi.org/10.1080/14693062.2022.2108365

⁴⁵ Stevis, D., & Felli, R. (2020). Planetary just transition? How inclusive and how just? ELSEVIER, *6*(100065).

https://www.sciencedirect.com/science/article/pii/S2589811620300240?via%3Dihub

⁴⁶ CJA. (2018). Just Transition Principles. Climate Justice Alliance.

https://climatejusticealliance.org/wp-

content/uploads/2018/06/CJA JustTransition Principles final hi-rez.pdf

fossil fuel supply as part of climate mitigation efforts, how countries, impacted communities, and affected actors perceive the fairness of these steps" (Muttitt & Kartha, 2020) will shape the concept of just transition. The authors aim to frame just transition as the result of "participative and democratic processes with affected communities". ⁴⁷

The opposite narrative emphasises jobs, workers' identities and lives. In this case, the green transition is feared, and it is argued that individuals in emitting industries should not bear the burden of the decarbonisation pathway. Nevertheless, it is important to recognise that trade unions have recently advanced proposals that embraced both sustainable development and economic protection, recognising the benefits of the green transition for workers and society at large. The just transition concept has been supported by multiple national and international trade union bodies, such as the European Trade Union Confederation⁴⁸ and the ILO.⁴⁹ Moreover, it is crucial to point out that the Paris Agreement, the foundational international treaty for climate transition, addresses the "imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities".⁵⁰ Moreover, recent just transition definitions demonstrate a "reductive, depoliticised and ahistorical tendency wherein climate justice is addressed primarily through sustainable growth and green jobs programs".⁵¹ This approach has been brought into question by climate justice supporters, arguing whether this lens of framing justice in terms of employment's future

⁴⁷ Muttitt, G., & Kartha, S. (2020). Equity, climate justice and fossil fuel extraction: principles for a managed phase out. Climate Policy, 20(8).

https://doi.org/10.1080/14693062.2020.1763900

⁴⁸ ETUC. (2020). Spain guarantees a just transition for miners. Confederation Syndicat European Trade Union. https://www.etuc.org/en/spain-guarantees-just-transition-miners

⁴⁹ ILO. (2015). Guidelines for a just transition towards environmentally sustainable economies and societies for all. International Labour Organization.

https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_emp/@emp_ent/docume_nts/publication/wcms_432859.pdf

⁵⁰ UNFCCC. (2015). The Paris Agreement. United Nations Framework Convention on Climate Change.

https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/paris_agreement_english_.p

⁵¹ Iberdrola. (n.d.). The just transition, fundamental for achieving climate goals and generating prosperity. https://www.iberdrola.com/sustainability/energy-transition/just-transition

and opportunities is sufficient to safeguard the diverse plethora of stakeholders affected. In this regard, climate justice literature has largely neglected workers' and unions' considerations, thus lacking a crucial focal point. ⁵² Instead, some just transition scholars tried to reconcile the "jobs vs. environment opposition", to address concerns from fossil fuel workers, to widen the consensus around climate movements, and ultimately to scale up the decarbonisation pathway. ⁵³

The need to attract workers' consensus has developed in contrast to certain climate activists' views, supporting that "the concerns of young and future generations, millions of people in the Global South, mining-affected communities, and ultimately planetary survival are seen to far outweigh concerns for a few remaining jobs in declining carbon-intensive industries". ⁵⁴ Indeed, "job losses in the coal sector are seen as collateral damage that is regrettable but unavoidable". ⁵⁵ This harsh approach has provoked resistance from unions and workers in mining regions, causing a lack of social consensus for climate policies that risk decelerating the net-zero pathway.

Indeed, workers' and climate movements address competing justice prerogatives. While neither approach denies that both jobs and climate concerns are legitimate, the two literature approaches tend to delegitimise competing claims. However, it has been argued that transformative just transition narratives should "turn labour-environmental conflict into a change for cross-movement learning". ⁵⁶ Indeed, some scholars argued that "decarbonisation policy imperative presents an opportunity to decisively steer societies towards an ecologically and socially more inclusive path, reflecting a decision to live in a

⁵² Wilgosh, B., Sorman, A. H., & Barcena, I. (2022). When two movements collide: Learning from labour and environmental struggles for future Just Transitions. ELSEVIER, Futures 137(102903). https://doi.org/10.1016/j.futures.2022.102903

⁵³ Kalt, T. (2021). Jobs vs. climate justice? Contentious narratives of labor and climate movements in the coal transition in Germany (Vol. Environmental Politics). Department of Social Sciences, University of Hamburg, Hamburg, Germany.

https://www.researchgate.net/publication/349598747_Jobs_vs_climate_justice_Contentious_narratives_of_labor_and_climate_movements_in_the_coal_transition_in_Germany

⁵⁴ *Idem*.

⁵⁵ *Idem*.

⁵⁶ (Kalt, 2021), supra n. 53

different type of society, not simply a low-carbon version of the current one."⁵⁷ To overcome these challenges, scholars have proposed a "whole-system just transition conceptualisation that implicates various justice concerns, to include the balance of costs and benefits between local and global effects, and between employment and business management".⁵⁸

Indeed, tensions stem from the different interpretations of just transition. This conflict occurs even in everyday debates, not just at the theoretical level, for example, between climate movements and workers' unions. Overall, Wang and Lo (2021) argue that "sophisticated empirical studies are lacking, as scholars seem more interested in creating various just transition analytical frameworks than in applying these frameworks to empirical investigations". ⁵⁹ There is a lack of research on how just transition unfolds in practice. Indeed, it has been argued that the literature would be enriched by studies that examine just transition frameworks in real-world settings. ⁶⁰

4. Investing in a Just Transition

There is a significant body of literature that delves into the relation between just transition and finance, and how financial institutions can galvanise their assets to prompt a transition that is not only green but also equitable. Numerous scholars argue that financial support is the key to achieving just transition promises. Zadek (2018) described just transition as a financial challenge. Accordingly, climate goals can only be achieved with major financial support. Even if progress has been made, the world is still far from a just transition pathway. According to the author, the rules and norms of global finance need to be reformulated to achieve a just transition.⁶¹

⁵⁷ Abram, S. (2022). Just Transition: A whole-systems approach to decarbonisation. CLIMATE POLICY, 22(8). https://doi.org/10.1080/14693062.2022.2108365

⁵⁸ *Idem*.

⁵⁹ Wang, X., & Lo, K. (2021). Just transition: A conceptual review. *ELSEVIER*, *82*(102291). https://doi.org/10.1016/j.erss.2021.102291

⁶⁰ Idem.

⁶¹ Zadek, S. (2019). Financing a Just Transition. Organization & Environment, 32(I). https://www.researchgate.net/publication/327213300_Financing_a_Just_Transition

Indisputably, we are running out of time, and reaching the Paris Agreement warming targets seems a mirage. Indeed, to obtain concrete results, it is crucial to mobilise finance. Trillions of dollars are needed for climate mitigation, adaptation, and resilience. Estimates report that developing countries will need more than \$1 trillion in climate finance yearly by 2030. Moreover, the International Energy Agency (IEA) disclosed that investments in renewable energy systems must increase by more than seven times to reach carbon neutrality by 2050. Even if many intergovernmental institutions have started providing funds to combat climate challenges, the private sector is key to closing the climate finance gap. Evidence shows that "even if all multilateral development banks committed their entire balance sheet to the green transition, it would provide only 4% of the capital needed".⁶²

However, it is necessary that, in mobilising capital for climate finance, just transition considerations are streamlined in financial operations. It is recognised that investors have so far given limited attention to the social consequences of climate change. Instead, just transition should work precisely "as the framework for connecting climate action with the need for an inclusive economy and sustainable development". ⁶³ The underlying reason is that merely financing the transition to net zero without acknowledging socio-economic dimensions will lead to an unjust and unequal scenario where many groups in society will be left behind. Indeed, "investing in a just transition is set to be the best way to manage the strategic risks and opportunities that flow from the shift to a prosperous, low-carbon, resilient, and inclusive global economy". ⁶⁴

⁶² The Global Governance Project. (2024). Transforming Financing, Tackling Climate Change. https://edition.pagesuite-

 $[\]frac{professional.co.uk/html5/reader/production/default.aspx?pubname=\&edid=e51ab057-a4b9-44a1-aafc-7209130daf8d}{44a1-aafc-7209130daf8d}$

⁶³ Robins, N., & Muller, S. (2021, December). Lessons from COP26 for financing the just transition. Grantham Research Institute on Climate Change and the Environment. https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2021/12/Lessons-from-COP26-for-financing-the-just-transition.pdf

⁶⁴ *Idem*.

Indeed, since the global economy must transition from a carbon-intensive mode of production towards a sustainable and resilient economic system, financial institutions stand at the epicentre of this pathway. According to the UNEP FI and ILO (2023), financial institutions play a pivotal role in promoting a just transition, having to handle both climate change and climate transition risks. Their unique position allows banks "to achieve broad-based support for ambitious climate action and generate benefits both to the environment and the society, while carefully managing potential adverse social impacts from economic transformation".65 Finance coverage is decisive in developing green strategies, converting unsustainable practices, and supporting society to adapt to the transition and physical risks of climate change. Moreover, according to the UNEP FI & ILO (2023), "financial institutions can adopt a just transition lens to uncover and manage client portfolios' sustainability-related and reputational risks and alleviate regulatory, legal, shareholder, and stakeholder concerns".66 Indeed, even though banks rely on the economic sector and the practice of enterprises in their portfolio, financial entities can lift positive environmental and social impacts by directing capital toward sustainable development. The UN High-Level Climate Action Champions evaluated that 70% of the investments needed to reach net zero must be provided by the private sector. Indeed, "incorporating just transition considerations into the strategic thinking of banks and insurance companies is imperative for robust organisational risk management that empowers financial institutions to effectively address and mitigate a spectrum of financial and non-financial risks inherent to their client and investment portfolios".67 Neglecting just transition considerations in investment activities will lead to ineffective

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⁶⁵ UNEP FI & ILO. (2023). Just Transition Finance - Pathways for Banking and Insurance. International Labour Organization and the United Nations Environment Programme Finance Initiative 2023. https://www.unepfi.org/wordpress/wp-content/uploads/2023/11/Just-transition-finance_Pathway-for-Banking-and-Insurance.pdf

⁶⁶ *Idem*.

⁶⁷ Idem.

climate action, a rise in inequality, and social discontent. Ultimately, this failure will cause major financial risks for the banking sector, as clients' activities risk being disrupted.⁶⁸

Indeed, it is widely advocated that aligning sustainable finance with just transition will unfold a climate-resilient future for our planet, economy, and society. However, investor strategies on climate action have, until now, lacked a robust social dimension. According to Robins, Brunsting, and Wood (2018), "by including the just transition in their climate strategies, investors can not only tackle the challenge of 'stranded assets', but also of 'stranded workers' and 'stranded communities'."⁶⁹ It is indisputable that the transition toward a low-carbon economy will impact growth, employment, and investment. However, if managed smartly, significant economic and societal gains will unfold. Nevertheless, there is still "a lack of robust analytics and guidance to enable investors as a group to play an effective role".⁷⁰

5. Comparative Analysis of Frameworks and Policies

This section will provide a comprehensive view of the main policy, legal, and litigation instruments currently dealing with the just transition dimension. Thus, it is necessary to assess how relevant piece of legislation and policies dealt with the need to financing a just transition.

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⁶⁸ UNEP FI & ILO. (2023). Just Transition Finance - Pathways for Banking and Insurance. International Labour Organization and the United Nations Environment Programme Finance Initiative 2023. https://www.unepfi.org/wordpress/wp-content/uploads/2023/11/Just-transition-finance_Pathway-for-Banking-and-Insurance.pdf

⁶⁹ Robins, N., Brunsting, V., & Wood, D. (2018). Investing in a just transition Why investors need to integrate a social dimension into their climate strategies and how they could take action. Grantham Research Institute on Climate Change and the Environment.

 $[\]frac{https://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2018/06/Robins-et-al\ Investing-in-a-Just-Transition.pdf}$

⁷⁰ *Idem*.

At the international level, Article 2.1(c) of the Paris Agreement introduced the concept of tying financial flows to climate change, by stating that: "this Agreement [...] aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by: [...] making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development".71

Notwithstanding this, it is crucial to assess the legal implications of just transition within the Paris Agreement. As mentioned in the first section of the literature, the just transition as a concept has been placed in the preamble of the Agreement. Under international law, preambular recitals are generally not defined as providing enforceable legal obligations. Indeed, the mention of just transition in the Paris Agreement should be interpreted as non-binding. However, this does not imply that it is legally marginal. The Vienna Convention on the Law of Treaties (VCLT) surpasses the function of preambles, leaving it to legal scholars to elucidate their significance. Research has identified various legal functions that preambular paragraphs might embody.⁷² Firstly, scholars argue that the function is connected to "how the style and content of treaties and their preambles have developed historically". 73 Therefore, climate-related treaties as the Paris Agreement, are traditionally regarded as technically difficult agreements, thus usually are characterised by longer and richer preambles. Therefore, it has been assumed that substantive matters, which did not attract enough support during negotiations, are usually embodied in these wide preambular recitals. Indeed, scholars agreed that "since the Paris Agreement's preamble was the object of intense negotiations, it can without doubt be considered as a valuable part of the Agreement".74

⁷¹ UNFCCC. (2015). The Paris Agreement. United Nations Framework Convention on Climate Change.

https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/paris_agreement_english_.p

⁷² Johansson, V. (2023). Just Transition as an Evolving Concept in International Climate Law. Journal of Environmental Law, 35. https://doi.org/10.1093/jel/eqad017

 $^{^{73}}$ Idem.

⁷⁴ *Idem*.

The first function that preambular recitals might perform is the interpretative function. This is in line with the VCLT statement that "preambles form part of the text of the treaty, and can, therefore, be used in the interpretation of treaty terms". The last been argued that there are, at least, two terms of the Paris Agreement which embody just transition as an interpretative function: the commitment to consider the impacts of response measures, and the principle of equity. As concerns the first phrase, both the UNFCCC and the Paris Agreement explicitly affirm the "obligation to consider the concerns arising from the adverse impacts of the implementation of response measures". 76 As explained in the first section of this literature review, just transition has been a pillar in the work programme for response measures, thus "the reference to just transition in the Paris Agreement has, moreover, consolidated the concept's position within the Agreement and further legitimised its use in its interpretation". The second term – the principle of equity - further reinforces just transition, standing under the Paris Agreement. This principle has not been institutionally defined. However, in the context of the Agreement, this principle is often read in conjunction with the Common But Differentiated Responsibilities (CBDR) principle. Indeed, "equity as accordingly also been perceived as an overarching principle that is implemented through a variety of more detailed principles and commitments within the UNFCCC system". 78 In line with this approach, just transition can be evaluated as "one of the concepts that belong under the broader guiding principle of equity. When perceived as such, it alters the traditional understanding of what equity means in climate law, by extending the principle's previous interstate focus to encompass the equity of specific social groups within states". 79 This interpretation is consistent with numerous Parties' Nationally Determined

⁷⁵ UN. (1969). Vienna Convention on the Law of Treaties, *Article 31* https://legal.un.org/ilc/texts/instruments/english/conventions/1_1_1969.pdf

⁷⁶ Johansson, V. (2023). Just Transition as an Evolving Concept in International Climate Law. Journal of Environmental Law, 35. https://doi.org/10.1093/jel/eqad017

⁷⁷ Idem.

 $^{^{78}}$ Idem.

⁷⁹ *Idem*.

Contributions (NDCs), which have mentioned just transition under the 'fairness and equity' section.80

Additionally, preambular paragraphs may also embody a *political function*. Parties may thus "aim to utilise the preamble to tilt things in their favour by having it refer to ideas and ambitions, or a normative framework, or perhaps even something of a definition".81 This function, even if not legal per se, is legally relevant, since "it can feed into state practice and subsequent agreements, and therefore strengthen the conditions for the legal evolution of certain terms or ideas".82 Accordingly, the preambular mention of just transition in the Paris Agreement enlarges the scope and ideas traditionally regarded as relevant within international climate law. Thus, it has been evidenced how, after the just transition quotation in the Agreement, states increasingly referenced this term within their implementation activities. For instance, only South Africa mentioned just transition in the cycle of NDCs that were started in advance of COP 21 in Paris, but at least 35 NDCs in the subsequent round of (revised and updated) NDC submissions, which took place in 2020/2021, did so, including the EU's NDC.83

Moreover, the ILO Guidelines for a Just Transition (ILO 2015; reaffirmed 2023) represent another cornerstone for the spread of the just transition process at the international level.⁸⁴ The ILO vision relies on the four pillars of the Decent Work

⁸³ *Idem*.

⁸⁰ Johansson, V. (2023). Just Transition as an Evolving Concept in International Climate Law. Journal of Environmental Law, 35. https://doi.org/10.1093/jel/eqad017

⁸¹ Klabbers, J. A. M. (2018). Treaties and Their Preambles. Cambridge University Press. https://researchportal.helsinki.fi/en/publications/treaties-and-their-

preambles#:~:text=Klabbers%2C%20JAM%202018%2C%20Treaties%20and%20Their%20Prea mbles.%20in, Treaties.%20Cambridge%20University%20Press%2C%20Cambridge%2C%20pp.% 20172-200.%20https%3A%2F%2Fdoi

^{82 (}Johansson, 2023), supra n. 80

⁸⁴ ILO. (2015). Guidelines for a just transition towards environmentally sustainable economies and societies for all. International Labour Organization.

https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_emp/@emp_ent/docume nts/publication/wcms 432859.pdf

⁸⁵ ILO. (2023). Resolution concerning a just transition towards environmentally sustainable economies and societies for all. International Labour Organization.

https://www.ilo.org/sites/default/files/wcmsp5/groups/public/%40ed_norm/%40relconf/doc uments/meetingdocument/wcms 886647.pdf

Agenda - social dialogue, social protection, rights at work, and employment - which are pivotal for sustainable development. According to these guidelines, if "managed well, transitions to environmentally and socially sustainable economies can become a strong driver of job creation, job upgrading, social justice and poverty eradication. Greening all enterprises and jobs by introducing more energy- and resource-efficient practices, avoiding pollution and managing natural resources sustainably leads to innovation, enhances resilience and generates savings which drive new investment and employment". 86

Additionally, scholars of labour law have understood just transition as a term that incorporates worker rights and labour law standards into the field of climate legislation and policy, given its historical origins. This understanding is consistent with the substantial ILO work on just transition, where just transition has been connected to labour norms. Following this interpretation, the ITUC and earlier studies on climate law have presumed that the Paris Agreement's just transition clause implies a recognition of labour law provisions or rights. Consequently, "the preambular recital on just transition would perform an incorporative function by clarifying Parties' obligations to observe their labour law commitments when implementing the Paris Agreement".⁸⁷

Moreover, it is important to note that just transition's meaning is also evolving through state practice, especially through the NDCs of the Parties. Out of 35 NDCs, five mention just transition as a way to provide the workforce with decent jobs, the remaining thirty treat just transition as an umbrella term. Indeed, subsequent political declarations on just transition adopted by a range of parties at COP 24 and 26, highlight "the procedural role of planning and reporting in the implementation of just transition". 88 Specifically, the Silesia Declaration supports "the consideration of just transition while

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^{86 (}ILO, 2015), supra n.83

⁸⁷ Johansson, V. (2023). Just Transition as an Evolving Concept in International Climate Law. Journal of Environmental Law, 35. https://doi.org/10.1093/jel/eqad017

⁸⁸ *Idem*.

preparing and implementing NDCs and other climate plans".⁸⁹ Indeed, NDCs and their connected reporting play a central for encouraging all Parties to endorse just transition further. This has been supported by trade unions as well, as a way to "operationalise the work on just transition in a context-specific and country-driven manner".⁹⁰ However, there is no obligation to include a just transition plan in NDCs then it is left to states to decide the weight they allocate for these considerations.⁹¹

Moving forward with the analysis at the supranational level, just transition is gaining normative force as a recognised principle for climate action at the regional and sub-national level. For instance, under the EU Climate Law, the Commission is to consider the "need to ensure a just and socially fair transition for all". ⁹² Similarly, recent frameworks on climate change from Scotland (2019), Fiji (2021), South Korea (2021) and South Africa (2022) define just transition as a guiding principle for reaching climate objectives. Additionally, just transition is provided with an indirect guiding role in climate laws from Colombia (2021), Ireland (2021), Portugal (2021) and Spain (2021). ⁹³

Focusing on the European level, the concept of just transition has been integrated into various programs and initiatives at the European level. Firstly, the European Green Deal, adopted in 2019, represents the cornerstone of the EU's sustainable development strategy. The European Green Deal aims "to ensure zero emissions by 2050, making Europe the first climate-neutral continent in the world". Moreover, "the European Green Deal is about more than setting targets. It is also about creating the right enabling

⁸⁹ Council of the European Union. (2018). Silesia Declaration on Solidarity and Just Transition – Authorisation to support the adoption on behalf of the European Union.

https://data.consilium.europa.eu/doc/document/ST-14545-2018-REV-1/en/pdf

⁹⁰ Johansson, V. (2023). Just Transition as an Evolving Concept in International Climate Law. Journal of Environmental Law, 35. https://doi.org/10.1093/jel/eqad017

⁹¹ *Idem*.

⁹²European Commission. (2021). EU Climate Law. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM:4536626

^{93 (}Johansson, 2023), supra n. 90

⁹⁴ European Commission. (2019). The European Green Deal. https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC_1&format=PDF

environment. This is first and foremost about putting people at the core of the transition. That's why the clean transition needs to be just and fair, by supporting both those who are more vulnerable in the clean transition and those most affected by the effects of climate change". 95

Under these premises, the EU has established the Just Transition Fund, the first pillar of the Just Transition Mechanism. The fund is a fundamental tool designed to "support the territories most affected by the transition towards climate neutrality, providing them with tailored support". Moreover, the Just Transition Fund is comprised under the broader Cohesion Policy framework, "which is the main EU policy to reduce regional disparities and to address structural changes in the EU". The fund is equipped with €17.5 billion, allocated considering five socio-economic criteria: half of the allocation is based on economic criteria (greenhouse gas emissions, production of peat and oil shale and oil sands), while the other half considers social criteria (employment data). To access these funds, Member States have to draft their Territorial Just Transition Plans. The territorial plans revolved around three core elements: economic growth, social inclusion, and decarbonisation. These plans define the territories where the Just Transition Fund will be allocated. The plans need to contain information about the challenges in each region, the development instruments necessary, and the targets to be reached by 2030.

Furthermore, the second pillar of the Just Transition Mechanism is the so-called Just Transition scheme under InvestEU. Projects in areas with an approved Just

⁹⁵ European Union. (n.d.). Contribution to the Green Deal and the Just Transition Scheme. InvestEU. https://investeu.europa.eu/contribution-green-deal-and-just-transition-scheme_en_en_

[%] European Commission. (n.d.). Infographic Just Transition Fund.

https://www.europarl.europa.eu/thinktank/infographics/JTF/index.html#/just-transition-fund

⁹⁷ European Commission. (n.d.). Economic, social and territorial cohesion. https://www.europarl.europa.eu/factsheets/en/sheet/93/economic-social-and-territorial-cohesion

⁹⁸ European Union. (n.d.). Contribution to the Green Deal and the Just Transition Scheme. InvestEU. https://investeu.europa.eu/contribution-green-deal-and-just-transition-scheme_en
⁹⁹ European Commission. (n.d.). The Just Transition Mechanism: making sure no one is left behind. https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/finance-and-green-deal/just-transition-mechanism_en

Transition Plan under the Just Transition Fund or projects that benefit regions vulnerable to the transition can benefit from the scheme under InvestEU. For instance, infrastructure projects that improve connectivity in those fragile areas might be included. Indeed, support for these initiatives will be granted by InvestEU financial products provided by the implementing partners. The aim is to enhance economically viable investments made by the private and public sectors to "foster economic attractiveness of the Just Transition territories". ¹⁰⁰

The third pillar of the Just Transition Mechanism consists of the Public Sector Loan Facility: "a grant component worth €1.47 billion from the EU budget and a loan component of up to €10 billion from the European Investment Bank's resources, which is expected to mobilise some €25 to €30 billion in public financing". ¹⁰¹ This pillar is a blending instrument that aims at supporting regions in dealing with the economic effects of the green transition. It is directed towards "heavily dependent on carbon-intensive industries and funds projects addressing social, economic and environmental challenges arising from the transition". ¹⁰²

Another relevant instrument is the Cohesion Policy, which is "the European Union's main investment policy. It provides benefits for all regions and cities in the EU and supports economic growth, the creation of jobs, business competitiveness, sustainable development and protection of the environment". ¹⁰³

Lastly, under the premises of the Fit for 55 package, the Social Climate Fund has been designed, which is "a new tool for financially supporting citizens and businesses most impacted by the introduction of a new emissions trading system for buildings, road

¹⁰⁰ European Commission. (n.d.). The Just Transition Mechanism: making sure no one is left behind. https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/finance-and-green-deal/just-transition-mechanism_en

¹⁰³ European Commission. (n.d.). Economic, social and territorial cohesion. https://www.europarl.europa.eu/factsheets/en/sheet/93/economic-social-and-territorial-cohesion

transport, and fuels for additional sectors. This fund will help tackle energy poverty and improve access to zero- and low-emission mobility and transport in the EU". 104

Nevertheless, despite the EU's effort to mobilise investments to support enterprises and citizens, it has been argued that "it is far from clear whether the Just Transition Fund and the European Green Deal will succeed in delivering a rapid and socially balanced net-zero transition in Europe". Concerns regard both the limited financial allocations of the instruments and governance matters. Moreover, scholars have pointed out implementation problems in the sustainable agenda of the EU, and "some stakeholders are concerned about the inclusiveness and effectiveness of the Territorial Just Transition Plans". Indeed, Kyriazi and Miró advocate that "to meaningfully discuss the extent to which the Just Transition Fund shapes domestic strategies and fosters policy learning, future research will need to turn to specific case studies and systematic analysis of best practices in key sectors". 107

Overall, the European Union has advanced a series of policy instruments, specifically the Just Transition Mechanism and Fund, to support affected realities, to lessen the socio-economic repercussions, and to foster re-employment and retraining. However, it has been argued that "such emphasis on the distributive effects of the sustainability transitions is far too narrow considering the broad spectrum of changes needed to make societies more sustainable in a just way". Moreover, it is crucial to reflect on how existing inequalities within societies hamper vulnerable groups from being heard throughout the transition process and decision-making. Indeed, there is a need to acknowledge power relations at stake and recognise how socio-political interrelations

¹⁰⁴ European Council. (n.d.). Fit for 55: a fund to support the most affected citizens and businesses. <a href="https://www.consilium.europa.eu/en/infographics/fit-for-55-social-climate-fund/#:~:text=The%20social%20climate%20fund%20is%20a%20new%20tool,buildings%2C%20road%20transport%20and%20fuels%20for%20additional%20sectors

¹⁰⁵ Kyriazi, A., & Miró, J. (2023). Towards a socially fair green transition in the EU? An analysis of the Just Transition Fund using the Multiple Streams Framework. *Comparative European Politics*, 21. https://link.springer.com/article/10.1057/s41295-022-00304-6
¹⁰⁶ *Idem*.

¹⁰⁷ *Idem*.

¹⁰⁸ Kaljonen, M. (2024). Policy mixes for just transitions: A holistic evaluation framework. *Environmental Innovation and Societal Transitions*, 52. www.elsevier.com/locate/eist

connect with the distributive effects of transition policies. Constructing capabilities to adapt to the transition requires a "much broader scope of policy mixes than just stimulating and accelerating niches, which has been the conventional focus of sustainability transition studies". 109 Therefore, it is argued that a holistic policy evaluation framework could harness the broader scope of just transition. This is supported by the fact that an "applicable framework to support the considerations of multiple dimensions of justice in the planning, implementation and evaluation of transition policies" is still lacking. Transition-related research has ongoingly supported the relevance of policy mixes to enhance the transition toward a low-carbon economy. Specifically, transition scholars have focused on how "policy mixes should be designed to trigger the twin dynamics of sustainability transition, i.e. actively supporting the emergence and acceleration of niche innovations, whilst simultaneously destabilising the existing regimes and phasing out unsustainable practices". 111 Indeed, there is a necessity to adopt a more holistic approach to just transition policies by integrating a multidimensional conceptualisation of justice. Policies for the transition should be active and emancipatory instead of the common reactive responses to shortcomings. 112

Two other relevant policy instruments that incorporate social considerations at the European Union level are the EU Taxonomy Regulation (Regulation (EU) 2020/852)¹¹³ and the European Sustainability Reporting Standards (ESRS) under the Corporate Sustainability Reporting Directive (CSRD)¹¹⁴. The EU Taxonomy is "a cornerstone of the EU's sustainable finance framework and an important market

¹⁰⁹ Kaljonen, M. (2024). Policy mixes for just transitions: A holistic evaluation framework. Environmental Innovation and Societal Transitions, 52. www.elsevier.com/locate/eist ¹¹⁰ *Idem*.

¹¹¹ *Idem*.

¹¹² *Idem*.

¹¹³ European Commission. (n.d.). EU taxonomy for sustainable activities. https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en

¹¹⁴ European Commission. (2022). Corporate Sustainability Reporting Directive. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022L2464

transparency tool. It helps direct investments to the economic activities most needed for the transition, in line with the European Green Deal objectives". ¹¹⁵ For an activity to be comprised under the Taxonomy, it is necessary to make a "substantial contribution" to at least one out of the six environmental objectives listed while "not significantly harming" any other target and respecting certain minimum safeguards". ¹¹⁶ These Minimum Safeguards are aligned with the OECD Guidelines for Multinational Enterprises, the ILO Standards, and the United Nations Guiding Principles on Business and Human Rights. ¹¹⁷ The standards oblige enterprises to consider social aspects in the pursuit of their activities and ultimately to direct socially responsible and sustainable investments. ¹¹⁸

Moreover, the European Sustainability Reporting Standards further try to align economic performance with social considerations by requiring companies to disclose their relevant social impacts. 119

Nevertheless, the OMNIBUS package might seriously hamper financial investors' capacity to retrieve data on sustainable practices adopted by the enterprises due to a shrinkage of entities compelled to report on the CSRD. However, "the Omnibus proposes to create a new option for reporting on activities that are partially aligned with the EU Taxonomy. This is intended to provide an environment that encourages gradual transition to use of the Taxonomy over time". ¹²⁰ In any case, public debate agrees that this new set of initiatives will represent a setback towards a more sustainable economy.

¹¹⁵ European Commission. (n.d.). EU taxonomy for sustainable activities.

https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities en

¹¹⁶ *Idem*.

¹¹⁷ *Idem*.

¹¹⁸ European Commission. (n.d.). Platform on Sustainable Finance. https://finance.ec.europa.eu/sustainable-finance/overview-sustainable-finance/platform-sustainable-finance en

¹¹⁹ European Commission. (2023). Q&A adoption of European Sustainability Reporting Standards. https://ec.europa.eu/commission/presscorner/detail/en/qanda_23_4043

¹²⁰ Grant Thornton. (2025). The Omnibus package – European Commission releases significant proposals to simplify EU regulations.

https://www.grantthornton.global/en/insights/articles/the-omnibus-package-ec-releases-proposals/#:~:text=Partial%20taxonomy%20alignment:%20The%20Omnibus,the%20EU%20Taxonomy%20over%20time

Lastly, there is a need to analyse how the just transition concept has leaked into litigation. Despite the above-mentioned outline of just transition presence in climate lawrelated documents, legal scholarship has marginally dealt with this concept, exception made for just transition relation to climate litigation. 'Just transition litigation' has been defined as "lawsuits raising questions over the justice and fairness of measures adopted to deliver climate action". 121 This litigation concerns how climate action is designed, rather than challenging or supporting the need for such action. This litigation aims to "highlight how some segments of the population are negatively affected by the transition, by giving voice to their grievances". 122 Applicants are individuals who tend to struggle to be adequately represented in legislative and decision-making processes. For example, in the Statnett SF et al. case123 where individuals resorted to litigation to contest disproportionate socio-economic and climate effects of discrete climate change laws, policies and projects.¹²⁴ The objective of litigations as such is not to hamper climate activism, but rather to argue that laws and related transition projects should be calibrated to the communities. Indeed, just transition litigation amplifies and clarifies just transition meaning, by casting a light on "the inequalities associated with the transition, particularly in terms of the distribution of socio-economic and environmental benefits and burdens, and of participation in decision-making". 125

Just transition litigation can be brought before national and international courts by relying on a wide range of legal instruments. For instance, citing constitutional rights violations, Chilean workers contested the government's lack of consultation in its decarbonisation efforts in the *Company Workers Union of Maritima & Commercial*

¹²¹ Mullerova, H. (2023). Building the Concept of Just Transition in Law: Reflections on its Conceptual Framing, Structure and Content. Environmental Policy and Law. DOI 10.3233/EPL-230012

¹²² Savaresi, A. (2024). Conceptualising Just Transition Litigation. Nature Sustainability. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4561679

¹²³ Syring T. Statnett SF v. Sør-Fosen Sijte (Sup. Ct. Nor.). *International Legal Materials*. 2022;61(6):991-1017. doi:10.1017/ilm.2022.42

^{124 (}Savaresi, 2024), supra n. 122

¹²⁵ *Idem*.

Somarco Ltd. v. Ministry of Energy. 126 Furthermore, new regulations about corporate due diligence may also target corporate actors. For instance, indigenous organisations and NGOs petitioned French courts to stop a wind farm project in Mexico in ProDESC and ECCHR v. EDF, 127 claiming that EDF had violated its due diligence duties under French law. Moreover, soft law instruments and non-judicial procedures may be employed in addition to formal litigation. In this regard, civil society organisations complained to an OECD National Contact Point in FOCSIV v. FCA Italy (Stellantis NV)128 concerning human rights abuses, cultural heritage damage, and biodiversity loss associated with the Global South's transition regarding mineral extraction. 129

Overall, there is a necessity to understand whether just transition litigation will advance a fair and equitable transition, or, on the contrary, it will hamper it. This type of litigation could potentially obstruct projects, investments, ultimately triggering political opposition to climate action. At the same time, neglecting transition concerns will give rise to public resistance towards climate policies. Notwithstanding this, it is crucial to recognise the importance of just transition litigation as "providing a new frame to identify and understand the diverse justice claims of those affected by climate action", ¹³⁰ and ultimately offering a deeper understanding of the just transition dimension and legal standing.

¹²⁶ Company Workers Union of Maritima & Commercial Somarco Limited and Others v. Ministry of Energy, Supreme Court of Chile, Case No. 25.530-2021 (Aug. 9, 2021). Retrieved from https://www.informea.org/en/court-decision/company-workers-union-maritima-commercial-somarco-limited-and-others-v-ministry

¹²⁷ ProDESC, ECCHR, & CCFD-Terre Solidaire. (2020, October 13). Wind park project in Mexico disregards indigenous peoples' rights: Civil lawsuit: French energy company EDF must comply with human rights obligations [Press release]. https://prodesc.org.mx/wp-content/uploads/2020/10/PR_EDF_EN_20201002_EMBARGOED-FINAL.docx-1.pdf
¹²⁸ FOCSIV and others v. FCA Italy (Stellantis NV). (2022). Climate Change Litigation Databases. Sabin Center for Climate Change Law, Columbia Law School. Retrieved from https://climatecasechart.com/non-us-case/focsiv-and-others-v-fca-italy-stellantis-nv/illuminem.com+3

¹²⁹ Savaresi, A. (2024). Conceptualising Just Transition Litigation. Nature Sustainability. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4561679

¹³⁰ *Idem*.

6. Assessment of Policy Guidance for Financial Institutions

The UNEP FI and ILO Just Transition Finance Pathway for Banking and Insurance (2023)¹³¹ provides more practical guidance tailored to financial entities. The report works as a blueprint for banks and insurance companies for promoting a just transition to low-carbon and climate-resilient economies. The recommendations outlined can be summarised in the following nine key points:

- 1. Commit to a just transition from senior management and embed it in the organisation's strategy.
- 2. Understand just transition and its implications for the organisation by assessing social risks and opportunities presented by the green transition in combination with the social impacts caused by the entity's portfolio.
- 3. Put people at the heart of the institutional strategy and decision-making by engaging with relevant stakeholders.
- 4. Streamline the just transition concept within the institution's strategy and policies.
- 5. Comprehend just transition-related financing needs. Sustainable finance products should support community-based just transition necessities and foster regional economies, promote investments in green innovations and technologies, enhance sustainable business models, and prevent negative transitional impacts on clients and communities.
- Tailored green finance and risk management solutions to meet the necessities
 and seek to expand coverage for vulnerable groups, underserved customers, and
 low-income clients.
- Embed social issues and employment impact considerations in dealing with the
 portfolio, in conducting the risk assessment, and in carrying out financial
 decision-making.

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¹³¹ UNEP FI & ILO. (2023). Just Transition Finance - Pathways for Banking and Insurance. International Labour Organization and the United Nations Environment Programme Finance Initiative 2023. https://www.unepfi.org/wordpress/wp-content/uploads/2023/11/Just-transition-finance Pathway-for-Banking-and-Insurance.pdf

- 8. Through client engagement, lift behavioural shifts by spreading awareness of social and environmental impacts and ultimately by supporting clients in developing just transition plans.
- 9. Engage in meaningful partnerships to advance a just transition.

This framework represents a crucial step towards more concrete pathways that financial institutions might embed in their everyday operations to streamline just transition considerations. This pathway aims to bridge the gap between high-level just transition commitments and more practical indications for the banking sector.

Nevertheless, the UNEP FI and ILO recognise that "as the momentum for supporting a just transition continues to build, additional support and resources will be required to gauge the real-world impact as financial institutions advance on this pathway".¹³²

Similarly, the Principles for Responsible Banking¹³³ require signatories to align their business strategies with individuals' needs and society's goals, as stated in the Sustainable Development Goals and the Paris Agreement. Moreover, the Principles require engaging with clients and customers to foster sustainable development for intergenerational prosperity.¹³⁴

https://www.google.com/url?q=https://www.unepfi.org/wordpress/wp-

content/uploads/2022/04/PRB-Guidance-Document-Jan-2022-

 $\underline{D3.pdf\&sa=D\&source=docs\&ust=1746214702239366\&usg=AOvVaw2Wrlv8LS1knEKeUJG_\underline{PN6E}$

https://www.google.com/url?q=https://www.unepfi.org/wordpress/wp-

content/uploads/2022/04/PRB-Guidance-Document-Jan-2022-

 $\underline{D3.pdf\&sa=D\&source=docs\&ust=1746214702239366\&usg=AOvVaw2Wrlv8LS1knEKeUJG_PN6E}$

¹³² UNEP FI & ILO. (2023). Just Transition Finance - Pathways for Banking and Insurance. International Labour Organization and the United Nations Environment Programme Finance Initiative 2023 https://www.unepfi.org/wordpress/wp-content/uploads/2023/11/Just-transition-finance_Pathway-for-Banking-and-Insurance.pdf

¹³³ UNEP FI. (2021). Principles for Responsible Banking.

¹³⁴ UNEP FI. (2021). Principles for Responsible Banking.

A useful comparative analysis on the relevant frameworks to embed just transition into the financial entities' operation has been carried out by the Grantham Research Institute and the Just Transition Finance Lab. The output, a Compendium of Just Transition, ranged relevant metrics across thirteen disclosure frameworks. The aim is to assess *how* existing financial disclosure frameworks capture just transition metrics. Metrics are categorised by stakeholder groups and policy actions, highlighting areas where improvements might be needed.¹³⁵

Indeed, the stakeholder groups considered to be relevant to just transition metrics are:

- 1. Workers (linked to labour rights, reskilling, and job security matters)
- 2. Communities (linked to social impacts and economic inclusion)
- 3. Consumers (linked to affordability and accessibility of services related issues)
- 4. Suppliers (linked to procurement and supply chain matters)

The metrics analysed (for each stakeholder category) are:

- 1. Maximise opportunities
- 2. Minimise risks
- 3. Effective social dialogue
- 4. Optional leadership: system-level transformation

Moreover, the frameworks analysed have been grouped into three categories. The first type of financial disclosure framework comprised market-specific frameworks. This category includes the CSRD and ESRS,¹³⁶ the Sustainable Finance Disclosure Regulation (SFDR),¹³⁷ and the India Business Responsibility Sustainability Reporting (BRSR).¹³⁸ The second type is the Global Voluntary Frameworks, such as the International Financial

¹³⁵ Just Transition Finance Lab. (2024). A compendium of just transition metrics. https://justtransitionfinance.org/publication/a-compendium-of-just-transition-metrics/

¹³⁶ European Commission. (2022). Corporate Sustainability Reporting Directive. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022L2464

¹³⁷ European Commission. (2019). EU Sustainable Finance Disclosure Regulation. https://eurlex.europa.eu/eli/reg/2019/2088/oj/eng

¹³⁸ SEBI. (2023). India Business Responsibility Sustainability Reporting. https://www.ibm.com/think/topics/brsr

Reporting Standards, S2 Climate-related Disclosures (IFRS),¹³⁹ the Taskforce for Climate-related Financial Disclosure Recommendations (TCFD),¹⁴⁰ and the Global Reporting Initiative Standards (GRI).¹⁴¹ Lastly, the International Labour Organisation Guidelines (ILO),¹⁴² the World Benchmarking Alliance, the Social Transformation Framework (WBA)¹⁴³, the Impact Investing Institute, the Just Transition Criteria (III),¹⁴⁴ the UN Guiding Principles Reporting Framework (UNGP),¹⁴⁵ the South Africa Trade and Industrial Policy Strategies (TIPS),¹⁴⁶ the Spain Just Transition Strategy (Spain),¹⁴⁷ the US Inflation Reduction Act, and Environmental Justice (IRA)¹⁴⁸ are all comprised under the Just Transition/Environmental Justice Frameworks. Each framework has been

https://www.worldbenchmarkingalliance.org/just-

transition/#:~:text=In%20January%202026%2C%20the%20World%20Benchmarking%20Alliance%20will,are%20included%20and%20supported%20throughout%20the%20entire%20process.

https://www.impactinvest.org.uk/wp-content/uploads/2023/05/Just-Transition-Criteria.pdf ¹⁴⁵ UNHR. (2011). Guiding Principles on Business and Human Rights.

 $\underline{https://www.ohchr.org/sites/default/files/Documents/Publications/GuidingPrinciplesBusiness}\\ \underline{HR_EN.pdf}$

https://static.pmg.org.za/140711south_african_trade_policy_and_strategic_framework_2012.pdf

 $\frac{https://www.wri.org/update/spains-national-strategy-transition-coal-dependent-communities\#:~:text=Spain%E2%80%99s%202019%20Just%20Transition%20Strategy%2C%20part%20of%20a,plan%20for%20the%20economic%20future%20of%20coal%20regions.}$

¹³⁹ IFRS. (2023). International Reporting Standards. https://www.ifrs.org/issued-standards/list-of-standards/

¹⁴⁰ TCFD. (2017). Recommendations of the Task Force on Climate-related Financial Disclosures. https://assets.bbhub.io/company/sites/60/2021/10/FINAL-2017-TCFD-Report.pdf

¹⁴¹ GRI. (2016). Global Reporting Initiative. https://www.globalreporting.org/

¹⁴² ILO. (2015). Guidelines for a just transition towards environmentally sustainable economies and societies for all. International Labour Organization.

https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_emp/@emp_ent/documents/publication/wcms 432859.pdf

¹⁴³ World Benchmarking Alliance. (2021). Just Transition Assessment.

¹⁴⁴ Impact Investing Institute. (2023). Just Transition Criteria.

¹⁴⁶ TIPS. (2012). the South Africa Trade and Industrial Policy Strategies

¹⁴⁷ World Research Institute. (2019). Spain Just Transition Strategy.

¹⁴⁸ EPA. (2023). *Inflation Reduction Act Environmental and Climate Justice Program*. https://www.epa.gov/inflation-reduction-act/inflation-reduction-act-environmental-and-climate-justice-program

analysed to determine how comprehensively it includes just transition-related metrics under each stakeholder category and metric. 149

The results reveal that workers are the most covered stakeholders, with multiple disclosure frameworks addressing employment conditions, fair wages, and workforce rights¹⁵⁰. The frameworks with the highest coverage of just transition metrics are the ESRS¹⁵¹ and IFRS,¹⁵² and in particular, investors and financial institutions are most covered under the SFDR¹⁵³ and the IFRS.¹⁵⁴ In contrast, other frameworks, such as the ILO¹⁵⁵ and WBA¹⁵⁶ instruments, do not explicitly guide financial institutions in integrating just transition into investment and lending. The policy gaps have been identified in economic resilience, industry impact, and just transition finance and investment strategies. In particular, it has been assessed how the majority of frameworks do not assess the sectoral vulnerabilities of enterprises due to risks related to transition finance, and other policy designs fail to specify how financial institutions should embed just transition into lending, risk assessment, or capital allocation.¹⁵⁷

¹⁴⁹ Just Transition Finance Lab. (2024). A compendium of just transition metrics. https://justtransitionfinance.org/publication/a-compendium-of-just-transition-metrics/
¹⁵⁰ Idem.

¹⁵¹ European Commission. (2022). Corporate Sustainability Reporting Directive. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022L2464

¹⁵² IFRS. (2023). International Reporting Standards. https://www.ifrs.org/issued-standards/list-of-standards/

¹⁵³ European Commission. (2019). EU Sustainable Finance Disclosure Regulation. https://eurlex.europa.eu/eli/reg/2019/2088/oj/eng

¹⁵⁴ (IFRS, 2023), supra n. 152

¹⁵⁵ ILO. (2015). Guidelines for a just transition towards environmentally sustainable economies and societies for all. International Labour Organization.

https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_emp/@emp_ent/docume_nts/publication/wcms_432859.pdf

¹⁵⁶ World Benchmarking Alliance. (2021). Just Transition Assessment.

https://www.worldbenchmarkingalliance.org/just-

transition/#:~:text=In%20January%202026%2C%20the%20World%20Benchmarking%20Allian ce%20will,are%20included%20and%20supported%20throughout%20the%20entire%20process

157 Just Transition Finance Lab. (2024). A compendium of just transition metrics.

https://justtransitionfinance.org/publication/a-compendium-of-just-transition-metrics/

7. Summary of Gaps and Opportunities

Although the just transition idea has acquired popularity in the discourse of the financial industry and worldwide climate policy, its application in banking practices is still quite limited. Although financial institutions are being asked to take a more active role in the economy's decarbonisation, there are currently no industry-specific guidelines or useful instruments for incorporating just transition into their operations and procedures.

Even if social responsibility has been incorporated into regulatory frameworks, regulations do not offer a unified or practical framework to assist banks in methodically incorporating just transition considerations, especially those about workers, into their lending, investment, and risk management procedures. Financial institutions' ability to effectively address the social aspects of the transition is hampered by this regulatory fragmentation, particularly in industries that are most susceptible to structural change.

The creation of an operational and comprehensive framework specifically suited to the banking industry is made possible by this gap. Such a framework can help banks assess socioeconomic implications, give worker protection top priority, and match financial products with socially inclusive outcomes by combining pertinent benchmarks and indicators. By doing this, financial institutions can transform from passive sources of capital into active participants in a just transition, supporting social cohesion, economic resilience, job security, and climate goals.

Methodology

The main research question of this study, which takes a qualitative and quantitative, exploratory approach, is: despite their acknowledged critical role in promoting a just and inclusive green transition, how can financial institutions effectively incorporate just transition considerations into their operations in the absence of a tangible, actionable framework?

The methodology structure reflects the systematic reasoning required to close the gap between conceptual frameworks and actual banking procedures. The objective is to uncover the suitable approach for creating a just transition framework that is suited to banking products and portfolio management.

The first phase builds upon the literature review to understand how just transition has been framed within academic research, climate policy, and financial discourse. This phase provides the theoretical and institutional context necessary to define the potential entry points for financial institutions into the just transition agenda. It establishes the premise that banks are not only financiers of decarbonisation but also social actors with influence over employment, regional development, and economic inclusion.

To complement academic insights with practitioner-oriented knowledge, the research integrates findings from direct participation in the *Forum per la Finanza Sostenibile's Working Group on Just Transition*. This working group hosted three dedicated sessions, aiming to:

- Analyse the social impacts of the green transition on businesses and financial operators.
- Explore case studies to identify barriers and opportunities for integrating social dimensions in sustainable finance.

¹⁵⁸ See more info at: FFS_GdL-Just-Transition_presentazione.pdf

- Define strategies to increase investor interest and public consensus around a just transition.

The final output of this multi-stakeholder initiative consists of a set of guidelines to help integrate social criteria into investment and insurance products, contributing to a transition that is not only green but also inclusive and equitable. The discussions and expert contributions from the Forum were instrumental in shaping the analytical direction of this research and serve as an applied knowledge base for subsequent research phases.

The third phase involves the analysis of selected case studies from both financial institutions and businesses. These case studies will help examine:

- How banks have started to engage with clients on just transition themes.
- How businesses in transition-exposed sectors are addressing social impacts in their climate strategies.

This comparative lens is essential to evaluate the state of the art and identify promising approaches that could inform the design of bank-led just transition strategies.

Based on the insights gathered, the research will then focus on identifying key performance indicators (KPIs) that financial institutions could use to:

- Assess clients' alignment with Just Transition principles.
- Integrate social factors into portfolio management and product design.
- Facilitate the use of specific sustainable finance instruments (e.g., sustainability-linked loans, Just Transition bonds).

The KPIs must be practicable, interoperable, and decision-useful, ensuring their adaptability across institutions and geographies. This phase aims to translate normative just transition commitments into actionable tools for financial institutions.

In developing the metrics for the Just Transition framework, a dual approach was adopted, integrating both qualitative and quantitative dimensions. The first step in defining the qualitative measures was to rigorously gather and examine current Just

Transition-related frameworks and policies, then group them into logical categories and subcategories. This made it possible to develop a preliminary set of measures that banks might utilise to evaluate how well their customers adhered to the Just Transition principles. Instead, the investigation of the quantitative KPIs started with a look at the potential financial effects stemming from companies' engagement with just transition principles. In addition, ad-hoc transmission channels were designed to capture the potential effects of these corporate-level financial consequences on financial institutions. For each identified transmission channel, the financial impact at the corporate level was mapped to understand the potential financial effects that might materialise at the bank level. This analytical route is detailed in Chapter 2. Subsequently, in the final chapter, the outcomes of this analysis were consolidated and expanded through a double materiality assessment of the transmission channels. This approach was chosen as it allows for an evaluation of the likelihood of each transmission channel materializing and its potential material impacts and financial risks. Lastly, the quantitative KPIs that banks might use to evaluate their exposure to financial risks related to Just Transition transmission channels were created using the insights gained from this double materiality evaluation.

Finally, the thesis will explore how these KPIs could be operationalised in real-world settings. The analysis will focus on how their use can inform client engagement, enhance risk and opportunity assessment, and guide the deployment of financial products aligned with just transition goals.

The overall goal of this endeavour is to move from high-level theory to operational feasibility. By combining literature, stakeholder insights, real-world practices, and practical tool design, this thesis aims to fill a critical gap: providing a structured and actionable pathway for financial institutions to embed Just Transition into their practices. Ultimately, the research contributes to advancing the role of finance in delivering a socially just, environmentally sustainable economic transition.

Chapter 1 – Just Transition and Financial Institutions

A key component of sustainable development is the idea of "just transition", which seeks to balance social justice with environmental objectives. 159 Addressing job possibilities and problems is becoming increasingly important as the globe moves towards greener economies. As middlemen between capital and businesses, financial institutions are essential to creating avenues for an equitable and fair transformation. Under the spectrum of just transition, this chapter examines the interdependence of enterprises, financial institutions, and employees. It emphasises that a key entry point for bank operators to engage in the just transition process actively is the employment-related focus. By examining the socioeconomic impacts of the green transition, the chapter underlines the importance of integrating social considerations into corporate governance and financial practices. It also addresses the shortcomings of today's governance mechanisms and how financial institutions may help ensure fair workforce transfers.

1.1. Financial Institutions as Actors in the Just Transition Debate

From the literature review, two different trajectories have emerged to define the concept of just transition. The following section will explain why it has been estimated that adopting an employment-related focus could represent the best entry point for financial institutions to be incisive and decisive in the just transition discourse. Indeed, there is the need to practically enter the debate to analyse the best approach for banking operators.

1.1.1. The Employment-related Approach

The green transition embodies a fundamental economic shift. Corporations are the main contributors to climate change. Without achieving net zero in modes of

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¹⁵⁹ European Union Agencies Network on Scientific Advice. (2021). EU-ANSA Mapping Report: Socioeconomic Aspects of Sustainable Development. Publications Office of the European Union. https://www.cedefop.europa.eu/files/2232_en.pdf

production, it will not be possible to reverse the environmental problem. However, a big part of the enterprise's transition trajectory has been largely overlooked: the *workforce*. Environmental matters have been the paramount challenge for corporations, but this has missed tackling another huge dimension of sustainability: the social sphere, the "S" of ESG. In the specific, the "S" stands for "identifying and managing business impacts, both positive and negative, on people, including employees in a company." ¹⁶⁰

The transformation that corporations will be undergoing represents an opportunity to move towards "low carbon, resource-efficient, and socially inclusive economies". ¹⁶¹ It has been estimated that, by tackling at the same time the environmental problem, the sustainable procurement issue, and the social inclusion dimension, the transition could create one hundred and eighty million new and decent jobs by 2050. Latest job posts will arise in pivotal sectors. Due to the shift in energy systems, the renewable energy industry will be the most attractive, followed by the construction sector, due to the rapid urban expansion. Another key industry will be the waste management sector, which will expand to manage global disposal and new circularity practices. Moreover, the so-called blue economy, related to oceans and freshwaters, will attract new talents, for example, due to the growth of sustainable fisheries and the rise in economic value of coastal tourism. ¹⁶²

Notwithstanding the benefits of the trajectory to reach net zero, this transformation poses significant obstacles and challenges. The dismissals of emitting sectors will cause millions of workers to be either reskilled or dismissed. For instance, the agricultural sector is moving towards a smart but drastic transformation that will profoundly shrink the workforce needed. Also, the above-mentioned sectors will

¹⁶⁰ Gözlügöl, A. A. (2022). 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. The Journal of World Energy Law & Business, 15(1). https://academic.oup.com/jwelb/article-abstract/15/1/1/6510578

¹⁶¹ ESCAP. (2025). Delivering a Just Transition: Advancing Decent Work, Gender Equality, and Social Protection. ADB. https://www.adb.org/documents/2025-asia-pacific-sdg-partnership-report

¹⁶² *Idem*.

 $^{^{163}}Idem$.

require a workforce to adapt to new green skills.¹⁶⁴ Additionally, these negative consequences greatly impact vulnerable groups, especially women and informal workers, who often are deprived of proper safety nets.¹⁶⁵ Furthermore, "physical climate change impacts, such as rising temperatures, increased air pollution and greater frequency of extreme weather events, have demonstrable negative effects on workers' job quality and productivity".¹⁶⁶ Thus, it is necessary to strike a balance between the costs and benefits of the transition to move towards a society that is not only green but also just, by leaving no one behind.¹⁶⁷ Consequently, the just transition pathway should be able to "maximise the social and economic opportunities of climate action while carefully managing and minimising any challenges". ¹⁶⁸

Indeed, workforce development is the basis of a successful transition. ¹⁶⁹ The relevance of the employment dimension for the just transition has been assessed by the EU-ANSA, which conducted several surveys in 2021 among its members to assess the socioeconomic effects of sustainable development. This research was motivated by the enterprising EU efforts to combat climate change since adopting the European Green Deal. The surveys conducted reveal that the most researched areas by the member agencies were the economy, employment, skills and training, gender inequalities, health and safety, social aspects, and the role of regulation and social dialogue. ¹⁷⁰

Eurofund. (2024). Job Quality Side of Climate Change. Publications Office.
 https://www.eurofound.europa.eu/en/publications/2024/job-quality-side-climate-change
 FSCAP (2025). Delivering a Just Transition: Advancing Decent Work. Gender Equality at the content of the content

¹⁶⁵ ESCAP. (2025). Delivering a Just Transition: Advancing Decent Work, Gender Equality, and Social Protection. ADB. https://www.adb.org/documents/2025-asia-pacific-sdg-partnership-report

^{166 (}Eurofund, 2024), supra n. 164

¹⁶⁷ (ESCAP, 2025), supra n. 165

¹⁶⁸ COP27. (2022). Futures Lab: Just Transition and the Future of Work. UNFCCC.
https://unfccc.int/sites/default/files/resource/MPGCA_COP27_FL_OD_Just%20Transition%20and%20the%20Future%20of%20Work.pdf

¹⁶⁹ (ESCAP, 2025), supra n. 165

¹⁷⁰ European Union Agencies Network on Scientific Advice. (2021). EU-ANSA Mapping Report: Socioeconomic Aspects of Sustainable Development. Publications Office of the European Union. https://www.cedefop.europa.eu/files/2232_en.pdf

Moreover, the EU-ANSA has grouped these areas into dimensions of sustainable development. The following graph represents the different levels of sustainable development and how they intersect with the just transition.

Approach towards
sustainable development

Meso level

Systems thanges

Meso level

Skills

Climate change & vulnerable groups

Gender equality

Older people

Macro level

Shange & Micro level

Skills

Gender equality

Older people

Macro level

Shange & Micro level

Skills

Gender equality

Older people

Regions, cities

Fundamental rights

Figure 1: Socioeconomic aspects of sustainable development at different levels

Source: EU-ANSA, socioeconomic cluster 171

The micro level embodies development at the company or workplace level. This is the level identified as the starting point for the just transition process. The respondent Agencies identified that the most crucial challenges at this level are employment risks and opportunities connected to the greening of jobs, health and safety issues, effective business strategies for the equitable involvement in decision-making and the transition towards sustainable production models. These concerns then extend to the meso-level, with challenges related to green skills and the risk of hampering gender equality in the transition towards sustainable workplaces and about employment security, career development, wages, and workers' representation.¹⁰⁵

The research carried out by EU-ANSA has cast a light on how topics such as employment and job skills, vocational education and training, health and safety and

Fue

¹⁷¹ European Union Agencies Network on Scientific Advice. (2021). EU-ANSA Mapping Report: Socioeconomic Aspects of Sustainable Development. Publications Office of the European Union. https://www.cedefop.europa.eu/files/2232_en.pdf

working conditions are the most highly regarded by stakeholders. Indeed, the so-called 'employment challenge' is about investigating "how to simultaneously mitigate climate change, maintain or even increase employment levels and secure or improve job quality standards". 172 This challenge becomes even steeper when addressing vulnerable groups within the workforce because it is acknowledged that "workforce disparities will shape the pace and inclusivity of the green transition". ¹⁷³ Regarding women's inclusion in the green job market, "unequal labour market access and gender barriers, rooted in structural, socio-cultural and economic factors, limit women's participation and advancement in key transition sectors, constraining their ability to benefit from emerging opportunities and exacerbating existing gender inequalities". ¹⁷⁴ The informal workers' group is another vulnerable group that risks being on the losers' side in the 'employment challenge'. This workforce segment is rapidly growing but is not properly safeguarded by law and social protections. Indeed, most informal workers might be left without safety nets and reskilling opportunities. Thus, both from a regulatory and financing point of view, support is needed to enhance working environments and enlarge protections and equality. 175 Accordingly, guaranteeing that individuals, independently of their socioeconomic background and gender, are provided with the necessary skills is vital. The training of the workforce is crucial to adapt to the unavoidable changes in modes of production and economies. 176

Moreover, it has been identified how enterprises tend to manage rather than proactively anticipate green challenges. In particular, "the two main motivations of businesses to mitigate climate change are related to the (i) availability and economic

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¹⁷² European Union Agencies Network on Scientific Advice. (2021). EU-ANSA Mapping Report: Socioeconomic Aspects of Sustainable Development. Publications Office of the European Union. https://www.cedefop.europa.eu/files/2232_en.pdf

¹⁷³ESCAP. (2025). Delivering a Just Transition: Advancing Decent Work, Gender Equality, and Social Protection. ADB. https://www.adb.org/documents/2025-asia-pacific-sdg-partnership-report

¹⁷⁴ *Idem*.

¹⁷⁵ *Idem*.

¹⁷⁶ Idem.

feasibility of new technologies and (ii) awareness of climate change among or pressure from internal and external business stakeholders". This attitude reveals the difficulty for companies to take the initiative regarding the future of their workforce. This passive approach will hinder the possibility of equipping the workforce with the necessary skills for the transition. It has been argued that "the transition will slowly proceed unless skills and infrastructure gaps are closed". ¹⁷⁸

Furthermore, the surveyed Agencies also identified employment, jobs and skills as the area with the largest knowledge gap. Specifically, "gaps were identified about data availability that would allow research on employment and green jobs, job tasks, skills, health and safety, and working conditions. Gender-disaggregated data would be needed to analyse gender effects as well. Overall, a lack of disaggregated data can hinder a more holistic approach and understanding of the just transition dimensions." This fundamental gap hinders the need to anticipate workforce and skills development. This foresight analysis is necessary. However, most countries and enterprises lack proper evaluations. Indeed, the "development of industrial strategies and related skills forecasting will be vital" to design relevant training programs and cast a light on the future of the workforce.

Additionally, it is important to acknowledge the distributional effects of climate regulations and policies on varied income category groups that are paramount in the just transition pathway and that should be carefully monitored to avoid downsizing effects,

¹⁷⁷ European Union Agencies Network on Scientific Advice. (2021). EU-ANSA Mapping Report: Socioeconomic Aspects of Sustainable Development. Publications Office of the European Union. https://www.cedefop.europa.eu/files/2232_en.pdf

¹⁷⁸ ESCAP. (2025). Delivering a Just Transition: Advancing Decent Work, Gender Equality, and Social Protection. ADB. https://www.adb.org/documents/2025-asia-pacific-sdg-partnership-report

¹⁷⁹ (European Union Agencies Network on Scientific Advice, 2021), supra n. 177

¹⁸⁰ (ESCAP, 2025), supra n.178

¹⁸¹ Eurofund. (2024). Job Quality Side of Climate Change. Publications Office. https://www.eurofound.europa.eu/en/publications/2024/job-quality-side-climate-change

which might hinder public support for the green transition. ¹⁸² Indeed, "climate change policies are set to contribute to sectoral and occupational shifts". ¹⁸³ It is vital to strengthen social consensus around climate policies by attracting workers' support, and this can only be achieved by providing adequate support to ensure a just employment transition.

Furthermore, it has also been estimated that the private sector will play a crucial role in financing workforce sustainable development by channelling investment in training and reskilling programs. The funding from the private sector should be linked to enterprises' obligations to invest in their workforce. The synergy between the change in modes of production and the necessity to attract new skills is particularly evident in the renewable energy sector, where large investments in technical capacities development are vital. Additionally, access to finance to equip workers with the necessary skills is especially crucial for small and medium enterprises (SMEs), since they are the most widespread business entities yet lack the resources to provide for adequate training. Indeed, "innovative financial products and services can help SMEs to invest in workforce development, particularly for green skills and technologies".

Undisputably, workers will be directly impacted by the green transition. Financial institutions can be crucial in supporting an equitable employment transition. To sustain this view, the following section will explain the close link between companies, workforce transition, and banking operators, as well as the failure of the corporate governance model and the necessity to provide alternative methods within the business structure to ensure a just transition.

¹⁸² European Union Agencies Network on Scientific Advice. (2021). EU-ANSA Mapping Report: Socioeconomic Aspects of Sustainable Development. Publications Office of the European Union. https://www.cedefop.europa.eu/files/2232_en.pdf

¹⁸³ Eurofund. (2024). Job Quality Side of Climate Change. Publications Office. https://www.eurofound.europa.eu/en/publications/2024/job-quality-side-climate-change

¹⁸⁴ ESCAP. (2025). Delivering a Just Transition: Advancing Decent Work, Gender Equality, and Social Protection. ADB. https://www.adb.org/documents/2025-asia-pacific-sdg-partnership-report

¹⁸⁵ Idem.

1.1.2. Interdependence Between Banks, Enterprises, and Employment: Rethinking Engagement in the Face of Governance Gaps

Financial institutions, companies and workers are deeply interrelated. This section aims to demonstrate why banking operators should galvanise their relationship with enterprises and their workforce to become enablers of the just transition process.

As governments and international institutions are shaping just transition policies, a question arises: how can enterprises adopt just transition practices without compromising their competitiveness? It is thus crucial to build an enabling environment around business corporations to enhance the just transition process. 186

It is first important for companies to acknowledge the benefits of the green transition. For instance, new economically viable opportunities are emerging due to changes in consumers' demands, while investors around the globe are "betting on green investments, leading to more financial opportunities related to green projects". Companies should be able to rely on fiscal incentives for green investments to increase profitability while redressing climate harm.

Additionally, this shift towards green modes of production has to be coupled with inclusion practices, since firms adopting these social measures, such as higher workers' satisfaction, "have experienced positive effects on their productivity levels". ¹⁸⁸ For instance, an analysis carried out by Eurofound and Cedefop shows that "managerial approaches that foster employees' abilities (knowledge, skills, and attitude), motivation and opportunity to use their skills are positively associated with establishment

¹⁸⁶ ILO-ACTEMP. (2024). The Business Case for Just Transition. https://www.ilo.org/sites/default/files/2024-11/ILO-ACTEMP-The-Business-Case-for-Just-Transition-RGB-21NOV.pdf

 $^{^{187}}$ *Idem* .

¹⁸⁸ Idem.

performance". ¹⁸⁹ Indeed, to achieve better productivity and competitiveness, companies need to galvanise their employees' skills. ¹⁹⁰

However, even if shifting to lower-emitting practices might reduce operational expenditure, it risks impacting the workforce. For this reason, it is crucial to partner with the relevant stakeholders, such as workers' unions, to lessen reputational risk and increase public acceptance of the company's projects among community members. ¹⁹¹ At the same time, the private sector will be pivotal in anticipating and planning the future of employment. Businesses will be the enablers of technological change, which will cause significant impacts on training requirements. Notwithstanding the need to anticipate skills needs, companies are still limited in forecasting the "evolution of labour skills demands emerging from the transition to green economies". ¹⁹²

Within this context, financial institutions are becoming pivotal and are increasingly partaking in the transition process because it is indisputable that to invest in the green transition, companies will need capital. ¹⁹³ Some enterprises might decide to free up some capital by "shutting down carbon-intensive businesses and investing proceeds in green operations". ¹⁹⁴ However, this process might be hindered if decommissioning

¹⁸⁹ Eurofund. (2023). Changing labour markets: How to prevent a mismatch between skills and jobs in times of transition - Background paper.

 $[\]frac{https://www.eurofound.europa.eu/en/publications/2023/changing-labour-markets-how-prevent-mismatch-between-skills-and-jobs-times$

¹⁹⁰ Idem

¹⁹¹ ILO-ACTEMP. (2024). The Business Case for Just Transition. https://www.ilo.org/sites/default/files/2024-11/ILO-ACTEMP-The-Business-Case-for-Just-

<u>Transition-RGB-21NOV.pdf</u>

¹⁹² ESCAP. (2025). Delivering a Just Transition: Advancing Decent Work, Gender Equality, and Social Protection. ADB. https://www.adb.org/documents/2025-asia-pacific-sdg-partnership-report

¹⁹³ Gözlügöl, A. A. (2022). 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. The Journal of World Energy Law & Business, 15(1). https://academic.oup.com/jwelb/article-abstract/15/1/1/6510578

¹⁹⁴ *Idem*.

emitting assets means causing job losses that cannot be reimplemented in the short term. 195

By designing new financial tools for sustainable projects, banking operators are crucial partners for companies. 196 At the same time, the green economy is becoming more attractive for investors, holding the "fifth largest share of market capitalisation across industries, surpassing the retail industry". 197 Indeed, investing in the green economy is becoming widespread. However, there is a need to close the gap between green and just transition. Thus, banks must streamline just transition considerations into their everyday activities in the same way they have introduced sustainable finance mechanisms to spur green investments. In this regard, the ILO found that the main obstacles for enterprises to adopt just transition practices are the limited access to financial opportunities specifically targeted for the adoption of just transition measures, such as training programs and inclusion practices.¹⁹⁸ This is even more true for SMEs, which are confronted with regulatory challenges and a lack of adequate skills. 199 Indeed, there is still a substantial funding gap for a just transition. For example, the OECD evaluated that "the investment gap to achieve the Sustainable Development Goals is around 70%, meaning that the global sustainable investment is far from reaching the necessary US\$ 2.5 trillion per year". 200 Indeed, companies and investors should work in synchronicity.

¹⁹⁵ Gözlügöl, A. A. (2022). 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. The Journal of World Energy Law & Business, 15(1). https://academic.oup.com/jwelb/article-abstract/15/1/1/6510578

¹⁹⁶ ILO-ACTEMP. (2024). The Business Case for Just Transition. https://www.ilo.org/sites/default/files/2024-11/ILO-ACTEMP-The-Business-Case-for-Just-Transition-RGB-21NOV.pdf

¹⁹⁷ *Idem*.

¹⁹⁸ Saget, C., Karimova, T., Luu, T., Maître, N., & Ananian, S. (2022). Greening Enterprises: Transforming Processes and Workplaces. International Labour Organization. https://www.ilo.org/publications/major-publications/greening-enterprises-transforming-processes-and-workplaces

¹⁹⁹ (ILO-ACTEMP, 2024), supra n. 196

²⁰⁰ OECD. (2022). FDI Qualities Policy Toolkit. OECD Publishing. https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0476

Companies are the immediate actors that could close the skills and social gap demanded by the transition, nevertheless, investments in this are vital. ²⁰¹

Indeed, it has been estimated how the conflict between corporations' necessity to abate their emissions and the social dimension intrinsic within companies fundamentally materialised in enterprises' net-zero transition plans. The potential remedy to this clash is embedded in the just transition process. However, it is necessary to assess how the just transition solution has potential effects "for corporate governance and finance, especially for directors' duties and executive remuneration, sustainability disclosures, institutional investors' engagement and green finance". 202

Corporate governance is defined as the system through which the relationship between stakeholders and senior managers is established. More in-depth, corporate governance "covers decision-making at the board of directors and high management levels to assure that all choices are in accordance with the firm's and stakeholders' goals". Indeed, the corporate governance system was designed as a control towards unrestricted decision-making. To be effective, managers need to incorporate stakeholders' opinions, and stakeholders need to be up to date with senior management plans. This system of reciprocal controls could be paramount in managing the just

²⁰¹ Eurofund. (2023). Changing labour markets: How to prevent a mismatch between skills and jobs in times of transition - Background paper.

https://www.eurofound.europa.eu/en/publications/2023/changing-labour-markets-how-prevent-mismatch-between-skills-and-jobs-times

²⁰² Gözlügöl, A. A. (2022). 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. The Journal of World Energy Law & Business, 15(1). https://academic.oup.com/jwelb/article-abstract/15/1/1/6510578

²⁰³ Almashhadani, H. A., & Almashhadani, M. (2022). An overview of recent developments in corporate governance. International Journal of Business and Management Invention, 11(5). https://www.researchgate.net/profile/Mohammed-Almashhadani-

^{2/}publication/360682586_An_overview_of_recent_developments_in_corporate_governance/links/6284f81399fb8415a69a67bf/An-overview-of-recent-developments-in-corporate-governance.pdf

²⁰⁴ Idem.

transition within companies. Nevertheless, it is argued that the present corporate governance system is "unable to defend in opposition to aggressive risk-taking". ²⁰⁵

In this regard, it has been estimated that the global financial crisis of 2008 was caused specifically by several shortcomings in governance procedures and regulations. Indeed, the crisis was prompted by downturns in the corporate governance process that failed to shield enterprises from excessive risk-taking. After the crisis, corporate governance codes and other legislations have been enhanced and applied in practice over the past decade; however, shortcomings in implementation remain. Researchers have pointed out risk management, board practices, remuneration systems, transparency, and disclosure norms as the main fragile areas of corporate governance. The crisis showed that there were no proper risk management processes in place. This led to overlooking foreseeable risk factors. Up until now, corporate governance has still lacked a proper basis within companies. Sustainable business practices are not yet streamlined in corporations. Moreover, the remuneration system was also among the causes of the financial crisis of 2007. Researchers argue that remuneration must be tied to long-term principles to make the executives perform more sustainably.

Consequently, there is a need to rethink the governance process in the light of integrating sustainability considerations among directors. Specifically, climate change risk poses a threat to corporate governance. Boards can play a pivotal role in driving companies' transition plans; nevertheless, an enabling environment is needed all around.

Indeed, there are several implications for 'sustainable' corporate governance and finance. The first dimension to address is directors' duties and executive remuneration.

²⁰⁵ Almashhadani, H. A., & Almashhadani, M. (2022). An overview of recent developments in corporate governance. International Journal of Business and Management Invention, 11(5). https://www.researchgate.net/profile/Mohammed-Almashhadani-

^{2/}publication/360682586_An_overview_of_recent_developments_in_corporate_governance/links/6284f81399fb8415a69a67bf/An-overview-of-recent-developments-in-corporate_governance.pdf

²⁰⁶ Idem.

Gennaro, A., & Netlispach, M. (2021). Corporate governance and risk management: lessons (not) learned from the financial crisis. Journal of Risk and Financial Management. https://www.mdpi.com/1911-8074/14/9/419

²⁰⁸ *Idem*.

Supporters of the 'stakeholder theory' claim that sustainability concerns can be better tackled if directors do not pursue only shareholders' interests. Indeed, one might argue that "unless employees are sufficiently represented on the board level, their influence will be non-existent". Notwithstanding, it has been argued that this statement brings up the struggle of balancing incompatible interests, which may lead the net-zero transition to a deadlock. In any case, "as long as managerial incentives remain aligned with shareholders' interests, the stakeholders' orientation of directors' duties will not achieve the intended results". 210

Moreover, coupling executive remuneration with sustainability performance is on the rise to incentivise directors to pursue environmental objectives. However, this solution seems to cast some doubts, specifically about the effectiveness of reconciling environmental and social aspects. As executives are financially drawn towards green transition advancements, they might focus exclusively on the environmental dimension, thus failing to advance a just transition. Indeed, there is a need to design this remuneration strategy in a way that makes executives aware of the social dimension. Ultimately, this means allocating capital so that companies' workforces can benefit from a fair and equitable transition. It is thus necessary to *make* companies' budgets related to employment-transition-related risk. For this reason, it will be vital to engage with financial institutions to steer funds with the precise aim of contributing to a just transition for the workforce.²¹¹

Another recent development is companies' disclosure of climate-related information due to regulatory compliance. However, there is a lack of harmonisation on the extent of information to be reported related to "proactively identifying and addressing

²⁰⁹ Gözlügöl, A. A. (2022). 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. The Journal of World Energy Law & Business, 15(1). https://academic.oup.com/jwelb/article-abstract/15/1/1/6510578

²¹⁰ *Idem*.

²¹¹ Idem.

social impacts of their net-zero transition [just transition (-related) information]"²¹² under current hard and soft law frameworks.

This matter opens risk assessment concerns. Arguably, the clash between climate action and employees' prerogatives has to be categorised as a transition risk, indeed as an obstacle that will arise in the path towards transitioning to a low-carbon economy, which needs to be addressed to avoid economic downturns. This clash is not only a transition risk but also a climate-related financial risk. Specifically, just transition will be the solution to address this net-zero transformation risk. Because "unless companies manage well their transition in terms of social impacts, their progress could be slowed down or stalled, amplifying the transition risk". However, an interoperable framework to deal with this climate-related financial and transition risk is missing.

A promising regulation was the Corporate Sustainability Reporting Directive (CSRD) of the European Union, which could have advanced companies' disclosure in their transition plans of measures adopted for affected workers. Specifically, the CSRD highlights how important trade unions and workers' representatives are to transition planning and calls for their active participation in the sustainability reporting process. This strategy is in line with the directive's dedication to responsibility and openness, especially regarding labour and social issues. The Directive establishes that trade unions must be sufficiently informed and involved in the sustainability reporting. Their feedback should be reported to the company level to ensure that the transition is in line with workers' expectations and needs. Workers' representatives should also be involved in the materiality assessment, the process through which risks and opportunities of the transition are assessed. Thus, trade unions are invested with two types of responsibilities under the CSRD. Firstly, workers' representatives must be informed about the content

²¹² Gözlügöl, A. A. (2022). 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. The Journal of World Energy Law & Business, 15(1). https://academic.oup.com/jwelb/article-abstract/15/1/1/6510578

²¹³ *Idem*.

of the sustainability report. Secondly, unions are allowed to engage in confrontation with executives about the content and potential impacts of the transition on employees.²¹⁴

However, this legislative advancement is now stalled due to the recent adoption of the OMNIBUS package, which limited the scope of reporting, thus hampering enterprises' obligations to equitably include employees' concerns in their transition strategy. It has been argued that the OMNIBUS package will create two factions within the economy. On one side, there will be those enterprises that *must* report and confront with just transition. On the other side, those that will be excluded from the reporting due to recent regulatory development, not only will not consult with trade unions during transition planning, but more probably will be overlooked at just transition-related issues. Thus, this normative proposal increases the risk of having an unjust transition with reputational backwards and job posts at risk.

Indeed, there is a need to acknowledge that making companies disclose information on just transition-related aspects is crucial. In the first place, reporting on social aspects adds credibility to companies' net-zero trajectory, thus signalling the intention to report on a system-wide transition. Secondly, just transition reporting could act as a benchmark for enterprises to proactively endorse the social effects of their climate actions. On top of this, more comprehensive sustainability disclosures may better engage institutional investors and stakeholders by increasing comparability and measurability. ²¹⁵

Furthermore, "the frictions between environmental action and social concerns on the path to net zero also concern institutional investors as shareholders". As previously mentioned, a just transition can be regarded as a way of addressing a transition risk and thus a climate-related financial risk because "failing to take account of the social dimension will generate pressures to delay, dilute or abandon climate policy in investee

²¹⁴ European Commission. (2022). Corporate Sustainability Reporting Directive. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022L2464

²¹⁵ Gözlügöl, A. A. (2022). 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. The Journal of World Energy Law & Business, 15(1). https://academic.oup.com/jwelb/article-abstract/15/1/1/6510578

²¹⁶ *Idem*.

companies, making the shift to a low-carbon economy less likely". 217 Overall, it is crucial to address that if a transition is achieved at a high social cost, it can exacerbate inequalities, thus "harming the sustainability and pace of economic growth, which in turn should affect long-term investor returns". 218 Moreover, it has been argued 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 creates a systemic risk in the form of social stability risk". ²¹⁹ This implies that fiduciary duties need to integrate the risks from the social and environmental dilemma and just transition as a whole concept into the investment and portfolio engagement process. ²²⁰ This means that just transition needs to be streamlined into the assessment of financial institutions' clients' transition plans. For instance, regarding pension funds, workers are advancing requests that will oblige funds to integrate the social dimension into their everyday operations. Indeed, investors should assess companies' just transition compliance and investigate whether risks caused by the net-zero transition to the workforce have been embedded. If institutional investors fail to acknowledge the financial relevance of jobsrelated shortcomings, this might prevent investee companies from considering social aspects as well.²²¹ Indeed, a change in the rules of engagement of banking operators is pivotal. So far, just transition does not seem to be regarded by investors. Banking operators' endorsement of just transition is crucial to expand this concept to investee companies.²²² Furthermore, "as investors increasingly demand and obtain power over transition plans in companies via the 'say on climate' votes, they can make investee

²¹⁷ Gözlügöl, A. A. (2022). 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. The Journal of World Energy Law & Business, 15(1). https://academic.oup.com/jwelb/article-abstract/15/1/1/6510578

²¹⁸ *Idem*.

²¹⁹ Gordon, J. N. (2022). Systematic Stewardship. Journal of Corporation Law. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3782814#:~:text=This%20paper%20frames%20a%20normative%20theory%20of%20stewardship,both%20systematic%20risk%20as%20well%20as%20expected%20returns.

²²⁰ (Gözlügöl, 2022), supra n. 217

²²¹ (Gordon, J. N., 2022), supra n. 219

²²² Idem.

companies address just transition through these votes." ²²³ An example of an institutional investor engaging in just transition has been Generali, the Italian insurance company, which in its Group Strategy on Climate Change declared 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 principle". ²²⁴

In any case, it is crucial to understand how financial institutions can provide just transition support in investee companies. The next chapter will analyse how financial institutions should engage with their clients and the risks they might encounter if they fail to do so. The next section will also provide a comparative analysis of the current practices among banks and their portfolio, as well as shed a light on the regulatory panorama as an enabling or hindering actor.

As discussed in this chapter, the global workforce faces both opportunities and challenges as a result of the green shift. Although it is anticipated that new green employment will appear in important industries, there are hazards associated with the shift, particularly for already vulnerable workers, and for industries that are decarbonising. As previously mentioned, a just transition strategy that prioritises employment is necessary to strike a balance between social justice and economic advancement. To close the gap between worker demands and corporate sustainability goals, financial institutions must take proactive measures. To guarantee that no one is left behind, it will be essential to incorporate just transition principles into corporate governance and financial decision-making. Banks have a special duty to promote inclusive growth in the future by offering specialised financial solutions and pushing for better

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²²³ Allianz Global Investor. (2023). Say on Climate: does it measure up? https://www.allianzgi.com/en/insights/outlook-and-commentary/say-on-climate

²²⁴ Generali Group. (2022). Generali Group Strategy on Climate Change: Technical Note. https://www.bing.com/search?pglt=41&q=generali+group+strategy+on+climate+change+technical+note&cvid=b83c31f76203482a85afaddf406a9ff2&gs_lcrp=EgRlZGdlKgkIABBFGDsY-QcyCQgAEEUYOxj5BzIGCAEQRRg5MgYIAhBFGDwyBggDEEUYPDIGCAQQRRg9MggIBRDpBxj8VdIBCDE5NzBqMGoxqAIAsAI

social reporting. By doing so, they can become pivotal actors in shaping a sustainable and just economic future.

Chapter 2 – Risk Management in Banking for a Just Transition: Prudential Challenges and Client Exposure

To facilitate a fair transition, this section explores the critical function that risk management plays in banking. The chapter looks at the several kinds of risks—such as derailment, liability, reputational, transition, and physical risks—that banks could face if they do not apply just transition principles. It also covers the difficulties in incorporating just transition into prudential frameworks and the need for client participation in strategic portfolio evaluation. This chapter seeks to emphasise the significance of coordinating financial risk management with the tenets of a fair and inclusive green economy through a thorough examination. Lastly, this section aims to identify financial impacts that companies face in transitioning toward net-zero and how these impacts materialise as effects on financial institutions.

2.1. Just transition and Risks for Banks

Financial operators must invest in a just transition, comprehend the urgency of integrating scrutiny of net-zero transition social impacts, and engage with clients on this topic.

It is crucial to align finance with this goal to achieve a just transition, going beyond climate-related financial risk management. Indeed, "financial flows and stocks could be considered aligned with the Paris Agreement if they support socio-economic systems consistent with low greenhouse gas emissions and climate-resilient development pathways. This means scaling up finance for activities contributing to resilience goals". However, efforts in this direction are fragmented due to the absence of a common framework to track progress. Specifically, climate resilience alignment assessment of

²²⁵ OECD. (2024). OECD Review on Aligning Finance with Climate Goals. Green Finance and Investment, OECD Publishing. https://doi.org/10.1787/b9b7ce49-en.

finance flows considering just transition requires "complementary types of indicators, as some societal resilience goals are difficult to quantify". ²²⁶

2.1.1. Understanding Risk Categories in the Context of Just Transition

Firstly, it is necessary to assess the type of *risk* financial institutions would incur if they failed to integrate just transition considerations into their portfolio engagement practices.

Frameworks used by central banks to explore financial and economic risks arising from climate change identify two principal categories of risk. The first one is the 'physical risk of climate change' category. This type of risk relates to the physical effects of environmental problems on societies. For instance, the erosion of workforce productivity due to rising temperatures can be considered a physical risk. The second type of risk is defined as 'transition risk', and amounts to challenges encountered during the abating emissions process. For example, the issue of 'stranded assets' is categorised as a transition risk due to the lowering of investment in coal power plants that must be decommissioned before their time. 227 Scenario analysis based on these risk categories revealed how "a faster transition to net-zero emissions globally will reduce physical risks while increasing transition risk, and vice versa". 228 There is a need to manage these risks, which embody a monetary cost, by designing plans that balance physical and transition challenges. Consequently, physical and transition risks affect economic activities, which ultimately hamper the financial system. These impacts can materialise "directly, though, for example, lower corporate profitability due to the devaluation of assets, or indirectly, through macro-financial changes".229

²²⁶ OECD. (2024). OECD Review on Aligning Finance with Climate Goals. Green Finance and Investment, OECD Publishing. https://doi.org/10.1787/b9b7ce49-en.

²²⁷ Laybourn, L., Joseph Evans, & Dyke, J. (2023). Derailment risk: A systems analysis that identifies risks which could derail the sustainability transition. Earth System Dynamics, 14(6). https://doi.org/10.5194/esd-14-1171-2023

²²⁸ *Idem*.

²²⁹ European Central Bank. (2020). Guide on climate-related and environmental risks. Banking Supervision.

https://www.bankingsupervision.europa.eu/press/pr/date/2020/html/ssm.pr201127~5642b6e

Additionally, further risks can stem from these two main categories. The first one is the so-called "liability risk", which arises due to direct or indirect legal disputes in which the financial institution might be involved, also concerning legal claims of its clients. Similarly, reputational risks arise due to a financial institution's misconduct or from the adverse behaviours of its partners or clients, which could label the bank as contributing to environmental and social harms.²³⁰

Furthermore, in the transition risk assessment, another category could arise, which, however, has been understudied: the consequences of mutations in the Earth's system might provoke an economic downturn, which will cause reinforcing failures globally, thus "frustrating the collective ability to deliver rapid re-stabilisation". ²³¹ Indeed, this is another category of risk, "the risk of the transition from both physical and transition risks and their knock-on consequences". ²³² This means dealing with effects generated by the *same* transition. This has been defined as "derailment risk". Indeed, "the risk that humanity's effort to remain within a safe and operating space is derailed by interacting biophysical and socio-economic factors". ²³³ The derailment risk emphasises how poorly handled transitions can have a domino effect where environmental and social challenges reinforce one another, leading to credit risk, market risk, and systemic risk for financial institutions. This risk can be mitigated if just transition factors are embodied in portfolio engagement, as financial institutions are already doing for climate-related aspects. In this way, it would be possible to manage the social effects, amounting to

68d.en.html#:~:text=The%20European%20Central%20Bank%20%28ECB%29%20today%20published%20its,transparently%20disclose%20such%20risks%20under%20current%20prudential%20rules

²³⁰ European Central Bank. (2020). Guide on climate-related and environmental risks. Banking Supervision.

 $[\]frac{\text{https://www.bankingsupervision.europa.eu/press/pr/date/2020/html/ssm.pr201127~5642b6e}{68d.en.html\#:\sim:text=The%20European%20Central%20Bank%20%28ECB%29%20today%20published%20its,transparently%20disclose%20such%20risks%20under%20current%20prudential%20rules.}$

²³¹ Laybourn, L., Joseph Evans, & Dyke, J. (2023). Derailment risk: A systems analysis that identifies risks which could derail the sustainability transition. Earth System Dynamics, 14(6). https://doi.org/10.5194/esd-14-1171-2023

²³² *Idem*.

²³³ Idem.

transition risks, thus lowering the possibility of economic disruption and social backlash that could firstly endanger client solvency and asset value and then have reinforcing feedback loops. Indeed, to avoid dangerous cascading effects as warned by the derailment risk, it is vital to acknowledge that financial safety depends on economic stability, which cannot be ensured without tackling the social factors at risk within enterprises, thus the employment-transition-related risk. Overall, there is a necessity to address concepts of justice, fairness, participation and trust within resilience plans, all of which are areas influencing the acceptance of the transition itself.²³⁴

Consequently, "physical and transition risks are drivers of *existing* risk, in particular credit risk, operational risk, market risk and liquidity risk, as well as risks such as migration risk, credit spread risk in the banking book, real estate risk and strategic risk". ²³⁵ Climate-related financial risks are therefore traced back to existing risk categories. Supervisors consider these risks as an integral part of the current prudential framework, which requires banks to manage all relevant risks to ensure the safety and soundness of financial institutions. In practice, climate-related risks are treated as components of operational, credit, market, and liquidity risks already provided for in existing regulations, allowing the authorities to mitigate these risks without the need for an explicit mention in their mandates. ²³⁶

Indeed, climate-specific shocks must be connected to financial system vulnerabilities to evaluate the threats to financial stability presented by climate change.

²³⁴ Laybourn, L., Joseph Evans, & Dyke, J. (2023). Derailment risk: A systems analysis that identifies risks which could derail the sustainability transition. Earth System Dynamics, 14(6). https://doi.org/10.5194/esd-14-1171-2023

²³⁵ European Central Bank. (2020). Guide on climate-related and environmental risks. Banking Supervision.

https://www.bankingsupervision.europa.eu/press/pr/date/2020/html/ssm.pr201127~5642b6e 68d.en.html#:~:text=The%20European%20Central%20Bank%20%28ECB%29%20today%20published%20its,transparently%20disclose%20such%20risks%20under%20current%20prudential%20 rules.

²³⁶ Agostini, F., & Galasso, N. (2024). Sperare per il meglio (ma prepararsi al peggio): il quadro prudenziale dell'Unione europea per gli scenari climatici "bottom-up". Rivista di diritto bancario, 4. https://rivista.dirittobancario.it/sperare-il-meglio-ma-prepararsi-al-peggio-il-quadro-prudenziale-dellunione-europea-gli-scenari

When these shocks happen, they could compound pre-existing vulnerabilities in the financial and non-financial sectors, making their consequences even more severe. 237 The Financial Stability Board (2025) has developed exposure metrics which explain how climate risk drivers could transmit through the financial system and hamper different sectors (financial and non-financial). These metrics build on a combination of climatespecific, non-financial and financial-sector information. ²³⁸ Consequently, the materiality of some of the transmission and amplification channels in the system may be shown via exposure measures. For example, the exposure of banks' loan books to climate-sensitive industries can reveal how vulnerable they are to credit risk in the case of climate shocks; the exposure of financial institutions to climate-sensitive assets might reveal market risk from investment portfolio repricing. These measurements could be used to find common exposures across financial sectors to counterparties subject to physical or transitional hazards or concentrated risks in particular industries. By using related scenario-based data and, when feasible, information from financial institutions' and non-financial enterprises' transition plans, these indicators' forward-looking nature can be further strengthened.²³⁹

Indeed, financial institutions must acknowledge the impact of climate-related and transition-related risks concerning the business environment in which they operate to make strategic decisions. More specifically, the institution's management body is expected to integrate "climate-related and environmental risks when developing the institution's overall business strategy and risk management framework and to exercise effective oversight of climate-related and environmental risks".²⁴⁰ Additionally, financial

²³⁷ Financial Stability Board. (2025). Assessment of Climate-related Vulnerabilities: Analytical framework and toolkit. https://www.fsb.org/2025/01/assessment-of-climate-related-vulnerabilities-analytical-framework-and-

toolkit/#:~:text=This%20framework%20builds%20on%20the%20existing%20FSB%20Financial,from%20a%20cross-border%20and%20cross-sectoral%20point%20of%20view.

²³⁸ *Idem*.

²³⁹ *Idem*.

²⁴⁰ European Central Bank. (2020). Guide on climate-related and environmental risks. Banking Supervision.

https://www.bankingsupervision.europa.eu/press/pr/date/2020/html/ssm.pr201127~5642b6e

institutions must explicitly integrate climate and transition risks into their appetite framework.²⁴¹

Moreover, it is widely recognised that "the negative financial impacts for ESG factors on institutions' counterparties or invested assets, materialise through the traditional categories of financial risks". 242 If the "E" part of the risk is quite straightforward, amounting, for example, to climate-related financial risks, naturerelated risks, such as biodiversity loss or other types of environmental degradation, this is not exactly true for specifically the "S" and "G" factors. Nevertheless, social factors such as human rights infringements, workers' rights impairment, and affected communities' interests might amount to financial losses; in particular, reputational risks could stem from the neglect of vulnerable individuals. Instead, governance factors might relate to poor management and negative corporate behaviour.²⁴³ In this regard, "practices for assessing social and governance risks are still nascent and mostly qualitative". 244 Even if governance factors have traditionally been incorporated into assessing the creditworthiness of counterparties, there is no level playing field, and the approach is mainly qualitative, relying on experts' opinions. Social risks are even more challenging to account for concretely. On this matter, there is a "lack of common understanding of the types and boundaries of these factors, their transmission channels to credit risk, relevant metrics, as well as structured data".245

⁶⁸d.en.html#:~:text=The%20European%20Central%20Bank%20%28ECB%29%20today%20published%20its,transparently%20disclose%20such%20risks%20under%20current%20prudential%20rules.

²⁴¹ *Idem*.

²⁴² European Banking Authority. (2025). Report on data availability and feasibility of common methodologies for ESG exposures. EBA. https://www.eba.europa.eu/sites/default/files/2025-02/6a3ca030-8911-42d8-8817-

 $[\]frac{b99f6ea109b4/Report\%20on\%20data\%20availability\%20and\%20feasibility\%20of\%20common\%20methodology\%20for\%20ESG\%20exposures.pdf$

²⁴³ *Idem*.

²⁴⁴ *Idem*.

²⁴⁵ Idem.

2.1.2. Integrating Just Transition into Prudential Frameworks

Consequently, there is a necessity to "elaborate a methodology that would be standardised across all institutions and could inform further consideration about a structure and calibration of potential capital requirements explicitly accounting for ESG risks". The need for a harmonised methodology to identify ESG-related risks and exposure comes from the lack of a common vocabulary to tackle these issues, especially when it comes to less quantifiable factors, such as social and governance matters.²⁴⁶ However, a common design will not shield financial institutions entirely from risks coming from the transition. There is a need to prepare a whole-system approach to ensure the financial safety, which is a prerogative for structuring a just transition.

It is thus pivotal to analyse the rules for financial institutions, considering the crucial role that banks have in shaping the green transition.²⁴⁷ More precisely, it is necessary to stress that failing to integrate just transition into financial institutions' regulations can "affect the value of financial assets to an extent that threatens financial stability".248

Indeed, the previously analysed risks must be integrated into prudential policy frameworks. Prudential policies are directed towards the maintenance of financial stability. Financial stability is defined as "the capacity of a financial system to absorb severe shocks and maintain the provision of financial services". 249 At the microprudential

²⁴⁶ European Banking Authority. (2025). Report on data availability and feasibility of common methodologies for ESG exposures. EBA. https://www.eba.europa.eu/sites/default/files/2025-02/6a3ca030-8911-42d8-8817-

b99f6ea109b4/Report%20on%20data%20availability%20and%20feasibility%20of%20common% 20methodology%20for%20ESG%20exposures.pdf

²⁴⁷ Agostini, F., & Galasso, N. (2024). Sperare per il meglio (ma prepararsi al peggio): il quadro prudenziale dell'Unione europea per gli scenari climatici "bottom-up". Rivista di diritto bancario, 4. https://rivista.dirittobancario.it/sperare-il-meglio-ma-prepararsi-al-peggio-il-quadroprudenziale-dellunione-europea-gli-scenari

²⁴⁸ OECD. (2024). OECD Review on Aligning Finance with Climate Goals. Green Finance and Investment, OECD Publishing. https://doi.org/10.1787/b9b7ce49-en.

²⁴⁹ Tamez, M., Weenin, H., & Yoshinaga, A. (2024). Central Banks and Climate Change: Key Legal Issues. International Monetary Fund.

policy level, concerning those policies securing the financial health of individual institutions, there is a need to assess how social transition risks affect a single bank. Such risks need to be incorporated in the risk assessments and disclosures of the individual financial institutions. At the macro level, i.e., those regulations tackling financial risk at an aggregate level, transition-related risk has to be treated as a systemic risk to the financial system. Traditional prudential policies might not be well-suited for the net-zero transition. For example, prudential reforms adopted in the aftermath of the 2008 global crisis introduced short-term risk management requirements. The aim was to tackle the fragilities at the basis of the crisis. These requirements might hamper investments for the transition towards a green economy since reaching net-zero will require high upfront capital and long-term financing. Indeed, there is the risk of having less liquidity, as investments in this field are seen as riskier.²⁵⁰

Indeed, supervisory authorities have started to consider sustainability as an integral part of their mission. This change in perspective is evidenced by initiatives undertaken to ensure that financial institutions streamline ESG considerations into their daily operations.²⁵¹ Within this context, the mandate of European supervisory agencies (ESAs) was modified, including environmental protection for the first time, acting upon the recommendation of the High-Level Expert Group on Sustainable Finance²⁵² regarding the need to integrate climate risks into financial risk assessment processes. Regulation (EU) 2019/2175²⁵³, amending the original regulations that established the ESAs, requires

https://www.bing.com/search?pglt=41&q=Tamez%2C+Weenink+and+Yoshinaga%2C+2024 &cvid=7687c36b958844d583bdee12bb9b215e&gs_lcrp=EgRlZGdlKgYIABBFGDkyBggAEE UYOTIICAEQ6QcY_FXSAQgxMDQyajBqMagCALACAA&FORM=ANNAB1&PC=U53

OECD. (2024). OECD Review on Aligning Finance with Climate Goals. Green Finance and Investment, OECD Publishing. https://doi.org/10.1787/b9b7ce49-en.

²⁵¹ Agostini, F., & Galasso, N. (2024). Sperare per il meglio (ma prepararsi al peggio): il quadro prudenziale dell'Unione europea per gli scenari climatici "bottom-up". Rivista di diritto bancario, 4. https://rivista.dirittobancario.it/sperare-il-meglio-ma-prepararsi-al-peggio-il-quadro-prudenziale-dellunione-europea-gli-scenari

²⁵² EU High-Level Expert Group in Sustainable Finance. (2017). Financing a sustainable European economy. https://finance.ec.europa.eu/document/download/7f8b937b-10ee-4d71-9f2b-6263e0c26676_en?filename=170713-sustainable-finance-report_en.pdf

²⁵³ European Parliament and the Council. (2019). Regulation (EU) 2019/2175. https://eurlex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02019R2175-20191227

that, in the performance of their functions, European supervisory authorities consider ESG factors. However, these changes do not represent a radical shift in the mandate of the ESAs. Despite the importance of sustainable business models and ESG factors, the lack of a hierarchy among the tasks of the ESAs creates some application uncertainties, as it risks placing ESG issues in a subordinate position compared to other tasks traditionally attributed to the agencies, thus limiting their effective impact. It is worth noting that the positive obligations of the ESAs in terms of ESG are also limited: the duty to consider sustainable business models by the authorities does not translate into an explicit obligation to integrate these considerations into regulation, supervisory policies, and the activities of the ESAs. Moreover, while ESAs are now required to consider ESG factors, the European Central Bank (ECB) and national authorities focus primarily on financial stability and investor protection, without a formal obligation to incorporate sustainable models into their assessment.²⁵⁴

Notwithstanding, there is a unanimous consensus in the literature and among supervisors in considering that such risks, especially those related to environmental and climate issues, can have significant impacts on the capital soundness and prudent management of banks, thereby representing a threat to financial stability.

To evaluate the extent of climate risk integration *into risk management* and capital allocation, it is necessary to cast a light on the normative framework for financial institutions. The regulatory framework is first and foremost built on the Basel Accords (Basel Framework). At the European level, the Basel Framework is embodied in the CRR (Capital Requirement Regulation) and the CRD (Capital Requirement Directive) and is further enhanced through EU bodies, for instance, the European Banking Authority (EBA) and national supervisors. As it has been mentioned above, climate and transition risk are not entirely new categories but are reflected in conventional, indeed *prudential*,

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²⁵⁴ Agostini, F., & Galasso, N. (2024). Sperare per il meglio (ma prepararsi al peggio): il quadro prudenziale dell'Unione europea per gli scenari climatici "bottom-up". Rivista di diritto bancario, 4. https://rivista.dirittobancario.it/sperare-il-meglio-ma-prepararsi-al-peggio-il-quadro-prudenziale-dellunione-europea-gli-scenari

risk types, such as credit, market, and operational risks. Indeed, it is necessary to place risks derived from climate change and net-zero transition into the core elements of the Basel framework. The first core element is embodied in "Pillar 1", which sets the rules for calculating minimum capital requirements related to risk-weighted assets (RWA), meaning that the riskier the asset, the higher the weight, so that capital and risk are equivalent. Instead, "Pillar 2" consists of the Internal Capital Adequacy Assessment Process (ICAAP) and the Supervisory Review and Evaluation Process (SREP). The ICAAP is the process through which financial institutions, internally, relying on proper risk management standards, assess the adequacy of capital. In this way, financial operators are aware of all the risks that might impact the institutions beyond the risks covered by Pillar 1.²⁵⁵ At the moment, the main method to integrate climate-related risk into this framework is through external credit ratings. Consequently, "the extent to which climate risks influence risk weights and capital requirements largely depends on how these agencies incorporate climate factors into their assessments, rather than on an active decision by the institutions themselves". ²⁵⁶

Instead, for what concerns transition risks, even if institutions are progressively approaching this dimension of risks, for example, by adapting their lending, rebalancing their portfolios within borrowers' industries and adjusting their pricing, transition impacts on bank performance are less evident and thus overlooked.²⁵⁷

2.1.3. Managing Transition Risks: The Imperative of Client Engagement and Strategic Portfolio Assessment

Financial stability is increasingly challenged by climate-related risks, including physical, transition, and derailment risks. Systemic soundness and client solvency may be jeopardised if social and governance considerations are not accounted for during

72

²⁵⁵ Auzepy, A., & Bannier, C. E. (2025). Integrating Climate Risks in Bank Risk Management and Capital Requirements. SPRINGER GABLER.

https://link.springer.com/book/10.1007/978-3-658-47061-6

²⁵⁶ Idem.

²⁵⁷ Idem.

transition planning. By coordinating their financing strategies with inclusive and sustainable paths, banks play a vital role in lowering these risks. Incorporating social resilience, justice, and fairness into risk management not only improves financial stability but also guards against reputational, market, and credit risks associated with poorly handled transitions. However, financial institutions are not the only ones affected by transition hazards. Bank risk profiles may be impacted by the issues arising from enterprises' transformation. It is necessary to investigate how financial institutions are impacted by the transition risks of businesses and the reasons that banks need to actively interact with their customers to facilitate resilient and responsible transitions.

It has been assessed that the top ten financial impacts for companies are ²⁵⁸:

- 1. Increased operating costs and increased insurance premiums.
- 2. Reduced revenue from decreased production capacity and supply chain interruptions.
- 3. Reduced revenue from decreased demand for goods/services due to a shift in consumer preferences.
- 4. Increased capital costs.
- 5. Increased production cost due to changing input prices.
- Increased cost and/or reduced demand for products and services resulting from fines and judgments.
- 7. Cost to adopt/deploy new practices and processes.
- 8. Increased operating costs due to higher compliance costs.
- 9. The write-offs of assets or their early retirements because of potential damages to them being in high-risk locations.
- 10. Changes in policy leading to write-offs, asset impairment, and early retirement of existing assets.

73

²⁵⁸ Grove, H., Clouse, M., & Xu, T. (2021). Climate Change Risk: Challenge for Corporate Governance. Journal of Governance and Regulation, 10(2). https://virtusinterpress.org/IMG/pdf/jgrv10i2siart7.pdf

Indeed, investors must engage with executives and corporate boards to act upon ESG dimensions.²⁵⁹ Because, when "enterprise borrowers are exposed to risks, the lender is equally exposed".²⁶⁰ Consequently, financial institutions can play a pivotal role in supporting their clients to manage climate-related and transition risks. It has been argued that financial services providers "need to take a holistic view of their clients' risk management needs and design a package of financial and non-financial services that can address the needs appropriately". ²⁶¹

Indeed, due to the high risks posed to companies if they neglect a just transition pathway, banks must streamline the just transition assessment of their portfolio. Up until now, just transition has been outside the range of investors' action. Nevertheless, some initiatives have surged. The UN Principles for Responsible Investing Initiative, which supports investment in line with ESG factors and attracted several signatories with over USD 100 trillion worth of assets, supported a pledge for investor action on just transition, called "Statement of Investor Commitment to Support a Just Transition on Climate Change". However, this statement has received limited endorsement. An insufficient consideration of the just transition by 'ESG' or 'socially responsible' investors "can add to the doubts about what extent these investors walk the talk". However, for instance, the Climate Action 100+, an investors' endorsement to promote sustainability practices among the world's highest emitters, "will introduce just transition-related indicators into its 'Net-Zero Company Benchmark', which is used to assess the performance of focus

²⁵⁹ Grove, H., Clouse, M., & Xu, T. (2021). Climate Change Risk: Challenge for Corporate Governance. Journal of Governance and Regulation, 10(2).

https://virtusinterpress.org/IMG/pdf/jgrv10i2siart7.pdf

²⁶⁰ Churchill, C., Jain, P., & Dalal, A. (2023). Integrated financial services for better risk management. ILO, Social Finance.

https://www.ilo.org/sites/default/files/wcmsp5/groups/public/%40ed_emp/%40emp_ent/documents/publication/wcms_887605.pdf

²⁶¹ *Idem*.

²⁶² Gözlügöl, A. A. (2022). 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. The Journal of World Energy Law & Business, 15(1). https://academic.oup.com/jwelb/article-abstract/15/1/1/6510578

companies against the initiative's goals and thus to inform investment and corporate engagement strategies". ²⁶³

For financial institutions hoping to remain stable during the net-zero transition, incorporating just transition concerns into financial risk management is now a prerogative. Most contemporary investment methods, as noted in the Robins et al. paper (2018), prioritise environmental considerations above social ones, which are equally important for controlling systemic risks. Significant social issues like job displacement and community upheaval may be overlooked because of this disjointed approach, which could increase economic vulnerabilities and have a detrimental impact on financial stability.²⁶⁴

A comprehensive strategy that incorporates social and environmental risk management is required for financial services providers. Financial institutions can reduce risks and seize opportunities related to sustainable development by implementing frameworks that address inequality and climate change.²⁶⁵

2.1.4. Translating Client Financial Impacts into Financial Institution Effects: Transmission Channels for a Just Transition

The risks that companies encounter in transitioning toward net-zero—summarised in the top 10 financial impacts outlined above—can translate into significant financial effects on financial institutions. This translation happens through transmission

²⁶³ Gözlügöl, A. A. (2022). 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. The Journal of World Energy Law & Business, 15(1). https://academic.oup.com/jwelb/article-abstract/15/1/1/6510578

²⁶⁴ Robins, N., Brunsting, V., & Wood, D. (2018). Investing in a just transition – Why investors need to integrate a social dimension into their climate strategies and how they could take action. Grantham Research Institute on Climate Change and the Environment.

https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2018/06/Robins-et-al_Investing-in-a-Just-Transition.pdf

²⁶⁵ Idem.

channels that link client vulnerabilities to financial stability challenges for banks. Understanding these channels and effects is crucial to effectively incorporate just transition considerations into risk management frameworks and regulatory requirements.

Outlined below each of the ten financial impacts identified for corporations are redefined in terms of potential financial effects that financial institutions might incur if their clients are crushed by any of the above-mentioned impacts. These effects arrive at banks through transmission channels. It is possible to rely on the analysis of the transmission channels and financial risks identified by the Network for Greening the Financial System (NGFS)²⁶⁶, but with a just transition lens.

Firstly, the NGFS identify economic transmission channels at the micro-level affecting businesses and households. For the purpose of this research, the focus will be placed on the transmission channels for businesses. The Network identify the following channels of transmission:²⁶⁷

- Property damage and business disruption from severe weather: this channel could transmit the following previously identified financial impacts on companies: (i) increased operating costs and insurance premiums, (ii) reduced revenue from decreased production capacity and supply chain interruptions, (iii) increased capital costs.
- Stranded assets and new capital expenditure due to the transition: this channel could transmit the following previously identified financial impacts on companies: (i) cost to adapt/deploy new practices or processes, (ii) increased operating costs due to higher compliance costs, (iii) write-offs of assets in high-risk locations, (iv) policy changes leading to asset impairment/early retirement.

²⁶⁷ *Idem*.

²⁶⁶ NGFS. (2024). NGFS long-term scenarios for central banks and supervisors. https://www.ngfs.net/en/publications-and-statistics/publications/ngfs-climate-scenarios-central-banks-and-supervisors-phase-v

- Changing demand and costs: this channel could transmit the following previously identified financial impacts on companies: (i) reduced revenue from decreased demand due to consumer preference shifts, (ii) increased production costs due to changing input prices.
- Legal liability (from failure to mitigate or adapt): this channel could transmit the following previously identified financial impact on companies: (i) increased costs/and or reduced demand from fines and judgments.

Thus, by following the same reasoning, it is possible to translate these channels into transmission channels that arise if companies neglect to include just transition into their net-zero transition pathway. Therefore, the first is the business disruption channel, which could materialise through reduced revenue due to increased operating costs, reduced production capacity, and increased capital costs if the business is not able to adapt its workforce to changing modes of production. Increased Opex might stem from workforce turnover or layoffs due to decarbonisation, skills mismatch amounting to lower productivity, higher costs for health and safety and social safety nets if not planned, strikes or social tensions due to disrupting or displacement operations. Moreover, companies might face unexpected surges in Capex, which will hamper their financial stability, and consequently investors' safety, if corporations fail to provide in advance for reskilling and training facilities, workers relocation and support, and occupational health and safety measures. Indeed, a transition that fails to incorporate the 'just' dimension could lead to an increase in both Opex and Capex, while overall hampering production and output. Moreover, rather than considering stranded assets, if not managed well, the transition could result in stranded people. From the client-side, the impacts that could bring to the stranded-people risk are increased social costs, such as severance packages and community compensation that strain the company flows, just as stranded assets would become a burden on the company's balance sheet. This will lead to displacement of workers, low morale, stress and loss of skills that in turn hamper economic productivity. Lastly, the *legal liability (from failure to build a just transition)* risk would surge due to just transition-related litigation.

Moreover, the NGFS identifies at the macro-level aggregate impacts on the macro-economy. ²⁶⁸ The transmission channels relevant for the just transition in this case are:

- Labour market frictions: this channel materialise when at company level the workforce is neglected a fair and equitable transition, this will bring to workers displacement and skills mismatch that could cause a derailment risk on the global labour market.
- Socioeconomic changes: this channel materialise when at company level the transition is oriented only to safeguarding profit, neglecting the social component of the transition. Thus, discontent will grow among employees which will spread across the community, ultimately creating social tension that risk to hamper social cohesion for climate action.

Indeed, financial impacts at company and economy level are transmitted toward financial institutions through five main transmission channels: (i) *Business disruptions;* (ii) *Stranded people;* (iii) *Legal liability (from failure to build a just transition)* – at the micro-level; (iv) *Labour market frictions;* (v) *Socioeconomic changes* – at the macro-level.

Therefore, having identified the transmission channels, it is necessary to describe the financial effects on banks brought by companies' financial bearings. The financial effects identified rely on the findings of the NGFS. Specifically, the Network listed the below five main financial risks stemming from micro and macro channels of transmission:

- *Credit risk*: the risk that clients fail to fulfil their financial obligations, including loan repayments.

78

²⁶⁸ NGFS. (2024). NGFS long-term scenarios for central banks and supervisors. https://www.ngfs.net/en/publications-and-statistics/publications/ngfs-climate-scenarios-central-banks-and-supervisors-phase-v

- *Market risk*: the risk of losses due to shifts in market prices or the value of financial products linked to client performance.
- Operational risk: the risk of losses due to inadequate or failed internal processes.
- *Liquidity risk*: the risk for banks of failing to meet obligations when due, driven by the financial stress of clients.

It is thus possible to translate these financial effects into specific risks for banks arising from clients' failure to incorporate just transition into their operations. Also, due to the nature of the risks that could stem from client's failure to incorporate just transition in their transition pathway, also reputational and legal risks have been annumerated among potential financial effects.

To better visualise the interrelations between clients' impacts, transmission channels and financial effects on banking operators, the results of the analysis have been reported in the following table.

Client-side impact	Transmission channels	Banks' financial effects
Higher Opex from	Business disruption	Credit risk: higher
workforce turnover,		probability of default
layoffs, strikes, and social		(PD), increased loan
tensions + lower		provisions.
production capacity and		
revenue		Market risk: decline in
		value of loans or
		investments in affected
		sectors.
		Liquidity risk: Clients
		drawing on credit lines to
		cover operational costs.

		Operational risk:
		Disruptions in bank-client
		relationships, increased
		monitoring costs.
Social costs like severance	Stranded people	Credit Risk: Lower
packages, community		productivity reduces
compensation +		clients' ability to repay
workforce displacement,		debt.
low morale, skills loss		
		Market Risk: Negative
		investor sentiment affects
		banks with high exposure
		to impacted sectors.
		Reputational Risk:
		Criticism of banks
		financing socially harmful
		transitions.
		Legal Risk: Potential
		liability if banks are
		perceived as complicit in
		harmful transitions.
Lawsuits from	Legal liability channel	Credit Risk: Clients'
communities, workers, or		financial stress from legal
		•
NGOs due to poor just		payouts increases default

		Legal & Reputational
		Risk: Banks themselves
		may be targeted for
		financing socially
		irresponsible projects.
		Operational Risk: Costs
		of managing legal
		exposure and due
		diligence.
Skills mismatch,	Labour market frictions	Credit Risk: Sector-wide
widespread layoffs across		defaults or downgrades.
sectors		
		Market Risk: Asset
		repricing in impacted
		sectors.
		Liquidity Risk: Systemic
		shocks increase bank
		funding costs.
		Operational Risk:
		Higher risk management
		costs.
Social tension, loss of	Socioeconomic changes	Credit Risk: Lower
social cohesion, and		economic activity reduces
community opposition.		repayment capacity.

	Market Risk: Market
	volatility from social
	unrest.
	Reputational Risk:
	Banks are seen as part of
	the problem if they
	finance companies,
	neglecting social factors.

The interconnection between risks at the corporate level and financial effects is embodied in sustainability reports, in line with the Corporate Sustainability Reporting Directive (CSRD) and the related European Sustainability Reporting Standards (ESRS).²⁶⁹ In this regard, the Directive sets out the process for carrying out a double materiality analysis to link material impacts to financial outcomes. The result of this analysis must be incorporated within sustainability disclosures to guide companies in reporting on their material ESG risks and opportunities. This crucial connection between sustainability and financial challenges and benefits has been the subject of a research project carried out by the European Financial Reporting Advisory Group (EFRAG). The EFRAG Connectivity Project (2024) defines connectivity as "the attribute of high-quality information that supports the provision of a holistic and coherent set of information within and across the different annual reports sections". ²⁷⁰ This entails "an entity explaining how its strategy, business model, and impacts, risks and opportunities (IRO) are linked to its overall financial performance, sustainability performance,

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²⁶⁹ European Commission. (2022). Corporate Sustainability Reporting Directive. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022L2464

²⁷⁰ EFRAG. (2024). EFRAG Connectivity Project.

 $[\]frac{https://www.efrag.org/system/files/sites/webpublishing/Project\%20Documents/23010314295}{99109/Connectivity\%20considerations\%20and\%20boundaries\%20of\%20different\%20Annual\%}{20Report\%20sections-Short\%20version.pdf}$

financial position, cash flows and other metrics and targets in the short-, medium- and long-term". Consequently, the annual sustainability reporting has to disclose anticipated financial effects. In this regard, "anticipated financial effects are indicative of items that may migrate from the sustainability statement/disclosures in a particular reporting period to the financial statements of future reporting periods". 272

This principle is operationalised in the ESRS 1-9 - Linkages with other parts of corporate reporting and connected information, which requires that "the undertaking shall provide information that enables users of its *sustainability statement* to understand the connections between different pieces of information in the statement, and the connections between the information in the sustainability statement and other information that the undertaking discloses in other parts of its corporate reporting" (ESRS 1-9, paragraph 118).²⁷³ Therefore, according to the ESRS 1-9, "the undertaking shall describe the relationships between different pieces of information. Doing so could require connecting narrative information on governance, strategy and risk management to related metrics and targets" (ESRS 1-9, paragraph 123). 274 For instance, in providing connected information, the enterprise might explain the effect or likely effect of its strategy on its financial statements and plans. This includes describing how workforcerelated risk and opportunities (e.g. increased Capex for training) might affect the company's production costs, financial expectations and capital expenditures. Moreover, the ESRS 1-9 (paragraph 124) requires that "when the sustainability statement includes monetary amounts or other quantitative data points that exceed a threshold of materiality and that are presented in the financial statements (direct connectivity between information disclosed in sustainability statement and information disclosed in

²⁷¹ EFRAG. (2024). EFRAG Connectivity Project.

https://www.efrag.org/system/files/sites/webpublishing/Project%20Documents/23010314295 99109/Connectivity%20considerations%20and%20boundaries%20of%20different%20Annual% 20Report%20sections-Short%20version.pdf

²⁷² Idem.

²⁷³ European Commission. (2022). Corporate Sustainability Reporting Directive. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022L2464

²⁷⁴ *Idem*.

financial statements), the undertaking shall include a reference to the relevant paragraph of its financial statements where the corresponding information can be found". ²⁷⁵ ESRS 1-9 also requires indirect connectivity (paragraph 125) between information disclosed in the sustainability statement and information disclosed in financial statements, when datapoints in the sustainability report aggregate or overlap with financial statement information, to ensure transparency and clarity for users of the sustainability report. ²⁷⁶

Therefore, banks need to comprehend that sustainability risks (including just transition risks) can migrate from the sustainability statement to financial sheets over time as they become financially material (e.g. social costs turn into liabilities). This means that the financial impacts of companies related to a failure to incorporate just transition considerations in their sustainability reports (e.g. higher Capex from workforce investments or severance packages) might eventually appear in financial statements as actual provisions or impairments.

Overall, the EFRAG estimates that connectivity will "enhance decision usefulness of both financial statements and sustainability disclosures; helps readers understanding linkages between financial material and impactfully material information in sustainability disclosures; broadens the use of financial statements and use of sustainability disclosures by investors". Therefore, connectivity enhances the coherence and complementarity of corporate reporting.

The connectivity principles might support banks in comprehending how client-level social risks (e.g. stranded people and consequent Capex pressures) might ultimately affect their financial performance. Overall, social risks might start as impact materiality (workforce unrest) but could become financially material over time, affecting bank credit risk, liquidity risk, operational risk, and market risk. Therefore, financial institutions

27

²⁷⁵ European Commission. (2022). Corporate Sustainability Reporting Directive. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022L2464

²⁷⁶ *Idem*.

²⁷⁷ EFRAG. (2024). EFRAG Connectivity Project.

https://www.efrag.org/system/files/sites/webpublishing/Project%20Documents/23010314295 99109/Connectivity%20considerations%20and%20boundaries%20of%20different%20Annual% 20Report%20sections-Short%20version.pdf

should endorse connectivity-enhancing practices by requiring their clients to link just transition plans to expected financial risks and opportunities, by reporting how social risks would likely impact financial performance, Capex and Opex.

To sum up, chapter two emphasises how important risk management is to create a fair transition in the banking industry. It draws attention to how physical, transitional, and derailment risks are interrelated and how inadequate social factor integration might jeopardise financial stability. To reduce systemic vulnerabilities, the chapter also discusses the need to include just transition principles into prudential frameworks and risk management procedures. Promoting customer involvement and strategic risk assessment are still essential as banks negotiate the challenges of the green shift. This section has thus identified the main financial impacts for companies and how these impacts materialise as effects on banking operators, through specific transmission channels. The necessity to connect impact materiality to financial effects is embodied in current normative frameworks. The next chapter will examine how client engagement strategies and regulatory frameworks might influence banks to handle the just transition.

Chapter 3 – Regulatory Frameworks and Client Engagement for Just Transition: Building Strategic Partnerships

The third chapter examines how regulations are changing and how crucial strategic customer involvement is crucial to integrate just transition into financial operations. It draws attention to the current holes in regulatory frameworks that keep social factors from being consistently incorporated into banking operations. With an emphasis on developing strategic alliances to promote inclusive and sustainable practices, the chapter looks at how banks might use client transition plans as instruments to improve just transition assessments. It also covers case studies and recent legislative changes that show how financial institutions can play a constructive role in advancing the social and environmental transition.

3.1. Transition Plans as a Tool for Just Transition Assessment

Despite the growing recognition of the just transition concept, significant gaps in practice persist. Banks must engage with clients to tackle transition-related risks in their lending and investment decisions.

While several disclosure regulations have incorporated social factors, there is no overarching or uniform framework to guide financial institutions on how to integrally incorporate just transition into their lending, investment, and risk management practices. This absence of guidance hinders banks' capacity to gauge the credibility of companies' transition plans through a just transition lens.

It is argued that through the engagement of clients' transition plans, banks can streamline just transition into their operations. The review "How finance can unlock credible, robust and just transition plans" of the Just Transition Finance Lab²⁷⁸ argues

²⁷⁸ Just Transition Finance Lab. (2024). How finance can unlock credible, robust and just transition plans. https://g20sfwg.org/wp-content/uploads/2024/07/WBA-GRI-G20-SFWG-final-input-paper.pdf

that guidance for companies and financial entities on how to incorporate just transition in transition plans can unlock social dimension considerations in everyday practices. Nevertheless, a comprehensive and detailed approach is still lacking, and it is advocated that "current major frameworks tend to place a primary emphasis on minimising risks, especially regarding workers. However, Just Transition is not simply a risk mitigation mechanism. More guidance around the identification, enabling environment creation, and maximisation opportunities and benefits of the transition is required". ²⁷⁹

To render Just Transition a financial reality, banking operators will need to follow a twofold line of reasoning. Firstly, they will be required to handle risks and potential negative impacts that might arise from the enterprises' transition processes. At the same time, financial operators must galvanise on the benefits that will unfold from the transition toward a low-carbon economy. On these two pillars (assess the risk and exploit the benefits), the banking sector's action should revolve around, and specifically, this will be concretised when operators engage with the transition plans of their clients.

This section will delve into the regulations around transition plans and recent developments in the legislative panorama. Then, relying on case studies, it will be assessed how banks engage with clients' transition plans and to what extent just transition is integrated into banks and enterprises' plans towards net zero.

3.1.1. Transition Plan Regulation: Evolving Landscape and Recent Setbacks

A transition plan is a "detailed multi-year account of targets and actions that sets out how a given firm plans to ensure that its business model and strategy are compatible with a specific environmental objective". For the business side, transition plans serve to attract capital by demonstrating an alignment with the Paris Agreement's objective. For

²⁸⁰ Dikau, S., Robins, N., Smoleńska, A., van't Klooster, J., & Volz, U. (2025). Prudential net zero transition plans: the potential of a new regulatory instrument. Journal of Banking Regulation, 26. https://link.springer.com/article/10.1057/s41261-024-00247-w

²⁷⁹ Just Transition Finance Lab. (2024). How finance can unlock credible, robust and just transition plans. https://g20sfwg.org/wp-content/uploads/2024/07/WBA-GRI-G20-SFWG-final-input-paper.pdf

financial institutions, the adoption of transition plans is useful to anticipate investment opportunities and lower transition risk. At the same time, "policymakers are increasingly becoming recognising the importance of setting expectations or binding requirements to integrate transition plans into firms' strategy and non-financial disclosure".²⁸¹

There are two different types of transition plans. On the bank's side, transition plans are labelled as non-financial disclosures, which lack a prudential motive. Indeed, they are not adapted to comply with public regulations.²⁸² Instead, transition plans emerged as voluntary initiatives to provide credibility to net-zero pledges in compliance with the Glasgow Financial Alliance for Net Zero (GFANZ). In this way, transition plans fall under the wider climate-related strategy for financial institutions and under the spectrum of the Corporate Social Responsibility Initiatives (CSR).²⁸³ Specifically, the GFANZ Recommendations advanced that "a transition plan is a time-bound action plan that clearly outlines how an organisation will pivot its existing assets, operations, and entire business model towards a trajectory aligned with the latest and most ambitious climate science recommendations". 284 Moreover, the recommendations specify that "the plan should include interim targets, actions and accountability mechanisms to ensure progress towards net-zero emissions by 2050". 285 Similarly, the Task Force on Climaterelated Financial Disclosures (TCFD) is a non-obligatory framework that has been progressively adopted worldwide. In this regard, the Task Force argued that "transition plans are an aspect of an organisation's overall business strategy that lays out a set of targets and actions supporting its transition toward a low-carbon economy, including actions such as reducing its greenhouse gas (GHG) emissions". 286

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²⁸¹ Dikau, S., Robins, N., Smoleńska, A., van't Klooster, J., & Volz, U. (2025). Prudential net zero transition plans: the potential of a new regulatory instrument. Journal of Banking Regulation, 26. https://link.springer.com/article/10.1057/s41261-024-00247-w
²⁸² Idem.

²⁸³ Idem.

²⁸⁴ Association Europe Finances Regulations. (2024). Transition plans: ensuring their comparability, credibility and effectiveness to accelerate the low carbon transition. EBA. https://www.eba.europa.eu/sites/default/files/2024-12/0a49f314-5ccf-4d79-865c-0f9107b61a1f/session_6 presentation_1_rami_faghari.pdf?utm_

²⁸⁵ Idem.

²⁸⁶ Idem.

Recently, a second category of transition plans emerged, consisting of mandatory indications for the broader corporate sector to publish programs for the net-zero transformation. Indeed, enterprises are asked to disclose, within the non-financial declaration, how they envision their business strategy to progress during the transition toward a low-carbon economy. 287 At the European level, the declaration of transition plans became mandatory with the adoption of the 2022 Corporate Sustainability Reporting Directive (CSRD)²⁸⁸ and the 2024 Corporate Sustainability Due Diligence Directive (CSDDD)²⁸⁹. These regulations are supposed to "incentivise market discipline by providing investors with adequate information regarding the climate risk profile of their investments". 290 The CSRD mandates corporations to fall under the requirement of the directive to disclose "transition plans of the undertaking, including implementing actions and related financial and investment plans, to ensure that the business model and strategy are compatible with the transition to a sustainable economy and with the limiting of global warming to 1.5 degrees in line with the Paris Agreement and the objective of achieving climate neutrality by 2050". 291 Indeed, the CSRD provides standards, called European Sustainability Reporting Standards (ESRS), which provide disclosure grounds for enterprises that fall under the premises of the directive. In the specific, the ESRS E1-1 states that "the undertaking shall disclose its transition plan for climate change mitigation, including the targets, actions, and resources allocated to achieve these targets, and how the transition plan is embedded in and aligned with the undertaking's overall business strategy and financial planning". 292 Moreover, the ESRS specify that "if the

²⁸⁷ Dikau, S., Robins, N., Smoleńska, A., van't Klooster, J., & Volz, U. (2025). Prudential net zero transition plans: the potential of a new regulatory instrument. Journal of Banking Regulation, 26. https://link.springer.com/article/10.1057/s41261-024-00247-w

²⁸⁸ European Commission. (2022). Corporate Sustainability Reporting Directive. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022L2464

²⁸⁹ European Parliament and the Council. (2024). Corporate Sustainability Due Diligence Directive. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202401760

²⁹⁰ (Dikau et al., 2025), supra n. 287

²⁹¹ (European Commission, 2022), supra n. 288

²⁹² Idem.

undertaking does not have a transition plan in place, it shall indicate whether it will adopt a transition plan and, if so, by which date". 293 Instead, Article 22 of the CSDDD declares that "Member States shall ensure that companies adopt and put into effect a transition plan for climate change mitigation which aims to ensure, through best efforts, that the business model and strategy of the company are compatible with the transition to a sustainable economy and with the limiting of global warming to 1.5 degrees in line with the Paris Agreement and the objective of achieving climate neutrality by 2050. The transition plan shall contain climate targets in 5-year steps from 2030 to 2050". 294 Instead, Recital 73 of the Directive enunciates that "such requirements should be understood as an obligation of means and not of results. Being an obligation of means, due account should be given to the progress companies make, and companies should still abide by their obligation to put the transition plan for climate change mitigation into effect and to update it every twelve months to assess progress made towards its targets". 295

The CDP in its "State of Play – 2023 Climate Transition Plan Disclosure" illustrates key findings about transition plans' adoption. The first insight reports that "over 1 in 4 companies disclosed through the CDP that they have a 1.5 degrees-aligned climate transition plan in place – an increase of 44% since last year". However, it has been assessed that just 2% of companies that have adopted a transition plan report on a comprehensive number of indicators, thus signalling the presence of challenges, especially when it comes to strategy, target settings and financial planning. Indeed, indisputably, transition planning is becoming widespread; however, a gap remains, highlighting the

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²⁹³ European Commission. (2022). Corporate Sustainability Reporting Directive. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022L2464

²⁹⁴ European Parliament and the Council. (2024). Corporate Sustainability Due Diligence Directive. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202401760

²⁹⁵ Idem.

²⁹⁶ CDP. (2024). The State of Play - 2023 Climate Transition Plan Disclosure. https://cdn.cdp.net/cdp-

 $[\]frac{production/cms/reports/documents/000/007/783/original/CDP_Climate_Transition_Plans_2024.pdf?1720436354}{2024.pdf?1720436354}$

²⁹⁷ Idem.

need to "implement and disclose standardised credible climate transition plans in line with current and future global reporting standards". ²⁹⁸ Moreover, data reported by CDP shows that there has been an increase in the credibility and consistency of the plan adopted. However, this improvement is occurring too slowly, thus pointing in favour of enhanced guidance reinforced by solid frameworks and policies. Furthermore, it has been assessed how "organisations that maintain their disclosures year-on-year are better positioned to develop and disclose credible transition plans". ²⁹⁹ Consequently, this finding proves that consistent and transparent reporting is pivotal to disclose credible transition plans.

Despite the recognition of the importance of continuous regulatory improvement to enhance and streamline the adoption of transition plans, this possibility has been frustrated by recent regulatory developments at the European level.

The regulatory environment surrounding corporate sustainability reporting and due diligence underwent a dramatic change in February 2025 when the European Commission adopted the OMNIBUS package.³⁰⁰ The package, which was first intended to streamline and simplify sustainability requirements under CSRD and the CSDDD, has generated a lot of discussion and raised concerns about possible reversals of crucial commitments to human rights and climate standards. The declared objectives of the OMNIBUS package were to ensure a balanced approach to sustainability reporting, encourage competition, and lessen the administrative load on businesses.

https://cdn.cdp.net/cdp-

²⁹⁸ CDP. (2024). The State of Play - 2023 Climate Transition Plan Disclosure.

production/cms/reports/documents/000/007/783/original/CDP_Climate_Transition_Plans_2024.pdf?1720436354

²⁹⁹ Idem.

³⁰⁰ European Commission. (2025). Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directives (EU) 2022/2464 and (EU) 2024/1760 as regards the dates from which Member States are to apply certain corporate sustainability reporting and due diligence requirement.

https://commission.europa.eu/document/download/0affa9a8-2ac5-46a9-98f8-19205bf61eb5_en?filename=COM_2025_80_EN.pdf

The proposed amendments would limit the scope of the sustainability reporting requirement to big enterprises and parent companies of large organisations that employ, on average, more than 1,000 people throughout the fiscal year. The European Central Bank (ECB) has recently released an opinion about the adoption of the CSRD and CSDDD amendments. The ECB declares that it sees potential benefits in the new package of regulations. For example, by removing the difference between listed and nonlisted enterprises, some financial burdens might be lifted. The ECB noted that "it is important that undertakings have access to adequate financing at different phases in their lifecycles, and public listing can play an important role, especially in later stages of growth. It should therefore be ensured that the cost of complying with the CSRD requirements does not act as a disincentive for companies that are considering public listing". 301 However, it is vital to point out that the proposed amendments significantly reduced the range of action of sustainability reporting. Indeed, "the number of undertakings subject to sustainability reporting requirements would be reduced by about 80%". 302 Indisputably, this new framework would hamper stakeholders' gauging of crucial information, with the risk of leading to downsizing effects in terms of sustainable development. Firstly, the proposed reduction would limit the availability of sustainability-related information, such as GHG emissions. Moreover, certain big emitters would now be outside the scope of the directive. Overall, the "resulting lack of data may mask climate-related financial risk". 303 Secondly, undertakings which are public interest entities with an average of more than 500 employees during the financial year, due to the proposed package, will fall outside the scope of the Non-Financial Reporting Directive (NFRD). Thirdly, the limitations introduced by the OMNIBUS package will impact credit entities subject to the current CSRD sustainability reporting requirements. The ECB estimated that "the proposed reduction in the scope of the CSRD would lead to approximately one in eight

³⁰¹ European Central Bank. (2025). OPINION OF THE EUROPEAN CENTRAL BANK of 8 May 2025 on proposals for amendments to corporate sustainability reporting and due diligence requirements (CON/2025/10). EUROSYSEM.

https://www.ecb.europa.eu/pub/pdf/legal/ecb.leg_con_2025_10.en.pdf

³⁰² *Idem*.

³⁰³ *Idem*.

significant institutions and the vast majority of less significant institutions no longer being subject to sustainability reporting requirements". 304 This would result in partial ESG data availability, thus directly impacting the EU's sustainable finance framework of assuring widespread transparency to financial markets. Moreover, to develop coherent prudential regulations, ESAs need granular data from all financial service providers to assess their exposure to ESG-related risks. It is worth noting that climate and transition risks manifest independently from an undertaking's size, thus reinforcing the need for widespread and comparable sustainability reporting. For this reason, the ECB recommended that "at least all significant institutions, regardless of the number of employees, should remain subject to sustainability reporting requirements". 305 Given these negative shortcomings, the ECB suggested that the "Union legislators give further consideration to the scope of sustainability reporting, to ensure that it remains well calibrated. There may be further options that could support the Commission's goal of simplification while retaining more of the benefits of sustainability reporting for competitiveness and for managing climate and nature-related risks".306 Moreover, the amendments provisioned for the CSDDD application might result in ambiguity in the adoption and implementation of transition plans. For how the revision in scope has been drafted, there is the threat that enterprises might just adopt plans for net-zero without being compelled to implement them. This would jeopardise the very aim with which the transition plans were introduced in the regulatory landscape. Thus, this would result in "increasing the risk of greenwashing and reducing the usefulness of transition plans for investors and financial institutions as a means of channelling investment to those undertakings that are preparing for the transition". 307

Furthermore, the Commission's plan to enact a delegated act to update and simplify the initial set of the ESRS is positively welcomed by the ECB. Some enterprises

³⁰⁴ European Central Bank. (2025). OPINION OF THE EUROPEAN CENTRAL BANK of 8 May 2025 on proposals for amendments to corporate sustainability reporting and due diligence requirements (CON/2025/10). EUROSYSEM.

https://www.ecb.europa.eu/pub/pdf/legal/ecb.leg con 2025 10.en.pdf

³⁰⁵ *Idem*.

³⁰⁶ *Idem*.

³⁰⁷ *Idem*.

may find it difficult to report in line with the ESRS. Targeted enhancements of the standards are thus helpful to remedy any inadequacies that might become evident as more practice unfolds, especially considering the novelty and complexity of the ESRS and the rapid growth of the regulatory landscape and reporting patterns. However, "it is important that efforts to streamline and simplify the ESRS retain data points that are relevant from the prudential and monetary policy perspectives". ³⁰⁸

This is fundamental, especially when it comes to enhanced just transition screening by financial institutions. The ESRS introduced reporting requirements that could be used as performance indicators by financial service providers by checking the disclosures made by their clients on that specific sustainability standard. In this regard, the key ESRS are the ESRS S1, demanding disclosures related to a company workforce's conditions, and the ESRS S4, which compels companies to reflect on how the transition will affect relevant stakeholders. These standards are fundamental, on one side to make companies report on just transition-aligned metrics, and on the other to offer inputs for financial entities to assess their client position on just transition matters. This approach signals, firstly, the cruciality for banks to engage with clients' transition plans to streamline just transition practices and, secondly, the need to have an enabling regulatory environment. For this reason, the OMNIBUS package, by reducing the number of undertakings subject to disclosing a transition plan, has the effect of slowing down both the green and just transitions.

In line with these remarks, regarding the OMNIBUS package's effects on human rights due diligence, the Office of the High Commissioner for Human Rights (OHCHR) has voiced grave concerns. The OHCHR emphasised that the proposed modifications run the risk of departing from accepted international norms, including the

³⁰⁸ European Central Bank. (2025). OPINION OF THE EUROPEAN CENTRAL BANK of 8 May 2025 on proposals for amendments to corporate sustainability reporting and due diligence requirements (CON/2025/10). EUROSYSEM.

https://www.ecb.europa.eu/pub/pdf/legal/ecb.leg_con_2025_10.en.pdf

³⁰⁹ European Commission. (2022). Corporate Sustainability Reporting Directive. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022L2464

OECD Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and the ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy. Indeed, the OHCHR argued that "unfortunately parts of the OMNIBUS proposal raise serious concerns about whether EU law will ultimately be aligned with the letter, logic, and spirit of these standards. This could end up weakening protections for workers and communities in Europe and beyond". 310 Moreover, the proactive, risk-based strategy ingrained in the CSDDD is in opposition to the OMNIBUS proposal, which requires businesses to evaluate downstream implications only when "plausible information" points to a problem. This reactive approach may result in overlooking serious threats to human rights. Specifically, "such a shift would depart from the logic of the UNGPs, which sets out a proactive, risk-based approach to human rights due diligence". 311 According to the OHCHR, this kind of approach can discourage businesses from proactively evaluating human rights risks, which could result in circumstances where harms are discovered only after they have already occurred. Additionally, this might make businesses more legally liable for failing to promptly address concerns, thus causing reputational and even liability risks for financial institutions. Furthermore, the revision in scope aims to transfer the responsibility for detecting and evaluating specific impacts from enterprises to other actors, like trade unions and civil society organisations, who must provide "plausible information" of consequences to prompt action. According to the OHCHR, "such an approach risks creating a fundamentally inequitable situation in which individuals living and working in areas with well-resourced and independent trade unions and civil society organisations enjoy greater protection from business-related human rights harms than those in regions lacking such support". 312 Finally, the EU-wide liability scheme outlined in Article 29(1) of the CSDDD would be eliminated under the OMNIBUS proposal. By enabling each

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³¹⁰ OHCHR. (2025). OHCHR Commentary on the Omnibus Proposal EU proposal risks backsliding on historic Corporate Sustainability Directive.

 $[\]frac{https://www.ohchr.org/sites/default/files/documents/issues/business/mhrdd/ohchr-commentary-omnibus.pdf}{}$

³¹¹ *Idem*.

³¹² *Idem*.

Member State to create its civil responsibility standards, this modification may fragment accountability and result in inconsistent and unclear legal practices throughout the EU. According to OHCHR, upholding uniform culpability standards is essential to guaranteeing substantive accountability for violations of human rights.³¹³

Indeed, the adoption of the OMNIBUS package might impede the adoption of credible transition plan. This ambiguity is especially troubling from the standpoint of the just transition process. Financial institutions must have the possibility to engage and predispose reliable transition plans to interact constructively with their portfolio, and guarantee that the social effects of decarbonisation initiatives are efficiently addressed. Financial entities may find it more difficult to promote just transition-oriented business practices if the conditions for transition plan execution are hindered.

Thus, there is the need to stress the importance of transition plans for promoting just transition, stressing the necessity to depart from recent regulatory developments.

3.1.2. The Crucial Role of Transition Plans in Advancing a Just Transition

To integrate just transition principles into their financial operations, banks must first establish and engage with transition plans. Transition plans are strategic instruments that serve a double point of view. It is first important for banks to include just transition considerations into their transition plans, thus signalling that in their pathway towards a low-carbon economy, part of the capital will be dedicated to the just transition process. Secondly, enterprises must adopt just transition plans to allow banks to evaluate their portfolio alignment with the just transition pathway. Thus, these plans can assist banks in evaluating and reducing the social risks associated with decarbonisation while also

 $\frac{https://www.ohchr.org/sites/default/files/documents/issues/business/mhrdd/ohchr-commentary-omnibus.pdf}{}$

96

³¹³ OHCHR. (2025). OHCHR Commentary on the Omnibus Proposal EU proposal risks backsliding on historic Corporate Sustainability Directive.

increasing chances for favourable social outcomes by defining specific goals and implementation techniques.

Indeed, it has been argued that it is vital to embed a just transition into transition plans to identify how institutions and enterprises will consider people during their transition pathway. Fundamentally, the just transition means "making sure that the 'social' pillar of ESG is incorporated in the climate activities of financiers and businesses". 314 For financial entities, this means tying their net-zero plan to existing just transition principles. Nevertheless, comprehensive guidelines for banks are still lacking. Relevant standards in this regard might be the ILO core labour standards, the OECD's Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights and the Sustainable Development Goals. 315 Furthermore, financial institutions are incentivised to integrate just transition into their transition plan as an efficient method of lowering financial instability through the proactive mitigation of climate change-related social risks.³¹⁶ However, the use of transition plans for financial stability and prudential policies is still at an early stage. Notwithstanding the marginal developments in this field, it is crucial to recognise that "transition plans may potentially offer financial authorities a forward-looking perspective on transition pathways, enhancing the understanding of climate-related financial risks at both micro- and macro-levels". 317 Net-zero plans could

³¹⁴ Curran, B., Robins, N., Muller, S., Subramoni, A., & Tickell, S. (2022). Making transition plans just How to embed the just transition into financial sector net zero plans. Grantham Research Institute on Climate Change and the Environment.

https://www.lse.ac.uk/granthaminstitute/publication/making-transition-plans-just-how-to-embed-the-just-transition-into-financial-sector-net-zero-plans/

³¹⁵ *Idem*.

³¹⁶ EU Platform on Sustainable Finance. (2025). Building trust in transition: core elements for assessing corporate transition plan.

 $[\]underline{https://finance.ec.europa.eu/document/download/ec293327-af1d-432c-8523-af1d-432c-8520-af1d-4500-af1d-4500-af1d-4500-af1d-4500-af1d-4500-af1d-4500-af1d-4500-af1d-4500-af1d-4500-af1d-4500-af1d-4500-a$

cfe7eec8367e en?filename=250123-building-trust-transition-

report_en.pdf#:~:text=FMPs%20can%20assess%20corporate%20transition%20plans%20based%20on,and%20oversight%20of%20the%20plan%20and

³¹⁷ Financial Stability Board. (2025). Assessment of Climate-related Vulnerabilities: Analytical framework and toolkit. https://www.fsb.org/2025/01/assessment-of-climate-related-vulnerabilities-analytical-framework-and-

 $[\]frac{toolkit/\#:\sim:text=This\%20 framework\%20 builds\%20 on\%20 the\%20 existing\%20 FSB\%20 Financial, for the first substitution of the first substitution$

enhance the evaluation of how banks can adapt their activities against climate and transition risks, thus enabling financial stability and transparency through the disclosure of forward-looking metrics. To shape transition plans as instruments that could work in concert with prudential policies to enable the safety of the financial system, it is crucial to incorporate increased standardisation to promote comparability, wider adoption, and credibility and dependability. Insufficient data accessibility and disparities of important KPIs in financial and non-financial corporations' transition plans lower financial authorities' capacity to make comparisons between financial institutions and the broader ecosystem. Information in transition plans must be transparent, believable, predicated on assumptions that are explicitly stated, and supported by procedures and metrics that are sufficiently consistent for financial stability monitoring. Therefore, it is crucial to depart from recent regulatory developments at the EU level to ensure that transition plans' disclosures are enhanced and consistent.

Overall, financial service providers should consider the following three key aspects when designing their transition plan. Firstly, net-zero plans should be disclosed in a way that allocates risks and opportunities stemming from the transition toward a low-carbon economy equally. Therefore, "the potential social risks of transition finance needed to be assessed and addressed so that no one is left behind".³²⁰ Moreover, transition plans should embed considerations of how financial institutions can galvanise the social benefits from the green transition, for example, by enhancing the creation of new and decent jobs. Lastly, it is crucial that "financial sector net zero plans should support social dialogue with

³¹⁸ Financial Stability Board. (2025). Assessment of Climate-related Vulnerabilities: Analytical framework and toolkit. <a href="https://www.fsb.org/2025/01/assessment-of-climate-related-vulnerabilities-analytical-framework-analytical-framework-ana

toolkit/#:~:text=This%20framework%20builds%20on%20the%20existing%20FSB%20Financial,from%20a%20cross-border%20and%20cross-sectoral%20point%20of%20view

319 Idem.

³²⁰ Curran, B., Robins, N., Muller, S., Subramoni, A., & Tickell, S. (2022). Making transition plans just How to embed the just transition into financial sector net zero plans. Grantham Research Institute on Climate Change and the Environment.

https://www.lse.ac.uk/granthaminstitute/publication/making-transition-plans-just-how-to-embed-the-just-transition-into-financial-sector-net-zero-plans/

workers and the participation of other affected stakeholders". ³²¹ Indeed, financial institutions must engage with their portfolio to ensure that they are lending and investing in enterprises that are following the same just transition, inclusive pathway. Indeed, these elements need to be embedded within financial entities' transition plans.

These factors are aligned with the five critical themes identified by the GFANZ to draft credible transition plans. 322 The first pillar is called "foundations" and requires showing how the just transition can be included in the overall net-zero plan and across financing strategies. 323 In this regard, financial institutions "should commit to embedding just transition factors as part of the overarching goals, ambitions and foundations of their net zero transition plans. This means considering the just transition as part of disclosing net zero objectives and targets and timelines". 324 Furthermore, the "implementation strategy" point addresses that just transition must be streamlined into business activities, products and services. 325 Therefore, financial institutions should engage with emitting industries and incorporate just transition considerations into their net-zero strategy. Instead, to assist consumers, banks should assess how just transition principles are applied to their current products and investigate developing new ones. Moreover, throughout the investment process, investors should incorporate just transition criteria into their screening, due diligence, risk assessment, and allocation procedures. 326 Instead, the "engagement strategy" demonstrates how a just transition is well integrated into

³²¹ Curran, B., Robins, N., Muller, S., Subramoni, A., & Tickell, S. (2022). Making transition plans just How to embed the just transition into financial sector net zero plans. Grantham Research Institute on Climate Change and the Environment.

 $[\]frac{https://www.lse.ac.uk/granthaminstitute/publication/making-transition-plans-just-how-to-embed-the-just-transition-into-financial-sector-net-zero-plans/$

³²² GFANZ. (2022). Expectations for Real-economy Transition Plans. https://assets.bbhub.io/company/sites/63/2022/06/GFANZ_Introductory-Note-on-Expectations-for-Real-economy-Transition-Plans_June2022.pdf

 $^{^{323}}$ Idem.

^{324 (}Curran et al., 2022), supra n. 321

³²⁵ (GFANZ, 2022), supra n. 322

^{326 (}Curran et al., 2022), supra n. 321

communications with stakeholders and enterprises.³²⁷ Indeed, to ensure that just transition principles are incorporated into their net-zero plans, financial service providers should actively interact with their corporate clients. Additionally, they should encourage just transition pledges in financial sector initiatives, lobby policymakers for supportive policies, and engage stakeholders, such as trade unions and civil society, to increase the efficacy and legitimacy of the plan through social discourse.³²⁸ Lastly, just transition should be integrated not only in the transition plan but also within the governance structure of the bank.³²⁹

Furthermore, to fully understand their value chain and to deliver and report on their net-zero goals and trajectories, investors depend on accurate, timely, and comprehensive sustainability disclosures from their portfolio and investee enterprises. ³³⁰ Therefore, the adoption of transition plans is equally important for enterprises. Net-zero plans can cast a light on how companies intend to transform and improve their business model and operations to handle risk, enhance opportunities, and support green and social transitions while remaining competitive. ³³¹ It is argued that companies that disclose in their transition plans how they plan to contribute to the just transition are facilitated in

³²⁷ GFANZ. (2022). Expectations for Real-economy Transition Plans. https://assets.bbhub.io/company/sites/63/2022/06/GFANZ_Introductory-Note-on-Expectations-for-Real-economy-Transition-Plans_June2022.pdf

³²⁸ Curran, B., Robins, N., Muller, S., Subramoni, A., & Tickell, S. (2022). Making transition plans just How to embed the just transition into financial sector net zero plans. Grantham Research Institute on Climate Change and the Environment.

https://www.lse.ac.uk/granthaminstitute/publication/making-transition-plans-just-how-to-embed-the-just-transition-into-financial-sector-net-zero-plans/

³²⁹ (GFANZ, 2022), supra n. 327

³³⁰ UN-convened Net-Zero Asset Owner Alliance. (2023). A Tool for Developing Credible Transition Plans. https://www.unepfi.org/industries/investment/developing-credible-transition-plans-implementation-tool-for-asset-owners/

³³¹ EU Platform on Sustainable Finance. (2025). Building trust in transition: core elements for assessing corporate transition plan.

https://finance.ec.europa.eu/document/download/ec293327-af1d-432c-8523-

cfe7eec8367e_en?filename=250123-building-trust-transition-

report_en.pdf#:~:text=FMPs%20can%20assess%20corporate%20transition%20plans%20based%20on,and%20oversight%20of%20the%20plan%20and

reaching their climate ambitions. 332 Consequently, "just transition assessments can show where gaps exist for companies and in turn support financial actors in their capital allocation and investment engagement activities". 333 However, up until now, there has been no correlation between companies' social and climate performance. This implies that many companies may have made progress in mitigating climate risks but have overlooked the potential socio-economic effects that transitioning to a low-carbon economy might have on their social components, especially workers. If financial institutions are provided with credible and comprehensive transition plans for their portfolio, they will be able to leverage certain financial strategies to ultimately drive corporate just transition implementation. Various financial actors, such as commercial banks, investors, and public finance institutions, can also play to their respective strengths by using specific levers to drive corporate just transition implementation. Lastly, blended finance can also support just transition implementation from corporates by improving their access to domestic and international debt financing. These include using the bond market for just transition-related issuances and investor engagement with their investee companies.334

3.1.3. Case Studies: Integrating Just Transition into Banking and Corporate Transition Plans

For businesses and financial institutions, the incorporation of Just Transition principles into transition plans is becoming crucial. While businesses typically concentrate on the social aspects that have a direct influence on their employees and relevant stakeholders, banks are becoming more aware of how critical it is to match their financing strategy with results that are socially fair and equitable. With an emphasis on

101

³³² UN-convened Net-Zero Asset Owner Alliance. (2023). A Tool for Developing Credible Transition Plans. https://www.unepfi.org/industries/investment/developing-credible-transition-plans-implementation-tool-for-asset-owners/

³³³ Wang, J.-A. (2024). How finance can unlock credible, robust and just transition plans. Just Transition Finance Lab. https://justtransitionfinance.org/publication/how-finance-can-unlock-credible-robust-and-just-transition-plans/

³³⁴ *Idem*.

HSBC's strategy, this section looks at how top businesses and financial institutions are incorporating just transition ideas into their operational strategies.

The extent and depth of integration of just transition concepts among enterprises vary significantly across sectors and in terms of initiatives. For instance, Adidas, in its 2024 transition plan, declares the necessity to create a net-zero pathway which is inclusive, equitable and just. The company recognises the need to empower workers and protect their rights. With this spirit in mind, they endorsed the "Move for the Planet" initiative, which aims to find redress for areas impacted by climate change. Moreover, Adidas conducted a limited but still useful risk assessment for transition impacts on their workforce, acknowledging the need to provide reskilling and upskilling programs because inadequate training and development might lead to higher staff turnover, thus implicating higher costs. 335

Instead, Bayer's approach to just transition differentiates because it connects the concept to more general transformational objectives, especially in the fields of agriculture and healthcare. By encouraging skill development, the company hopes to reduce societal consequences and promote sustainable agriculture methods. Although Bayer's efforts are in line with the Paris Agreement, more precise criteria are required to assess social impacts, especially initiatives specifically targeted at the employees.³³⁶

Furthermore, BMW directly ties its just transition process to the changes expected in the automotive sector. For the Group, just transition means "combining the transformation with modern workplaces that guarantee safety and reliability for its workforce in a productive environment".³³⁷ BMW highly values the training offered to its employees to remain competitive during the technological progress and the transition

335 Adidas. (2025). Sustainability Report 2024. https://report.adidas-group.com/2024/en/assets/downloads/annual-report-adidas-ar24.pdf

https://www.bmwgroup.com/content/dam/grpw/websites/bmwgroup_com/ir/downloads/en/2025/bericht/BMW-Group-Report-2024-en.pdf

³³⁶ Bayer. (2025). Sustainability Report 2024. https://www.bayer.com/sites/default/files/2025-03/bayer-annual-report-2024.pdf

³³⁷ BMW Group. (2025). Sustainability Report 2024.

of the automotive industry. Indeed, the Group adopts an overarching approach to just transition, stating that "vocational training for young people and continuous education and development of all employees are fundamental beliefs at BMW Group". 338

A remarkable example of just transition integration comes from Danone. In this regard, Danone's 'DanSkills' and 'FutureSkills' initiatives show a significant commitment to upskilling. The business's cooperation with unions to promote social discourse shows that it recognises the value of inclusive labour relations. Overall, Danone recognises "the necessity to build local social dialogue to avoid the risk related to workers not acquiring, due to a lack of training opportunities, the skills they need to keep pace with technological developments and the transition to more sustainable production methods". The company argues that upskilling employees is crucial to avoid stagnation or low-skilled and low-paid jobs, job uncertainty and labour market exit. To prepare people for the future, Danone recognises that individualised upskilling and reskilling plans are vital. Nevertheless, despite these striking efforts, in Danone, a broader and more wholesome approach to just transition is still lacking, since the actions endorsed are all in line with the just transition process, but without explicitly mentioning it.

Another relevant case study to mention pertained to TotalEnergies. Its sustainability report contains the most numerous mentions of the words 'just transition', correlated with in-depth descriptions. In this regard, the company realises the different trajectories which the energy sector will be compelled to endorse, predicting a peak in the oil demand between 2030 and 2040. Therefore, TotalEnergies strongly acknowledge the need to foster a just transition to allow people to keep pace with the new energy systems. Moreover, the concept of just transition in this case is openly tied to skills development. On this matter, the report states that "deploying the transition strategy of the Company

³³⁸ BMW Group. (2025). Sustainability Report 2024.

https://www.bmwgroup.com/content/dam/grpw/websites/bmwgroup_com/ir/downloads/en/2025/bericht/BMW-Group-Report-2024-en.pdf

³³⁹ Danone. (2025). Sustainability Report 2024.

https://www.danone.com/content/dam/corp/global/danonecom/investors/en-all-publications/2025/registrationdocuments/danoneuniversalregistrationdocument2024.pdf

340 Idem.

into an integrated energy company requires supporting employees in their skills development and creating bridges between the current business lines and the renewable energy or electricity business lines to have the key skills available at the pace of the transition". TotalEnergies strongly addresses the need to tackle social challenges to lessen the risk of missing certain key skills, thus ultimately hampering its industrial development and competitiveness. Hadeed, the strongest endorsement of the necessity to embed just transition into its pathway toward a greener future comes from an oil company. This could either signal the use of just transition as a greenwashing umbrella or, on a more positive note, the actual acknowledgement from the most polluting sector of its inevitable net-zero pathway and the social consequences of it.

Moving forward with the analysis of relevant case studies from the financial sector, it is possible to argue that the just transition is more widespread as a concept among investors, even if in a rather uneven way.

One notable leader is HSBC, which specifically incorporates just transition within its transition plan. Its integrated approach to just transition is divided into five key areas. The first being customer engagement, it recognises the importance of embedding just transition considerations into corporate customer transition plan assessments. The second pillar concerns addressing just transition-associated risk through proper internal policies and within risk management. Especially, HSBC declared that just transition concepts will be embedded into their thermal coal phase-out and energy policies, thus signalling a widespread integration of just transition tied to the pathway toward net zero. The third area concerns the proper allocation of finance and investments to promote just transition practices, for instance, by taking part in collaborative initiatives for blended finance. HSBC also recognises the importance of "partnering for systemic change" with key stakeholders, for example, by being an active actor in the Just Transition Finance Lab,

³⁴¹ TotalEnergies. (2025). Sustainability Report 2024.

https://totalenergies.com/system/files/documents/totalenergies_universal-registration-document-2024_2025_en.pdf

³⁴² *Idem*.

which aims to foster initiatives to achieve a just transition. Lastly, the financial institution enunciates the cruciality of embedding the just transition dimension within relevant corporate governance boards. Overall, the just transition is enumerated as one of the key net-zero principles for HSBC, strongly asserting the need to foster a just and inclusive transition and recognising the need to engage with the customer transition plan to ensure that the future will not be only green but also fair.³⁴³

Chapter 3 concludes by highlighting the necessity for financial institutions to establish strategic alliances and use customer involvement to support a fair transition. Inconsistencies persist despite advancements in legal frameworks, which present difficulties for banks looking to include social issues in their business practices. According to the chapter, banks can more effectively match their financial strategies with sustainable development objectives by cultivating stronger client relationships and giving just transition top priority in transition plans. To operationalise these ideas and make sure that just transition is a crucial component of financial decision-making, the final chapter will provide a comprehensive framework for financial institutions to streamline just transition into everyday portfolio engagement.

³⁴³ HSBC. (2025). Out Net Zero Transition Plan 2024. https://www.hsbc.com/who-we-are/our-climate-strategy/our-net-zero-transition-plan

Chapter 4 – Embedding Just Transition in Portfolio Engagement: A Framework for Financial Institutions

This chapter will present the framework build for streamlining just transition into financial institutions' operations. The design of the framework is founded on a comprehensive methodology relying on existing standards and insights from experts. At the end of the chapter a summarising table of the indicators is presented together with the assessment of the workability of the framework.

The previous chapters aimed at demonstrating the following points. Firstly, there is no framework for financial institutions to integrate just transition into their portfolio engagement. This is signalled by a lack of harmonisation at the policy and prudential level, as well as a lack of widespread practice. Even if various financial institutions endorsed the concept of just transition, their approach is circumstantial, with only a remarkable example by HSBC. Indeed, the financial system is marginally recognising the importance of integrating a just transition in their transition plan and engaging with clients on the same topics. Moreover, a just transition is tied to a whole range of risks that materialise at the client's level and then are transmitted to the banking sector, which should be properly assessed and managed. However, risk management for climate and transition-related risks is still at its early stage, which, if combined with recent regulatory developments, is hampering the efficient fostering of a just transition. Furthermore, it has been demonstrated how it is crucial to engage with clients and especially to ensure that corporations are shielding their workers from the downsides of the green transition. Indeed, it is necessary to develop a framework to support investors when engaging with clients' transition plans to contribute to an enhanced comprehension of risks and opportunities, allowing the workforce dimension to transition safely.

Therefore, this section aims at reflecting on possible indicators for a just transition by relying on existing standards. The outcome has been achieved also with the support of

the *Forum per la Finanza Sostenibile*, ³⁴⁴ which, with its working groups on just transition, has provided to this research a solid basis. Consequently, the methodological approach has been structured as follows.

4.1. Methodology: Crafting Qualitative Just Transition Guidelines Through Existing Standards

Firstly, the analysis concentrated on the identification of qualitative metrics.

The research started from the study of all the existing standards directly addressing a just transition. The guidelines taken into consideration are:

- The ILO Guidelines for a Just Transition (2015)³⁴⁵
- ILO Resolution (2023)³⁴⁶
- EU Social Taxonomy Proposal³⁴⁷
- LSE Guide for Investor Action 348
- World Bank Just Transition Taxonomy³⁴⁹

The second set of standards has compiled all those policies, regulations or initiatives that tackle transition and/or transition plans more broadly. Therefore, these standards, even if not specifically addressing the equitable dimension of the transition,

³⁴⁵ ILO. (2015). Guidelines for a just transition towards environmentally sustainable economies and societies for all. International Labour Organization.

https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_emp/@emp_ent/documents/publication/wcms_432859.pdf

³⁴⁶ ILO. (2023). Resolution concerning a just transition towards environmentally sustainable economies and societies for all. International Labour Organization.

https://www.ilo.org/sites/default/files/wcmsp5/groups/public/%40ed_norm/%40relconf/documents/meetingdocument/wcms_886647.pdf

³⁴⁷ European Commission. (n.d.). Final Report on Social Taxonomy.

https://commission.europa.eu/system/files/2022-03/280222-sustainable-finance-platform-finance-report-social-taxonomy.pdf

³⁴⁸ LSE & Grantham Research Institute. (n.d.). Guide for Investor Action. Climate change and the just transition. https://www.lse.ac.uk/granthaminstitute/wp-

content/uploads/2018/12/Climate-change-and-the-just-transition_Guide-for-investor-action.pdf

³⁴⁹ World Bank. (2024). Just Transition Taxonomy.

https://thedocs.worldbank.org/en/doc/4170363805a08d5eaca17fbd62db45d2-0340012024/

³⁴⁴ See more info at: FFS <u>GdL-Just-Transition</u> presentazione.pdf

contain relevant parts that could be turned into useful indicators for financial institutions. The pieces of legislation or policies analysed are:

- The Paris Agreement³⁵⁰
- Corporate Sustainability Reporting Directive (CSRD)³⁵¹
- Corporate Sustainability Due Diligence Directive (CSDDD)³⁵²
- Clean Industrial Deal within the European Green Deal Industrial Plan³⁵³
- The European Taxonomy Regulation 354
- Climate Action 100+ Net Zero Company Benchmark Disclosure Indicators³⁵⁵
- Developing Metrics for Transition Finance UNEP FI and Oliver Wyman³⁵⁶
- World Business Council Sustainable Development Moving transition from plans to action: A transition planning primer (WBCSD)³⁵⁷

Lastly, the analysis involved all those guidelines that are related to a wide range of topics that transversally could shape the just transition framework. For instance, these standards address workers' rights, human rights, environmental concerns, justice, equity,

³⁵⁰ UNFCCC. (2015). The Paris Agreement. United Nations Framework Convention on Climate Change.

https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/paris_agreement_english_.pdf

³⁵¹ European Commission. (2022). Corporate Sustainability Reporting Directive. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022L2464

³⁵² European Parliament and the Council. (2024). Corporate Sustainability Due Diligence Directive. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202401760

³⁵³ European Commission. (n.d.). Clean Industrial Deal.

https://commission.europa.eu/topics/eu-competitiveness/clean-industrial-deal_en_

³⁵⁴ European Commission. (n.d.). EU taxonomy for sustainable activities.

 $[\]underline{https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en}$

³⁵⁵ Climate Action Plan 100+. (2025). Climate Action 100+ Net Zero Company Benchmark Version 2.2 Framework. https://www.climateaction100.org/wp-

<u>content/uploads/2025/05/Framework-Overview-2025-Net-Zero-Company-Benchmark.pdf</u> ³⁵⁶ UNEP FI & OliverWyman. (2023). Developing Metrics for Transition Finance.

https://www.unepfi.org/wordpress/wp-content/uploads/2023/12/Developing-Metrics-for-

https://www.unepfi.org/wordpress/wp-content/uploads/2023/12/Developing-Metrics-for-Transition-Finance.pdf

³⁵⁷ WBCSD. (2024). Moving transition from plans to action: A transition planning primer. https://www.wbcsd.org/resources/moving-transition-from-plans-to-action-a-transition-planning-primer/

sustainable development matters, businesses and financial institutions. The standards considered are:

- United Nations Guiding Principles on Business and Human Rights (UNGPs)³⁵⁸
- The OECD Guidelines for Multinational Enterprises (OCSE)³⁵⁹
- EU Sustainable Finance Disclosure Regulation (SFDR)³⁶⁰
- The Task Force on Climate-related Financial Disclosures³⁶¹
- Principles for Responsible Banking³⁶²
- Bloomberg Equity ESG Factor Indices³⁶³
- Climate Safe Lending Network: Banking on Climate Justice practical inspiration for taking action³⁶⁴

After having identified the twenty relevant guidelines, the research went on to analyse the text of the above-mentioned guidelines to extract relevant parts for the just transition framework. Once the significant passages had been identified, the analysis proceeded in compiling similar standards and dividing them into categories applicable for

https://mneguidelines.oecd.org/mne%20guidelines/#:~:text=The%20OECD%20Guidelines%20for%20Multinational%20Enterprises%20are%20recommendations,multinational%20enterprises%20operating%20in%20or%20from%20adhering%20countries

https://www.google.com/url?q=https://www.unepfi.org/wordpress/wp-

content/uploads/2022/04/PRB-Guidance-Document-Jan-2022-

<u>D3.pdf&sa=D&source=docs&ust=1746214702239366&usg=AOvVaw2Wrlv8LS1knEKeUJG_PN6E</u>

 $\frac{https://assets.bbhub.io/professional/sites/27/Bloomberg-Equity-ESG-Factor-Disclosure-Report.pdf}{}$

³⁵⁸UNHR. (2011). Guiding Principles on Business and Human Rights.

https://www.ohchr.org/sites/default/files/Documents/Publications/GuidingPrinciplesBusiness
HR EN.pdf

³⁵⁹ OCSE. (2011). OECD Guidelines for Multinational Enterprises.

³⁶⁰ European Commission. (2019). EU Sustainable Finance Disclosure Regulation. https://eurlex.europa.eu/eli/reg/2019/2088/oj/eng

³⁶¹ TCFD. (2017). Recommendations of the Task Force on Climate-related Financial Disclosures. https://assets.bbhub.io/company/sites/60/2021/10/FINAL-2017-TCFD-Report.pdf

³⁶² UNEP FI. (2021). Principles for Responsible Banking.

³⁶³ Bloomberg. (2025). Bloomberg Equity ESG Factor Indices.

³⁶⁴ Climate Safe Lending Network. (2023). Climate Justice for Banks Dialogue Guide. https://static1.squarespace.com/static/5e0a586857ea746075c561a3/t/65534c9fbfd9e219fa821c0e/1699957920134/BOCJ+Dialogue+Guide_Nov+2023.pdf

building an assessment of the workforce's just transition. Then, each categorised standard has been translated into an interoperable and actionable key performance indicator (KPI) to facilitate investors' engagement with their corporate portfolio.

This section will firstly present the categories (and sub-categories) and the standards within, with their corresponding indicators. At the end of the chapter, a table summarises the framework as it has been designed.

4.1.1. The first category: workers' rights protection

When banks approach the screening of a customer to evaluate their alignment in terms of just transition, the first thing that investors should check is if their client is respecting the human rights of workers, has adopted all the proper safeguards to ensure that fundamental rights at work are protected and, in general terms, that the client is not infringing internationally recognised norms in its operations. This assessment is not only useful to evaluate the propensity of a client towards ensuring sufficient safeguards to its workers during the transition, but also to shield the financial institution from possible liability and reputational risks.

This first category compiles eight sub-categories. The sub-categories are the following: (i) equality during the transition, (ii) pay gap after the transition, (iii) gender equality during the transition, (iv) protection of vulnerable groups during the transition, (v) social protection to cope with the transition, (vi) right to collective bargaining during the transition, (vii) freedom of expression during the transition, and (viii) health and safety during the transition.

Equality during the transition

The first step is acknowledging the need to ensure that during the corporations' transition toward sustainable modes of production, workers' rights should not be hampered. Indeed, the financial institution should check whether the enterprise has programmed a transition that conforms to agreed employment rights safeguards.

The first standard that falls into this category comes from the OCSE, specifically the *employment and industrial relations* section. This part recites that "*enterprises should* be guided throughout their operations by the principles of equality of opportunity and treatment in employment and not discriminate against their workers with respect to employment or occupation". This statement can be translated into the subsequent indicator for banks:

- Does the entity consider the entirety of its workforce, without neglecting or leaving someone behind during the transition process?

This indicator is useful because there is the need to take into account both how the tasks of the executives will change and also how the job performed by the workman will be impacted by a change in the modes of production. Thus, the enterprises should provide both blue- and white-collar workers equal opportunity to retain their occupation during the transition.

Pay gap after the transition

On a similar note, the EU SFDR – Social and Employee Matters PAI (Principle Adverse Impacts)³⁶⁶ states that financial service providers should closely account for excessive CEO pay ratios (PAI number 8)³⁶⁷ and the distribution of income and economic inequality among the participants in a particular economy (PAI number 9).³⁶⁸ Indeed, banks should evaluate the following:

- Has the client made an effort to ensure that the transition does not exacerbate existing inequalities?

111

³⁶⁵ OCSE. (2011). OECD Guidelines for Multinational Enterprises.

 $[\]frac{https://mneguidelines.oecd.org/mne%20guidelines/\#:~:text=The%20OECD%20Guidelines%20}{for%20Multinational%20Enterprises%20are%20recommendations,multinational%20enterprises%20aremains%20countries.}$

³⁶⁶ European Commission. (2019). EU Sustainable Finance Disclosure Regulation. https://eurlex.europa.eu/eli/reg/2019/2088/oj/eng

³⁶⁷ *Idem*.

³⁶⁸ *Idem*.

Similarly, the EU Social Taxonomy Proposal,³⁶⁹ in the *decent work* section, provides a directly interoperable indicator for avoiding the transition to enlarge pay gaps:

- Does the client ensure that pay levels for workers are set in a predictable and transparent way? ³⁷⁰
- Indeed, is the pay gap taken into consideration after the transition?

Gender equality during the transition

Moreover, the EU Social Taxonomy Proposal advances that equality during the transition is also a matter of gender equality because it is necessary to build a sustainable society for the future that is freed from existing discrimination in the workplace.³⁷¹ Also, in this case, the relevant indicator that banks should check is perfectly written in the text of the proposal:

- Does the client ensure *equal employment opportunities for women?* ³⁷²
- Indeed, are women rightly included in the green workforce?

Protection of vulnerable groups during the transition

More broadly, the transition should avoid the replication of any human rights infringements in the workplace. Thus, the Social Taxonomy Proposal invokes that it is necessary to "take immediate and effective measures to end forced labour and exploitation of work, with specific reference to vulnerable workers". Thus, financial service providers should evaluate clients' answers to the subsequent questions:

- Does the client ensure that vulnerable workers are protected during the transition?
- How can the client ensure that the transition will not exacerbate discrimination?
- Will workers not be discriminated against to retain their job posts?

³⁷¹ *Idem*.

³⁷² *Idem*.

³⁷³ *Idem*.

³⁶⁹ European Commission. (n.d.). Final Report on Social Taxonomy. https://commission.europa.eu/system/files/2022-03/280222-sustainable-finance-platform-finance-report-social-taxonomy.pdf

³⁷⁰ *Idem*.

Social protection to cope with the transition

Moreover, the LSE Guide for Investor Action³⁷⁴ argues that financial service providers should assess:

- How are employee rights protected during the transition, for example, in terms of the security of pensions or the use of public resources? ³⁷⁵

Indeed, financial service providers should check for evidence that proves that workers are provided with sufficient social safety nets to cope with the transition.

Right to collective bargaining during the transition

A pillar of safeguard for workers is the right to collective bargaining. The Clean Industrial Plan – supporting workers in the transition section – argues that "to ensure a just transition, it is paramount to improve the information and consultation framework with workers' unions". Thus, investors should carefully evaluate the following:

Are workers free to exercise their collective bargaining rights during the transition?

Freedom of expression during the transition

Furthermore, workers should always be allowed to freely express their concerns and/or suggestions during the transition process. Thus, the EU SFDR's PAI numbers 5 and 6^{377} proposed that investors should monitor the "share of investments in investee companies without any grievance/complaints handling mechanism related to employee

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³⁷⁴ LSE & Grantham Research Institute. (n.d.). Guide for Investor Action. Climate change and the just transition. https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2018/12/Climate-change-and-the-just-transition_Guide-for-investor-action.pdf

³⁷⁵ *Idem*.

³⁷⁶ European Commission. (n.d.). Clean Industrial Deal.

https://commission.europa.eu/topics/eu-competitiveness/clean-industrial-deal_en

³⁷⁷ European Commission. (2019). EU Sustainable Finance Disclosure Regulation. https://eur-lex.europa.eu/eli/reg/2019/2088/oj/eng

matters"378 and the "share of investments in entities without policies on the protection of whistleblowers". 379 These statements can be translated into the following assessments:

- Did the workers have access to grievance mechanisms?
- Did the workers have the opportunity to express themselves freely during the transition process?
- Are whistleblowers protected, which is crucial to detect transition-related risk early?

Moreover, the CSRD S1-3 argues that "the undertaking shall describe the processes it has established to remedy or cooperate in remedying negative impacts on its workforce to which it is connected, as well as the channels available to workers for raising concerns and ensuring that these concerns are addressed."380 Therefore, banks should evaluate customers' evidence to the following question:

Are workers able to raise concerns about restructuring, layoffs, and redeployment and get responses?

Health and safety during the transition

Moreover, health and safety of the workforce is another important right that should be always guaranteed, especially during the transition.

On this matter, the EU SFDR - Social and Employee Matters PAI provides useful insights. PAI number 1³⁸¹ urges investors to carefully consider "investments in companies without workplace accident prevention policies". 382 Instead, PAI number 2 suggests checking the rate of accidents in investee companies.³⁸³ Thus, important aspects to be assessed are:

³⁷⁸ European Commission. (2019). EU Sustainable Finance Disclosure Regulation. https://eurlex.europa.eu/eli/reg/2019/2088/oj/eng

³⁷⁹ *Idem*.

³⁸⁰ European Commission. (2022). Corporate Sustainability Reporting Directive. Official Journal of the European Union. https://eur-lex.europa.eu/legal- content/EN/TXT/PDF/?uri=CELEX:32022L2464

³⁸¹ (European Commission, 2019), supra n. 378

 $^{^{382}}$ *Idem* .

³⁸³ Idem.

- Are workers' health and safety protected during the transition? For instance, have risks related to new industrial modes of production been carefully assessed?
- Does the client have metrics to assess whether the transition will occur in a safe and prepared way?

4.1.2. The second category: stakeholders' engagement

Another relevant dimension to consider is that workers and their representatives should be involved in the design of the transition toward more sustainable modes of production. Avoiding social dialogue with these directly affected stakeholders signifies leaving the workforce behind. Indeed, the subcategory *workers' union involvement in transition planning* compiles a wide range of standards that provide useful insights to evaluate the extent of engagement with relevant actors during the predisposition of the enterprise's transition.

Workers' and unions' involvement in transition planning

In this regard, Article 13 of the CSDDD³⁸⁴ stresses the importance for enterprises to "take appropriate measures to carry out effective engagement with stakeholders".³⁸⁵ Moreover, the article goes on to affirm that "during consultation, companies should provide stakeholders with relevant and comprehensive information in order to carry out effective and transparent consultation." ³⁸⁶ In addition, the CSDDD argues that stakeholder consultations should pursue the following stages of the due diligence process:³⁸⁷

- Consultations are necessary when gathering information on actual or potential adverse impacts in order to prioritise and assess adverse impacts in advance.³⁸⁸

³⁸⁶ *Idem*.

³⁸⁷ *Idem*.

388 *Idem*.

³⁸⁴ European Parliament and the Council. (2024). Corporate Sustainability Due Diligence Directive. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202401760

³⁸⁵ *Idem*.

- Consultations are necessary when developing prevention and corrective action plans.³⁸⁹
- Consultations are necessary when deciding to terminate or suspend a business relationship.³⁹⁰
- Consultations are necessary for adopting appropriate measures to remediate adverse impacts.³⁹¹

Indeed, financial operators should ask their clients:

- Is the client engaging with those affected by the transition before the decisions are made, or only afterwards?
- Is the transition plan in line with a proper due diligence process and with applicable collective agreements, labour rights and union obligations?

Furthermore, another straightforward acknowledgement of the need to involve workers and unions in the transition design can be found in the 2023 ILO Resolution, specifically in the role of governments and employers and workers' organisations – letter E section, ³⁹² which states that "employers' and workers' organisations should develop and implement sustainable transition plans at enterprise and sectoral levels through bipartite social dialogue, including workplace cooperation." Similarly, the LSE Guide for Investor Action argues that financial operators should assess, "How are workers and their unions, as well as affected communities, involved in developing and implementing the organisation's plans for responding to climate change risks and opportunities?". ³⁹⁴ These standards can be translated into the following indicator:

³⁹¹ *Idem* .

³⁸⁹ European Parliament and the Council. (2024). Corporate Sustainability Due Diligence Directive. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OI:L_202401760

 $^{^{390}}$ *Idem* .

³⁹² ILO. (2023). Resolution concerning a just transition towards environmentally sustainable economies and societies for all. International Labour Organization.

https://www.ilo.org/sites/default/files/wcmsp5/groups/public/%40ed_norm/%40relconf/documents/meetingdocument/wcms_886647.pdf

³⁹³ *Idem*.

³⁹⁴ LSE & Grantham Research Institute. (n.d.). Guide for Investor Action. Climate change and the just transition. https://www.lse.ac.uk/granthaminstitute/wp-

- Are trade unions and workers involved in the design of the transition plan? And were they able to provide feedback?

In this regard, the OCSE advanced a crucial point by stating that "the enterprises should promote consultation and cooperation between workers and their representatives and should provide information in a timely manner to workers' representatives which is needed for meaningful negotiations on conditions of employment. It is necessary, thus, to provide information to workers and their representatives, which enables them to obtain a true and fair view of the performance of the entity". ³⁹⁵ Therefore, the banks should evaluate the following metric:

 Does the entity provide timely information to workers' representatives in case of any changes?

4.1.3. The third category: mitigation efforts

This category aims at finding relevant metrics for assessing the mitigation plan of the client in terms of just transition. It has been demonstrated how the transition itself brings related risks. This section's objective is to craft relevant guidelines for investors to evaluate the extent of efforts made by their portfolio to lessen socially related transition risks. Within the mitigation efforts category, there are two subcategories: (i) risk and opportunities assessment and (ii) reskilling plans.

Risk and opportunities assessment

It is necessary that, before arriving at the irreversible decision of dismissals, the enterprise scrutinises all the possibilities to minimise as much as possible negative effects on the workforce. Thus, financial institutions should check whether their clients have put in place substantial mitigation efforts, which include starting from a thorough assessment

content/uploads/2018/12/Climate-change-and-the-just-transition_Guide-for-investor-action.pdf

³⁹⁵OCSE. (2011). OECD Guidelines for Multinational Enterprises.

https://mneguidelines.oecd.org/mne%20guidelines/#:~:text=The%20OECD%20Guidelines%20for%20Multinational%20Enterprises%20are%20recommendations,multinational%20enterprises%20operating%20in%20or%20from%20adhering%20countries.

of risks and opportunities related to the transition, to circumscribe downsizing effects and galvanise potential benefits.

The necessity to conduct a mitigation assessment is explicitly declared in the CSRD – ESRS S1 – Own workforce section, ³⁹⁶ which reports that "enterprises should disclose how the undertaking affects their workforce in terms of material positive and negative impacts, whether actual or potential; any actions taken to prevent, mitigate, or remediate actual or potential negative impacts and to address risks and opportunities, along with the outcomes achieved". ³⁹⁷ Similarly, the LSE Guide for investors suggests that financial operators should ask their clients, "What are the potential impacts of climate change-related risks and opportunities for employees, workers in the supply chain, and communities affected by business activity over the short, medium and long terms? Do these have a particular gender or race dimension?". ³⁹⁸ Similarly, the Task Force on Climate-related Disclosure argues that companies should "disclose how the organisation identifies, assesses, and manages climate-related risks". ³⁹⁹ Therefore, by compiling these standards, it is possible to extract the following grounds of assessment for investors:

- Has the client conducted a risk and opportunities assessment related to the transition of its workforce over the short, medium and long terms? Do these impacts exacerbate relevant discrimination in terms of gender or racial dimension?
- Does the client have mitigation efforts in place for addressing the risks that emerged from the assessment?

³⁹⁶ European Parliament and the Council. (2024). Corporate Sustainability Due Diligence Directive. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202401760

³⁹⁷ Idem.

³⁹⁸ LSE & Grantham Research Institute. (n.d.). Guide for Investor Action. Climate change and the just transition. https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2018/12/Climate-change-and-the-just-transition_Guide-for-investor-action.pdf

³⁹⁹TCFD. (2017). Recommendations of the Task Force on Climate-related Financial Disclosures. https://assets.bbhub.io/company/sites/60/2021/10/FINAL-2017-TCFD-Report.pdf

 Does the client have a plan to galvanise the opportunities that the transition will bring to its workforce? And are the benefits of the transition spread equally among its workforce?

Similarly, the Climate Safe Lending Network highlights the need for "addressing the inequitable impacts of climate change by prioritising the needs of people and the ecosystems historically taken advantage of and currently most impacted by the effects of climate change". 400 Indeed, the investor should evaluate what follows:

- Has the client conducted a specific risk and opportunities assessment to comprehend how the transition will impact vulnerable individuals?

Reskilling plan

A pivotal mitigation effort on the side of the enterprises is the development of adequate reskilling and upskilling programmes. Providing the workforce with the necessary skills to navigate the transition is fundamental both to remain competitive and to lessen negative social consequences. In this regard, the LSE Guide for Investor Action⁴⁰¹ argues that financial operators should ask about their portfolio:

- What is the company's strategy and performance in terms of developing employees with the skills they need to contribute to the transition? How does the company build inclusive strategies for worker retraining and recruitment?⁴⁰²

Similarly, the Social Taxonomy Proposal argues that enterprises should "run extensive programmes for skills and life-long education, job transition and employment generation". Thus, investors should investigate the answer to the subsequent question:

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⁴⁰⁰ Climate Safe Lending Network. (2023). Climate Justice for Banks Dialogue Guide. https://static1.squarespace.com/static/5e0a586857ea746075c561a3/t/65534c9fbfd9e219fa821 c0e/1699957920134/BOCJ+Dialogue+Guide_Nov+2023.pdf

⁴⁰¹ LSE & Grantham Research Institute. (n.d.). Guide for Investor Action. Climate change and the just transition. https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2018/12/Climate-change-and-the-just-transition_Guide-for-investor-action.pdf

⁴⁰² *Idem*.

⁴⁰³ European Commission. (n.d.). Final Report on Social Taxonomy. https://commission.europa.eu/system/files/2022-03/280222-sustainable-finance-platform-finance-report-social-taxonomy.pdf

 Does the client have reskilling and upskilling programs that cover employment in the long term?

Moreover, the ILO Guidelines for a Just Transition argue that "in alignment with the other policies for a Just Transition, governments and social partners should provide training opportunities for up- and re-skilling and initial learning in green business practices and environmentally friendly technology innovation". ⁴⁰⁴ This implies that it is necessary to assess the subsequent concerns:

- Does the client provide additional training on the topics of green business and net-zero-oriented technological innovation to allow the workforce to be an active participant in the transition?

4.1.4. The fourth category: justly managing the transition

Furthermore, there is a need to assess whether, at the moment of substantially changing its mode of production, the enterprise has taken sufficient steps to ensure that the workforce is not disproportionately impacted. This category is divided into seven subcategories: (i) transition plan adoption, (ii) embedding just transition in the company's governance, (iii) decent and quality jobs, (iv) business restructuring, (v) investing for a just transition, (vi) due diligence, (vii) dismissals and collective lay-offs during the transition.

Transition plan adoption

The first step that signals whether the company has conducted a thorough assessment of its transition is the adoption of a comprehensive transition plan. Indeed, Climate Action $100+^{405}$ suggests considering whether "the company has committed to

⁴⁰⁴ ILO. (2015). Guidelines for a just transition towards environmentally sustainable economies and societies for all. International Labour Organization.

https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_emp/@emp_ent/documents/publication/wcms_432859.pdf

⁴⁰⁵ Climate Action Plan 100+. (2025). Climate Action 100+ Net Zero Company Benchmark Version 2.2 Framework. https://www.climateaction100.org/wp-content/uploads/2025/05/Framework-Overview-2025-Net-Zero-Company-Benchmark.pdf

developing a just transition plan for how it aims to support workers and communities negatively affected by its decarbonisation efforts; the company's just transition was developed in consultation with workers, communities and other key stakeholders affected by its decarbonisation efforts; and the company discloses the quantified KPIs it uses to track its progress towards the just transition plan". 406 Indeed, investors should ask their clients the following questions:

- Has the client adopted a transition plan?
- Does the plan have a dedicated section for the workforce in its transition plan?
- Has the client included the results of the risk and opportunities assessment in the transition plan?
- Does the transition plan have short-term and long-term, quantifiable objectives for evaluating its progress towards an equitable transition of the workforce?

Embedding just transition in the company's governance

The just transition must permeate the governance and culture of the company. On this matter, the Task Force on Climate-related Disclosures states that "the organisation should disclose its governance around climate-related risks and opportunities. Should describe how the board has oversight of climate-related risks and opportunities and describe the management's role in assessing and managing climate-related risks and opportunities. Disclose the organisation's business, strategy and financial planning where such information is material". ⁴⁰⁷ From this passage, the following evaluations emerge:

- Has the client embedded just transition into its governance mechanisms?
- Does the board have oversight over social-related risks and opportunities?
- Can the client describe the management's role in assessing and managing socialrelated risks and opportunities?

⁴⁰⁶ Climate Action Plan 100+. (2025). Climate Action 100+ Net Zero Company Benchmark Version 2.2 Framework. https://www.climateaction100.org/wp-

content/uploads/2025/05/Framework-Overview-2025-Net-Zero-Company-Benchmark.pdf ⁴⁰⁷ TCFD. (2017). Recommendations of the Task Force on Climate-related Financial Disclosures. https://assets.bbhub.io/company/sites/60/2021/10/FINAL-2017-TCFD-Report.pdf

- Is the Human Resources department educated on the just transition topic?
- Is the Human Resources department integrating just transition in its decisions and policies?
- Has the client evaluated how social-related risks will impact its business strategy and financial stability?
- Does the client have agreed metrics to manage relevant social-related risks and opportunities?

Decent and quality jobs

Furthermore, it is paramount that during and after the transition, a high level of employment is maintained. This cardinal principle was first assessed by the Paris Agreement⁴⁰⁸ and the ILO Guidelines for Just Transition in 2015.⁴⁰⁹ The former international agreement states that "Taking into account the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities".⁴¹⁰ The former recites that "the four pillars of the Decent Work Agenda - social dialogue, social protection, rights at work and employment – are indispensable building blocks of sustainable development and must be at the centre of policies for strong, sustainable and inclusive growth and development". ⁴¹¹ If combined, these standards provide the following metrics:

- How many jobs does the client expect to create or maintain as part of transition initiatives?
- Are the jobs created during the transition of high quality, offering fair wages and safe working conditions?

⁴⁰⁸ UNFCCC. (2015). The Paris Agreement. United Nations Framework Convention on Climate Change.

https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/paris_agreement_english_.pdf

⁴⁰⁹ ILO. (2015). Guidelines for a just transition towards environmentally sustainable economies and societies for all. International Labour Organization.

 $[\]frac{https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_emp/@emp_ent/documents/publication/wcms_432859.pdf$

⁴¹⁰ (UNFCCC, 2015), supra n. 408

^{411 (}ILO, 2015), supra n. 409

Business restructuring

Moreover, the LSE Guide for Investor Action⁴¹² sheds light on the need to address the social component during the conversion of the modes of production. Specifically, investors should ask their portfolio:

- How is the social dimension reflected in any restructuring plans linked to the transition (including mergers and acquisitions, capital expenditure, expansion plans, downsizing, closures)?⁴¹³

On a similar note, the World Bank's Just Transition Taxonomy argues that activities of a company can be considered in line with just transition if "the company has conducted a socioeconomic assessment in coal regions, local supply chain investment for economic diversification purposes, and delivered training for workers affected by the coal and mine closure". This entails the necessity to check for evidence for the subsequent concern:

- Has the client conducted a socioeconomic assessment to understand how the transition will impact its workforce and the local community more broadly?

Investing for a just transition

Restructuring implies huge capital costs. However, funding should not be allocated only to green investments but also to social investments. Indeed, the financial institutions, according to the LSE Guide for Investor Action, 415 should check:

⁴¹² LSE & Grantham Research Institute. (n.d.). Guide for Investor Action. Climate change and the just transition. https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2018/12/Climate-change-and-the-just-transition_Guide-for-investor-action.pdf

⁴¹³ *Idem*.

World Bank. (2024). Just Transition Taxonomy.
 https://thedocs.worldbank.org/en/doc/4170363805a08d5eaca17fbd62db45d2-0340012024/415 (LSE & Grantham Research Institute, n.d.), supra n. 412

- How is the organisation investing to generate positive social outcomes from the transition and to mitigate potentially negative implications for employees, workers in the supply chain, and communities? 416

This indicator is paramount to assess how the client is allocating funding received from investors and whether there is capital allocation that is sufficiently directed toward mitigating the social impacts of the transition.

Due diligence

Overall, protection of the workforce during the transition must be embedded in the due diligence process of the enterprises. On this matter, the LSE Guide for Investor Action⁴¹⁷ argues that financial operators should assess with their clients:

- How are workplace human rights and community impacts incorporated into corporate procedures for due diligence related to investments and activities linked to climate change strategies? 418

Moreover, companies should carry out a broader human rights due diligence assessment of their workforce to ensure that the fundamental human rights identified in the first category are never hampered during the transition process. Specifically, the UNGP Principle 17 states that "In order to identify, prevent, mitigate and account for how they address their adverse human rights impacts, business enterprises should carry out human rights due diligence. The process should include assessing actual and potential human rights impacts, integrating and acting upon the findings, tracking responses, and communicating how impacts are addressed." ⁴¹⁹ From this pivotal passage, it is possible to extract the following metrics:

<u>content/uploads/2018/12/Climate-change-and-the-just-transition_Guide-for-investoraction.pdf</u>

⁴¹⁸ *Idem*.

⁴¹⁶ LSE & Grantham Research Institute. (n.d.). Guide for Investor Action. Climate change and the just transition. <a href="https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2018/12/Climate-change-and-the-just-transition_Guide-for-investor-content/uploads/2018/12/Climate-change-and-the-just-transition_Guide-for-investor-content/uploads/2018/12/Climate-change-and-the-just-transition_Guide-for-investor-content/uploads/2018/12/Climate-change-and-the-just-transition_Guide-for-investor-content/uploads/2018/12/Climate-change-and-the-just-transition_Guide-for-investor-content/uploads/2018/12/Climate-change-and-the-just-transition_Guide-for-investor-content/uploads/2018/12/Climate-change-and-the-just-transition_Guide-for-investor-content/uploads/2018/12/Climate-change-and-the-just-transition_Guide-for-investor-content/uploads/2018/12/Climate-change-and-the-just-transition_Guide-for-investor-content/uploads/2018/12/Climate-change-and-the-just-transition_Guide-for-investor-content/uploads/2018/12/Climate-change-and-the-just-transition_Guide-for-investor-content/uploads/2018/12/Climate-change-and-the-just-transition_Guide-for-investor-content/uploads/2018/12/Climate-change-and-the-just-transition_Guide-for-investor-content/uploads/2018/12/Climate-change-and-the-just-transition_guide-for-investor-content/uploads/2018/12/Climate-change-and-the-just-transition_guide-for-investor-content/uploads/2018/12/Climate-change-and-the-just-transition_guide-for-investor-content/uploads/2018/12/Climate-change-and-the-just-transition_guide-for-investor-change-and-the-just-transition_guide-for-investor-change-and-the-just-transition_guide-for-investor-change-and-the-just-transition_guide-for-investor-change-and-the-just-transition_guide-for-investor-change-and-the-just-transition_guide-for-investor-change-and-the-just-transition_guide-for-investor-change-and-the-just-transition_guide-for-investor-change-and-the-just-transition_guide-for-investor-change-and-the-just-transition_guide-for-investor-change-and-the-just-transition_gui

⁴¹⁷ *Idem*.

⁴¹⁹ UNHR. (2011). Guiding Principles on Business and Human Rights.

https://www.ohchr.org/sites/default/files/Documents/Publications/GuidingPrinciplesBusinessHR

EN.pdf

- Has the client conducted a social due diligence?
- Has the client identified who might be harmed during the transition?

Dismissals and collective lay-offs during the transition

Moreover, one of the most critical moments of just transition is when employment is at risk. In this regard, the OCSE's employment and industrial section provides a relevant insight by arguing that "in considering changes in their operations which would have major employment effects, in particular in the case of the closure of an entity involving collective lay-offs or dismissals, the enterprise provides reasonable notice of such changes to representatives of the affected workers and their organisations, and, where appropriate, to the relevant governmental authorities, and co-operates with the worker representatives and appropriate governmental authorities so as to mitigate to the maximum extent practicable adverse effects of such changes. In light of the specific circumstances of each case, it would be appropriate if management were able to give such notice prior to the final decision being taken. Other means may also be employed to provide meaningful co-operation to mitigate the effects of such decisions". ⁴²⁰ This paragraph establishes best practices for how companies should behave; thus, the following key points should be considered:

Does the client have clear protocols to provide reasonable notice to its workers in case of dismissals or collective layoffs? Can the client demonstrate, at the moment of providing notice to workers and their representatives, that it made every possible effort to avoid this outcome?

Indeed, there is a need to recognise that during the just transition process, not all adverse impacts can be avoided, for example, high-emitting sectors will for sure undergo major restructuring. In this regard, Principle 22 of the UNGP⁴²¹ argues that "where

https://mneguidelines.oecd.org/mne%20guidelines/#:~:text=The%20OECD%20Guidelines%20for%20Multinational%20Enterprises%20are%20recommendations,multinational%20enterprises%20operating%20in%20or%20from%20adhering%20countries.

⁴²⁰ OCSE. (2011). OECD Guidelines for Multinational Enterprises.

⁴²¹ UNHR. (2011). Guiding Principles on Business and Human Rights.

https://www.ohchr.org/sites/default/files/Documents/Publications/GuidingPrinciplesBusiness

HR EN.pdf

business enterprises identify that they have caused or contributed to adverse impacts, they should provide for or cooperate in their remediation through legitimate process." 422 Therefore, this statement can be translated into the following metrics:

- Has the client taken all the appropriate measures to avoid legal liability and reputational risks?
- In case of unavoidable dismissals, has the client provided compensatory measures, remedies, or grievance mechanisms for workers?

This passage is further reinforced by Article 29 of the CSDDD,⁴²³ which recites that "Where a company is held liable following paragraph 1, a natural or legal person shall have the right to full compensation for the damage by national law".⁴²⁴ Consequently, banks should find an answer to the following question:

 Does the client have social due diligence failures that could lead to litigation or compensation claims?

4.1.5. Additional category for banks: Client Engagement and Benchmarking

This is an additional category that financial services providers could rely on to evaluate the best entry points for their portfolio assessment of the just transition. The following indicators will help banks in assessing which data points they will be able to get from a particular client and how they should approach the evaluation.

Within this category, there are four subcategories: (i) client transition engagement, (ii) credibility evaluation, (iii) financial product alignment, and (iv) reporting and transparency.

⁴²² UNHR. (2011). Guiding Principles on Business and Human Rights.

https://www.ohchr.org/sites/default/files/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf

⁴²³ European Parliament and the Council. (2024). Corporate Sustainability Due Diligence Directive. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=O]:L 202401760

⁴²⁴ Idem.

Client transition engagement

The first interesting entry point that banks should evaluate comes from the WBCSD - Moving transition from plans to action: A transition planning primer. ⁴²⁵ The passage recites that companies should "identify the gaps in skills and capacity needed for transition planning and plan to fill those gaps through upskilling key employees, talent recruitment, and other capacity-building activities". ⁴²⁶ Indeed, this provides the insights for banks to evaluate clients' transition plans and assess whether some gaps need to be filled. Indeed, this could be translated into the following indicator:

- How does the financial institution identify clients who require the most support in transitioning towards sustainable practices?

Moreover, the metrics developed for transition finance by UNEP and OliverWyman put forward a crucial reasoning by stating that "financing companies which are currently carbon intensive but have credible transition plans could lead to an increase in a bank's portfolio emissions in the short term and create the view that the bank is not progressing in line with its stated emissions reduction targets. This issue is especially important for banks (and strategic equity investor)". ⁴²⁷ Thus, investors should keep track within their portfolio of their client performance in terms of just transition, for instance, by answering the following question:

- What percentage of the client portfolio has been assessed for alignment with just transition strategies?

Answering this question will also support financial institutions in setting their netzero targets.

Moreover, in assessing their clients' level of alignment with the just transition trajectory, banks should take inspiration from the Do Not Significantly Harm principle

⁴²⁵ WBCSD. (2024). Moving transition from plans to action: A transition planning primer. https://www.wbcsd.org/resources/moving-transition-from-plans-to-action-a-transition-planning-primer/

⁴²⁶ Idem.

⁴²⁷ UNEP FI & OliverWyman. (2023). Developing Metrics for Transition Finance. https://www.unepfi.org/wordpress/wp-content/uploads/2023/12/Developing-Metrics-for-Transition-Finance.pdf

embodied in Article 17 of the EU Taxonomy Regulation. 428 Specifically, the metric to be considered is:

 What percentage of the client portfolio has been assessed for alignment with just transition strategies?

Credibility evaluation

A crucial matter for investors is to evaluate whether the client's transition plan is credible. If for climate-related risks, investors have developed a sort of checklist to assess transition plan soundness, this is lacking for the social component.

According to Principle 3 of the Principles for Responsible Banking, it is necessary that financial institutions "work responsibly with their clients and customers to encourage sustainable practices and enable economic activities that create shared prosperity for current and future generations". On a similar note, the metrics developed for transition finance by UNEP and OliverWyman suggest that banks should "undertake additional assessments of their clients' transition plans in order to classify them and should define their own standards for what makes a sufficiently credible transition plan (e.g., benchmarking against science-based emission reduction pathways)". Thus, by compiling these standards, investors should be able to answer the following questions:

- What criteria does the financial institution use to evaluate the credibility of a client's transition plan?
- Do the financial institutions provide advisory services or technical assistance to clients for building credible and robust transition plans?

⁴²⁸ European Commission. (n.d.). EU taxonomy for sustainable activities.

https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities en

⁴²⁹ UNEP FI. (2021). Principles for Responsible Banking.
https://www.google.com/url?q=https://www.unepfi.org/wordpress/wpcontent/uploads/2022/04/PRB-Guidance-Document-Jan-2022D3.pdf&sa=D&source=docs&ust=1746214702239366&usg=AOvVaw2Wrlv8LS1knEKeUJG
PN6E

⁴³⁰ Idem.

Financial product alignment

Moreover, it is necessary to assess the amount of capital allocated for a just transition that a company decides to invest in. The ESG Equity Benchmark by Bloomberg⁴³¹ suggests evaluating the following indicator:

- What proportion of lending products specifically target just transition finance (e.g., green CAPEX, sustainability-linked loans)?⁴³²

Furthermore, the WBCSD reports that "many surveyed companies pointed to financial planning as the most complex issue of the transition planning process. Without overcoming the current disconnect between financial and transition planning, positive transition outcomes and meaningful transition planning disclosures will not be possible". 433 Indeed, by reflecting on this remark, investors should evaluate how they are supporting their clients with proper sustainable finance products by considering the following metric:

Does the financial institution provide financing incentives (e.g., lower interest rates) for companies with robust and ambitious transition plans?

Reporting and transparency

Banks must disclose their approach to just transition to ensure comparability and harmonisation, thus streamlining just transition within the everyday operations of investors. The metrics developed by UNEP and OliverWyamn suggest that "banks should consider whether to include a sector scope in their classification of transition finance." ⁴³⁴ This statement could be translated into the following metric:

- Does the financial institution disclose the volume of transition finance provided annually, including breakdowns by client sector and transition strategy?

⁴³¹ Bloomberg. (2025). Bloomberg Equity ESG Factor Indices. https://assets.bbhub.io/professional/sites/27/Bloomberg-Equity-ESG-Factor-Disclosure-Report.pdf

⁴³² *Idem*.

⁴³³ WBCSD. (2024). Moving transition from plans to action: A transition planning primer. https://www.wbcsd.org/resources/moving-transition-from-plans-to-action-a-transition-planning-primer/

⁴³⁴ UNEP FI & OliverWyman. (2023). Developing Metrics for Transition Finance. https://www.unepfi.org/wordpress/wp-content/uploads/2023/12/Developing-Metrics-for-Transition-Finance.pdf

Moreover, Principle 6 from the Principles of Responsible Banking advocates that investors should "periodically review our individual and collective implementation of these Principles and be transparent about and accountable for our positive and negative impacts and our contribution to society's goals". 435 Thus, this passage can be embodied in the following just transition finance indicator:

- Has the financial institution implemented a system to evaluate just transition finance metrics?
- How does the financial institution ensure the accuracy and comparability of just transition finance metrics?
- Has the financial institution implemented a system for regular external validation of just transition finance metrics?

4.2. Methodology: Crafting Quantitative Just Transition Guidelines Through Existing Standards

The process of identifying quantitative indicators that financial institutions can use to evaluate their portfolios' alignment with just transition principles is grounded in a double materiality analysis in line with the requirements set out by the CSRD. 436

This approach aligns with the connectivity principle⁴³⁷ analysed in Chapter 2, enabling a clear understanding of how relevant impacts can translate into financial effects.

https://www.google.com/url?q=https://www.unepfi.org/wordpress/wpcontent/uploads/2022/04/PRB-Guidance-Document-Jan-2022-

D3.pdf&sa=D&source=docs&ust=1746214702239366&usg=AOvVaw2Wrlv8LS1knEKeUJG PN6E

https://www.efrag.org/system/files/sites/webpublishing/Project%20Documents/23010314295 99109/Connectivity%20considerations%20and%20boundaries%20of%20different%20Annual% 20Report%20sections-Short%20version.pdf

⁴³⁵ UNEP FI. (2021). Principles for Responsible Banking.

⁴³⁶ European Commission. (2022). Corporate Sustainability Reporting Directive. Official Journal of the European Union. https://eur-lex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:32022L2464

⁴³⁷ EFRAG. (2024). EFRAG Connectivity Project.

Under the CSRD, companies are compelled to disclose the results of such an analysis in their sustainability reports. 438

However, the current analysis aims to apply a double materiality specifically to the banking sector, thereby assessing both impact and financial materiality about the risks (and opportunities) that investors may face when evaluating whether just transition considerations are adequately addressed within their portfolios. To achieve this, the analysis examines the impact and financial materiality of each transmission channel identified in Chapter 2—namely, the business disruption channel, the stranded people channel, the legal liability channel, the labour market frictions channel, and the socioeconomic changes channel. This approach is instrumental in identifying quantitative indicators that banks can incorporate into their risk management frameworks and client engagement strategies, ensuring that just transition risks are properly assessed and managed.

In carrying out a double materiality analysis, undertakings have to consider the relevance of stakeholders. Common categories of stakeholders are employees and other workers, suppliers, consumers, customers, end-users, local communities and persons in vulnerable situations, and public authorities, including regulators, supervisors and central banks. 439 This implies that when analysing each transmission channel, banks should explicitly consider the stakeholders most affected. This is crucial to assess the parameters of the impact and financial materiality.

In assessing impact materiality, the analysis is grounded on the ESRS guidelines (AR 9-12), which delineate a three-step process:⁴⁴⁰

understanding the context in relation to the undertaking's activities, business relationships, and stakeholders.

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⁴³⁸ European Commission. (2022). Corporate Sustainability Reporting Directive. Official Journal of the European Union. https://eur-lex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:32022L2464

⁴³⁹ *Idem*. 440 Idem.

- identification of actual and potential impacts (both negative and positive) on stakeholders—including workers, communities, and vulnerable groups—by engaging with stakeholders and using scientific and analytical research.
- assessment of the severity and materiality of these impacts, adopting thresholds to determine which impacts will be reported.

Severity is established by evaluating three attributes: *scale* (how grave the negative impact is or how beneficial the positive impact is for people or the environment); *scope* (how widespread the negative or positive impacts are – in the case of impacts on people, the scope may be understood as the number of people adversely affected); *irremediable character* (whether and to what extent the negative impacts could be remediated, i.e., restoring the environment or affected people to their prior state). ⁴⁴¹ Moreover, according to ESRS 1 AR-11, any of these characteristics can label an impact as severe, and if a potential negative impact amounts to human rights violations, severity takes precedence over likelihood. ⁴⁴²

To evaluate transmission channels, this approach is particularly pertinent. For instance, if a client's transition pathway results in mass layoffs (stranded people channel), the scale (number of affected workers), scope (regions affected), and irremediability (difficulty of retraining) must all be acknowledged.

Additionally, ESRS 1 AR-12 highlights that impacts at the enterprise-level extend through its supply chain and business relationships. 443 Consequently, if an investor finances a client whose operations cause significant social harm – such as loss of local jobs without the provision of appropriate safety nets – this effect is seemingly linked to the financial institution due to the investments allocated to the company.

Consequently, banks can create solid, quantitative KPIs that incorporate the di rect and indirect social effects of their customers' transition plans by methodically eval uating impact materiality using these ESRS criteria.

⁴⁴¹ European Commission. (2022). *Corporate Sustainability Reporting Directive*. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022L2464

⁴⁴² Idem.

⁴⁴³ Idem.

After having gathered the results from the impact materiality, it is necessary to assess how financial statements will be affected by these relevant effects.

The financial materiality assessment is laid down in the ESRS AR 13-15, which delineates that financial materiality arises from the translation of impacts and dependencies into risks and opportunities for the company's financial performance. 444 For instance, "when the undertaking's activities result in negative impacts, e.g., on local communities, the activities could become subject to stricter government regulation and/or the impact could trigger consequences of a reputational nature. These might have negative effects on the undertaking's brand, and higher recruitment costs might arise". 445 Also, in this case, it is stressed how risks encountered by business partners can indirectly affect the company's financial stability. 446 Consequently, the same holds for banks in the case of risk arising at the client level.

Therefore, the "identification of risks and opportunities that affect or could reasonably be expected to affect the undertaking's financial position, financial performance, cash flows, access to finance or cost of capital over the short-, medium- or long-term is the starting point for financial materiality assessment". The ESRS AR 14 suggests that in this context enterprises should consider "dependencies on natural and social resources as sources of financial effects". Thus, in the case of financial institutions acting as intermediaries, dependencies are indirect: they arise through the bank's relation with its portfolio. Therefore, if an undertaking is unable to shield its workforce during the transition, its financial stability – and consequently banks' loans, investments, and credit exposures – are at risk.

Lastly, "once the undertaking has identified its risks and opportunities, it shall determine which of them are material for reporting. This shall be based on a

⁴⁴⁶ Idem.

⁴⁴⁷ *Idem*.

⁴⁴⁸ Idem.

⁴⁴⁴ European Commission. (2022). *Corporate Sustainability Reporting Directive*. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022L2464

⁴⁴⁵ *Idem*.

combination of (i) the likelihood of occurrence and (ii) the potential magnitude of financial effects determined based on appropriate thresholds". 449

Indeed, the CSRD and the ESRS require that companies – and, by extension, financial institutions evaluating their portfolio – analyse material and financial impacts thoroughly. The operationalise this requirement, the analysis now proceeds to apply a double materiality lens for the five transmission channels identified in Chapter 2, to design targeted quantitative KPIs. These channels represent the bridges linking social impacts (e.g. workforce displacement) to financial effects (e.g. higher default risks). Thus, anchoring the double materiality assessment on transmission channels as parameters not only aligns with the connectivity principle underlined by the EFRAG but also guarantees to frame the full risk lifecycle – spanning from social issues to financial fragilities. By systematically assessing impacts alongside financial material risks and opportunities within each transmission channel, banks can better understand the probability of client-level impacts being transmitted to the financial institution itself.

To back the ESRS-driven qualitative assessment of impact materiality, the process of constructing quantitative KPIs gains methodological support from the procedural approach proposed by the Impact-Weighted Accounts Initiative. This research stresses that "it is necessary to factor into our decision-making the consequences of our actions not only for financial and physical capital but also for human, social and natural capital". This initiative acknowledge that despite the recognized need to asses companies' impacts, a comparable and comprehensive framework is still lacking. Therefore, "in the absence of clearly defined impact metrics

⁴⁴⁹ European Commission. (2022). *Corporate Sustainability Reporting Directive*. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022L2464

⁴⁵⁰ Serafeim, G., Zochowski, R., & Downing, J. (2019). Impact-Weighted Accounts: The Missing Piece for an Impact Economy. Harvard Business School.

https://www.hbs.edu/ris/Publication%20Files/Impact-Weighted-Accounts-Report-2019 b609b7a8-3556-466f-96a9-da58e47034af.pdf

⁴⁵¹ *Idem*.

and transparency, these considerations are likely to be absent from decision-making. Decisions will continue to be made on existing financial metrics that do not reflect a holistic view of how an organization creates value as they ignore impacts on employees, customers, the environment and the broader society". 452 Accordingly, the solution is to tie these impacts to accounting statements. The objective is precisely to "translates all types of social and environmental impact into comparable units that business managers and investors intuitively understand". 453 Consequently, to create an impact economy, all stakeholders involved must be aware of impactful actions. All companies produce impacts, and financial service providers can be crucial to mitigate and tackle these risks. Overall, this initiative emphasises the significance of converting environmental and social effects into similar financial terms so that financial institutions may incorporate these measures into frameworks for risk management and investment decisionmaking.454

Indeed, the subsequent section evaluates the relevant business-level effects that could give rise to financial consequences. This forms the basis for designing quantitative KPIs that banks can use to assess whether and how their clients are mitigating just transition risks internally. Ultimately, this enables investors to rely on clear, quantifiable metrics to evaluate the likelihood that material financial effects will manifest at the client level and, in turn, impact the bank's risk profile through the corresponding transmission channel.

⁴⁵² Serafeim, G., Zochowski, R., & Downing, J. (2019). Impact-Weighted Accounts: The Missing Piece for an Impact Economy. Harvard Business School.

https://www.hbs.edu/ris/Publication%20Files/Impact-Weighted-Accounts-Report-2019 b609b7a8-3556-466f-96a9-da58e47034af.pdf

⁴⁵³ *Idem*.

⁴⁵⁴ Idem.

4.2.1. Double Materiality Analysis per Transmission Channels

In this section, a double materiality assessment is carried out for each of the transmission channels identified in Chapter 2 – business disruption channel, stranded people, legal liability (from failure to build a just transition), labour market frictions, and socioeconomic changes.

Business disruption channel

This channel transmits impacts to the client side, amounting to higher Opex from workforce turnover, layoffs, strikes, and social tensions, and lower production capacity and revenue. Therefore, according to an impact materiality analysis, the context at the business level considers:

- Bank's client activities may be concentrated in sectors where just transition planning is often challenging and/or incomplete.
- Client's links with workers, employee's representatives, local community and suppliers are crucial to evaluate how efficiently the company will be in coping with business disruptions.

The subsequent impacts that could materialise in this context are:

- Business disruption due to layoffs or strikes
- Supply chain disruptions are affecting workers in upstream and downstream relations.
- Community discontent from abrupt industrial changes.

Consequently, the severity of these impacts can be evaluated as follows:

- Scale: the impact is grave if amount to mass layoffs or large-scale strikes impacting a significant number of workers.
- *Scope:* the number of people adversely affected concerns the amount of workforce that fail to maintain employment, this could be related to the change of modes of production or to stranded assets because of transitioning toward a low-impact business model. At the same time, the number of individuals

- hampered by the transition could significantly augment considering the impact that business disruption has on the community, thus impacting also family nubs.
- *Irremediability:* difficulties could amount to re-employing workers or reintegrating the community post-disruption. Re-employing implies offering reskilling and training. At the same time, the impact of mass layoffs could be mitigated through the provision of adequate safety nets, which nevertheless could further strain the company's resources.

For what regards the financial impacts suffered by financial institutions through these transmission channels, it must be emphasised that:

- Banks face increased credit risk from revenue loss due to production slowdowns
 or strikes, which in turn leads to a liquidity risk; market risk from loans
 depreciation in affected sectors; overall, this brings in higher operational costs.
- In this case, banks are dependent on their clients' capacity to maintain stable employment and community ties. Overall, investors depend on companies' social stability to sustain loan repayments.

Stranded people channel

For what concerns the stranded people channel, this becomes visible in case of high social costs due to severance packages, community compensation and workforce displacement, low morale, and skills loss. The context that could lead to the *stranded people* scenario is:

Firstly, clients in high-emitting sectors dismantle carbon-intensive installations. The closure of business units leads to workforce displacement. Employees become stranded when the company has insufficient means to provide for safety nets or reskilling plans. This ultimately impacts the community and suppliers' relationships.

The material impacts that arise in this context are:

- Workforce displacement and mass redundancies.
- Skills mismatch with vulnerable groups facing barriers to re-employment.
- Community decline in regions highly dependent on the company in question.

The severity of these impacts is measured as follows:

- *Scale*: the negative impact is as grave as the people who face unemployment are left without proper safeguards and options.
- *Scope:* the number of affected people is directly correlated to the lack of the company's resources to provide severance packages, safety nets and reskilling plans.
- *Irremediability:* at the moment of dismissing workers without adequate support, the impact is basically irreparable in the short and medium term. The damage could be lessened probably only in the long term, if the company is not disrupted during the transition and it is able to capitalise on the new modes of production.

The financial impacts suffered by financial institutions if this channel is not mitigated concerns:

- Increased Capex at client level for retraining and social safety nets could lead to impacting cash flows and hampering loan repayment capacity. Overall, investors are faced with credit risk, market risk but also reputational and legal risk.
- Also, in this case, investors depend on their clients' ability to maintain social stability, and failures could cause higher loan loss provisions.

Legal liability (from failure to build a just transition) channel

This channel brings financial effects to investors in case of lawsuits from communities, workers, or NGOs due to poor just transition planning on the client's side. The context that facilitates the occurrence of these impacts is:

- Firstly, clients in all sectors are subject to increasing national, supranational and international regulations on transition and social safeguards. The cost of coping with new regulations might impact companies, which, in case of failure to respect new regulations, will face a lawsuit, thus affecting their image and reputation. This, in turn, has consequences on the relationships with suppliers, consumers and communities. A negative brand awareness could ultimately impact productivity and thus capital.

- Moreover, relationships with regulators, communities and NGOs shape reputational exposure.

The severity of these impacts can be assessed as follows:

- *Scale*: the negative effect is as grave as the number of legal claims and reparations the company faces.
- Scope: the effect in this case is mainly on the company's reputation and position in the market.
- *Irremediability*: legal settlements may repair part of the damage, but at the same time, might not fully restore community trust.

The financial effects suffered by financial institutions if this channel is not mitigated concerns:

- Increased risk of litigation costs, fines and legal provisions in client financial statements.
- Reputational risks for banks if they finance clients linked to social violations.

Labour market frictions channel

The impacts that could be channelled in this case are caused by skills mismatch, widespread layoffs across sectors and on a global scale, which risk hampering the whole economic stability, and ultimately financial safety.

In this case, the context concerns:

- Clients' difficulties in aligning workforce skills with the adoption of new green technologies.
- Business relationships with training providers and unions' representatives will shape the outcome.

The impacts that materialise in this context are:

- Skills mismatches that cause productivity downturns.
- Underemployment or social tensions in local communities.

The severity of these impacts is weighted on the following three factors:

- Scale: the negative impact is as grave as the number of skills lost or not updated.

- Scope: the number of people affected is proportional to the number of people who risk being dismissed across different sectors due to changing modes of production and inability to offer retraining opportunities. Thus, the higher impact will be registered in those sectors most affected by the transition.
- *Irremediability*: the impact is as irreparable as the pace of reskilling or barriers for vulnerable workers are not predisposed.

Thus, the financial effects that could arise are:

- Clients may experience higher HR costs and Capex for retraining, if skills are lost and not replaced ultimately the client might face productivity downsizes.
- Banks' credit risk increases if clients' operational resilience weakens.

Socio-economic changes channel

This channel transmits impacts to investors that occur at the client level due to social tension, loss of social cohesion, and community opposition arising from a mismanaged transition. If these effects become widespread, economic stability as well as social cohesion for climate action will be seriously hampered.

The context of these impacts clusters:

- Client's operations might affect local economies, especially where they are the main employer.
- Business relationships with local authorities and suppliers also matter in this case.

The impacts identified for this channel are:

- Workforce and consequently community opposition to transition measures.
- Socio-political unrest spurred by a transition perceived as unjust.

The severity of these material impacts is assessed as follows:

- *Scale*: the impact's gravity increases as the large-scale community protests and social discontent become widespread.
- *Scope*: the number of people affected increases as the width of the impact enlarges, crushing regional, national or even larger scale economies. Therefore, even social tensions that manifest on a small scale, if replicated in multiple areas can cause widespread socio-economic challenges.

- *Irremediability*: the damage is as irreparable as the business is not able to redress social tensions and disruptions.

From a financial standpoint, the relevant impacts that could stem from this context are:

- Higher operating costs faced by the client for community compensation and social programs.
- Thus, banks may see increased default risk in affected regions or sectors.

4.2.2. Aggregation of Double Materiality Findings and Quantitative KPIs Development

Effective client management of social impacts is crucial to safeguarding the financial interests of banks and investors. By aggregating the results obtained from the double materiality analysis across the five transmission channels, it is possible to infer a set of quantitative KPIs. These measurable indicators can assist investors in assessing whether their clients are effectively reducing the societal consequences of relevant impacts and financial effects. Therefore, these KPIs are intended to measure customers' efforts to manage social risks as well as the likelihood that these risks would materialise into financial risks at the bank level.

Below are reported the quantitative KPIs that could support investors in comprehending the level of mitigation of specific just transition transmission channels. The indicators are compiled under the corresponding channel in line with the results obtained from the double materiality. Furthermore, a definition and a reference framework is provided for each KPI.

Business disruption channel

- KPI: % Employee retention rate
- Definition: measures workforce stability during the transition.

The AIHR (the Academy to Innovate HR) stresses the importance of calculating the employee retention rate.⁴⁵⁵ According to the Academy, the labour market is evolving rapidly. Consequently, employers must "rethink their talent acquisition and employee retention strategies".⁴⁵⁶ This implies that the employee retention rate is a crucial metric to evaluate how the organisation is coping with changes among its employees. Employers aim to retain talent because "not doing so only causes disruptions in the workplace and it is also detrimental to overall business outcomes".⁴⁵⁷

The employee retention rate is "a measure of an organisation's ability to retain a stable workforce. It shows the number of employees who stay in a company for a certain period compared to the total number of employees in that period". Therefore, this calculation is useful to evaluate the number of employees who remained in the company after the implementation of measures to transition toward net-zero. If the number of employees dismissed due to a shift in modes of production is significantly high, this will lower the retention rate, thus jeopardising the company's capacity to remain productive and active. In this case, the risk for business disruption becomes material. Therefore, investors should evaluate whether the percentage of employee retention rate remains within a range that ensures the survival of the client's business.

However, a retention rate of 99% may not always be a positive indicator. Some turnovers in the workforce symbolise the attraction of new talent and opportunities to grow. In general terms, it has been assessed that an undertaking should be aiming "for high functional retention and reasonable functional turnover". This means that desirable employees keep their job posts, while undesirable employees quit. Nevertheless, the retention rate is highly dependent on the type of industry, sector and role, thus,

⁴⁵⁵ Vulpen, E. v. (2024). *Employee Retention Rate: All You Need to Know*. AIHR. https://www.aihr.com/blog/employee-retention-rate/?utm_

⁴⁵⁶ *Idem*.

⁴⁵⁷ *Idem*.

⁴⁵⁸ *Idem*.

⁴⁵⁹ Idem.

investors should evaluate, case by case the proper amount of retention rate to establish stability in the client's workforce.⁴⁶⁰

- KPI: N° of strike days per n° of employees

- Definition: indicates exposure to social unrest

A report by the Economic Policy Institute identified that since 2023, a resurgence in collective action among workers is ongoing. ⁴⁶¹ According to the research, "more than 16.2 million workers were represented by unions in 2023, an increase of 191,000 from 2022". ⁴⁶² Furthermore, strikes were the most common form of collective action in 2023. The Bureau of Labour Statistics (BLS) defines "major work stoppages" as those "involving at least 1.000 workers and lasting one full work shift between Monday and Friday". ⁴⁶³

Thus, investors should consider the number of strike days faced by their clients based on employees' number, to evaluate whether these collective actions amounted to major work stoppages, and if so, how often were retired during the transition period.

Stranded people channel

- KPI: % of workforce covered by reskilling/upskilling plans
- Definition: shows the client's investment in workforce adaptation

The AIHR argues that "90% of HR leaders forecast that as much as half of their workforce will need reskilling in the next five years ì, yet 45% of them admitted they had no plans to prepare employees for these changing skills". However, it is widely acknowledged that reskilling is a prerogative to safeguard both workers and the enterprises, because there is no business entity without the people. Additionally, findings

⁴⁶⁰ Vulpen, E. v. (2024). *Employee Retention Rate: All You Need to Know*. AIHR. https://www.aihr.com/blog/employee-retention-rate/?utm_

⁴⁶¹ Poydock, M., & Sherer, J. (2024). Major strike activity increased by 280% in 2023. *Economic Policy Institute*. https://www.epi.org/publication/major-strike-activity-in-2023/?utm_

⁴⁶² *Idem*.

⁴⁶³ Idem

⁴⁶⁴ Boatman, A. (2024). *Reskilling Your Workforce for the Future: An HR's Guide*. AIHR. https://www.aihr.com/blog/reskilling/?utm

from the World Economic Forum's Future of Work Report indicate that 59% of employees will need reskilling or additional training by 2030.⁴⁶⁵

Reskilling is defined as the "process of employees learning new skills to transition into a different job or career, typically in response to changes in the job market or workplace needs". 466 Instead, upskilling consists of "building on existing skills for career advancement". 467 Overall, reskilling is considered to be the best solution for preparing employees for roles in emerging fields, such as renewable energy. However, it has been estimated that enterprises are lagging in their reskilling plans. This occurs especially due to a lack of a proactive approach to prepare for the future of work, thus failing to equip workers with adequate skills, ultimately risking causing workforce displacement and downsizing effects on undertakings. 468

Indeed, investors should evaluate the number of a client's workforce that has been involved in training plans. Investors should also evaluate the consistency of this plan, considering whether a skills inventory and a skills gap analysis have been carried out.

- KPI: ratio of severance provisions to operating expenses

- Definition: gauges financial readiness for social costs

Evaluating the number of provisions allocated by a company is particularly relevant for investors. This KPI helps financial service providers to comprehend whether the company is shielded from reputational risks and how the client intends to cope with large dismissals, to evaluate an undertaking's alignment with just transition. Provisions are "funds set aside for future expenses". 469 Indeed, to integrate just transition principles

468 *Idem*.

⁴⁶⁵ World Economic Forum. (2025). The Future of Jobs Report 2025.

https://www.weforum.org/publications/the-future-of-jobs-report2025/digost/#sextset=The%20Future%20ef%20Iohe%20Penert%202025%20bringe%20toget

 $[\]underline{2025/digest/\#:\sim:text=The\%20Future\%20of\%20Jobs\%20Report\%202025\%20brings\%20together,}\\ \underline{in\%20response\%2C\%20across\%20the\%202025\%20to\%202030\%20timeframe}.$

⁴⁶⁶ Boatman, A. (2024). *Reskilling Your Workforce for the Future: An HR's Guide*. AIHR. https://www.aihr.com/blog/reskilling/?utm_

⁴⁶⁷ *Idem*.

⁴⁶⁹ Beaver, S. (2022). What Are Provisions in Accounting? https://www.netsuite.com/portal/resource/articles/accounting/provisions-accounting.shtml?utm_

within their operations, companies should allocate a part of their provisions to provide for safety nets in case of layoffs due to changes in modes of production. Provisions are crucial to plan for possible insurgent expenses by shielding capital in advance. Consequently, the evaluation of this prior allocation is crucial for safeguarding the investor's position.

Moreover, the International Financial Reporting Standards (IFRS) – IAS 37 Provisions, Contingent Liabilities and Contingent Assets declares that "a company should recognise a provision if it's more than 50% likely that an obligation will require payment or will impact other economic resources". ⁴⁷⁰ Specifically, the IAS 37 identifies two types of obligations: legal and constructive. In this context, investors should evaluate the latter type of obligation. Therefore, constructive obligations "result when the company's previous actions or statements have created an expectation that it will accept certain responsibilities". ⁴⁷¹ These types of endorsements especially materialise in the case of environmental or social damage. ⁴⁷²

Indeed, severance payments falls within provisions and companies can dispose of severance provisions to account for severance packages due to employees that leave the company in case of dismissal.⁴⁷³ Therefore, investors must check the amount of severance provisions allocated by a client.

Legal liability channel

- KPI: n° of grey areas at risk of legal liability
- Definition: measures exposure to litigation risk

⁴⁷² Idem.

⁴⁷⁰ IFRS. (2025). *IAS 37 Provisions, Contingent Liabilities and Contingent Assets*. https://www.ifrs.org/issued-standards/list-of-standards/ias-37-provisions-contingent-liabilities-and-contingent-assets/

⁴⁷¹ *Idem*.

⁴⁷³ Beaver, S. (2022). What Are Provisions in Accounting? https://www.netsuite.com/portal/resource/articles/accounting/provisions-accounting.shtml?utm_

The LSE and Grantham Research Institute 2024 Snapshot on Global trends in Climate Change Litigation delineates that "many actors in the world of finance have also started to engage with climate litigation to understand its impact on both individual companies and the wider economy". Therefore, it is crucial to acknowledge the "dire consequences that climate and environment-related litigation could have on the banking sector, stressing the importance of preparedness and adaptation in the face of these evolving risks". Indeed, investors should take a proactive approach and evaluate the grey areas in a client's transition plan that might attract legal liability, consequently harming the financial institution as well.

Notwithstanding, it has been reported that "current methodologies for assessing climate risk still fall short in accurately representing the scale and distribution of climate-related financial risks". ⁴⁷⁶ Many researchers still consider legal risk in this context as a mere transition risk, while others are advocating for the creation of a separate risk category. This is further reinforced by "the growing body of evidence that demonstrates climate litigation is not a peripheral concern but a central risk that necessitates comprehensive evaluation and action. As legal action over climate issues gains momentum, central banks and financial regulators are being compelled to reconsider their strategies for risk assessment and management, marking a significant shift in how the financial sector responds to the challenges posed by climate change". ⁴⁷⁷

- KPI: % of workforce covered by human rights due diligence

- Definition: tracks the implementation of social safeguards to prevent lawsuits

The Danish Institute for Human Rights has developed Human Rights Indicators for Business. This database comprises 1.000 indicators that enable companies and other

⁴⁷⁴ Setzer, J., & Higham, C. (2024). Global trends in climate change litigation: 2024 snapshot. Grantham Research Institute. https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2024/06/Global-trends-in-climate-change-litigation-2024-snapshot.pdf?utm_

⁴⁷⁵ *Idem*.

⁴⁷⁶ Idem.

⁴⁷⁷ Idem.

stakeholders to assess policies and procedures regarding human rights.⁴⁷⁸ Specifically, the "indicators measure corporate respect for human rights against the substantive content of human rights as they are defined in international instruments – allowing to benchmark a company's actual performance of human rights due diligence processes".⁴⁷⁹

Indeed, investors should assess whether "the company has a procedure through which it assesses the severity of its adverse human rights impacts by their scale, i.e. how grave the impacts are, scope, i.e. the number of individuals affected, and by their irremediable character, e.g. if it affects the life and health of individuals, or the welfare of entire groups or communities". ⁴⁸⁰

This evaluation is carried out through qualitative KPIs identified in the previous section. Thus, based on the evidence gathered from the initial qualitative analysis, financial service providers should evaluate the percentage of the workforce that is covered by human rights due diligence. The widespread coverage of human rights due diligence signals that "the company strives to respect, promote and implement good human rights standards in its practices".⁴⁸¹ Consequently, the workforce safeguards through proper human rights procedures imply a recognition from the company side to always safeguard workers' interests, ultimately lessening litigation risk.

Labour market frictions channel

- KPI: % of key roles at risk of skills obsolescence
- Definition: Assess operational resilience

It has been assessing how the "industry 4.0 is revolutionizing manufacturing processes and has a powerful impact on globalization by changing the workforce and increasing access to new skills and knowledge". 482 Moreover, research have estimated that

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⁴⁷⁸ Danish Institute for Human Rights. (2015). Human Rights Indicators For Business. https://www.humanrights.dk/tools/human-rights-indicators-business

⁴⁷⁹ *Idem*.

⁴⁸⁰ *Idem*.

⁴⁸¹ *Idem*.

⁴⁸² Li, L. (2022). Reskilling and Upskilling the Future-ready Workforce for Industry 4.0 and Beyond. https://link.springer.com/article/10.1007/s10796-022-10308-y?utm

"five years from now, over two-thirds of skills considered important in today's job requirements will change". As Specifically, new skill sets will comprehend capabilities not yet regarded as relevant.

Indeed, to avoid a disruption of the labour market, it is not only crucial to provide reskilling options, but it is also necessary to assess the number of job posts and related skills that will be lost during the transition. If investors evaluate the percentage of tasks that risk becoming obsolete within their clients' business, they can consequently support the client in allocating the needed capital for training programs. This would, in turn, avoid labour market frictions, thus ensuring economic stability and financial safety.

Socioeconomic changes channel

- KPI: Workforce sentiment index (scale 1-5)
- Definition: measures workforce acceptance and potential for unrest.

The evaluation of workforce sentiment in relation to the implementation of transition measures should be closely monitored by investors, to evaluate whether the net-zero pathway endorsed by a client risk exacerbating workers' satisfaction.

Index (ESI). This indicator measures overall employee well-being. By grasping relevant shortcomings, undertakings could effectively implement specific programs that could provide relief to their employees.⁴⁸⁵ This KPi aims at "offering insights into how employees perceive their roles and responsibilities within the organisation and ways to improve performance".⁴⁸⁶ Overall, "Understanding these perceptions is crucial for addressing dissatisfaction and creating an environment where employees feel empowered and engaged in their work".⁴⁸⁷

⁴⁸³ Li, L. (2022). Reskilling and Upskilling the Future-ready Workforce for Industry 4.0 and Beyond. https://link.springer.com/article/10.1007/s10796-022-10308-y?utm_484_f.l....

⁴⁸⁵ Ndimba, F. (2024). *Top 15 Employee Engagement KPIs & Metrics*. lumapps. https://www.lumapps.com/employee-engagement/employee-engagement-kpis?utm_486 Idem.

⁴⁸⁷ Idem.

The evaluation that banks could build for measuring workforce physical and mental readiness to cope with the transition could be built on the following indicators (each indicator is attributed with a 1 to 5 grade, where 1 stands for entirely dissatisfied and where 5 stands for highly confident):

- How confident do you feel about your current skills matching the requirements of the company's future green/low-carbon projects?
- How satisfied are you with the company's efforts to provide reskilling and training opportunities to prepare you for the transition?
- How confident are you that the company's transition plan will ensure employment stability and support (e.g. redeployment, retraining, safety nets) for the workforce?

4.3. Just Transition Qualitative and Quantitative Framework *Qualitative just transition framework*

CATEGORY	SUBCATEGORY	METRIC	STANDARD
Workers' rights protection	Equality during the transition	Does the entity consider the entirety of its workforce, without neglecting or leaving someone behind during the transition process?	OCSE
	Pay gap after the transition	Has the client made an effort to ensure that the transition does not exacerbate existing inequalities?	SFDR
	Gender equality during the transition	Does the client ensure equal employment opportunities for women?	EU Social Taxonomy Proposal

Workers' rights protection	Gender equality during the transition	Indeed, are women rightly included in the green workforce?	EU Social Taxonomy Proposal
	Social protection to cope with the transition	How are employee rights protected during the transition, for example, in terms of the security of pensions or the use of public resources?	LSE Guide for Investor Action
	Right to collective bargaining during the transition	Are workers free to exercise their collective bargaining rights during the transition?	Clean Industrial Plan
	Freedom of expression during the transition	Did the workers have access to grievance mechanisms?	SFDR; CSRD
		Did the workers have the opportunity to express themselves freely during the transition process?	
		Are whistleblowers protected, which is crucial to detect transition-related risk early?	
		Are workers able to raise concerns about restructuring, layoffs, and redeployment and get responses?	

W/l	II 1.1 1 C	A1 21 11	CLIDD
Workers' rights protection	Health and safety during the transition	Are workers' health and safety protected during the transition? For instance, have risks related to new industrial modes of production been carefully assessed? Does the client have metrics to assess whether the transition will occur in a safe and prepared way?	SFDR
Stakeholders' engagement	Workers' and unions' involvement in transition planning	Is the client engaging with those affected by the transition before decisions are made, or only afterwards? Is the transition plan in line with the proper due diligence process and with applicable collective agreements, labour rights and union obligations?	CSDDD; 2023 ILO Resolution; LSE Guide for Investor Action; OCSE

Stakeholders' engagement	Workers' and unions' involvement in transition planning	Are trade unions and workers involved in the design of the transition plan? And were they able to provide feedback? Does the entity provide timely information to workers' representatives in case of any changes?	CSDDD; 2023 ILO Resolution; LSE Guide for Investor Action; OCSE
Mitigation efforts	Risk and opportunities assessment	Has the client conducted a risk and opportunities assessment related to the transition of its workforce over the short, medium and long terms? Do these impacts exacerbate relevant discrimination in terms of gender or racial dimension? Does the client have mitigation efforts in place for addressing risks that emerged from the assessment?	CSRD; LSE Guide on Investor Action; TFCD; Climate Safe Lending Network

Mitigation	Risk and	Does the client	CSRD; LSE Guide
efforts	opportunities assessment	have a plan to galvanise the opportunities that the transition will bring to its workforce? And are the benefits of the transition spread equally among its workforce? Has the client conducted a specific risks and opportunities assessment for comprehending how the transition will impact vulnerable individuals?	on Investor Action; TFCD; Climate Safe Lending Network
	Reskilling plan	What is the company's strategy and performance in terms of developing employees with the skills they need to contribute to the transition? How does the company build inclusive strategies for worker retraining and recruitment?	LSE Guide for Investor Action; Social Taxonomy Proposal; 2015 ILO Guidelines

Mitigation efforts	Reskilling plan	Does the client have reskilling and upskilling programs that cover employment in the long term? Does the client provide additional training on the topics of green business and netzero-oriented technological innovation to allow the workforce to be an active participant in the transition?	LSE Guide for Investor Action; Social Taxonomy Proposal; 2015 ILO Guidelines
Justly managing the transition	Transition plan adoption	Has the client adopted a transition plan? Does the plan have a dedicated section for the workforce in its transition plan? Does the transition plan have short-term and long-term quantifiable objectives for evaluating its progress towards an equitable transition of the workforce?	Climate Action 100+

Justly managing the transition	Embedding just transition in the company's governance	Has the client embedded just transition into its governance mechanisms?	TFCD
		Does the board have oversight over social-related risks and opportunities?	
		Can the client describe the management's role in assessing and managing social- related risks and opportunities?	
		Is the Human Resources department educated on the just transition topic?	
		Is the Human Resources department integrating just transition in its decisions and policies?	
		Has the client evaluated how social-related risks will impact its business strategy and financial stability?	

Justly managing the transition	Embedding just transition in the company's governance	Does the client have agreed metrics to manage relevant social-related risks and opportunities?	TFCD
	Decent and quality jobs	How many jobs does the client expect to create or maintain as part of transition initiatives?	2015 ILO Guidelines; The Paris Agreement
		Are the jobs created during the transition of high quality, offering fair wages and safe working conditions?	
	Business restructuring	How is the social dimension reflected in any restructuring plans linked to the transition (including mergers and acquisitions, capital expenditure, expansion plans, downsizing, closures)?	LSE Guide for Investor Action, WB Just Transition Taxonomy
		Has the client conducted a socioeconomic assessment to understand how the transition will impact its	

Justly managing the transition	Business restructuring	workforce and the local community more broadly?	LSE Guide for Investor Action, WB Just Transition Taxonomy
	Investing for a just transition	How is the organisation investing to generate positive social outcomes from the transition and to mitigate potentially negative implications for employees, workers in the supply chain, and communities?	LSE Guide for Investor Action
	Due diligence	How are workplace human rights and community impacts incorporated into corporate procedures for due diligence related to investments and activities linked to climate change strategies? Has the client conducted a social due diligence? Has the client identified who might be harmed during the transition?	LSE Guide for Investor Action; UNGP

	<u> </u>		
Justly managing the transition	Dismissals and collective lay-offs during the transition	Does the client have clear protocols to provide reasonable notice to its workers in case of dismissals or collective layoffs? Can the client demonstrate, at the moment of providing notice to workers and their representatives, that it made every possible effort to avoid this outcome? Has the client taken all the appropriate measures to avoid legal liability and reputational risks?	OCSE; UNGP; CSDDD

Justly managing the transition	Dismissals and collective lay-offs during the transition	In case of unavoidable dismissals, has the client provided compensatory measures, remedies, or grievance mechanisms for workers? Does the client have social due diligence failures that could lead to litigation or compensation claims?	OCSE; UNGP; CSDDD
Additional category for banks: client engagement and benchmarking	Client transition engagement	How does the financial institution identify clients who require the most support in transitioning towards sustainable practices? What percentage of the client portfolio has been assessed for alignment with just transition strategies? What percentage of the client portfolio has been assessed for alignment with just transition strategies?	WBCSD; UNEP FI & OliverWyman; EU Taxonomy Regulation

Additional category for banks: client engagement and benchmarking	Credibility evaluation	What criteria does the financial institution use to evaluate the credibility of a client's transition plan? Do the financial institutions provide advisory services or technical assistance to clients for building credible and robust transition plans?	Principles for Responsible Banking; UNEP FI & OliverWyman
	Financial product alignment	What proportion of lending products specifically target just transition finance (e.g., green CAPEX, sustainability-linked loans)? Does the financial institution provide financing incentives (e.g., lower interest rates) for companies with robust and ambitious transition plans?	Bloomberg: WBCSD

Additional category for banks: client engagement and benchmarking	Reporting and transparency	Does the financial institution disclose the volume of transition finance provided annually, including breakdowns by client sector and transition strategy?	UNEP FI & OliverWyman; Principles for Responsible Banking
		Has the financial institution implemented a system to evaluate just transition finance metrics?	
		How does the financial institution ensure the accuracy and comparability of just transition finance metrics?	
		Has the financial institution implemented a system for regular external validation of just transition finance metrics?	

Quantitative just transition framework

Transmission	Banks' financial	Quantitative KPI
channels	effects	
Business	Credit risk	% Employee
disruption	Market risk:	retention rate
	Liquidity risk	
	Operational risk	N° of strike days per
		n° of employees
Stranded people	Credit Risk	% of workforce
	Market Risk	covered by
	Reputational	reskilling/upskilling
	Risk	plans
	Legal Risk	
		Ratio of severance
		provisions to
		operating expenses
Legal liability	Credit Risk	n° of grey areas at
channel	Legal &	risk of legal liability
	Reputational	
	Risk	% of workforce
	Operational Risk	covered by human
		rights due diligence
	Channels Business disruption Stranded people Legal liability	channelseffectsBusiness disruptionCredit risk Market risk: Liquidity risk Operational riskStranded peopleCredit Risk Market Risk Reputational Risk Legal RiskLegal liability channelCredit Risk Reputational Risk

Skills mismatch,	Labour market	Credit Risk	% of key roles at risk
widespread	frictions	Market Risk	of skills
layoffs across		Liquidity Risk	obsolescence
sectors		Operational Risk	
Social tension,	Socioeconomic	Credit Risk	Workforce
loss of social	changes	Market Risk	sentiment index
cohesion, and		Reputational	(scale 1-5)
community		Risk	
opposition.			

4.3.1. Framework assessment

This quantitative and qualitative framework has been developed with the support of the Forum per la Finanza Sostenibile. The participation in the working groups *Verso una transizione giusta: una bussola per gli operatori finanziari*⁴⁸⁸ offered invaluable insights that shaped the direction of this thesis. Specifically, the Forum's support was instrumental in three key areas:

- **Identifying Gaps:** Gaining a clearer understanding of the current challenges financial institutions face when integrating just transition principles.
- **Data Entry Points:** Pinpointing the critical touchpoints where banks can gather relevant information by engaging with their clients on the just transition.
- **Relevant Standards:** Identifying which existing standards can initially offer meaningful metrics for building a just transition framework.

To help investors understand the significance of incorporating fair transition principles into their investing plans, the Forum per la Finanza Sostenibile has been actively working on the creation of guidelines. The main goal was to draw attention to the fact that dangers associated with climate change inevitably include important social

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See more info at: FFS_GdL-Just-Transition_presentazione.pdf

problems, including the loss of jobs, growing socioeconomic inequality, and geographical differences. Furthermore, weak social governance raises financial and economic risks, which in turn cause uncertainty and jeopardise financial stability. Nevertheless, there are also a lot of opportunities associated with the green transition, such as the development of new green jobs, the modernisation of modes of production, greater workplace inclusion, and regional growth. Overall, recognising the social aspects of the green transition is crucial to maximising public support for it.

During the working group discussions, a recurring theme was the need to develop clear and objective metrics to monitor progress towards just transition goals. It was concluded that, given the current lack of comprehensive and interoperable metrics, the most pragmatic approach was to rely on existing standards. The Forum specifically recommended utilising frameworks such as the ESRS from the CSRD, the CSDDD, the SFDR, and the Social Taxonomy Proposal. These standards served as the foundation of this research, which then expanded to include a broader range of standards to create a more comprehensive framework.

Furthermore, the Forum also reflected on which types of sustainable finance instruments could best support a just transition. The following instruments were identified:

- **Green Bonds:** Debt securities used to finance projects with a positive environmental impact.
- **Social Bonds:** Debt securities used to finance projects with a positive social impact.
- Sustainability Bonds: Debt securities linked to projects that generate both environmental and social benefits.
- **Sustainability-Linked Bonds (SLB):** Bonds whose financial or structural characteristics may vary based on whether the issuer meets predefined sustainability objectives. Unlike other sustainable bonds, SLB proceeds are used for general purposes.

- **Transition Bonds:** Bonds earmarked to finance activities aligned with a pathway to net-zero emissions.
- **Sustainable Sovereign Bonds:** Bonds issued by a state as part of public debt management, aimed at financing sustainable projects.
- **Social Impact Bonds (SIB):** Innovative impact investing instruments aimed at funding public utility projects, where investor remuneration occurs only if a positive social impact is achieved, measured, and reported. These instruments are considered "Pay by Result" or "Pay for Success."
- **Sustainable Lending:** Integrating ESG criteria into credit processes to align financial incentives with sustainability objectives.
- Microfinance: Financial services (credit, savings, insurance, leasing) specifically
 designed for individuals excluded from traditional financial systems due to
 socioeconomic conditions.
- Thematic Investments: Selecting portfolio issuers based on environmental, social, and governance criteria, focusing on one or more specific themes.

While the Forum's work focused on encouraging investors to understand and embrace the just transition, this endeavour went a step further by addressing a critical gap that frequently emerged during the working group discussions: the need to have a structured framework that enables investors to effectively apply just transition principles.

Therefore, the comprehensive list of sustainable finance instruments outlined above could be better utilised by investors if they had access to a well-defined just transition framework. Addressing this gap was precisely the aim of this thesis, which sought to provide a structured approach to integrating just transition into sustainable finance practices.

Conclusion

In conclusion, this thesis emphasises how important financial institutions are to the advancement of a just transition and how long-term viability depends on financial strategies that are in line with social justice principles. The study points out a major weakness in current procedures: although financial institutions are realising the value of just transition more and more, there are no standardised, workable frameworks to direct its application. By providing specific indications and instruments for banks to assess their clients' compliance with just transition goals, the suggested framework tries to fill this vacuum.

The study produced several important conclusions. Firstly, even if financial institutions are beginning to embrace the idea of just transition, there are still a lot of unambiguous rules and procedures for incorporating social justice into investment plans. Harmonising just transition integration is made more difficult by the fragmented nature of present legislation, particularly in the European setting. The thesis also emphasises the significance of client involvement, showing that to evaluate and reduce social risks associated with the green transition, financial institutions must actively work with their clients.

The thesis also examined how risk management frameworks might promote just transition, emphasising that risk assessments are insufficient if social variables are not explicitly integrated. Indicators that emphasise stakeholder involvement, worker protection, and risk mitigation during the transition are included in the suggested framework to address this issue. Furthermore, the study found that adopting just transition principles into client transition plans is just as important for successful implementation as having strong internal regulations.

Notwithstanding the advancements, difficulties still exist. One major problem that prevents the general adoption of equitable transition strategies is the fragmented character of current rules. Another major barrier is the difficulty of striking a balance

between social fairness and environmental goals. To facilitate the incorporation of just transition into financial practices, future research should concentrate on creating interoperable measurements and fortifying the regulatory environment.

Financial institutions need to change their strategy from one that is solely focused on risk to one that actively supports inclusive economic reform. By doing this, they can promote social stability and resilience in addition to reducing financial risks. Overall, to guarantee that the advantages of sustainable development are shared fairly, the shift to a green economy must be supported by robust social and financial safeguards.

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