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Can financial regulation accelerate the low-carbon transition?

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It is clear now for all stakeholders that the issue of financing the low-carbon transition is crucial since it will condition the speed and magnitude with which this indispensable transition will take place. In this context, a lively debate is taking place about the role monetary policy could play to facilitate the financing of the low-carbon transition. However, nothing comparable is taking place regarding financial regulation. The aim of the note is to contribute to trigger and feed this necessary debate.

1. The double challenge of the Financial sector

In response to climate change, the financial sector faces a double challenge: it must, first, manage climate-related risks to prevent a brutal crisis in the short or long term and, second, play its role in the economy by contributing – along with publics actors – to the financing of the low-carbon transition.

Since the signing of the Paris Agreement, which aims to make financial flows consistent with climate objectives, the financial sector have increasingly mobilised with the quick development of "Green Finance" and more broadly of Sustainable Finance. However, in spite of these market-led initiatives and abundant liquidity. We observe that the financing of the transition is still not up to the climate challenge. And as regards taking into account climate-related risks, progress has been made but it remains nascent in spite of progress achieved in climate-related risk reporting.

On financial regulators' side, significant progress has been made in recent years on the incorporation of climate risks into traditional regulation objectives – the efficient functioning of financial markets and financial stability – and the development of corresponding tools. This "risk-based approach", favoured by regulators and supervisors, is an important first step, but will it be enough to lead the financial sector to address all climate challenges? Indeed, the goal is also to address the challenge of financing the low-carbon transition *i.e.* financing green activities (climate-favorable solutions) as well as transition activities (the decarbonisation process of current activities). Everything suggests that the risk approach – indispensable to ensure financial stability – will not be sufficient to redirect quickly and drastically financing flows: not only it faces considerable difficulties to measure climate-related risks (due to climate change deep uncertainty) which tend to

slow its implementation; but in addition, the impact of this approach on the financing of the transition is at best indirect (a better assessment of risks being expected to redirect financing from unsustainable activities toward green and transition activities).

Thus, how to accelerate private finance mobilisation in favour of the crucial transformation of the economy to achieve transition and to rapidly redirect financial flows accordingly? The note builds on the analyses developed in the I4CE study "Can financial regulation accelerate the low-carbon transition" published in January 2021.

2. Financial regulation can accelerate the financing of the low-carbon transition

Against this backdrop, the question is whether financial regulation could contribute more than it currently does to mobilising finance in favour of the low-carbon transition. This is why an increasing number of NGOs and researchers are calling on financial regulators to go beyond their traditional objectives in order to contribute to financing the low-carbon transition and to make the necessary changes to financial regulation. In the European and North American countries, positions on this issue are highly polarised, with regulators and supervisors being rather against it, especially when prudential regulation is concerned.

Before looking at the regulatory tools available to accelerate the financing of the transition, it is important to point out that financial regulation is not in itself an obstacle to transition financing today. Indeed, a review of available empirical studies reveals that there is no situation in which regulation is indisputably a direct and lasting barrier to the financing of the low-carbon transition. Some financial actors accuse prudential regulations of being detrimental to long-term financing, which is essential to transition financing. Yet empirical studies show that the effects of regulation on these types of financing are real, but limited in scope, and especially restricted to the adjustment period (generally 2-3 years) following the implementation of new regulations. Over a longer period, these regulations could in fact have a beneficial effect resulting from improvements in the solvency and stability of financial actors.

In order to contribute to the debate on the principle regarding the role of financial regulation, it is necessary to consider whether it could really contribute to financing the low-carbon transition and examine the regulatory changes that would be necessary. However, few studies have focused on the tools and instruments that regulators in the developed countries could specifically use to achieve such an objective. It is therefore necessary to explores the specific actions that regulators could implement in order to accelerate the financing of the low-carbon transition.

To do so, one must take real problems as a starting point and go beyond simplified representations, and identifies the obstacles that financial regulation could influence. Financing needs for the transition are numerous and multiple, and after years of focusing on the financing of renewable energy, the spectrum must now be extended to consider the financing needs required by the transformation process in all economic activities.

It is in fact the transformation of the whole economy that must be financed, with the development of green activities (favourable-climate solutions) as well as the greening of carbon-intensive activities (the decarbonisation process of "transition activities") or their shutdown and decommissioning when they cannot be sufficiently decarbonised to meet a 1.5°C trajectory . So-called "grey" activities must also be taken into account (*e.g.* services, communications, tourism, etc.): these are situated between green activities (conducive to the transition) and carbon-intensive activities (clearly detrimental to it). This category is concerned as well, albeit with lower priority, and must also change to become sustainable.

In this context, the challenges of financing vary considerably depending on the company's positioning in the transition, its size, its sector of activity and its location.

Three major obstacles emerge from this analysis of the various dimensions of financing transition: the lack of understanding of the transition among financial players; difficulties finding capital for medium- and long-term projects; and projects that appear to be insufficiently profitable to attract financial actors. The table below summarizes the main identified obstacles.

TABLE 1: SUMMARY OF OBSTACLES ACCORDING TO COMPANY TYPE AND SECTOR OF ACTIVITY

Company type and sector of activity	Obstacles encountered	Possible examples
SMEs and ISEs falling within one field of the SNBC	• Problems of profitability	• Replacement of a professional vehicle fleet by an electric alternative • Manufacturing of bio-based materials for energy retrofits
SMEs and subcontracting ISEs or B2B, falling within one field of the SNBC	• Lack of awareness • Problems of profitability	• Replacement of a production chain for vehicle spare parts by a less carbon-intensive process • Replacement of an oil-based process by a bio-based process in the packaging sector
SMEs and ISEs not included in the SNBC	• No decarbonisation pathway to follow • Lack of awareness	• Reduction in the carbon footprint of a software company • Changes in materials used for publicity in the advertising industry
All SMEs and ISEs	• Lack of training for financial partners to intervene in investment decisions	• Integration of costs of energy retrofits into investment decisions regarding commercial buildings
Large listed companies	• Difficulty financing projects that combine patient capital and high risk-taking	• Replacement of energy transport infrastructures by an option compatible with renewable energies
Infrastructure	• Difficulty financing project design and development phases • Few financiers present due to the high technical capacity required, the level of risk and the long maturities • High rates of remuneration demanded by investors	• Deployment of charging stations for electric vehicles • Construction of hospitals with low energy building (BBC) standards
Industrial processes	• Few financiers present due to the high technical capacity required, the level of risk and the long maturities • Problems of profitability for European products	• Industrialisation of green chemical innovations to replace oil-based processes • Industrialisation of third generation biofuels from algae
Construction and energy retrofits in buildings	• Lack of coordination between the different professions • Higher investment costs • Investment profitability assessment conducted with time horizons that are too short	• Use of bio-based materials in construction • Energy retrofitting of commercial buildings

3. Available options to accelerate the financing of the transition

From the analysis conducted, it appears that financial regulation can complement the range of tools available to the public authorities to accelerate the financing of the transition. It goes without saying that it cannot – and should not seek to – replace fiscal, economic and environmental policies, which have a crucial role to play in guiding economic action. But financial regulation has nevertheless a role to play to help address each of the identified obstacles. We will see that indeed that regulatory tools can be used to improve financial actors' understanding of the challenges of the transition, correct short-term biases in financial actors' preferences, and encourage them to get involved in projects with low returns.

LEVER 1. Using regulation to improve financial actors' understanding of the challenges of the transition

The first obstacle to financing the transition that could be influenced by financial regulation is the global level of knowledge about the transition among financial actors. Despite positive momentum, this level of knowledge remains very low, especially among banking actors. This is an important obstacle that should not be underestimated.

Training of financial actors

Regulators and supervisors are already engaged in encouraging upskilling for financial actors. But they could do much more to provide this community with a common knowledge base and to train experts in financing solutions required for transition projects. Several tools are possible. Changes to the Autorité des Marchés Financiers certification can provide actors in these markets with a common knowledge base but also create a dedicated certification to recognize specific expertise in financing solutions for the low-carbon transition. Regarding banks, the risk management requirements set by banking regulators can also require providing staff with such a common knowledge base, so that supervisors are able ensure that banks implement these training processes. Including training in the supervisory expectations can also be an interesting lever. Banking supervisors can finally encourage professional training organisations to launch training programmes specialising in the financing of the transition.

Tools to help analyse firms' strategies

In addition, regulators can support the development of simple tools to help financial actors to better understand the positioning of companies in relation to the challenges of the transition. They could thus accelerate banks' ownership of the taxonomy of sustainable activities which is being finalized and establish a taxonomy of unsustainable activities to complement the latter.

They could also encourage the creation of labels that are consistent with the taxonomy and deliver on customer promise in order to avoid the risk of greenwashing.

Finally, although it is premature to standardise climate risk analysis and alignment methodologies, regulators could require greater transparency and convergence between the methodologies of non-financial rating agencies, for instance through external audits. Moreover, further incorporation of climate issues into the Banque de France rating tool could help to produce standards for non-financial rating aimed at SMEs and ISEs, which are difficult to reach with sustainable finance tools today.

These proposals would have a significant impact and can be implemented without delay. What is more, they would also contribute to meeting the objectives of the risk-based approach currently taken by supervisors.

LEVER 2. Using regulation to ensure financial actors' preferences have a longer-term perspective

Warnings about the short-termism of financial actors are not new. This short-termism has been demonstrated empirically, and is increasing over time. It is particularly detrimental to the financing of the transition, which is built on medium- and long-term horizons. Several regulatory tools are available to help to correct these practices.

Remuneration of financial actors

First, remuneration practices could be better supervised throughout the investment duration, by extending the deferral periods beyond the current 3-year deferral and requiring that remuneration be partly paid in equities to be held for the duration of the investment. In addition, climate impact criteria could be incorporated into variable remuneration, positive impact criteria for funds with climate targets and negative impact criteria (similar to the Do No Significant Harm approach) for generalist funds. However, research on impact indicators is still in its infancy, and this type of regulatory options should await the arrival of more robust methodologies.

Passive management

This pressure on short-term profitability is further increased by the development of passive management and the increasing importance of indexes in portfolio management. To take action on short-termism, regulation could also address these biases: the work begun by the European Commission in its Action plan is a first step but the solution is not so much to create green indexes (which could in addition create "green bubbles") or to improve transparency on potential ESG criteria, as to ensure real climate transparency for all indexes in order understand the climate impacts of the companies they concern. Steps must be taken towards greater climate transparency, with more precision than existing ESG approaches and more forward-looking than static carbon footprint measurements.

Household savings

Financial actors' preference for the short term is partly the result of the investment choices made by savers. The way savings are channelled therefore also needs to be addressed. To do so, financial regulation can provide various levers for action. First, it can foster the integration of client preferences by ensuring that clients are questioned specifically about their willingness to contribute to the financing of the low-carbon transition (and not just about their preference for sustainable finance in general); it can also inform their choices in making it easier to read and understand the nature of the investments offered to them through labels with climate requirements that are stricter than the Socially Responsible Investing label, which is by far the most widespread in France. In this regard, the European Ecolabel could play a crucial role; finally, it can establish a better offering of products directly channelled towards the financing of the transition, for instance by creating a "transition" term deposit account and offering "financing low-carbon transition" unit-linked life insurance contracts.

LEVER 3. Using regulation to incentivize financial actors to get involved in projects with low returns

Unsurprisingly, there is a problem with financing for low-carbon projects with low returns: those with expected returns that are not consistent with the level of risk taken or those with returns that are obtained too late in relation to financial actors' expectations. Financial regulation can encourage private financial actors to look more closely at these projects, and to move away from a purely financial approach.

Integrating climate criteria into fiduciary duty

A first way to achieve this is to broaden fiduciary responsibility, which is still too often used as an argument to prioritise the objective of short-term financial returns on customer investments. Since several years, the work of PRI and UNEP established that failing to consider ESG criteria is a failure of fiduciary duty. However, the integration of ESG criteria, ongoing in Europe, is not sufficient vis-à-vis climate challenges. It is therefore necessary to use financial regulation to require that fiduciary duty explicitly incorporates climate-related risk criteria and climate impact criteria (*i.e.* to take into account the double materiality of climate change). This integration, in addition to the incorporation of ESG criteria currently planned by the European Commission, will allow to supplement financial performance indicators and to reconnect with the real economy.

Prudential regulation incentives

Prudential banking requirements can also be modified. Pillar 1, minimum capital requirements, does not seem to be the most promising tool to channel financial flows toward transition. Indeed, mechanisms such as the "Green Supporting Factor" or the so-called "Brown Penalising Factor" appear to be unbalanced (when they risk to unduly alleviate prudential requirements), incomplete (by not targeting both sustainable and unsustainable activities) and insufficiently granular to favour the financing which really supports the transformation of economic activities (*i.e.* not only already 'green' activities but also those which contribute to transforming and decarbonising economic processes). At most, the mechanism to reduce capital requirements recently set up at the European level for infrastructure could be revised so that it only applies to financing for green infrastructure.

Another path is worth exploring. It is the use of prudential regulation (and notably the Pillar 2) to require banks to incorporate climate criteria into their financing decisions. More specifically, banks would be required to i) adopt a climate-related target (*e.g.* a net-zero emission target by 2050 or an alignment target vis-à-vis a 1.5°C reference scenario), ii) design 5-year transition plans explaining how to reach the long-term target and iii) set-up an internal mechanism to integrate climate-related criteria into their financing decision process.

The European regulator would set the general framework: the same climate-related target for all banks, a template for 5-year plans and principles for integrating climate-related criteria into the financing decision process. Bank supervisors would be charged with the responsibility of monitoring the implementation. The latter would be decentralised, leaving it for each bank to design appropriate 5-year plans and set up the internal financing decision process adapted to its credit portfolio and to the nature of its activity.

The decentralised implementation of this system would provide flexibility to respect the specificities of each establishment's activity and would facilitate ownership of the mechanism by the operational staff of banks. But in return, it seems necessary to explore a monitoring mechanism to ensure that the expected "shift" in bank financing actually occurs with the speed and magnitude necessary to meet the financing needs of the low-carbon transition. In this context, the Commission would not only determine the general framework to be implemented by each bank but would also establish indicators to monitor the progress achieved (*e.g.* in terms of shares of 'green' and 'unsustainable' activities).

4. Conclusion

It is thus possible to identify specific solutions or options to be explored for using financial regulation to directly support the financing of the transition. The debate on this use of financial regulation needs to include all stakeholders and should not be restricted to just financial experts. It should focus on not only the objectives to be set for financial regulation, but also the regulatory instruments available, their climate effectiveness, the potential conflicts of objectives with the other objectives of financial regulation, and the governance changes required (evolution of the mandate of financial supervisors).

SUMMARY OF PROPOSALS
HOW FINANCIAL REGULATION CAN BE USED TO FINANCE THE TRANSITION

Content of proposals	Regulations to modify
Using regulation to improve financial actors' understanding of the challenges of the transition	
1. Stepping up training requirements for financial actors	
• integrating a general knowledge base into market authority certification • creating a specialised certification scheme for investment actors	• French Financial Markets Regulation
• specifying supervisory expectations in terms of general training for financial actors • encouraging training organisations for the banking sector to set up specialised training programmes	• CRD V & CRR 2 • EBA guidelines and standards
2. Encouraging the development of simple tools to understand the transition	
• developing a taxonomy of "unsustainable" activities	• European Level 1 Regulation
• increasing transparency on the methodologies and data used by non-financial rating agencies	• ESMA
• further incorporating climate issues into the BdF rating tool to connect with SMEs and ISEs	• French Central Bank
Using regulation to ensure financial actors' preferences have a longer-term perspective	
1. Integrating the challenges of the transition into remuneration policies for financial actors	
• extending the deferral period for the variable part beyond three years • encouraging the incorporation of climate impact indicators into variable remuneration	• CRD IV • Solvency II • AIFM and UCITS
2. Counteracting index-based management biases	
• introducing climate transparency for all indexes	• Benchmarks Regulation
3. Mobilising household savings to support the transition	
• better identifying and incorporating client preferences in terms of transition financing • clearly identifying the investments offered to savers to finance the transition • improving the range of financial products offered to savers to finance the transition (creating a "transition" term deposit account and offering "transition" unit-linked life insurance contracts)	• implementing legislations for Mifid II Directive and the Insurance Distribution Directive • Ecolabel for sustainable financial products • French Ministry of Finance and French Ministry of Ecological Transition
Using regulation to incentivize financial actors to get involved in projects with low returns	
1. Broadening fiduciary responsibility	
• making it compulsory to incorporate climate risks into investment decisions • incorporating climate impacts (negative, or even positive) into investment decisions	• AIFMD, UCITS, Mifid II, Solvency II and IDD
2. Stepping up incentives for financial actors	
• revising the existing mechanism to reduce capital requirements on infrastructure so that it applies to only but all green infrastructure projects	• CRR 2
• making it compulsory for banks to incorporate climate-related criteria into their investment decisions by i) adopting a climate-related target, ii) designing 5-year transition plans and iii) setting a mechanism to integrate climate-related criteria into their investment decision process. Exploring the implementation of indicators to monitor the progress achieved.	• CRD 5-CRR 2

I4CE – Institute for Climate Economics is an initiative of Caisse des Dépôts (CDC) and Agence Française de Développement (AFD). This think tank provides independent expertise and analysis when assessing economic and financial issues relating to climate & energy policies in France and throughout the world. **I4CE** aims at helping public and private decision-makers to improve the way in which they understand, anticipate, and encourage the use of economic and financial resources aimed at promoting the transition to a low-carbon, climate resilient economy.

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