Introduction

The concept of sustainable finance covers a set of tools that introduce environmental, social and governance criteria into decision-making on investments and financial operations. Its primary aim is to align economic development with environmental sustainability, social equity and good corporate governance, thus contributing to sustainable long-term development. The instruments included under the heading of sustainable finance range from green, social and blue bonds to climate finance tools. Specifically, green debt, social sustainability and transition have mobilised over $4 trillion since 2007, and this figure is expected to continue rising significantly (in Basque Country, in 2024, the Sustainable Bonds issued by the Basque Government amounted to 5,000 million euros). Greater standardisation of the concepts used in this field is needed, and to this end, what have been termed 'taxonomies' have been developed to identify investments that can be considered green or sustainable. This whole process is leading to a new approach to funding on a global scale.

This issue of Ekonomiaz is intended to provide an overview of this area of finance, with a compendium of articles on issues such as climate finance, the creation and use of taxonomies and the role played by different public and private agents, with specific references to business cooperatives, central banks and other public institutions. This monographic issue also explores the forms of financing required by biodiversity protection and the damage and losses caused by climate change.

The first article, by **Elisa Sainz de Murieta** and **Ibon Galarraga**, offers a general introduction to the concept of sustainable finance (including green and blue finance, social finance, climate finance and transition finance), and then goes on to focus specifically on climate finance. The authors argue that as the one area of finance in which quantified targets have been agreed through global consensus, it is also the only field that can be expected to see clearer and more transparent evolution in the short- and medium-term future. In particular, they point to the establishment of the New Collective Quantified Goal (NCQG) at the recent climate summit (COP-29) in Baku (Azerbaijan), with an undertaking to mobilise at least $300 billion per year by 2035. Nonetheless, they note, despite progress on previous commitments, the Independent High-Level Expert Group on Climate Finance estimates that global annual investments of $6.5 trillion will be needed by 2030 to meet Paris Agreement targets.

In their article, **Dayana Vega**, **Itziar Patiño** and **Kepa Solaun** write that Europe has led the field in defining a green taxonomy, establishing technical criteria for determining which economic activities are 'green' and prioritising goals such as climate change mitigation and adaptation, the circular economy and biodiversity. A number of Latin American countries —among them Colombia, Mexico, Panama and the Dominican Republic— have since developed their own taxonomies, adapted to their own local contexts, with a particular focus on key sectors such as agriculture and energy. The paper compares the two processes, noting that they use similar methodologies on issues such as governance, public consultations, alignment with national and international frameworks and science-based eligibility criteria. However, while in Europe implementation is mandatory, in Latin America it is still voluntary and incipient, and is limited to pilot cases and recommendations. The paper concludes that although these taxonomies have achieved progress in resource mobilisation, they still face a range of challenges, such as lack of reliable data, clear methodologies and effective governance. The authors highlight the need to encourage skills, to include small and medium-sized enterprises in the processes and to develop incentives to ensure that taxonomies are effective in the transition to sustainable economies.

Focusing on the role of central banks in sustainable finance, **Clara González** offers an expert insight into the growing role of the financial system in the fight against climate change. Since the Network for Greening the Financial System (NGFS) was first set up in 2017, it has developed a range of tools such as climate scenarios and recommendations on integrating sustainability-related factors into monetary policy and financial supervision. The purpose is to help manage climate risks and to mobilise resources towards a sustainable economy, as a complement to government and private initiatives. As the author notes, the European Central Bank has taken the lead in including climate considerations in its monetary policy and portfolio management. For example, it has introduced measures such as decarbonising its corporate bond holdings and has developed a series of climate indicators to assess financial risks. In parallel, Spain's central bank, the Banco de España, has made progress in introducing sustainability criteria in its investment portfolios and in climate risk management. Highlights include the publication of specific reports since 2023 and the bank's commitment to the NGFS and the EU's sustainable finance strategy. The article concludes that as key catalysts of change, central banks have made headway in integrating climate risks into financial stability, investment and monetary policy. However, they still face challenges related to the lack of consistent data and the need for harmonised standards and a deeper understanding of the impacts of physical and transitional risks.

Sascha Goonesekera, **Gontzal Ruiz** and **Patxi Greño** analyse the concept of Loss and Damage (L&D) and the way in which it has evolved to become a key issue in international agendas. They identify two main types of L&D, economic and non-economic. They note the lack of a clear definition and consensus within the United

Nations Framework Convention on Climate Change (UNFCCC) and argue that this vacuum is hindering overall coordination and access to adequate funding. Despite the progress that has been made —such as the creation of the Warsaw International Mechanism (WIM) and the L&D Fund approved at COP-27 and COP-28— the financial resources committed fall far short of projected requirements. The authors argue that L&D funding and management require a comprehensive and multidimensional approach, embracing mitigation, adaptation and humanitarian aid and the application of structural, non-structural and nature-based solutions. Current strategies have focused on mitigating economic losses; however, there is growing acknowledgement of the importance of non-economic losses, such as cultural and ecological impacts. They also propose new instruments, such as carbon taxes and financial transactions, which could generate additional resources and foster climate justice. Specifically, the authors argue that while the Basque Country is less vulnerable to direct climate impacts, it could potentially play a role in financing and supporting affected communities. In 2022, for example, the Basque Government earmarked more than €81 million for development cooperation and humanitarian action, mainly in Latin America and Sub-Saharan Africa. Integrating L&D into its climate strategies and reinforcing its participation in international networks could position the Basque Country as a leader in climate justice and global action.

In her contribution, **Anil Markandya** writes that biodiversity is essential for ecosystems and the services they provide to humanity. Nonetheless, activities such as industrial fishing, intensive agriculture and deforestation, aggravated by factors such as population growth and trade, have led to major losses in this biodiversity. With a view to reversing this trend, the Kunming-Montreal Global Biodiversity Framework has set a series of targets for 2030, based on the idea of using natural capital accounting to measure and monitor key ecosystems and services. Using the UN's ecosystem accounting framework, it incorporates data on the extent, condition and services of ecosystems to guide policy and assess the progress made toward these goals. This includes essential information for defining sustainable exploitation rates and designing biodiversity credit markets to support conservation. Although $200 billion needs to be mobilised annually, resources are currently limited. The key to global sustainability therefore lies with innovative instruments such as biodiversity credits and sustainable bonds, together with policies that factor in the value of nature in any economic decision-making.

Leire San Jose and **José Luis Retolaza** explore social finance in the context of a cooperative firm and discuss the different ways in which social and commercial financial institutions approach the funding of sustainable projects. The former, they argue, tend to prioritise long-term sustainability through relational approaches that favour the local community. By contrast, commercial institutions generally focus on conventional strategies oriented towards immediate profitability, often externalising debt and compromising the stability of the companies. To illustrate this approach, they explore

the specific case of Eroski, which since its 2007 expansion has undergone a number of refinancing operations and periods of financial crisis, aggravated by the economic crisis and restrictive banking regulations. In their analysis, they identify some key distinguishing features of social financial institutions, including their commitment to the local environment, their inclusive governance model and their greater capacity to adapt to crises without abandoning the business project. They also note that financial decisions have a significant influence on business and social sustainability. Finally, the article stresses the need for regulatory policies and financial models that encourage sustainable practices and propose a holistic approach that prioritises long-term economic, social and environmental value.

This issue of the journal closes with a paper by **Jorge Fernández**, in which he analyses the importance of innovative and collaborative funding schemes to bridge the gap in green finance that is hindering the transition to sustainability. He argues that public-private partnerships and public-private-philanthropic partnerships can help to overcome market barriers and mobilise private capital for sustainable projects with positive social and environmental impacts. He stresses the need for a stable regulatory framework, suitable economic incentives and innovative governance to encourage new actors such as philanthropic foundations, private investors and local agents. The inclusion of novel financial tools, such as green bonds and performance-based financing arrangements, is also vital for addressing the challenges associated with emerging technologies and innovative business models. One notable example is the Greater Manchester Environment Fund (GMEF), which combines public, private and philanthropic resources to fund projects that are restoring ecosystems, fostering biodiversity and promoting nature-based solutions. This holistic model of governance maximises economic, social and environmental benefits whilst at the same time creating market incentives for stakeholders. The study concludes that policymakers have a crucial role to play in facilitating such collaboration, via policies that strengthen green financial ecosystems, foster the creation of technical and regulatory capacities, and promote innovation in sustainable finance.

In our *Other Contributions* section, **Henar Alcalde**, **Usue Lorenz** and **Mercedes Oleaga** explore the features that enable cross-border collaboration initiatives to evolve into cross-border clusters, overcome traditional barriers to collaboration and encourage companies to adopt smart specialisation strategies. The analysis is based on a project for developing cross-border business clusters in the Nouvelle-Aquitaine-Basque Country-Navarre (NAEN) area. It combines the lessons learned from this project with literature on the theory of territorial competitiveness, clusters and cooperation.

Marta Fernández and **Wenbo Hu**'s work seeks to fill a gap in the literature on the cataloguing of wine companies in the Basque Country. The authors divide the companies into different categories depending on a range of characteristics (resources, production practices and competitive strategies), and identify the features associated with

greatest commercial success and export capacity. They believe this information could be used to develop specific interventions, with a view to providing a better definition and implementation of aid to strengthen the export activity of wineries.

Finally, **Mikel Aberasturi** and **Oscar Valdivielso**'s article sets out to design, construct and validate a synthetic indicator capable of measuring and socialising the situation and evolution of an entrepreneurial ecosystem in all its complexity. They examine the context of the Basque Country and establish a synthetic indicator of the Basque Entrepreneurship Ecosystem to be used an instrument for dissemination and social communication and for evaluating public policies and the entrepreneurial ecosystem. The methodology is transferable and can potentially be rescaled to suit other entrepreneurial environments and ecosystems.