

ICMA and ASSIOM FOREX Conference

*Developments in the Green, Social
and Sustainability Bond Markets – Italy and Europe*

Climate risks, finance and central banks

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We have recently been reminded how, almost fifty years ago, the ‘report on ‘The Limits to Growth’ prepared by the Club of Rome had already sounded the alarm about the foreseeable limits to economic growth deriving from the progressive depletion of natural resources and the insufficient capacity of the planet to absorb pollutants¹. The report was seen as the result of an excessively pessimistic approach, with very little faith in the ability of technological progress to move the limits to growth further and further ahead.

Today we have clear evidence of dramatic climate changes caused by to models of development and a use of resources that have little regard for longer-term developments.

It is the concentration of greenhouse gases that raises the most acute concerns: according to studies by the Intergovernmental Panel on Climate Change at the United Nations, if policies and actions are not implemented to reduce their concentration and limit the increase in average global temperatures by 2035 to no more than 1.5°C compared with the pre-industrial period, changes such as rising sea levels, increasing rainfall in some parts of the world and increasing episodes of drought in other regions will become irreversible and will produce catastrophic damage.

Yet just three days ago, the World Meteorological Organization (WMO) reported a new record in greenhouse gas levels, which increased in 2018 to a similar extent to that of the previous year, just above the average for the last decade.

Preventing climate risks from worsening means reducing CO₂ emissions and taking pervasive initiatives in all fields of production, infrastructures, transport systems and lifestyles, especially in large urban centres.

¹ Brundtland G., Report of the World Commission on Environment and Development: Our Common Future, United Nations, 1987.

In this scenario, banks and finance are essential players: their stability is put at risk both by catastrophic events linked to the climate ('physical risk'²), and by the risks deriving from the same actions taken to solve the problem in the long-term ('transition risk'³). At the same time, banks and finance have the indispensable task of redirecting capital flows towards a sustainable economy through loans disbursed directly and as part of their role as advisors to investors and issuers. This is a very important task if we consider that, for Europe alone, the estimated investments needed to modernize transport and logistics, upgrade energy grids, make additional energy savings and improve resource management, including waste and water, amount to around €270 billion a year.

In carrying out their functions, central banks are particularly mindful of the effects that the climate change under way exerts on aggregate supply and demand and on price dynamics as well as on the stability of the financial system. Moreover, central banks are themselves investors in the financial market, of their own funds and the pension fund resources of their employees.

The role of finance for a sustainable economy

Banks and institutional investors need to monitor the risks of deterioration both in credit quality and in the value of their assets connected to climate change events⁴.

These are not new risks. On the contrary, they fall within the traditional credit and market risks. Financial market intermediaries and investors are responsible for establishing governance, organizational and internal control systems that are adequate to ensure sufficient space for assessing environmental factors when defining their corporate strategies and risk management processes.

Taking account of environmental factors in the context of investment decisions requires the confirmation of favourable conditions for identifying investments in

² This is the risk that materializes in the costs that extreme natural events impose in terms of human losses and the destruction of public and private infrastructures, likely to cause falls in production levels or even permanent damage to the growth potential of economies. Losses for businesses and households and the reduction in the value of their assets can be reflected in a deterioration of their ability to service debt and of the value of collateral provided.

³ This is the risk related to how the transition to a low-carbon economy driven by technological progress and active policies takes place: sudden and marked adjustments in energy prices and in the demand for companies' assets that are most exposed to change could reflect on the quality of receivables and financial assets in the balance sheets of banks and institutional investors.

⁴ The occurrence of extreme events naturally tends to be particularly severe for insurance companies, due to the need to proceed with the due repayment of damages (liability risks).

sustainable and longer-term assets. We need financial instruments that can be unequivocally defined as sustainable investments; standardized information from issuers on the main environmental, social and governance (ESG) aspects and on the governance of the related risks. Benchmarks are required for ESG factors that are developed on the basis of transparent methodologies and credit ratings that take into account, in a transparent manner, sustainability factors.

As has been underscored in many international forums, there is an overarching need for a taxonomy that defines the activities that contribute to the transition towards a decarbonized economy and which, instead, are more exposed to the consequences of climate risks. This kind of taxonomy will also serve as a reference point for those operators, companies and, above all, households, who rely on financial advisory services or institutional investors and who will be able to clearly express their preferences in terms of sustainable investments. Given its necessarily central role, this taxonomy must be detailed and robust enough to avoid green washing, i.e. the practice of using the ‘green’ label in a misleading way, and must also be subjected to periodic reviews so as to remain constantly updated with respect to changes in the climate conditions, technology and techniques prevailing on the financial markets. It will also be advisable to promote a harmonization of the taxonomies used in different regions and markets, given the global nature of the financial markets.

An initiative for creating a taxonomy that is valid at European level was taken by the European Commission as part of its activities within its Action Plan for financing sustainable growth. The Commission’s plans, based on this future taxonomy, envisage the possibility of developing EU standards and labels to identify sustainable financial products, so as to facilitate the channelling of resources towards financing initiatives capable of tackling climate risks.

The authorities and private operators have already taken important steps to direct capital flows towards initiatives suitable to promote the mitigation of and adaptation to climate risks.

The start of a systematic move towards sustainable finance can perhaps be identified in the 2006 definition of the Principles for Responsible Investment promoted by the United Nations (UN-PRI), to which a growing number of investors have gradually adhered, numbering around 2,350 in March 2019 and representing a total of assets under management estimated at around \$82 trillion. Adherence to these Principles involves, among other things, a commitment to including ESG considerations in the decision-making processes for investment, requiring

reports on ESG profiles by the financed companies, incorporating ESG parameters in the policies and practices concerning company shareholders, and periodically reporting on the activities and progress made in applying these Principles.

In Europe, the directive on the disclosure of non-financial information by companies⁵ has led to a greater availability of data on corporate practices regarding ESG, although they are still heterogeneous and not very comparable; the revision of the European directive on shareholders' rights⁶ has facilitated the growth in active shareholding and engagement.

ESG assessments conducted by specialized providers have become widespread on the market, but they seem to be affected by the fragmentation and heterogeneity of the available information as well as by methodological differences and biases referring to the size, geographical area and sector to which the issuers belong. This leads to doubts arising from the low degree of correlation between the ESG scores available to investors, ranging from 0.4 to 0.7, much lower than the correlation existing between credit ratings (above 0.9)⁷. Further progress is desirable to refine the methodologies used, above all in terms of the financial importance of the ESG factors underlying the assessments. Subjecting the scoring processes to external scrutiny could also be considered.

As regards the use of ESG assessments, although important progress has been made in integrating these factors into portfolio management models, the most widely used strategies still seem to be those based mainly or solely on the exclusion of securities⁸, despite the fact that these strategies suffer from limitations in terms of portfolio diversification. Greater knowledge of the information value of ESG factors on the part of managers and financial analysts therefore appears to be a prerequisite for encouraging the dissemination of models and practices for ESG integration.

The dissemination of 'Principles' on green bonds by the ICMA, updated annually to take into account the evolution of the financial market, has helped to promote the issuance of bonds aimed at financing activities and projects that generate environmental benefits, very often in countries, such as developing ones, other than those in which the invested capital is formed. These are guidelines with

⁵ EU Directive 2014/95

⁶ EU Directive 2017/828

⁷ Berg F., Kölbel J., and Rigobon R., "Aggregate Confusion: The Divergence of ESG Ratings", MIT Sloan Research Paper, Cambridge (Mass.), No. 5822, 2019

⁸ Eurosif (2018), "European SRI study 2018".

which the issuers are called upon to comply voluntarily and which mainly concern information relating to funded projects and the actual destination of the funds, to be provided upon issuance and up until repayment of the debt⁹.

The Technical Expert Group (TEG) on sustainable finance, set up by the European Commission as part of the activities for its Action Plan, was inspired by these very principles. In the report published last June, it proposed a European standard for green bonds aligned with the European taxonomy currently being defined.

The green bonds market saw the first issues, which were carried out by supranational entities, in 2007 and has recorded a strong acceleration since 2013, when local authorities, municipal companies and private companies began to use them more extensively; since 2016, there have also been sovereign issues, by many European countries as well¹⁰. Thanks above all to the bonds issued over the last three years, the total amount of green bonds outstanding is estimated at around €580 billion, just over 0.4 per cent of the international bond market¹¹; the issuance in 2019 is estimated at around €230 billion, following the €167 billion worth issued last year. US issuers represent the largest share of the market but it is interesting to note that European countries represent over a quarter when considered as a whole, and that one third of issues are denominated in euros.¹²

It can be assumed that, with the harmonization of information for the issuance of green bonds at European level to be carried out through the European Commission's Action Plan, the growth of the European green bond market may accelerate still further. Stimulus for channelling capital towards sustainable activities could also come from the International Platform on Sustainable Finance (IPSF), which the European Union helped to set up in October, and which intends to be a forum for exchanging and disseminating information on best practices in the sustainable finance field; identifying barriers to and opportunities for the expansion of sustainable finance, and harmonizing approaches and initiatives.

⁹ The principles concern the following aspects: 1) selection of projects: eligible projects must refer to specific key sectors such as eco-friendly construction, pollution prevention and waste treatment, renewable energies, transport, sustainable use water and energy efficiency; 2) destination of proceeds: the issuer must set up a system for tracking funds to ensure that they effectively finance green activities; 3) reporting: the disbursement activity of the loans, the progress of the green projects and the environmental benefits achieved must be reported; and 4) external certification: the adherence to the practices established by the Principles must be certified by an external company.

¹⁰ France, Poland, Belgium, Ireland and the Netherlands have already issued green bonds; Germany, Portugal and Sweden are carrying out the necessary preparatory activities.

¹¹ Bloomberg and Climate Bond Initiative (CBI)

¹² The share for Italian issuers is 2.6 per cent in relation to issues by listed companies such as Enel, Snam, Ferrovie dello Stato and Erg.

Climate risks, sustainable finance and central banks

Climate change can reduce the growth potential of the economy by changing the productivity of factors, subtracting physical space from production, altering the demand and availability of energy sources, and influencing the formation of prices in specific sectors that are particularly affected by it (e.g. in agriculture). Policies that encourage a reduction in the use of fossil fuels could have inflationary implications, for example owing to the exploitation of renewable energy sources, which are currently more expensive, or owing the imposition of carbon taxes on the use of traditional sources. These are factors that impact future developments in prices, both actual and expected.

Households' income and wealth could be affected; the degree of uncertainty in which companies find themselves making investment choices could increase¹³, given the unknowns about the evolution of climate change over time, its extent and the intensity and duration of its effects.

These scenarios are no longer in the distant future and they deserve careful consideration for their potential effects on the objectives and instruments of monetary policy.

Regulators, supervisory authorities and central banks are called upon to carefully consider the effects that climate factors can have on the stability of individual intermediaries and on the financial system as a whole through the abovementioned channels of physical and transitional risk.

In this respect, they must confront the difficulties already mentioned: a taxonomy that is still being defined, credit ratings that must be assessed with specific attention to climate profiles, and information that is still heterogeneous about the exposure to environmental risks of individual operators. With regard to climate risks, the models for assessing their impacts on financial assets and on companies still need to be refined, as indicated by price conditions on the markets that do not seem to fully incorporate these risks¹⁴. Greater evidence as well as the development of adequate forward-looking methodologies to distinguish the risk and return profiles of green assets from those of 'brown' assets will be of help to operators and supervisory authorities.

¹³ Batten, Sowerbutts and Tanaka (2019), Climate change: Macroeconomic impact and implications for monetary policy.

¹⁴ Alessi, Ossola and Panzica, (2019), The greenium matters: evidence on the pricing of climate risk, European Commission Research Center. Bolton, Kacperczyk, (2019), Do Investors Care about Carbon Risk?.

The attention with which central banks and supervisory authorities are looking at the effects of climate risks on the financial system is also demonstrated by the existence of the Network for Greening the Financial System: established only two years ago at the initiative of eight central banks, it now numbers 48 members, among which the Bank of Italy, from every continent as well as ten international institutions acting as observers. Overall, the Network brings together countries that account for almost half of global greenhouse gas emissions¹⁵. The Network intends to contribute to strengthening the global response needed to achieve the goals set in the Paris Agreement and to enhance the role of the financial system in managing environmental and climate risks and mobilizing capital towards sustainable initiatives. Its work is organized in three workstreams, focusing on: (a) the issues of climate risks in a micro-prudential perspective; (b) the study of the transmission channels of climate risks to macroeconomic variables and the possible effects on financial stability; and (c) ideas for the development of sustainable finance. The Bank of Italy contributes to all three workstreams.

On environmental issues, the Bank of Italy has long been committed to reducing its environmental footprint, being a company that uses inputs to produce goods (banknotes) and services: since 2010, an environmental report has been published that illustrates the strategic objectives, the initiatives taken and the results achieved. The Bank of Italy pursues, among other things: the sustainable use of resources, by progressively improving the energy efficiency of buildings, technological systems and IT equipment, as well as contributing to the production of energy from renewables and reducing the consumption of paper; optimal waste management, working to reduce the origin of waste production and recovering that produced¹⁶; sustainable mobility, promoting the use of transport solutions with a lower environmental impact for both business trips and staff commuting, and expanding the use of remote work and telecommunication tools.

The report published a few days ago shows for 2018 a reduction in CO2 emissions of 63 percent compared with 2010. In the same period, paper consumption for publications decreased by 45 percent, and that of electricity and fuels by 18 percent; since 2013 the electricity purchased in the market has only come from certified renewable sources.

¹⁵ Network for Greening the Financial System (2019), First comprehensive report « A call for action ».

¹⁶ First of all, the special waste produced in the process of designing and printing the banknotes as well as the shredding of worn banknotes, which are almost all sent to waste-to-energy plants.

Last May, the Bank of Italy announced that it had changed the way it manages its equity investments in order to favour companies that adopt environmentally friendly production methods, guarantee working conditions that are inclusive and pay attention to human rights, and adopt the best corporate governance standards. This choice was made also taking into account the academic studies and empirical evidence available, according to which investments based on financial models that integrate ESG considerations present better risk-adjusted returns in most of the cases examined in the literature, compared with those achievable with traditional financial approaches. This is because companies that adopt sustainable production methods are generally on the frontier of productive efficiency and, by virtue of less exposure to operational, reputational and legal risks, they manage to achieve a relatively low cost of capital¹⁷.

For this purpose, it was decided to integrate the ESG factors into the currently used investment criteria, inspired by principles of diversification and market neutrality. In particular, companies that operate mainly in sectors that do not comply with the United Nations Global Compact¹⁸ are excluded from the investable universe, and the Bank favours those that show the best ratings under the ESG profile, formulated by an external provider, which is carefully selected on the basis of a qualitative comparison of assessment methodologies and statistical analysis (backtesting the return and risk, with the application of different ESG scores to the Bank's portfolio).

The new investment approach entails a significant improvement in the environmental footprint of our equity investments: the companies included in the new portfolio are characterized by lower greenhouse gas emissions (with a reduction of 23 percent) and lower energy consumption and water (down by 30 and 17 percent, respectively). The new criteria have so far been applied to the Italian and euro-area equity portfolios owned by the Bank of Italy, which amount to around €8 billion; the rebalancing of investments has been completed in recent weeks. Using these criteria is also being considered for equity investments through ETFs and open-end funds in the US and Japan markets, whose value is approximately

¹⁷ Clark G., Feiner A., and Viehs M., *From the Stockholder to the Stakeholder: How Sustainability Can Drive Financial Outperformance*, Oxford University and Arabesque Partners, Oxford, 2015. Friede G., Busch T., Bassen A., "ESG and Financial Performance: Aggregated Evidence from more than 2000 Empirical Studies", *Journal of Sustainable Finance & Investment*, 2015.

¹⁸ This is the agreement, approved in 2004, which establishes the principles that companies should follow in the areas of human rights, labour, environmental sustainability and measures to prevent corruption. Companies in all sectors can adhere to this agreement, except those involved in tobacco production and controversial weapons.

€1.5 billion. At a later stage, we also intend to introduce ESG benchmarks for the management of corporate bond portfolios, both in euros and in dollars, for a total value of €1.3 billion (around €800 million and \$500 million respectively).

Conclusions

The climate emergency can no longer be considered a challenge that can be postponed to the future: the succession of natural disasters and the forecasts of the main scientific centres remind us of the need to move as quickly and systematically as possible to reduce greenhouse gas emissions.

Financial market operators, widely represented here today, have made encouraging progress in the process of reallocating capital flows towards initiatives that seek mitigation and adaptation to climate risks.

However, to continue and to expand its scope, the process requires progress along at least two lines: rules are needed for greater transparency in the disclosure of comparable data on the environmental and social sustainability of companies; and methodologies for assessing climate-related risk must be developed so that they combine scientific robustness with flexibility of implementation for the benefit of investors' choices and supervisory prudential policies.

Given the global extent of the climate emergency, an effective response to both lines requires a cooperative approach between national and supranational bodies, with the help of market operators. From the shared feeling of authorities and market operators comes the crucial contribution of finance to set out a new path for growth that is sustainable for our generation and those to come.

