ANNEX 1

Information on new ESG criteria

The Bank of Italy values sustainability in its financial investments

In the interests of society and the environment, the Bank of Italy has changed the way it manages its financial investments, giving greater importance to factors that promote sustainable growth. This will result in increased resources for firms with the best environmental, social and governance (ESG) practices.

1. WHY GIVE PRIORITY TO SUSTAINABLE INVESTMENT?

The decision is dictated by the goals of promoting corporate social responsibility and improving financial and reputational risk management.[1]

The Bank of Italy is committed first of all to sustainable economic development, giving priority in its investment choices to firms that adopt virtuous practices that respect the environment, guarantee inclusive workplaces that are mindful of human rights and adopt the best corporate governance practices.

Inappropriate business conduct can generate costs and risks not only for individual companies but for the economy as a whole and impact on financial stability and on economic growth, sometimes in the short term as well. Vice versa, as confirmed by a great deal of the literature and by empirical studies, companies that are more aware of ESG factors are generally less exposed to operational, legal and reputational risks, and more oriented towards innovation and efficient resource allocation; this is why they are deemed more interesting by investors and benefit from lower cost of capital.[2]

2. THE APPROACH ADOPTED

Investment criteria that take account of ESG profiles were adopted in relation to the financial investments of the Bank's own funds, namely, the equity portfolios of shares issued by euro-area firms (including Italian firms), which amount to around €8 billion, or 6 per cent of financial investments in

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[1] Several initiatives have been taken at global, European and national level, including the United Nations' Sustainable Development Goals for 2030, the Paris Agreement (COP21) on climate change and the European Commission's Action Plan on sustainable finance. Other central banks have also launched initiatives to consider ESG profiles when managing their own investments in various ways, including: adopting the corporate sustainability principles of the UN Global Compact, investing in 'green bonds' or securities issued by development banks, and using external asset managers who are signatories of the United Nations' Principles for Responsible Investment (UN PRI).

[2] In this regard, the analysis of about 200 empirical studies carried out by Clark, Feiner and Viehs in 2015 shows that good ESG practices allow firms to benefit from competitive advantages, lower cost of capital and better operating and market performance. Another analysis conducted by Friede, Busch and Bassen in 2015 examined about 2,200 academic research papers on the relationship between corporate market performance and ESG-based practices, and concluded that in most cases the contribution of 'good practices' is positive and stable over time.

euro and comprise the securities of about 140 listed companies.[3] The new investment criteria do not involve operations or investments connected with institutional activities, carried out as part of the tasks entrusted to the European System of Central Banks by the Treaty on the Functioning of the European Union.

In order to incorporate ESG criteria into the investment process, alternative approaches were compared, including the possibility of replacing the benchmarks adopted up until now by the Bank with ESG benchmarks. The analyses carried out indicated that the differences between the two types of index are limited (not statistically significant) as regards risk and financial returns. At the end of the analysis,[4] the preferred approach was integrating ESG factors into the investment framework currently used, which is founded on the principles of diversification and market neutrality.[5]

It was therefore decided to:

- exclude from the investment universe those companies mainly operating in sectors not compliant with the principles of the UN Global Compact;[6]
- favour companies with the highest ESG scores, according to the assessment of a carefully selected data provider (‘best in class’ approach).

This approach leads to a modest difference between the return of the benchmark adopted so far and that of the portfolio resulting from integrating ESG criteria. This difference is gauged and monitored in terms of tracking error (standard deviation of the portfolio’s relative returns to the benchmark).

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[3] The Bank of Italy began to invest in listed shares in the 1960s to diversify its portfolio and support Italian firms. Its equity portfolio was subsequently extended to euro-area firms. In the United States and Japan, equity investments are made by purchasing shares of collective investment products.

[4] The comparative assessment of the different solutions was made using backtesting simulations as well, paying particular attention to the risk profile (measured by the draw-down risk) and to the risk-adjusted return profile (measured by the Sharpe ratio).

[5] The Bank manages its ‘direct’ equity investments, i.e. those made without using collective investment schemes, by means of a passive replication approach, carried out as follows: for Italy, by investing in all the companies (*full replication*) in the customized benchmark selected by the Bank, which excludes – for reasons connected with institutional functions – shares of banks, and insurance, financial services and media companies; and for the euro area, by investing in a subset of the shares in the benchmark (*sample replication*), selected to reduce transaction and operational costs; here too, the shares issued by banks, insurance and financial services companies, as well as all Italian securities, are excluded. The econometric model for the sample replication is based on five macroeconomic factors: a) the credit spread; b) the term spread; c) core inflation for the euro area; d) a leading indicator of economic activity for the euro area, seasonally adjusted; e) a part of the equity index return not explained by other factors (market timing). The replication framework is designed to mimic the indices selected, respecting the constraints of: sector exposure (accepting controlled differences by economic sector); and share concentration, in terms of both active portfolio weight (in relation to the benchmark) and the shareholding of company capital.

[6] These are controversial activities in high-risk sectors such as tobacco and nuclear, chemical or biological weapons.

3. IMPLEMENTATION OF PHASE ONE AND ITS ENVIRONMENTAL IMPACT

The Bank has applied the new investment criteria to both its Italian and euro-area equity portfolios. The transition to the new investment framework will be completed in the first semester of 2019.

At the end of the rebalancing process, the ESG profile – especially the environmental indicators of the direct equity investments – will improve significantly.

Overall, as a result of the new criteria, there will be an improvement in the environmental footprint of the Bank's equity portfolios in terms of total greenhouse gas emissions (about -23 per cent, equal to -0.75 million tons), energy consumption (about -30 per cent, equivalent to 7.67 million gigajoules) and water consumption (about -17 per cent, equal to 6.95 million cubic metres).

These improvements to the footprint of the equity portfolios are equivalent to cancelling the annual energy consumption of about 140 thousand households[7] and the water consumption of more than 123 thousand households.[8] The results are also significant in the reduction of greenhouse gases: the decline is equivalent to 185 thousand households cutting their annual emissions to zero.[9]

The new criteria also address social and governance issues, the effects of which are less pronounced.[10]

Table 1
Comparison between environmental, social and governance indicators of the ESG portfolios and the current portfolios

	Euro + Italian Portfolios	ESG portfolio	Current portfolio
Environmental indicators	Total CO_2e emissions (millions of tonnes)	2.5	3.2
	Carbon footprint (tonnes CO_2 e/million €)	304.2	397.3
	Weighted average carbon intensity (t CO_2 e/turnover in millions of €)	291.4	325.3
	Total energy consumption (millions of gigajoule)	18.3	26.0
	Water use total (millions of cubic meters)	33.5	40.4
Social indicators	% of employed women	33.4%	34.0%
	% of women employed in management positions	26.7%	26.2%
Governance indicators	Board Diversity (% of women on the board)	33.1%	32.8%
	CEO Duality (% of companies with a separate CEO/President)	26.1%	25.9%
	% of independent board members	61.3%	61.4%
	% of companies that have adopted an anti-corruption policy	95.0%	95.1%

Sources: Calculations based on internal, corporate and Reuters data.

4. ADDITIONAL MEASURES

[7] According to Enerdata data for Italy, in 2016 the average energy consumption of a household was about 55 gigajoules.
[8] According to the Italian Regulatory Authority for Energy, Networks and Environment, the per capita water use of households equalled 56.3 cubic metres in 2013 (https://www.arera.it/it/dati/idrtar6.htm).
[9] According to Istat's NAMEA statistics, in 2016 Italian households released a total of 106 million tonnes of greenhouse gases, about 4.1 tonnes per household.
[10] It should be noted that the social and governance indicators for euro-area companies take into account profiles which are generally aligned with the envisioned regulatory requirements.

The Bank of Italy intends to continue to improve the ESG profile of its equity portfolios and to look into extending the application of the ESG criteria to corporate bond investments.

Lastly, the Bank is working on increasing awareness in the financial sector of socially responsible objectives, including by participating in international organizations. The Bank is a member of the Network for Greening the Financial System, established at the end of 2017 by some of the world's main central banks and supervisory authorities. It coordinates studies and the sharing of best practices in the management of environmental and climate risk in the financial sector. The Network also helps to mobilize the financing of the transition toward a sustainable economy.

5. PUBLIC DISCLOSURE

The Bank of Italy believes it is of the utmost importance to further develop its initiatives towards sustainable investment and to raise public awareness. As a result, the Bank will periodically publish reports on the progress of its sustainable investments. The primary objective is to continuously improve the risk management and portfolio allocation practices in the pursuit of positive outcomes both in financial terms and in terms of social and environmental impact.