

FINANCING THE FUTURE

Report of the Italian  
National Dialogue on  
Sustainable Finance



## UN Environment Inquiry

The Inquiry into the Design of a Sustainable Financial System has been initiated by the United Nations Environment Programme to advance policy options to improve the financial system's effectiveness in mobilizing capital for sustainable development. In October 2016, the Inquiry published the second edition of its landmark report, *The Financial System We Need*, entitled *From Momentum to Transformation*.

More information on the Inquiry can be found at: [www.unepinquiry.org](http://www.unepinquiry.org) or from: Ms. Mahenau Agha, Director of Outreach [mahenau.gha@unep.org](mailto:mahenau.gha@unep.org).

## MATTM

The Italian Ministry of Environment, Land and Sea promotes, within the framework of the Italian government, develops ambitious environmental (including climate) and sustainable development policies, aiming at maximizing resource efficiency and decoupling economic growth from environmental impact. Following the 2015 Paris Agreement on Climate Change and the UN Agenda 2030 approved in 2015 with its Sustainable Development Goals (SDGs), the Ministry facilitates the preparation of the new National Strategy on Sustainable Development based on SDGs, international cooperation activities for achieving the 2°C (and possibly 1,5°C) target, the decarbonization of the Italian economy. It is in charge of the G7 Environment Presidency for 2017. <http://www.minambiente.it>

This report has been edited by MATTM and UN Environment based on the inputs from National Dialogue on Sustainable Finance members and reflect a consensus view. The proposals do not necessarily imply agreement by all members or institutional endorsement by any participating company, institution or organization involved in the analysis or proposals.

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# EXECUTIVE SUMMARY

- Italy faces a strategic opportunity to harness its financial system to support the transition to a low-carbon, inclusive and sustainable model of development.
- The National Dialogue on Sustainable Finance was established to identify options that would improve the integration of sustainability factors across Italy's financial sector.
- The dialogue identified a growing awareness and increased actions by financial institutions across the banking, capital markets, institutional investment and insurance sectors.
- The dialogue also recognized the barriers that prevent the scaling up of this good practice, including mispricing, short-termism, and low levels of awareness and capability.
- The dialogue identified 18 specific options, grouped in four areas: policy frameworks; financial innovation; market infrastructure; and knowledge building.

## A SHIFT TOWARDS SUSTAINABLE FINANCE IS UNDER WAY

The 2015 Sustainable Development Goals and the Paris Agreement on climate change require a new generation of innovations from the financial system. In response, Italy's National Dialogue for Sustainable Finance was launched in February 2016 to take stock of existing practice, identify key challenges and suggest policy options to take promising developments to scale. It was initiated by the Ministry of Environment together with other Ministries and Public Authorities, and included a series of working groups comprised of leaders in the financial sector and the research community. The dialogue was convened in partnership with the United Nations Environment Programme, who brought international experience to bear.

Harnessing the financial system will be essential for achieving a successful transition to a low-carbon, inclusive and sustainable model of development. Sustainable finance involves the integration of environmental, social and governance (ESG) factors across the financial system with the goal of strengthening resilience, targeting capital allocation and improving accountability. The dialogue focused mainly on the environmental dimension of financing sustainable development, often called 'green finance'. Green finance aims not only to guarantee finance for needed environmental projects but also to make more sustainable all finance ("greener finance").

The dialogue clearly demonstrated that a shift is already under way both domestically and globally. There is growing recognition that ESG factors are now material for value creation. Environmental threats such as climate change and water scarcity are creating risks to financial assets – and new challenges particularly for the insurance sector. Banks, capital markets and institutional investors are starting to incorporate environmental and social factors in capital allocation decisions. Public finance will be key to enabling this shift, but the bulk of the capital required will need to come from the private sector.

Internationally, policy cooperation is deepening. Italy is an active participant in the G20's Green Finance Study Group and is taking part in the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD). Within the EU, sustainability is also a core investment goal of the Juncker Plan and the Commission has announced its intention to develop a comprehensive European strategy on sustainable finance. Increasingly, finance ministries, central banks and regulators are identifying how sustainability factors impact upon financial stability and long-term investment.

Italy faces a strategic opportunity to align its financial system with sustainable development. Reforms to green the finance sector can help to identify new growth areas, new ways of ensuring the soundness of financial institutions and new ways to serve clients at home and abroad. This can contribute to wider financial stability and long-term economic recovery. For Italy, the prominent place of small and medium-sized enterprises (SMEs) in the economy creates a particular imperative for greening the financial system.

## THE MOMENTUM IS POSITIVE, BUT HAS NOT YET ACHIEVED A SYSTEMATIC IMPACT

The dialogue identified a number of signs of momentum across Italy's banking, capital markets, insurance, investment and public finance sectors, including:

- **Banking:** According to the *Banks and Green Economy* report and the Banks Observatory lead by ABI, Italy's banks have lent €27 billion between 2007 and 2014 for renewable energy, including €18 billion for solar. Investment in energy efficiency, notably in the building sector, has high potential, but faces a number of barriers.
- **Capital Markets:** In the 2016 ranking of sustainability disclosure on 45 stock exchanges, Borsa Italiana climbed 11 places to 19<sup>th</sup> position. In terms of revenues from listed companies involved in the green economy, the Borsa ranks 10th among global stock exchanges. In addition, a number of innovative instruments have been launched to encourage SMEs to access capital markets. Currently, Italy has €738 billion in bonds that are aligned with action on climate change.
- **Institutional Investment:** In 2015, about €616 billion in assets under management were managed according to a range of Sustainable and Responsible Investment (SRI) strategies, about 6% of the European total.
- **Private Equity:** The integration of ESG concerns in the selection criteria and in the management practices of PE fund managers is more and more widespread. Sustainability is perceived as one of the keys to unlock value from SMEs.
- **Insurance:** Over 22% of Italy's insurance market is covered by companies that have signed the UN Principles for Sustainable Insurance.
- **Public Finance:** Cassa Depositi e Prestiti (CDP), Italy's national promotional bank, has placed sustainable development at the heart of its new business plan.
- **Metrics:** from 2016, the Indice di Benessere Economico e Sociale (BES), a complex system of social and environmental indicators that serve as a precursor to the SDGs, will be used together with GNP in the budget and stability law as a barometer to measure sustainable growth of the country.

These promising developments, however, have not yet achieved a systematic impact across the financial mainstream as a result of a number of challenges:

- Unpriced environmental externalities can still tilt the risk/return profile away from sustainable finance.
- Limited access to finance for enterprises, especially for small and medium enterprises, is constraining their participation in the growing green economy.
- Financial decision-making does not yet adequately take account of long-term challenges such as climate change.
- Italian public opinion is not yet sufficiently informed about the relevance of environmental threats for the health of the economy and of the financial system.
- The country's financial culture does not place sufficient emphasis on the skills and capabilities required to respond to the sustainable development imperative.

Together these factors have led to insufficient flows of capital to the green economy, unrecognized risks and the prospect of leaving the country's sustainable development and climate goals unrealized. Since savers' and consumers' demand for green products and services is expected to grow faster in Italy than elsewhere, the country may miss the opportunity to improve its economic performance by pursuing new green business options and adopting new financial approaches. These challenges are, however, by no means unique to Italy – and there is increasing activity at the international level to overcome these hurdles.

## OPTIONS FOR ENHANCING SUSTAINABLE FINANCE

Looking across Italy's financial system, the dialogue has identified 18 separate options that fall into four broad action areas.

### Putting in place supportive policy frameworks

- 1 Strategy:** The government could embrace the agenda set at the recent G20 summit and set a comprehensive national agenda that will enhance the role of finance as a driver for sustainable development. One of the three pillars of the Green Act (currently under discussion) focuses on this exact point, which presents a unique opportunity for structuring a national sustainable finance strategy, within the framework of the national sustainable development strategy, that would be capable of mobilizing the capital needed to deliver the SDGs and the Paris Agreement's objectives.
- 2 Public Finance:** The CDP could systematize its sustainable development mandate into consistent policies and processes, and strengthen its accountability towards all stakeholders. Specific attention could be devoted to the financing of energy efficiency and sustainable infrastructure. Local Authorities – the Regions in particular – should strengthen the importance of sustainability in their plans and policies and orientate their investments accordingly.
- 3 Fiscal Policy:** Tax expenditures could be reviewed to remove progressively – but with speed and certainty – environmentally harmful subsidies in the energy sector. Italy could also promote a debate in Europe on how best to give the right price signals to consumers, producers and the financial system, building on experience with economic instruments (e.g. carbon markets).
- 4 Systemic Review:** Banca d'Italia and other market regulators could use their databases and their knowledge to evaluate the implications of climate change for Italy's economy and financial system and suggest measures to encourage good practice by financial institutions.
- 5 International Cooperation:** Italy could include green finance as part of its cooperation activities with developing countries (as has been done through the microfinance green schemes) and ensure that the funding profile of the export credit agencies is consistent with goals for decarbonization and resilience.

### Stimulating financial innovation in priority areas

- 6 SMEs:** A new effort is needed to identify mechanisms for complementing traditional sources of bank credit for SMEs operating in the green economy with other, more sophisticated, financial instruments that allow a longer-term view.
- 7 Real Estate:** The government could take the opportunity of the Piano Casa to encourage significant investment on the quality of buildings and increase their resilience to natural catastrophes. Besides, an innovation lab could work with banks to design new financial instruments to support investment needed to improve the energy efficiency of residential, commercial and public buildings.
- 8 Green Bonds:** A green bond development committee including public and private entities could be formed to identify and deliver the critical steps needed to develop the market, particularly the provision of access for small issuers and savings opportunities for retail investors.

- 9 **Insurance:** The government and insurance companies could explore a national scheme to cover risks from climate-related natural catastrophes, in particular for residential properties, that adopts both traditional and non-traditional reinsurance structures (CAT bonds, ILS, collateralized, etc.).
- 10 **Clean Tech:** The government, along with financial institutions, could leverage the role of Italy in the Mission Innovation initiative to scale up private capital for breakthrough sustainable technologies.

### Improving market infrastructure in terms of disclosure and governance

- 11 **Stock Market Disclosure:** Borsa Italiana – in addition to its new reporting guidelines to raise the level of disclosure on its markets, including flows of green revenues – could take further actions to increase the level of transparency and facilitate the engagement of responsible investors. The introduction of a voluntary certification scheme on the sustainability of funds (e.g. the LuxFlag model) could also help transparency and accountability on the issuers' side.
- 12 **Corporate Reporting:** The EU's non-financial reporting directive could provide a first step toward improving transparency, and prepare the way for responding to the recommendations of the FSB Task Force. A higher number of companies could be encouraged to disclose their ESG data by investors and others, with different expectations for SMEs, in line with traditional comparable transparent economic, capital and financial data.
- 13 **Investor Disclosure:** All institutional investors could publicly report on how ESG factors impact their portfolios and how they are supporting the climate transition. They could also disclose the extent to which their investment and voting policies cover ESG issues and identify the results that arise from their implementation.
- 14 **Corporate Governance:** The Italian Corporate Governance Committee could further strengthen the focus on the importance of sustainability issues – such as environmental and social issues – for long-term value creation, calling on boards to take on the responsibility of developing consistent strategies, establishing culture and values of the company setting the correct “tone from the top”, and encouraging specific measures on linking, for instance, executive pay to sustainability performance.

### Building capacity, awareness and knowledge

- 15 **Risk:** A collaborative consortium of financial institutions, academics and public authorities could be established to pilot ‘environmental stress testing’ models and to make recommendations for improved analysis and data availability. Supervisors and surveillance authorities could push their European peers to evaluate the relevance of ESG factors at both the micro and macro level and consider the extent to which they are implemented in risk control models.
- 16 **Public awareness:** An information campaign could be launched in partnership with key financial institutions, civil society organizations, religious bodies, trade unions and banking foundations to highlight the importance of environmental threats and the role that consumers and investors can play in influencing the supply side in the market.
- 17 **Capacity building:** Financial institutions could identify the skills needed to make their professionals green finance literate, and incorporate these into training programs. In parallel, universities and academic bodies could enrich their educational offer on green finance sector reform and integrate these skills into professional curricula for continuing development.



- 18 Measuring progress:** The government could – leveraging the competence and the data sets of the National Institute for Statistics (Istat) – encourage, the development of a model for measuring the progress of the financial system towards sustainable development, drawing on national and international expertise. The output of this monitoring activity should become a compass for orientating public policies.

Progress on these proposed options would make a material difference in closing losing the gaps across key financial sectors and issues.

## LOOKING AHEAD

The National Dialogue on Sustainable Finance has generated a broad-based agenda for market innovation and policy reform.

At the domestic level, it is important to maintain and deepen the momentum. This can be done by establishing a National Observatory on Sustainable Finance, which could assure the continuation of the work started by the Dialogue, particularly through the promotion, coordination and monitoring of suggested options. It would also encourage all actors in the financial community to make the Italian financial market more dynamic, innovative and attractive in terms of sustainability. The Observatory could promote the launch of a Green Financial Initiative, based on the experience of the London and Paris markets.

Internationally, Italy's G7 Presidency in 2017 provides an excellent opportunity to promote green and sustainable finance with some of the country's key partners.

## ABOUT THIS REPORT

This report is organized into four parts:

- Part A sets out the global and national landscape in terms of the challenge of financing sustainable development, with a focus on the environmental dimension
- Part B explores two of the key priorities that cut across the different parts of the financial system: risk analysis and reporting.
- Part C looks at the experience of and potential for sustainable finance in banking, capital markets, insurance, institutional investment and public finance.
- Part D examines how progress toward sustainable finance can best be measured and concludes with the set of recommendations for further action.

**Cut-off date: 31 December 2016**

## **Part A**

# **The Global and National Challenge**

# 1 FINANCING THE TRANSITION: THE GLOBAL CONTEXT

## HIGHLIGHTS

- Reforms within the financial system will be needed to mobilize capital for the implementation of the Sustainable Development Goals (SDGs) and the Paris Agreement on climate change.
- There is growing international momentum, as exemplified by the FSB's new Task Force on Climate-related Financial Disclosures and the G20's Green Finance Study Group.
- Actions will be needed across five main areas (the 5R's): capital reallocation; risk analysis; responsibility; reporting and disclosure; and strategic roadmaps. In all, UN Environment estimates that such actions to green the financial system have more than doubled to over 200 measures across 60 countries.<sup>1</sup>

## 1.1 THE GLOBAL FINANCING CHALLENGE

Harnessing the nearly US\$300 trillion global financial system is essential if countries are to make a rapid and orderly transition to a prosperous, inclusive and sustainable economy.<sup>2</sup>

Over the past decade, there have been increasing efforts by financial institutions, as well as steps taken by central banks, financial regulators and market standard setters, to align the financial system with long-term sustainable development. This is being driven by the growing acknowledgement of the value of sustainability factors for efficient capital allocation to the real economy, the delivery of risk-adjusted returns, the management of emerging threats and the strengthening of economic governance. In the world of institutional investment, for example, the amount of assets now managed by institutions committed to 'responsible investment' has grown almost tenfold since 2006 to US\$59 trillion.<sup>3</sup> Furthermore, 62.2% of meta-analyses conducted by academics find a positive correlation between performance on ESG factors and corporate financial returns.<sup>4</sup>

This agenda moved to the next level in 2015 when the governments of the world reached three major agreements that set out their vision for the coming decades: a new set of 17 SDGs, the Paris Agreement on climate change and the Financing for Development package.

- **Sustainable Development Goals:** The centrepiece of the 2030 Agenda for Sustainable Development, the 17 SDGs bring together an interlocking set of economic, social and environmental objectives through to 2030, matched by 169 targets.<sup>5</sup> For the financial system, the SDGs set out a high-level roadmap for generating 'shared value' – shifting capital away from damaging 'business as usual' trends and towards an end to poverty, increased prosperity with social inclusion and environmental regeneration.<sup>6</sup>
- **Paris Agreement on climate change:** The Paris Agreement agreed to "making financial flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development"<sup>7</sup> The Paris Agreement means aligning capital with the long-term goal of keeping the increase in global average temperature "well below 2°C above pre-industrial levels", with the aspiration to "limit temperature increase to 1.5°C". It also gave a higher profile to financing adaptation to growing climate shocks.

- **Financing for Development:** The outcome document of the Financing for Development conference (Addis Ababa Action Agenda or AAAA) focused on steps to increase domestic and international resource mobilization for developing countries in terms of public and private capital. One of its conclusions was to “strengthen regulatory frameworks to better align private sector incentives with public goals, including incentivizing the private sector to adopt sustainable practices, and foster long-term quality investment” both from domestic and international institutions.<sup>8</sup>

To deploy capital at the scale and speed required, a number of interlocking elements have to be in place:

- First, policy action is needed in the real economy to remove market failures such as unpriced pollution and resources. Progress has been made to internalize externalities into market prices and better match macroeconomic and sectoral policies with the need to regenerate natural capital, for example in agriculture, energy, housing, industry transport, water and waste. But serious market failures remain worldwide – and without effective pricing of scarce natural capital, a risk emerges rapidly: adjusted returns for sustainable finance are likely to be inadequate to attract sufficient capital.
- Second, the effective deployment of public finance is needed to provide public goods and stimulate private action. Public finance is essential to deliver collective goods that the market cannot provide – and also to stimulate private action through incentives and subsidies. For sustainable development, public finance is important both domestically as well as internationally to assist the transition process in developing countries. In all countries, public finance is scarce – and particular attention is needed to identify cost-effective options with high leverage impacts.
- Third, action is also needed *within* the financial system to remove market and institutional barriers that can prevent the efficient allocation of capital to sustainable development. These can include misaligned incentives, short-termism, inadequate risk management, insufficient transparency and poor stewardship. Action within the system is particularly important to address a number of critical financing challenges, including:
  - *Capital Intensity:* Sustainable development often involves replacing the exploitation of natural capital with human expertise and clean technologies. From a financial perspective, this can mean higher upfront capital costs for investments in buildings, energy and transport, matched by much lower operating costs, ultimately resulting in improved life cycle costings. As a result, finding ways of reducing the cost of capital is a critical task.
  - *Speed and Scale:* Current levels of sustainable finance also need to be considerably increased over a short period to meet key time-bound targets. For example, to keep the increase in global average temperature below the 2°C target agreed in Paris, “a sharp ramp-up in investment into lower- and zero-carbon energy sources will be required over the next decade”, according to Bloomberg New Energy Finance.<sup>9</sup> Global clean energy investment would need to climb almost four-fold from US\$1.2 trillion between 2010 and 2014 to US\$4.4 trillion between 2021 and 2025.
  - *Extending the Time Horizon:* Delivering these short-term priorities over the next decade requires taking a strategic view, particularly for long-lived buildings and infrastructure. But financial markets and financial policy can suffer from a ‘tragedy of horizon’ in the words of Bank of England Governor Mark Carney, discounting future risks in today’s decisions, risking irreversible damage.

In essence, the task is to develop a financial system that is ‘fit for purpose’ for this transition. This is clearly a major challenge – but sustainable finance is an increasingly dynamic arena, with high-level policy agreements now being matched by changes in both financial practice and financial policy. The global report of the UN Environment Inquiry, *The Financial System We Need*, highlighted a ‘quiet revolution’, as financial rule-makers and institutions include environmental and social factors into the capital allocation process.<sup>10</sup>

### BOX 1: THE G20'S GREEN FINANCE STUDY GROUP – MOBILIZING PRIVATE CAPITAL

The G20 brings together the world's leading economies to promote strong, sustainable and balanced growth and is a key forum for setting the rules that govern the global financial system. This year (2016) green finance was incorporated for first time into the agenda of G20 finance ministers and central bank governors. As part of China's presidency in 2016, a Green Finance Study Group (GFSG) was established to “develop options on how to enhance the ability of the financial system to mobilize private capital for green investment”.<sup>11</sup>

Co-chaired by China and the UK, and with the support of UN Environment as secretariat, the study group gathered experience from G20' member countries, key international institutions as well as observer nations, the private sector and a range of knowledge partners.<sup>12</sup>

To build a platform of common understanding on the opportunities and challenges facing green finance, the study group focused on five research areas: greening the banking system, greening the bond market, greening institutional investment, risk analysis and measuring progress. Italy's National Dialogue on Sustainable Finance took these five areas as a starting point for its work – adding in other issues, such as reporting and responsibility, equity markets and public finance.

The GFSG's process of dialogue and analysis was captured in a synthesis report endorsed by G20 Finance Ministers and Central Bank Governors, who concluded that “in order to support environmentally sustainable growth globally, it is necessary to scale up green financing”.<sup>13</sup> The G20 Leaders have welcomed a set of voluntary options developed by the Green Finance Study Group, which highlighted that particular efforts could be made to:

- provide clear strategic policy signals and frameworks,
- promote voluntary principles for green finance,
- expand learning networks for capacity building,
- support the development of local green bond markets,
- promote collaboration to facilitate cross-border investment in green bonds,
- encourage and facilitate knowledge sharing on environmental and financial risks, and
- improve the measurement of green finance activities and their impacts.<sup>14</sup>

Germany has announced that it will continue the work of the Green Finance Study Group during its presidency of the G20 in 2017.

Leading examples of this fast-moving agenda include:

- Institutional investors with over US\$59 trillion of assets under management are now committed to the UN-backed Principles for Responsible Investment (PRI), driving action to integrate ESG factors along the investment chain.
- In 2015, 30 stock exchanges joined the Sustainable Stock Exchanges initiative, committing to promoting improved transparency and performance on ESG factors; over 60 exchanges are now involved representing more than 70% of equity market capitalization.<sup>15</sup>
- The green bond market is growing rapidly – with US\$42 billion of bond issuance in 2015 and US\$81 billion in 2016. Proceeds are ring-fenced for investments in areas such as clean energy, energy efficiency and sustainable transport. New policy moves by China have made it the largest issuer in 2016.<sup>16</sup>

- ⦿ In the banking sector, the Mainstreaming Climate Action initiative was launched by a group of 26 development and commercial banks, adopting a set of five voluntary principles to improve risk management and climate performance.<sup>17</sup>
- ⦿ The Financial Stability Board has launched a new industry-led Task Force on Climate-related Financial Disclosures that has published voluntary recommendations for better disclosure both by corporations and financial institutions.<sup>18</sup>
- ⦿ In September 2016, at the G20 Summit in Hangzhou, leaders recognized the need to “scale up green finance” and welcomed a set of seven policy options that had been produced by the Green Finance Study Group to enhance the ability of the financial system to mobilize private capital for green investment.<sup>19</sup>

## 1.2 THE 5RS OF SUSTAINABLE FINANCIAL SYSTEMS

Looking across this emerging practice, five common themes have emerged that cut across the key sectors of the financial system – banking, capital markets, institutional investors, insurance and also the use of public finance to ‘crowd in’ private capital. These can be described as the 5Rs: reallocation; risk management; responsibility; reporting; and roadmaps.

**Figure 1: Harnessing the Financial System – the 5Rs**



- ⦿ **Reallocation:** Financing a sustainable economy will require the efficient reallocation of capital to critical priorities including improving access to green finance (e.g. small and medium enterprises), raising capital for sustainable infrastructure (e.g. energy, housing, transport, urban design), and financing critical areas of clean tech innovation (e.g. agriculture, mobility, power).
- ⦿ **Risk:** Sustainability factors are increasingly relevant factors for risk management within financial institutions – as well as the financial system as a whole. Experience is extending from project analysis through portfolio assessment to system level stress tests for issues across the spectrum of sustainable development issues.
- ⦿ **Responsibility:** Growing numbers of financial institutions are adopting shared principles that guide the integration of ESG factors. Policymakers are often supporting this process through

clarification of how core responsibilities link to sustainability factors (notably fiduciary duty for investors, corporate governance for enterprises).

- **Reporting:** The financial system relies on information flows to enable the efficient allocation of capital – and ensure accountability. Market approaches to disclosure are increasingly supported by policy frameworks (e.g. EU non-financial reporting; FSB Task Force) and extend from corporate reporting to disclosure by financial institutions at the product, portfolio and institutional levels.
- **Roadmaps:** Many countries have elements of a strategy for sustainable finance – but often need a process to ‘join the dots’ across key sectors and issues – taking stock of practice and identifying next steps. The Italian national dialogue is an example of this.

### 1.3 REALLOCATING FINANCE FOR SUSTAINABLE DEVELOPMENT

Estimates suggest that US\$5-7 trillion a year is needed to implement the SDGs globally.<sup>20</sup> Critical priorities include ensuring access to finance for under-served groups (e.g. small and medium-sized enterprises), raising capital for sustainable infrastructure (e.g. energy, housing, transport, urban design) and financing critical areas of innovation (e.g. agriculture, mobility, power). In Europe, the Juncker Plan is seeking to mobilize €315 billion for infrastructure, innovation and SMEs – 80% from the private sector – with a strong focus on sustainability priorities such as clean energy, resource efficiency and public transport. The EU’s Capital Markets Union also recognizes the importance of mobilizing capital for sustainable development.<sup>21</sup>

#### 1.3.1 ACCESS TO GREEN FINANCE

Ensuring access to finance is a priority that cuts across the sustainable development agenda. Clearly a critical priority for ending poverty in developing countries, delivering financial inclusion is also highly relevant for many industrialized countries to meet the needs of underserved groups, whether defined by income, gender, demographics or market structure. Small and medium-sized enterprises are increasingly keen to be active in the green economy – but often can find access to finance a constraint. As part of this, it is important that the users of financial services be actively involved in shaping the demand for sustainable financial services, whether through individual choices, business action or public procurement.<sup>22</sup>

Impact investing is one strategy that seeks to deliver better access to finance for entrepreneurs – building on the earlier experience of micro-finance. Within the EU, one of the priorities of the Capital Markets Union is to enable easier access to finance for small and medium-sized enterprises. Here, financial innovation such as crowdfunding and peer-to-peer lending offers potential, including for priorities such as renewable energy.<sup>23</sup>

#### 1.3.2 SUSTAINABLE INFRASTRUCTURE

Over the coming 15 years, the world will need to invest around US\$90 trillion in sustainable infrastructure assets, more than twice the current stock of global public capital.<sup>24</sup> At present, both public and private finance for infrastructure are insufficient and also de-linked from sustainability priorities, whether in energy, transport, water or urban design more generally. This risks failing to meet pressing social needs for better services, locking in damaging environmental impacts for decades to come and laying countries open to economic disruption if both man-made and natural hazards are not incorporated from the design stage.

A major focus is how to move beyond the banking sector and attract the resources of institutional investors. Focusing on sustainable energy, the OECD has developed a set of policy recommendations on how to channel institutional capital for green infrastructure.<sup>25</sup> Leading investors have also launched a new Green Infrastructure Investment Coalition to construct pipelines of sustainable assets (such as green bonds) with attractive risk/return characteristics.<sup>26</sup> A growing focus is on the sector-wide implications of energy efficiency for lending across housing and commercial finance.<sup>27</sup>

### 1.3.3 FINANCING CLEAN TECH INNOVATION

Mobilizing finance is not just about the broad deployment of existing technologies across the economy. It also needs to encompass better funding for the disruptive technologies and business models that can deliver new sustainability solutions at speed and scale. Raising both the quantity and quality of innovative finance is key for priorities as diverse as clean energy, improved food yields and reduced food waste, smart buildings and cities, universal access to education and health, as well as the monitoring of critical ecosystems.

In Paris, this need was recognized by the launch of Mission Innovation, a new platform supported by 20 countries to accelerate global clean energy.<sup>28</sup> The governments backing this initiative committed to double public investment in clean energy innovation – and also to work closely with leading technology investors, such as Bill Gates, Vinod Khosla, Jack Ma and George Soros who had come together in the Breakthrough Energy Coalition.<sup>29</sup> Critically, innovation in financial technology (fintech) itself could be equally important to bring down the costs and broaden access to sustainable solutions.

#### BOX 2: THE CRITICAL ROLE OF PUBLIC FINANCE

Public finance plays a central role in the transition to sustainable development on both the mobilizing and mainstreaming axes. Across the three sustainability priorities of inclusion, infrastructure and innovation, public finance is often needed to leverage private capital. Public finance can often have a longer time horizon and different risk/return expectations – and is critical for the delivery of public goods that the market will not deliver. This can take the form of fiscal expenditure and subsidies, as well as the use of public financial institutions to co-invest and mitigate risks.

Public financial institutions have often been at the forefront of innovation in sustainable finance, particularly in terms of implementing risk management frameworks, financing environmental assets (such as through the issuance of green bonds) and developing frameworks for reporting and disclosure.

Clearly, public finance is scarce and needs to be used with a focus on efficiency and effectiveness. Whenever an expenditure is proposed, a sustainable source of funding must be identified (e.g. ecological fiscal reform). Groups such as the International Development Finance Club and the Long-term Investors Club can help to share best practice and develop common approaches on sustainable finance.

## 1.4 RISK

The degradation of natural capital can also generate risks for financial assets and institutions – and potentially for the financial system as a whole. According to the 2016 Global Risk Report from the World Economic Forum, a “failure of climate change mitigation and adaptation has risen to the top and is perceived in 2016 as the most impactful risk for the years to come.”<sup>30</sup> Importantly, climate risk is tightly interconnected with rising water stress, conflict, mass migration and food insecurity.

Financial institutions have managed environmental risks for many years. But there is now a growing awareness that traditional approaches are insufficient in the face of accelerating environmental threats. The Bank of England has identified three types of environmental risk for financial institutions and the system as a whole:

- **Physical risks:** direct threats to finance from man-made environmental and natural hazards, such as extreme events, pollution, soil erosion, water stress and climate change.



- ⊙ **Transition risks:** indirect threats generated by responses to environmental degradation, including new regulations, shifting market demand, technological innovation and changing societal expectations.
- ⊙ **Liability risks:** indirect threats created by litigation against financial institutions for banking, insuring or investing in activities that create environmental harm.<sup>31</sup>

Across Europe, other central banks and regulatory bodies are starting to evaluate these risks for financial markets, including in the Netherlands and Sweden. The advisory scientific committee of the European Systemic Risk Board has also explored the implications of the low-carbon transition for the financial system – highlighting the value of scenarios to explore the vulnerability of institutions and the system as a whole to an abrupt re-pricing of assets.<sup>32</sup> In France, the government plans to incorporate climate factors into the stress tests used to assess the resilience of the banking sector.

A group of six credit rating agencies, including Moody's and Standard & Poor's, have committed to integrating ESG factors into their assessment of the creditworthiness of bonds.<sup>33</sup> Across the financial system more broadly, the Natural Capital Finance Alliance (formerly Natural Capital Declaration) is developing a range of tools to better assess and value environmental risks.<sup>34</sup> A new practice of sustainability stress tests is emerging, covering issues such as air pollution, climate change and water stress.

Beyond risk analysis lies the critical issue of building resilience to environmental factors into financial decision-making – not least to protect vulnerable communities from declining flows of ecosystem services as well as from extreme events. As part of the Paris Agreement, for example, national, regional and international financial institutions were asked to report on how their programmes incorporated climate-proofing measures.<sup>35</sup>

In its role as risk manager, risk carrier and investor, insurance lies at the heart of a sustainable financial system.<sup>36</sup> Through the Principles for Sustainable Insurance initiative, insurance companies are particularly focusing on their role in strengthening economic resilience to natural hazards, now being exacerbated by climate change and other environmental challenges.<sup>37</sup> Insurance regulators and supervisors are also starting to take action to manage the environmental and social dimensions of their mandates, particularly focusing on access to insurance and responding to climate change. A new Sustainable Insurance Policy Forum is being set up to enable insurance supervisors to share experience and develop common approaches.

## 1.5 RESPONSIBILITY

Sustainable development and climate change have potentially profound implications for the core duties of financial institutions. Market integrity is a basic precondition for financing sustainable development. A key starting point is respecting the rule of law, for example by eliminating illicit financial flows from corruption, money laundering and tax evasion. In addition, the stability of financial markets is vital to underpin the economic confidence required for long-term investment. Here, the proper functioning of commodity and derivative markets is needed to limit volatility.<sup>38</sup>

Respect for human rights cuts across many of the SDGs – and the financial system has an important role to play to ensure that these rights are fulfilled.<sup>39</sup> The UN's Guiding Principles on Business and Human Rights as well as the OECD's Guidelines for Multinational Enterprises provide core operational frameworks for finance as well as other business sectors.<sup>40</sup> In the financial services sector, the OECD is currently engaging in a multi-stakeholder process to develop guidance on due diligence for responsible business conduct.<sup>41</sup>

Work to align financial responsibility with sustainable development has gone furthest in the investment sector. There is increasing consensus that consideration of sustainability is now part of the fiduciary

duty and other obligations of institutional investors. An international review of the practical links between fiduciary duty and sustainability concluded in 2015 that “a failure to consider long-term drivers of investment value including environmental, social and governance issues in investment practice is a failure of fiduciary duty”.<sup>42</sup> In a recent global investor survey, over 65% of respondents agreed that action on the SDGs was aligned with their fiduciary duties.<sup>43</sup>

Following the financial crisis, sustainability factors have become part of efforts to restore trust in the financial system. For example, in the Netherlands, the banking sector recently adopted its ‘societal statute’ in which banks define their role in helping society overcome critical challenges such as climate change and health care. In addition, a Bankers Oath has now been taken by 90,000 employees of Dutch banks, pledging to carefully balance the interests of all stakeholders of the bank: its employees, shareholders, clients and society at large.<sup>44</sup>

Responsibility is also a driver of market innovation. For example, the Portfolio Decarbonization Coalition brings together 25 institutions that recognize their responsibility to align their investments with a low-carbon pathway. Initially targeting US\$100 billion of assets for the Paris climate conference, US\$600 billion is now committed to a wide variety of strategies, including developing indices that reduce carbon, while maintaining conventional risk-return profiles.<sup>45</sup>

Ultimately, delivering these commitments will require an upgrading of the skills and capabilities of financial professionals. In its White Paper on Financing the Ecological Transition,<sup>46</sup> the French government put forward a range of measures to “re-centre the behavioural set of stakeholder practices around the objectives of ecological transition and funding”, including a specific recommendation to train fund trustees and financial intermediaries in environmental risk assessment methodologies.

## 1.6 REPORTING

Enhanced reporting is a foundational element for the establishment of sustainable financial systems – enabling consumers to pick the right financial products, investors to make informed choices and regulators to assess the threat to the resilience of the financial system from sustainability-related disruption.<sup>47</sup> The new FSB Task Force on Climate-related Financial Disclosures has highlighted the central role of reporting – and signals an important step towards a comprehensive disclosure across the wider sustainability agenda. The TCFD recommendations ‘provide globally relevant guidance for consistent reporting by both corporations and financial institutions.’<sup>48</sup> Significantly, the TCFD emphasized the importance of forward-looking disclosures as well as reporting on past performance.

Table 1 sets out the role of reporting across the critical themes of reallocation, risk and responsibility.

Efforts to cultivate effective disclosure of sustainability-related information have a long history in Europe, spanning more than 20 years. Corporate disclosure of GHG emissions is now mandatory in several EU member states, including the United Kingdom, France and Denmark. Eight of the exchanges ranked in the top 10 of a recent global assessment of sustainability disclosure are located in Europe.<sup>49</sup> At the EU level, the Non-Financial Reporting Directive requires listed large companies, banks, insurance companies and other financial intermediaries (>500 employees) to disclose information on risks, policies, outcomes and indicators as regards environmental matters, social and employee aspects, respect for human rights, anticorruption and bribery issues, and diversity in their board of directors through in annual independently verified reports on non-financial information accompanying the legal management report.<sup>50</sup> In addition to the Directive’s provisions, a non-binding European guidance on the methodology for reporting this information has been developed in 2016.<sup>51</sup> Transposition in EU countries is also expected in 2016.

Disclosure is not just needed from corporations – but also from financial institutions themselves, not least to enable their clients to assess whether ESG factors are being properly managed. Over ten EU member

states, including Italy, require that pension funds to disclose their approach to ESG issues. As part of its new Energy Transition Law, France has introduced new requirements for institutional investors to report their own exposure to climate related risks and the alignment of their portfolios with the 2°C target.<sup>52</sup> Institutional investors with over US\$10 trillion in assets under management have committed to publish a ‘carbon footprint’ of their portfolios. A number of European countries are also introducing labelling programmes for financial products to improve transparency for consumers.

**Table 1: The Role of Reporting in a Sustainable Financial System**

Action Area	Current reporting dimensions	Sustainability Alignment
<b>Reallocation</b>	Corporate disclosure, listing rules, exchanges, products, ratings, and research	Enhancing reporting on stock exchanges on a broad range of sustainability factors, clear disclosure for environmental assets (such as green bonds), transparency on sustainability in investment research.
<b>Risk</b>	Reporting on prudential risks through national and EU risk frameworks	Integrating sustainability factors into risk reporting at firm and system levels across asset classes. Transparency by credit rating agencies on ESG factors. Reporting by financial regulators on aggregate risks and performance.
<b>Responsibility</b>	Reporting by financial institutions to shareholders and beneficiaries	Reporting on sustainability policies, strategy and performance across portfolios and products as well as at the institutional level.

## 1.7 ROADMAPS

At the heart of the Agenda 2030 process is the development of ‘integrated national financing frameworks’.<sup>53</sup> As part of the implementation of the Paris Agreement, the Intended Nationally Determined Contributions (INDCs) submitted in 2015 need to be turned into actual plans, each with a major financial dimension. Dialogue at the national level is critical both to identify real priorities and design roadmaps fitting country needs and circumstances. Most countries have elements of a sustainable financial system in place – but these are often not joined up or focused in a strategic way.

Over the past two years, a number of countries have taken a strategic approach to harnessing the financial system. Examples include:

- **China:** In August 2016, China’s State Council adopted a comprehensive set of ‘Guidelines for Establishing the Green Financial System’<sup>54</sup> developed by the People’s Bank of China (PBoC) along with six other Chinese financial regulators. Back in 2014, the PBoC had established a task force, co-convened with UN Environment, to assess how to mobilize the US\$600 billion in capital needed each year to invest in green industries.<sup>55</sup> Building on a range of existing measures, the Guidelines cover 35 specific actions covering banking, securities, public-private partnerships, insurance, emission trading, local finance, risk management and international cooperation.<sup>56</sup>
- **France:** Building on the 2013 White Paper on Financing the Ecological Transition, France passed its Energy Transition Law in 2015. This takes a comprehensive approach to mobilizing finance, with actions in the real economy and financial system. New provisions will improve disclosure, stimulate product innovation and start the process of climate stress testing in the banking sector.
- **Indonesia:** In 2014, the country’s financial regulator, OJK, launched a Roadmap for Sustainable Finance, setting out key steps in the banking and capital markets sectors through to 2019. Key goals include increasing the supply of sustainable finance and improving risk management and disclosure.

- ⊙ **Sweden:** In the 2015 Budget, the government made clear that the financial sector should contribute to sustainable development. This strategic commitment is now being cascaded through a number of measures, including action by the Financial Services Authority and the AP system of pension funds.
- ⊙ **The UK:** On the back of growing market demand and action by the Bank of England on climate risk, in January 2016, the City of London launched its Green Finance Initiative. The initiative is supported by the government, including the Treasury, but is private-sector led. The focus is on improving the role of London as a green finance centre.

These initiatives have diverse starting points – and are tailored to the specific needs of each country. What they share is a focus of combining market innovation with policy frameworks along with a focus of looking across financial sectors to develop an overall strategy for the system as a whole.

## 2 THE LANDSCAPE OF FINANCE AND SUSTAINABLE DEVELOPMENT IN ITALY

### HIGHLIGHTS

- Italy is taking a number of steps to promote sustainable development, notably through the preparation of a national strategy and a range of actions to build a green economy.
- Italy's private sector approach to financing sustainability is characterized by a small number of large financial institutions, the dominance of SMEs and a large 'third sector'.
- Overall, progress could be enhanced through a set of measures to strengthen the general policy framework.

### 2.1 THE CONTEXT: ITALIAN ECONOMY AND FINANCIAL SYSTEM

Italy is one of the world's largest economies – 8<sup>th</sup> by nominal GDP and exports, owning the 3<sup>rd</sup> largest gold reserves. It is the 3<sup>rd</sup> largest economy in the Eurozone, the 2<sup>nd</sup> largest manufacturer in Europe and the 3<sup>rd</sup> largest contributor to the European Union.

Yet, the Italian economy suffers from structural challenges, namely:

- High Public Debt: the stock of public debt amounts to €2.17 trillion (113.2% of GDP) as of 2015<sup>57</sup> and the *net borrowing of general government as percentage of GDP* is 2.6%.<sup>58</sup>
- Weak Growth: since the late-2000s crisis, the Italian economy has contracted in terms of GDP by about 10% and the growth rate is lower than the Eurozone average.<sup>59</sup>
- North-South Divide: the average GDP per capita in Northern and Central regions is significantly higher than the EU average, while in the South it is dramatically below.

The private sector is characterized by the vast prevalence of SMEs. Small companies have a disproportionate weight in terms of number (99.9% of the total, out of which 95% has fewer than 10 employees), value added (c70-75%), employment (c80%) and capitalization.

Historically, Italy has one of the highest household saving rates – although, after the crisis, Italian households' propensity to save has fallen by 15 percentage points, from 25% in 1980 to 10% in 2014. Levels of household debt are one of the lowest among OECD countries (about 90% of net disposable income). The accumulated wealth amounts to €8.35 trillion (€163,000 per adult). The distribution of wealth is relatively favourable compared with other developed countries, with the richest 1% of the population owning 21% of the country's total wealth.

The Italian financial system is bank-centric: fewer than 16% of financial intermediaries in 2010 were independent from banking groups. In global terms, Italy's banks are relatively small: the biggest Italian bank ranks 28<sup>th</sup> in the world;<sup>60</sup> the biggest insurance ranks 8<sup>th</sup>;<sup>61</sup> and the largest asset manager ranks 32<sup>nd</sup>.<sup>62</sup>

The Italian financial sector is quite traditional, partly because of the characteristics of the demand side, partly because the relative small size of financial players makes the investment needed for innovation

more difficult. However, during the last years, a massive concentration process has affected most of the financial institutions, whose average size has grown significantly.

Overall, Italy can be considered as an economy that has valuable assets and considerable potential, but also faces major challenges in delivering long-lasting performance in a quickly changing landscape, including now the competitive challenge of sustainable development.

## 2.2 PUBLIC POLICIES FOR SUSTAINABILITY

According to the Report on the Green Economy in Italy,<sup>63</sup> 27.5% of Italian companies can be defined “core-green”, i.e. producing goods or services with high environmental value. On top of that, another 14.5% is classified “go-green”, which means that they have an environmental strategy and/or management system and they adopted high quality environmental standard in the production processes or in the product design. In 2014, 21.7% of the core-green companies and 22.1% of the go-green have increased their turnover, against a 10.2% rate of the general average. 29.8% of the core-green sample expects further growth of sales and employees.

In 2002, the Italian government set out its National Strategy for Sustainable Development. In addition to the national strategy, European Union policies on specific issues of sustainable development, such as climate change and energy, have played an important role in shaping Italy’s policies.

After the major steps made at the international level in 2015 with the SDGs and the Paris Agreement, the Parliament has asked the government to undertake a profound renewal of the National Strategy, by means of Law 221/2015 (“Measures in environmental matter for promoting green economy and limiting the excessive use of natural resources”).

The main provisions relating to sustainable development are the following:

- Article 3 requires the renovation of the National strategy on Sustainable Development every three years. The strategy approval decision should be taken by the government (through a resolution by the government Committee called CIPE), upon a proposal submitted by the Ministry of Environment, Land and Sea, after consultation with the State-Regions Conference and with the national environmental non-governmental organizations. In this context, the Ministry of Environment is currently engaged in involving all concerned actors, both institutional and non-governmental, in order to draw up a proposal for the updating of the National Sustainable Development Strategy, in line with the 17 SDGs of the UN Agenda 2030. The strategy development process is articulated through:
  - a policy context analysis (international scenario and best practices);
  - a quantitative-qualitative assessment of the country positioning against the 17 goals, 169 targets of the 2030 Agenda by using the target level indicators recommended by the IAEG (Inter-Agency and Expert Group on Sustainable Development Indicators), in connection with the ongoing OECD similar exercise;
  - identification of the country’s key strengths and weaknesses;
  - identification of priorities, strategic approach and specific objectives at national level;
  - active multilevel consultation throughout the whole process.
- Article 5 refers to the development of sustainable mobility with particular attention to car-pooling, car-sharing, bike-pooling and bike-sharing.
- Article 21 establishes the voluntary label “Made Green in Italy” for Italian firms, which quantifies and certifies the environmental footprint of national products, in order to highlight and promote the labelled products in the national and international markets.
- Article 67 establishes, at the Ministry of Environment, Land and Sea, the Natural Capital Committee, composed of representatives from the main administrations, government

### Box 3: FINANCING SUSTAINABLE DEVELOPMENT AT THE LOCAL LEVEL<sup>64</sup>

As highlighted in the UN SDG Synthesis Report, “many of the investments to achieve sustainable development goals will take place at the sub-national level and be led by local authorities” (UN, 2014). The Addis Ababa Action Agenda adopted at the Third International Conference on Financing for Development in July 2015 recognizes that “expenditures and investments in sustainable development are being devolved to the sub-national level, which often lack adequate technical and technological capacity, financing and support” and calls for greater international cooperation “to strengthen capacities of municipalities and other local authorities”. The AAAA calls upon the need to draw upon all sources of finance and puts forward a policy framework that realigns financial flows with public goals.

Public investment shapes choices about where people live and work, influences the nature and location of private investment, and affects the overall quality of life. The impact of public investment depends largely on how governments manage it, as well as how the different levels of government co-ordinate and develop capacities to design, assess, prioritize and implement investment projects. In fact sub-national governments were responsible for more than two thirds of total public investment in 2013 across the European Union (OECD, 2013). Relations across levels of government have changed over the last two decades. Decentralization has made local and regional governments more powerful in formulating and delivering policy thereby increasing their scope for improving the competitiveness of the regional economy and the well-being of residents.

In Italy, total government investments in 2014 were US\$48.1 billion (US\$791 per capita and 2.2% of the GDP). Local government investments, in the same year, were US\$26.4 billion (US\$434 per capita and the 1.2% of the GDP). These investments were allocated as follows: 30.6% economic affairs, 11.6% general services, 9.8% education, 18.3% housing, 7.0% environment and 22.7% other (OECD, 2016).

A suitable financial framework to achieve the required level of funding for sustainable development at the local level is currently lacking. The combination of public and private resources will be more and more crucial, as well as the adoption of innovative forms of financing by cities, starting from green bonds. Local governments financing systems need to be rethought developing appropriate tools related either to the policy and project assessment phase (e.g. coherence with the national sustainable development strategy that is currently in progress, mandatory financial risk analysis and cost-benefit analysis of projects), either to the financing of investment phase (e.g. introducing new local taxation schemes and using land and property added-value capture). Financial intermediate institutions are needed to match the gap between investors and urban investments, as well as tools to reduce risks. Moreover investments should be realigned with social and environmental priorities, allowing a systematic internalization of externalities, through the application of integrated accounting systems techniques. A more integrated approach inside local governments will be required to address climate change and sustainable development, mainstreaming these dimensions across several departments and throughout the collaboration with external actors. It will also be required to build governance and institutional capacity at all scales (local, regional, national and global).

agencies and experts with the duty of producing a report on the state of the country's natural capital in the framework of the national public budget planning process. The report should include information and environmental data expressed in physical and monetary units, following the methodologies defined by the United Nations and the European Union,

as well as ex ante and ex post evaluations of the effects of public policies on natural capital and ecosystem services.

- Article 68 sets up a national catalogue on environmentally harmful or friendly subsidies (including fossil fuels subsidies). An annual progress report should be presented to the Parliament and to the Presidency of the Council of Ministers by July every year.

Another milestone is expected in 2017, with the issue of a government bill called the “Green Act”, which should include further measures for the decarbonization of the economy, for resource efficiency and the circular economy, and for sustainable finance.

Following the fiscal reform act (so-called “delega fiscale”, law n. 23 of 11 march 2014 concerning the reform of the tax system towards a higher standard of equity, transparency and efficiency), the government had a first opportunity to reform the environmental taxation system. With the Green Act, a new window of opportunity is expected, in order to shift the tax burden from ‘goods’ (such as enterprise and labour) to ‘bads’ (such as resource depletion and pollution). The Catalogue on environmentally harmful and favourable subsidies provides the government with useful information on specific tax expenditures that could and should be progressively removed to underpin the reduction of taxes on enterprises and labour.

Italy may also promote a debate in Europe on the greening of the tax and public expenditure system, in order to give the right price signals to consumers, producers and the financial system, building on experience with environmentally harmful subsidies evaluation, carbon pricing and economic instruments.

It is also critical to look beyond the national level in terms of fiscal policy to highlight the role of local financing strategies (see Box 4).

It is important that Italy harmonizes the work at national and supranational level to design innovative financial systems aimed at supporting the sustainable development agenda. This could focus, in particular, on designing more effective public financial instruments to leverage private resources. In this perspective, a potential opportunity is offered in the Italian Law n. 30/2013 implementing the EC Directive 2009/23 on the greenhouse gas emission allowance trading scheme. The revenues from this trading scheme are earmarked for outbound investments including *inter alia* climate change mitigation and adaptation in developing countries. Further thoughts on how to improve the linkages between international cooperation finance and sustainable development are included in Box 4.

Finally, a recent law introduced a new set of indicators (BES – Benessere Equo e Sostenibile, *Indicators of Equitable and Sustainable Well-being*) produced by Istat (National Statistic Institute) alongside the traditional economic and financial indicators in the elaboration of the State Budget Planning. The first BES edition has been released in March 2013 at the end of a joint project promoted by Istat and CNEL (National Council for the Economy and Labour), following a long and rich debate with the civil society and the academic community in order to go beyond GDP as the only measure of well-being. The BES, a sort of SDGs precursor, is a set of indicators representing 12 areas (health, education, work and work-life balance, wealth, social relations, politics and institutions, security, individual well-being, cultural heritage, environment, innovation, and quality of services), similar but inevitably not always coherent with the Agenda 2030 set of 17 Goals and 169 Targets. A further development of the set of indicators used to monitor public national policies, to make it coherent with the Agenda 2030, the Paris Agreement and the upcoming National Strategy on Sustainable Development, is thus expected.



#### **BOX 4: INTERNATIONAL COOPERATION FINANCE AND SUSTAINABLE DEVELOPMENT**

In the last years, the role of climate finance in channeling international cooperation funding is constantly and rapidly growing. According to UNFCCC referring to 2012, climate finance from developed to developing countries (including public and private funds) is estimated to range between US\$40 billion and US\$175 billion per year, depending on the methodological approach adopted. Climate finance flows from developed to developing countries through public institutions are estimated between US\$35 and US\$50 billion, including finance provided through both multilateral and bilateral channels

As far as international cooperation is concerned, Italy historically plays a prominent role in promoting and financing sustainable development either bilaterally or multilaterally. In 2013, 75% of Italy's public development aid was channelled through multilateral cooperation, of which 45% went to the EU budget, while 30% went to UN agencies and international financial institutions.

The recent reform of the general regulation on international cooperation for development (Law n. 125/2014) provides an updated strategic framework aimed at bolstering Italy's participation to multilateral and bilateral cooperation, particularly in light of the need to scale up the contribution to the global efforts for the implementation of the SDGs. The Law 125/2014 establishes a revised governance structure for institutional and non-governmental cooperation actors and identifies a set of priority sectors where to catalyse actions and mobilize financial resources on the basis of the principles of aid and development effectiveness including, inter alia, a) environmental sustainability, with a focus on water and energy; b) sustainable agricultural development and food security; c) capacity building and good governance; d) sustainable development of the private sector, capitalizing on Italy's national model of small and medium enterprises.

Italian cooperation funds need to be re-oriented towards projects and initiatives coherent with the new international framework defined by the UN Agenda 2030 and the Paris Agreement. In relation to international cooperation, the SDGs indicate that the special needs of the most vulnerable and underdeveloped countries should assume a more prominent role in international development cooperation and in the climate change mitigation and adaptation finance. The Paris Agreement strengthened the concept of additionality of climate investments with respect to traditional cooperation funds. In particular, developed country Parties agreed to provide additional financial resources to assist developing country Parties with respect to both mitigation and adaptation, in continuation of their existing obligations under the UN Framework Convention on Climate Change. Developed countries intend to continue their existing collective goal to mobilize US\$100 billion per year by 2020 and then widen this effort. Italy is called to contribute to this international climate finance challenge.

Italy should continue to play an important role in defining new policy strategies and solutions by reorienting national, European and international cooperation funds toward more sustainable and climate friendly investments.

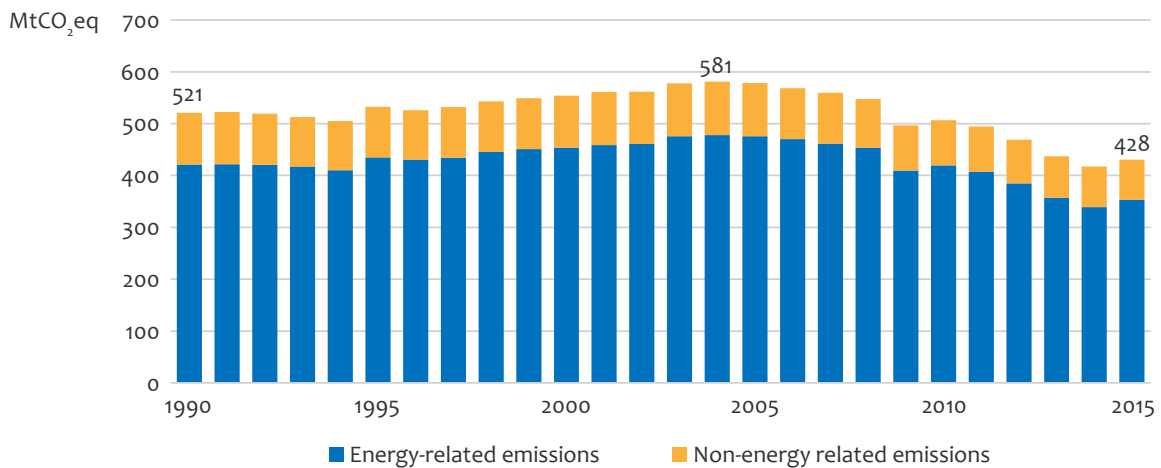
### **2.3 KEY SUSTAINABLE DEVELOPMENT CHALLENGES FOR ITALY**

These steps have achieved a positive momentum. Overall, a report from the Bertelsmann Foundation<sup>65</sup> ranks Italy 26<sup>th</sup> out of 34 OECD countries in terms of proximity to the full achievement of the SDGs. Italy is well positioned on (i) high healthy life expectancy, (ii) low material intensity, (iii) low level of obesity and (iv) high energy efficiency. However, the report rated it weak on (i) perceived level of corruption, (ii) youth unemployment, (iii) education and competences, and (iv) air pollution.

Another study from the Sustainable Development Solution Network<sup>66</sup> analyses a broader sample of 152 countries and ranks Italy 25<sup>th</sup>. The Goals that are particularly critical to Italy are education, employment, inequality, responsible consumption, fight against climate change, peace and justice, partnership; all the others are mid-critical. The report concludes that Italy is currently not in line with any of the SDGs. In order to fill the gaps, the Italian Alliance for Sustainable Development (ASVIS) has proposed in its last report<sup>67</sup> a number of recommendations regarding the institutional changes needed (sustainable development governance) and the public policies related to climate change and energy, on poverty and inequalities, circular economy, innovation and employment, on human and social capital, health and education, natural capital and quality of the environment, cities, infrastructures and international cooperation.

Climate change is one of the priority areas in the challenge of sustainability (Goal 13), with many links with all other SDGs. As to climate change mitigation policy, Italy's Greenhouse Gas Emissions in 2014 (419 million tons) have fallen by 20% since 1990 and by 28% since 2005 levels.<sup>68</sup> Although emissions rose by about 3% in 2015, Italy seems on track for reaching its 2020 target (-18% since 2005), as set by the National Energy Strategy (2013) following the 20-20-20 EU package targets.<sup>69</sup>

**Figure 2: Italy Greenhouse Gas Emissions, 1990-2015**



Source: ISPRA, EEA, Fondazione per lo sviluppo sostenibile

According to the European Environment Agency,<sup>70</sup> Italy is projected to not meet its 2020 emission reduction target with existing measures. Recently introduced strategies and support measures, including the National Energy Strategy, aim to tackle this deficit and bring Italy on course to surpass the 2020 goal, while at the same time developing Italy's green economy sectors and creating green jobs. One of the biggest challenges identified by the EEA is the inclusion of environmental externalities into existing environmental taxation. EEA acknowledges that Italy's new National Energy Strategy, approved in March 2013, includes various targets, such as energy cost reduction (prices and volumes) through investment in renewables and energy efficiency, reaching and surpassing all European climate change and energy goals, a higher security of supply as well as industrial development of the energy sector.

## 2.4 ITALY'S PRIVATE SECTOR AND SUSTAINABILITY

Italian capitalism has a solid tradition of social responsibility, good citizenship and sustainability. The relative small number of very large companies has, however, obscured the international visibility of Italy's good practices, which are often enacted by small enterprises. A recent survey from Eurobarometer,<sup>71</sup> for instance, shows that 67% of Italian SMEs have implemented some measures to promote the circular economy. The same study says that most European small businesses have self-financed these measures; of the SMEs that are not yet taking action, 44% argued it would be difficult to access external finance. In sum, SMSEs seem ready to do their part, but they are not sufficiently

structured to benefit from the tools and resources put at their disposal. Information does not reach them and opportunities are lost.

The Ministry for Economic Development created a study committee to introduce some green reform in the fiscal policy. This can be a unique opportunity to create the right stimulus, especially for SMEs, to invest in more sustainable business models and management systems and to progressively remove the environmentally harmful subsidies (estimated about €3 trillion).

In 2012, new measures were approved to encourage the creation of new start-ups through the simplification in the administrative procedures and the introduction of a special tax benefit for both private and institutional investors willing to provide capital for innovative businesses. This advantage is even higher when the start-up has a social purpose.

Italy has a strong track record of new entrepreneurship in sustainability-related sectors. Numerous start-ups providing solutions to environmental and social challenges have arisen. They offer services to individuals (health care, mobility, housing), communities (collaborative services, management of cultural heritage, urban regeneration), companies (eco-design, corporate welfare, circular economy), public administration (supply of public goods, smart cities, energy efficiency). Most of these enterprises, however, suffer from a lack of patient capital supply.

Beyond the traditional for-profit sector, Italy has one of the strongest third sectors in Europe, ranging from charities to cooperatives to social enterprises, including more than 235,000 organizations, employing about 490,000 people, generating almost €70 billion (c. 4.3% of GDP). The recent reform of the sector, passed by the Parliament in June 2016, has established a new framework that will further strengthen the role of non-profit entities. Among other things, the new law regulates social enterprises (that can have also the legal nature of limited or joint stock company), removing the prohibition on the distribution of dividends. This is a great opportunity for social businesses to attract patient capital from socially motivated impact investors and to further boost the growth of a new industry that puts sustainability at the heart of its mission. Banca Popolare Etica, incorporated in 1998, is the leader financial institution in this market. It grants financing to organizations operating within the third sector that carry out civilly oriented economic projects. Similarly, Banca Prossima is the bank of Intesa Sanpaolo Group dedicated exclusively to social and non-profit initiatives. Other banking groups have created specific business units to better serve the third sector clients. The Credito Cooperativo – a system based on a network of 337 cooperative banks that promote development and work to meet the social and economic needs of local communities – traditionally plays a prominent role.

Italy is also the first country in the world, after the US, to have introduced the Benefit Corporation (BCorp) model into its legal system. The regulation is quite simple, as it states that a company, regardless of its legal nature, can adopt the denomination “società di tipo benefit” as long as it states in its bylaws that it pursues a social mission and reports periodically on how and to what extent it has achieved the expected goals. This seems a very effective instrument to allow for profit companies to make a strategic commitment to sustainable development with a clear definition of its mission to different stakeholders. After the adoption of the Law 208/2015 in December 2015, some 45 enterprises have registered as benefit companies.<sup>72</sup>

The financial sector itself has also moved towards the integration of sustainable development factors in its core processes. Italy was one of the first developed countries to introduce in 2007 transparency regulation for all Sustainable and Responsible Investment (SRI) products (which requires financial institutions selling financial products labelled as “green” or “sustainable” or “responsible” to provide further information on what criteria, processes and controls are applied to prevent any abuse of public trust) and a disclosure obligation for pension funds on how ESG concerns are integrated into their investment policies (2012). Institutional asset owners, notably pension funds and, to a lesser extent,

foundations, are progressively improving the quality and the breadth of their SRI approach, while only a few asset managers are re-orientating their investment processes and making sustainability a key, distinctive element of their value proposition. In 2014, about €550 billion in assets under management were managed according to a range of SRI strategies, about 6% of the European total. Since then, latest research suggests that numbers of players and assets have grown. In the retail market, a recent survey<sup>73</sup> carried on a sample group of the Italian population reveals that 45% of households are interested in SRI and would consider SRI products in their investment choices.

In terms of the wider capital markets, in the 2016 ranking of sustainability disclosure on 45 stock exchanges, Borsa Italiana climbed 11 places to 19th position. In terms of revenues from listed companies involved in the green economy, the Borsa ranks 10th among global stock exchanges. In addition, a number of innovative instruments have been launched to encourage SMEs to access capital markets. Currently, Italy has €738 million in bonds that are aligned with action on climate change. More than 22% of Italy's insurance market is covered by companies that have signed the UN Principles for Sustainable Insurance.

Overall, a collective effort is needed to increase the level of awareness of financial professionals on social/environmental risks and to improve the level of financial literacy of households. The extent to which climate change and other environmental and social macro trends can affect real economy and social stability is still largely unknown to a large share of decision makers in the business and financial communities. Little has been done to create remuneration schemes that encourage decision makers to pursue social and environmental value for a broader group of stakeholders.



## **PART B**

# **Cross-cutting Priorities**

## 3 CROSS-CUTTING PRIORITY: RISK ANALYSIS AND STRESS TESTING

### HIGHLIGHTS

- Environmental factors are an increasing source of financial risk stretching from the project level through to the financial system as a whole.
- Italy's financial institutions often have well-established environmental risk systems in place, with the Banca d'Italia now conducting new analysis of links between natural hazards and credit risk.
- A number of steps can be taken to improve risk assessment, notably: (i) the establishment of a collaborative consortium to pilot 'environmental stress testing' models and (ii) the evaluation by market regulators of the implications of climate change for Italy's economy and financial system.

### 3.1 INTRODUCTION: RECOGNIZING ENVIRONMENTAL SOURCES OF FINANCIAL RISK

Environmental factors are an increasing source of financial risk across all financial sectors – banking, capital markets, insurance and investment, as well as Italy's financial system as a whole. The Paris Agreement has put the spotlight on the need to finance the transition to a low-carbon and resilient economy and, more broadly, to an economic system that operates within planetary boundaries. The impact of extreme weather events, as well as the failure of efforts to address climate change have risen to the top of the list of global risks and are closely related to other systemic threats, such as water crises, interstate conflicts and large-scale migration.<sup>74</sup> Climate change-related risks have moved from the hypothetical to the strategic.

Internationally, a number of initiatives are under way to improve the disclosure, assessment and management of environmental risks. These include the FSB's Task Force on Climate-related Disclosures, the G20 Green Finance Study Group, the UN Environment Inquiry into the Design of a Sustainable Financial System, and the Portfolio Decarbonization Coalition.<sup>75</sup> The Natural Capital Declaration is also developing stress test tools for banks to better understand the implications of water scarcity.<sup>76</sup>

As part of the G20's Green Finance Study Group, an analytical framework for understanding the implications of environmental factors on traditional dimensions of financial risk has been developed (see Figure 3).

The key insight here is that environmental factors do not necessarily present novel types of risk – but impact on existing categories of risk in new ways. Importantly, these risks stretch from the project through the firm and sector levels onto financial sectors and the financial system itself.

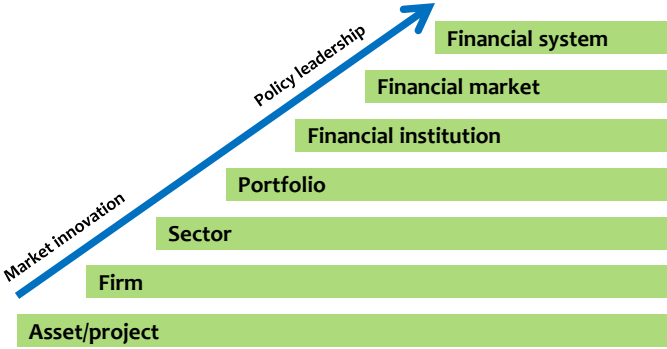
This chapter presents an overview of the state of the art as well as opportunities for improvement. This is not meant to present an exhaustive review of the existing methodologies, nor does it aim to provide any technical recommendation on how to embed environmental factors into a risk analysis or define a stress test methodology.

Figure 3: An Analytical Framework Linking Environmental Factors with Financial Risk

		Financial risks			
		Business	Credit	Market	Legal
Environmental sources	Physical – Climatic – Geologic – Ecosystems				
	Transition – Policy – Technology – Sentiment				

Source: Cambridge Institute for Sustainability Leadership, 2016<sup>77</sup>

Figure 4: Environmental Risk at Different Levels from Project to System



Source: UN Environment Inquiry, 2016

### 3.2 THE STATE OF THE ART

In Italy, physical risks have been assessed at the system level by the Italian Ministry of Environment in its National Adaptation Strategy to Climate Change (Strategia Nazionale di Adattamento ai Cambiamenti Climatici), in cooperation with the Euro-Mediterranean Centre on Climate Change (CMCC).<sup>78</sup> At the corporate level, pollution risk has been the topic of a study by the insurance sector through the *Pool Inquinamento*, a consortium for co-reinsurance among Italian insurers (see Box 5).<sup>79</sup>

**Box 5: THE POOL INQUINAMENTO (POLLUTION POOL)**

Some players of the insurance industry in Italy have gathered together in a joint initiative called Pool Inquinamento. The pool is a useful co-reinsurance tool for all players involved in managing environmental risks.

Manufacturers can deploy their activity, within a prevention and control framework, with a solid back up of financial coverage. Small and medium insurers have the chance to tackle a highly specialized market otherwise inaccessible. Large corporates, whose know-how and fees allow the Pool to operate, prefer to join the pool in order to leverage the advantages coming from cooperation, including lower fees. Reinsurance companies join the pool aware that risks are underwritten directly in line with specific technical rules.



## BOX 6: ENVIRONMENTAL RISK MANAGEMENT IN ITALIAN BANKS

**Intesa Sanpaolo:** The company has integrated social and environmental requirements in its credit policy as components of operational risk. These are detailed in the Intesa Sanpaolo operational risk guidelines – and they are considered as elements of risk in the credit evaluation. The overall credit rating assessment model includes a general question about potential social and environmental risks associated with our customers' activities. Furthermore, starting from January 2016 a feasibility study has started to assess how to include environmental risks in the analysis of the creditworthiness of companies belonging to the sectors most exposed to such risk. This will be most likely achieved through an analytical questionnaire to be completed by the customer that will contribute to the credit analysis. ESG factors are specially considered within the scope of the Equator Principles, which applies to all new project financings with total project capital costs of US\$10 million or more, globally and to all industry sectors. In terms of specific credit policies for environmental and socially sensitive sectors or issues, Intesa Sanpaolo has long adopted a policy for the production and trade of military weapons and has planned to develop a series of other specific policies, starting from the sectors related to fossil fuels.

**Montepaschi di Siena:** Banca Mps, pursuant its ethical and corporate responsibility principles, since 2003 forbids the grant of credit or capital to entities that harm the environment. For this purpose, it experimented with innovative processes, first through its subsidiary Mps Banca Verde (now incorporated) and later by implementing a specific credit risk management policy that integrates ESG assessment parameters, controls and legal clauses aiming at reducing the risk that financed initiatives are below basic environmental standards. This policy is applied to project finance deals as well as mid-large corporate businesses, worth, together, c15% of total corporate lending. On the other hand, the bank sees positive correlations between sustainable business practices, economic performance and solidity, which in turn affect the long-term quality of credit. These aspects are considered also in the relations with SMEs and integrated in the qualitative assessment of customers' risk profile.

**UniCredit:** UniCredit is aware that interdependencies between economic activity, ecosystems and natural resources present business risks. The Group Environmental and Social Council is the organ devoted to proposing and maintaining our environmental and social commitment. The Group has adopted the Equator Principles and since 2003 been engaged in project finance. They have more recently extended in export finance and project-related corporate loans. In addition, certain sectors and activities require a specialized approach to ensure that transactional and related risks are addressed properly. UniCredit has therefore developed detailed guidance policies for sectors relevant to the business that are susceptible to environmental and social risks such as defence/armaments, water infrastructure, nuclear energy, mining, and coal-fired power. UniCredit has conducted an inventory of externalities associated with its financing activities. In 2013, the Group launched a pilot project aimed at quantifying in monetary terms the impacts of pollutants generated in the construction and operation of coal-fired power plants. These have been assessed for their impact on human health, ecosystems, climate change and reserves of natural resources. In 2014, the analysis was further extended to emissions intensive industries, such as those monitored under the EU Emissions Trading Scheme (EU ETS). The project aims to develop a methodology to analyse external costs of investments not captured in traditional profitability assessments. The extent to which these costs can be internalized is still an issue for discussion and experimentation.

Transition risk needs to take into account the financial implications of possible scenarios for achieving decarbonization. To that end, a useful report is the ENEA and FEEM-led Pathway to Deep Decarbonization<sup>80</sup> that provides solutions and impacts of different decarbonization pathways for the Italian economy.

Traditional risk analysis is based on stochastic assessment of potential losses. Besides risks, transition to a low carbon economy also presents huge opportunities that, in a global risk management framework, are also dealt with within the same probabilistic assessment method. There is now a solid understanding of potential economic losses caused by environmentally adverse events, such as extreme weather

### **BOX 7: BANCA D'ITALIA: IMPLICATIONS OF CLIMATE CHANGE FOR DISASTER RISK AND BANK LENDING<sup>81</sup>**

Climate change is causing a structural transformation of the natural environment. One important effect of this ongoing process is the increasing frequency and intensity of natural catastrophes, such as floods and landslides. The risk arising from environment-related disasters – or ‘disaster risk’ – is a material source of risk for households, firms, insurance companies and banks.

By damaging industrial assets – like sheds or plants – natural catastrophes not only generate business disruptions to firms, but also reduce the collateral value of bank loans, that can become difficult to repay. If banks are exposed to risky firms, local environmental shocks might increase the number of non-performing loans in the portfolios of banks, eventually inducing them to tighten credit.

An ongoing study proposes an investigation of the disaster risk borne by the banking sector, studying the case of Italian banks’ exposure to flood risk.<sup>82</sup> In Italy flood risk is the main hydrogeological source of concern for firms in terms of number of firms exposed. It is therefore often chosen as a proxy for disaster risk at large. Using a measure of disaster risk at provincial level as the share of firms at high risk of floods per province, *High-Flooding Impact* (HFI) provinces are defined as those with a share of exposed firms higher than the median exposure rate. Risky firms in one province are firms located in areas with at least one estimated flood occurrence over a 50-year horizon (P3 in the flood-risk scale).

As of end-2014, total lending to firms by Italian banks amounted to €856 billion, of which 40% targeted HFI provinces. Concerning credit granted to HFI provinces, 41% of it was directed to firms located in Emilia Romagna, 23% in Tuscany, 14% in Veneto and 9% in Liguria. Exploiting the sectoral breakdown of bank loans, it is also noted that both manufacturing and service sectors are at risk, with about half of the total of HFI loans concentrated in Construction, Trade and Real Estate Services.

Moreover, using the proportion of exposed firms as a measure of disaster risk, the paper tests whether the amount of bank credit granted to firms is correlated with the level of flood risk. Specifically, the stock of outstanding loans in 2014 is regressed against the disaster risk proxy, controlling for regional and industry characteristics, the province’s valued added, the dimension of the creditor, and for bank size.

The results show that a reduction in disaster risk is associated with an increase of the outstanding loans to SMEs. By contrast, there is no statistical link with the loans granted to big firms. Size is also important in determining banks’ aversion to disaster risk: bigger banks appear to be more prone to lend to firms located in riskier areas.

events and permanent resource depletion. Environmental accounting and externality analysis have made a huge leap forward in recent years. Financial institutions can now monetize their clients' impact on the environment and the risk of loss of value their assets are facing because of environmental stress. Environmental impacts are both global and local, which interact as a consequence of reciprocal feedbacks. A number of Italy's financial institutions have also their assets diversified by location.

Italy's major financial institutions have been addressing the financial implications of environmental factors for a number of years: Box 6 summarizes current practices at three leading banks.

In order to have a meaningful assessment of environment-driven risks, the first issue to be addressed is the choice of data set. It is crucial to have access to the right set of environmental data to construct scenarios and make an accurate description of the likelihood of events and their magnitude, both for insurers, banks and investors. ISPRA provides an extensive source of information on water, waste and air pollution, and on natural and anthropological risk.<sup>83</sup> However, it is difficult to measure the risk of a portfolio using raw data, which needs a thorough Life Cycle Analysis (LCA) in order to assess the potential impact on clients and the assets directly owned by financial institutions. It could also be useful to have a synthetic measure such as an environmental index risk (see for example the Environmental Performance Index (EPI), the Environmental Vulnerability Index (EVI) or the Danger Index (Indice di Pericolosità, IP) with details at the local level (region/province). An available indicator at the regional/provincial/municipality level is the share of the population/business units exposed to hydrogeological risk.<sup>84</sup>

The next challenge is to understand the economic and financial impact of environmental factors. Information on GDP loss due to climate change in different regions and sectors is available in a CMCC paper.<sup>85</sup> As GDP is a key element in determining risk appetite within the current financial risk management framework, it is important that environmental impacts on GDP, and on revenues at the corporate level, are correctly assessed when implementing an enhanced strategic risk framework.

A sound evaluation of the Environmental Credit Risk of the bank's counterparts, for example, should ideally be based on predictive variables that can forecast an environmentally-related default for the single borrower or at least for the geographical and sectoral cluster to which the borrower belongs. Those variables can be embedded in the statistical internal rating of the bank or taken into account during a qualitative fine-tuning (typically a limited override procedure) that follows the first rating assignment. Emerging research from Banca d'Italia suggests that it is possible to understand the financial risks of natural disasters, such as floods, for the banking sector (see Box 7).

### 3.3 LOOKING AHEAD

Current practices are heavily driven by existing and expected regulations, along with increasing appreciation of physical risks. Globally, the results of the TCFD should be seen as a good starting point both to (i) fill the gap in terms of missing data: in Italy, it is not easy to secure information on natural disaster losses and the split between insured and not-insured losses; (ii) create a centralized official inventory within the myriad of providers where instead information is already available.

In order to improve the assessment of environmental risks and provide a larger number of financial institutions with the possibility for considering this increasingly important aspect of the overall risk related to clients, it would be extremely useful to construct a database for: geo-sectoral structural risk factors; environmental law applicable in each geo-sectoral cluster; fines applied to single enterprises; and the collection of on environment-related defaults and environmental credit risk management best practices.

The question cannot be answered properly unless these data issues are made clear. In order to apply a stress test at corporate level, for example, a thorough review of the production process must be made

according to a solid LCA methodological approach. Experience shows that such an approach, at the moment, is costly for both financial institutions and clients. One lesson learned is that some synthetic indicators of exposure to environmental risks and opportunities must be developed, based on the set of primary data. Individual financial institutions will not likely undertake this task on their own.

Awareness is growing of the potential need for environmental stress tests, particularly to assess carbon risks. In France, the financial authorities are exploring how climate factors could be incorporated into existing stress test methodologies. In Italy, some experience has been generated on the topic. One key question financial institutions must address is the level to which the test should apply. In fact, a stress test may well quantify the risk for the financial system as a whole all the way down to an asset level. At the systemic level, as indicated before, there is still a lack of information on national economic impacts of climate change, and little information on natural resource depletion at large.

### 3.4 CONCLUSIONS

Given the scenario above, one possible solution is to foster a public-private effort to define the set of indicators that corporations must use for reporting, which would allow shareholders, banks and insurers to have a clear understanding of the risks and perspectives of their business. What must be quickly activated is a productive dialogue that builds on existing experience to deliver a consistent framework that can trigger a longstanding and economically viable funding of the environmental transition. The goal is to choose those indicators that foster an effective understanding and measurement of financial risks driven by environmental factors. To this respect, regulators must be determined to act quickly but patiently to find the right set of indicators in order to avoid an unproductive and costly effort for financial institutions.

Gaps remain in terms of the transmission mechanisms from environmental flows to the financial performance of financial institutions. Possible solutions to fill the gaps are:

- A public-private effort to understand which data are useful and agree on which data must be made available from a given set of industrial heavy-impact sectors on a mandatory basis. This data should track back as long as possible to allow back-testing from financial institutions.
- A shared approach to environmental stress testing and create a historical series, which would be useful for making a statistical association between indicators of exposure to stress and the probability of default.

These proposals could be taken forward by a collaborative consortium of financial institutions, academics and public authorities that could develop ‘environmental stress testing’ models and make recommendations for improved analysis and data availability. In addition, market regulators should use their databases and knowledge to evaluate the implications of climate change for Italy’s economy and financial system, and suggest measures to encourage good practice by financial institutions.

## 4 CROSS-CUTTING PRIORITY: REPORTING AND DISCLOSURE

### HIGHLIGHTS

- The reporting of material environmental and social performance by corporations and financial institutions is essential for the efficient allocation of capital for sustainable development.
- Italy has a range of reporting mechanisms within mandatory, market and voluntary reporting regimes for listed companies, business more broadly and financial institutions.
- Based on existing practice within Italy and emerging international experience, further progress can be made in terms of stock market disclosure, corporate reporting, investor disclosure and corporate governance practices.

### 4.1 INTRODUCTION

In recent years, the question on how to measure, report and disclose information on sustainability issues has been of growing interest for corporations, investors, financial regulators, policymakers and the international community. From a business perspective, reporting and disclosure to internal and external stakeholders, on financial and non-financial factors, are essential measures for ensuring that companies are improving and delivering on their commitments to sustainable development. Reporting and disclosure are not ends in themselves but rather the means.

Externally, reporting and disclosure can provide essential information for: evaluating the impact of a company/sector/product; assessing an organization's performance; building public trust and enhancing an organization's reputation; and demonstrating openness and a willingness to be held accountable. Internally, thanks to the use of sound key performance indicators (KPIs), the process can also serve as a management tool to identify bottlenecks and support the upgrade of a company's performance. The integration of the three dimensions of sustainable development – the economic, social and environmental – in business strategy enables companies to go beyond legal compliance, reducing preventable risks, increasing efficiency, reducing waste, innovating in an environmentally friendly way, obtaining a license to operate from local communities. In addition, the current information/knowledge economy has changed the balance between the so-called *tangibles* and *intangibles*. Intangible capital (such as natural, human, organizational capital) constitutes an increasingly strategic and crucial component of an organization's competitive capacity and sustainability in the medium and long run. Therefore, the identification, assessment, management and development of these assets is necessary for an organization to maintain its capacity to operate. Non-financial factors can increase the overall profitability of the organization over the long term, having an impact on: access to capital; cost savings and productivity; risk management; revenue growth and market access; brand value and reputation; license to operate; human capital; employee retention and recruitment; and company value as an acquisition target.<sup>86</sup>

In order to achieve the above-mentioned benefits, each business should increase its own efforts in terms of both **responsible disclosure** (i.e. data and information of high and consistent quality – accurate, complete, reliable, balanced, fair, etc. – and material for the company<sup>87</sup>) and **responsibility to disclose** (i.e. all relevant information pertaining to the company must be adequately disseminated), to meet the growing demand of information coming from investors and other stakeholders.

Box 8 provides links and references to some EU and international initiatives. The goal is to offer stimuli and examples for the continuous improvement of the Italian context.

#### **BOX 8: SELECTED INTERNATIONAL REPORTING INITIATIVES**

**Stock Exchanges:** The Sustainable Stock Exchanges Initiative now includes 60 exchanges committed to improved disclosure – 12 exchanges currently incorporate reporting on ESG information into their listing rules and 15 provide formal guidance to issuers.

**Corporate Governance:** *The Spanish Good Governance Code of Listed Companies (Código de buen gobierno de las sociedades cotizadas<sup>88</sup>) 2015.* It includes the most relevant reference to CSR (principle 24 and two specific recommendations) among the EU countries.

**Mandatory Reporting:** Article 173 of the *French Law on Energy Transition and Green Growth* introduces mandatory requirements for disclosure on climate change for both listed companies and institutional investors. The regulatory environment set with the ‘Grenelle II’ Act in 2010 was an essential enabling factor for this second regulatory step to be enforced.

**Best Practice Standards:** The FSB-TCFD is considering the physical, liability and transition risks associated with climate change and what constitutes an effective financial disclosure. The taskforce’s recommendations for voluntary corporate disclosures were presented in late 2016.

This chapter reviews current trends and challenges in Italy and worldwide related to non-financial<sup>89</sup> reporting (i.e. the practice of measuring and being accountable for sustainable development performance) and related responsibilities.

## **4.2 THE STATE OF THE ART**

### **4.2.1 THE STATE OF THE ART OF REPORTING PRACTICES**

Over the last years, the total number of reporting instruments (regulation, policies, self-regulation, guidance, standards on sustainability assurance, etc.) that require or encourage organizations to report information about their sustainability performances has grown rapidly and significantly worldwide. This is a clear signal of a commendable effort by governments, regulators, financial operators and others, with stock exchanges and financial market regulators responsible for almost one third of all sustainability reporting instruments identified in 2016.<sup>90</sup>

Within the range of instruments, the Global Reporting Initiative (GRI) Guidelines represent the most widespread framework used in the preparation of sustainability reports. They are, along with the UN Global Compact Guidelines and the International Integrated Reporting Council (IIRC) Framework, the internationally recognized and most adopted references by the financial sector. The current snapshot of the Italian context confirms the prevalent use of the GRI Guidelines as the main framework of reference for reporting in the country.

Despite the growth in the number of sustainability reporting guidelines, according to research carried out by KPMG,<sup>91</sup> in recent years the rate of growth of corporate sustainability reporting activities has slowed down. Italy follows this trend (see Figure 5): although the number of sustainability reports produced annually and voluntarily by Italian businesses continues to grow, the rate of growth is stabilizing.

Experience suggests that it is important to make reporting and disclosure activities binding for an increasing number of organizations. In Italy, Article 2428 of the Civil Code defines an obligation to include

### Box 9: THE EU'S DIRECTIVE ON NON-FINANCIAL REPORTING AND IMPLEMENTATION IN ITALY

In a commendable effort to solicit the opinion of all relevant stakeholders, the Italian Ministry of the Economy and Finance (MEF) adopted a strengthened public consultation process in the transposition of the 2014/95/EU Directive in Italy. Two rounds of public consultation were launched, with the former (closed in early June 2016) aimed at gaining an understanding of the main policy issues at hand and the latter (closed in early September 2016) providing the actual text of a draft Legislative Decree transposing the EU Directive as elaborated after the first round.

The scheme of the Legislative Decree, elaborated taking into consideration respondents' inputs, inter alia provides for:

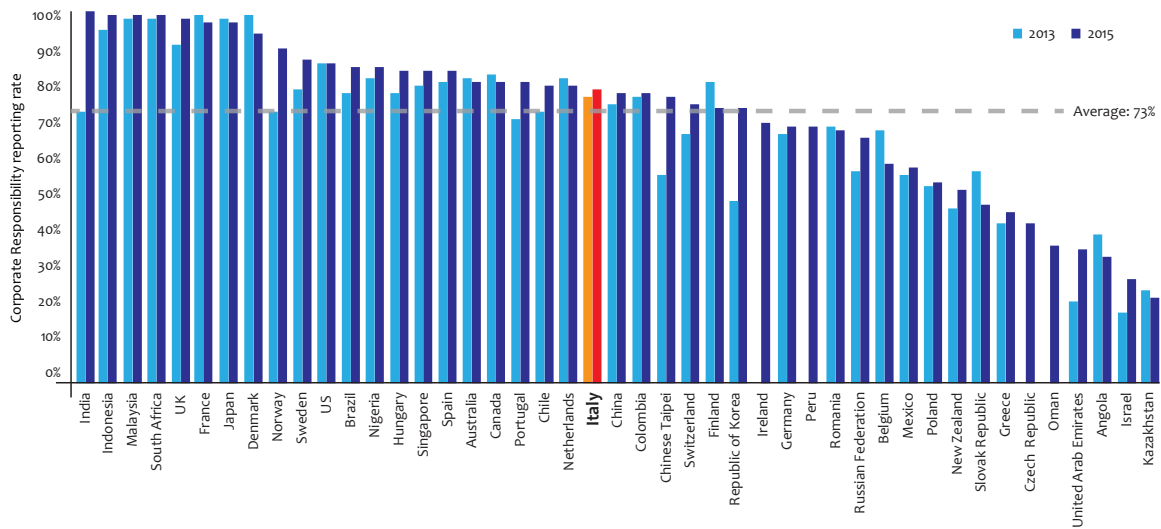
- A scope of application coinciding with the minimum requirements defined by the European Directive. However, in order to encourage undertakings outside of the scope of application to voluntarily report on non-financial information, it is foreseen that – if they follow the prescriptions of the decree – they can insert a statement of compliance to the implementing Decree.
- Ample flexibility granted to undertakings in the definition of the standards and the methodology to be applied in the non-financial report in order to comply with the Directive obligation, provided that they clearly state reporting standard or the methodology adopted and properly describe the latter.
- A mandatory limited third party review of the non-financial statement, to be carried out by legal auditors, on individual as well as consolidated non-financial statements. A specific provision allows SMEs voluntarily disclosing on non-financial information to use the statement of compliance with the Decree even without a third party audit of compliance, provided that the absence of such verification activity is clearly stated in the non-financial report.
- Clarifications in relation to the roles and responsibilities in the preparation, approval and auditing process of the non-financial report, either for those undertakings who disclose non-financial information as a section of the annual legal management report and for those who choose to publish a separate and specific document.
- A strengthened framework for administrative sanctions to be applied in case undertakings do not comply with regulatory requirements.

The decree has been passed on 30 December 2016 and entered into force on 25 January 2017. The full text is available at the following link: [http://www.gazzettaufficiale.it/atto/serie\\_generale/caricaDettaglioAtto/originario?atto.dataPubblicazioneGazzetta=2017-01-10&atto.codiceRedazionale=17G00002&elenco30giorni=true](http://www.gazzettaufficiale.it/atto/serie_generale/caricaDettaglioAtto/originario?atto.dataPubblicazioneGazzetta=2017-01-10&atto.codiceRedazionale=17G00002&elenco30giorni=true)

non-financial indicators, *where appropriate*, in the Management Report for all those undertakings required by law to produce the report. This requirement has been largely disregarded. The EU Directive 2014/95/EU, amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups, requires large undertakings that are public-interest entities (listed companies, banks, insurance companies and other financial intermediaries with more than 500 employees) to “include in the management report a non-financial statement containing information to the extent necessary for an understanding of the undertaking’s development, performance, position and impact of its activity, relating to, as a minimum, environmental, social and employee matters, respect for human rights, anti-corruption and bribery matters”. The non-financial statement should include a description of the risks, policies, and outcomes, as well as the non-financial key performance indicators relevant to the particular business. The Directive transposition at the Italian national level could open up enormous opportunities to accelerate the process of integration of non-financial information and

conventional financial information on undertakings in terms of reporting activities, as well as strategic and operational thinking (see Box 9).

**Figure 5: Formal Requirements Drive High Growth in Corporate Responsibility Reporting**



Source: KPMG, 2015

Reporting on ESG issues is fundamental for all institutional investors as well. Asset owners (AOs) and investment managers (IMs) should report on their performance on responsible investment and ESG integration/asset ownership, as this is a key element in the investment chain, and it has a crucial role in ensuring that ultimately there is also ESG reporting at a company level. Apart from pension funds, which are obliged by law to report whether and to what extent ESG factors are integrated in their investment policies, there is very limited reporting of this kind in Italy. Still, 11 PRI investor signatories in Italy report their practices as part of the over 1,000 global investor reports available on the PRI website. Just as with industrial companies, disclosure is not only a question of reporting at the institutional level, but also improving transparency at the product level (see Box 10).

Likewise, companies and financial institutions should ask for reporting by their suppliers, stimulating and enhancing sustainability and transparency all along the value chain, both upward and downward.

**BOX 10: IMPROVING DISCLOSURE OF THE SUSTAINABILITY PERFORMANCE BY FINANCIAL PRODUCT: LUX-FLAG**

Growing demand by individual consumers and institutions (such as pension funds) for financial products that incorporate sustainable development issues has led to an increase in reporting and labelling initiatives. A notable recent example is Lux-FLAG, a not-for-profit agency, based in Luxembourg seeking to promote sustainable finance. To this end, it has established four different label types (including the recently launched Climate Finance label) designed for investment funds willing to get an independent certification. As of 22 September 2016, LuxFLAG has issued its certification to 52 investment fund labels (29 Microfinance, 11 Environment, 12 ESG funds) worth over €12.78 billion assets under management; in addition, it has recently launched a new Climate Finance label. The labels are available to regulated UCITS and AIFMD funds domiciled in any EU country or subject to EU-equivalent supervision.

In Italy, all financial products labelled as ‘sustainable’ or ‘green’ or ‘ethical’ have to provide further information to describe objectives, processes and results. Labelling schemes could enable companies to implement this requirement in ways that ease consumer decision-making.



The proliferation of instruments creates an urgent need for collaboration between regulatory bodies and governments as well as for a joint commitment with the private sector and financial institutions. This would lead to a higher level of harmonization and, therefore, would improve the quality and the efficiency of reporting activities. In Italy, despite the fact that the GRI is the most used standard by companies, comparability among reports is still very hard to achieve. In part, this difficulty can be attributed to the contrast between the materiality principle and the comparability principle. Cost has been a barrier in the past. Research shows that the total costs involved for reporting and disclosure of non-financial information is about €50,000 for large companies and €500,000 for multinationals – representing about 1-5% of the costs of financial reporting. In addition, these costs have gradually decreased over the 3-5 years following the introduction of the reporting obligation.

Finally, it is also worth underlining that existing instruments support companies in assessing and reporting on their performances and not on their impacts. This frequently impedes the use of sustainability report for management and strategic purposes and makes difficult to quantify and enhance the real contribution that companies' activities can give to the achievement of the SDGs.

#### **BOX 11: EFFORTS FOR HARMONIZATION**

##### **International Level**

**The SDG Compass.** The Global Reporting Initiative (GRI), the UN Global Compact (UNGC), and the World Business Council for Sustainable Development (WBCSD) launched the SDG Compass in 2015 following the launch of the 2030 Agenda and its SDGs. The SDG Compass is a joint initiative aiming to support companies in aligning their strategies and metrics with the SDGs and associated indicators and monitoring frameworks. This initiative uses GRI standards, as well as other commonly-used corporate sustainability indicators, to help identify Key Performance Indicators (KPIs) useful for tracking businesses' contributions to the SDGs. More information is available here: <http://sdgcompass.org/>

##### **National Level**

**Working Group (WG) “Reporting” of the Global Compact Network Italy Foundation.** Composed of about 25 Italian companies (also belonging to the financial sector), the WG decided to focus its activities on the analysis of the implementation of the principle of materiality in reporting processes by participants. After a path of comparison among the members, started in 2014, the Group decided to conclude the course taken with the production of a final report. The document highlights the experiences shared, and contains indications – of both a methodological and operational character – on the design and implementation of the materiality analysis process and the possible ways to use the information for strategic purposes.

#### **4.2.2 THE STATE OF THE ART OF GOVERNANCE PRACTICES**

Based on a 2016 analysis on sustainability governance practices run by KPMG on a sample of international businesses, no single sustainability governance model emerges as a *best practice*. Nonetheless, the most effective governance model seems the one that can assign responsibilities to different hierarchical levels, where all the involved bodies have different and clear roles and responsibilities (strategy proposal, approval, implementation, monitoring, etc.).<sup>92</sup> The survey also reveals that respondents perceive cultural resistance as the main barrier to sustainability integration into company activities. On the other hand, the main benefits recognized as deriving from the integration of sustainability issues within companies' processes and governance models are: better risk mitigation-monitoring process, revenue growth, cost saving, opportunity catching and, overall, the definition a more resilient organization.

Within the national context, the Corporate Governance Code for Listed Companies (CG Code) provides some relevant guidelines, based on the *comply or explain* principle, to address the sustainability issues within the responsibilities of the board, with specific regard to risk management and executives' remuneration policies.<sup>93</sup> According to the law, issuers adopting the Code are required to disclose in the Corporate Governance Report if and how they implement Code's recommendations (published due to Article 123-bis of the Consolidated law on Finance – Legislative Decree n. 58/98).

As far as the risk management is concerned, the Code was amended in July 2015 to recommend the Board of Directors to take into account, in the definition of the risk appetite of the company, any risk that may affect the sustainability of the issuers' business in a medium-long term perspective.<sup>94</sup> Furthermore, the revised Code suggests larger issuers to evaluate the opportunity of establishing a committee entrusted with the task of supervising sustainability issues or, alternatively, to allocate such tasks among existing committees<sup>95</sup> (e.g. the Control and Risk Committee, which is already established by 92% of Italian Listed Companies).<sup>96</sup> The new provision is subjected to a specific transitional regime and will find application during 2016. However, as reported by Assonime,<sup>97</sup> some FTSE Mib Companies already chose (before the update of the CG Code) either for specific sustainability tasks assigned to the Control and Risk Committee or for the establishment of specific internal committees, competent, among others, for sustainability and strategic issues.

As for the executives' remuneration policy, the Code recommends issuers to adopt policies where the structure of the remuneration of executive directors and key management personnel promote the sustainability of the issuer in the medium-long term. Notably, executives' remuneration shall be linked to the achievement of specific performance objectives, possibly including non-financial ones, which should be identified in advance (see Article 6 of the CG Code). According to the Assonime survey,<sup>98</sup> the 70% of Italian listed companies has already defined, in their own remuneration policies, a variable component for executives based on medium-long term horizon. Such a component is very common in the financial sector (95% of the cases, including all the banks in the sample) and in larger companies. Finally, the implementation

#### **BOX 12: 2015 REPORT ON SUSTAINABILITY – THE STATE OF THE ART OF THE ITALIAN BANKING SECTOR**

Italian banks have been working for more than 15 years on integrating ESG considerations in their corporate strategy. The 2015 ESG Benchmark investigation, biennially promoted by ABI among its associates, shows that the totality of the sample, representing 75% of the total assets of the banking sector in December 2014, formally recognizes in its strategy the importance of ESG issues to better handle impacts, risks and opportunities related to their business. For 84% of the sample, formalizing their commitment to corporate sustainability by inserting ESG issues in their strategic planning or in their business plan within a timeframe of two to five years. The interaction between the Corporate Sustainability unit and other bank's areas is often formalized through a specific model: 72% of the sample makes use of structured procedures aiming at sharing information, especially useful for reporting on sustainability. Regarding reporting on ESG elements, banks keep being extremely active over the years. In 2015, 80% of the total assets of the banking sector published a document reporting their sustainability status. The International Guidelines (GRI) have been used as a reference by 77% of the total assets of the sector. The materiality mapping and stakeholder engagement practices assume great importance in this framework. The ESG Benchmark 2015 shows that 78% of the sample elaborates and publishes its own materiality map, while 17% is still analysing or finalizing it. Further still, 86% organizes consultations with stakeholders on ESG issues. Besides traditional reports on sustainability, banks are developing other forms of communication to spread their commitment on ESG issues. The number of banks publishing economic and financial information together with ESG ones is growing, as well as the number of those inserting ESG issues in the management report.

of the above mentioned Code's remuneration principles is mandatory for listed companies belonging to the STAR segment of the MTA market organized and managed by Borsa Italiana.

In June 2016, the Italian Observatory on Integrated Governance<sup>99</sup> surveyed Italian companies listed on the FTSE Mib (40 entities). With a response rate of 45%, the main results of the survey show that there are still important gaps to be bridged and opportunities to be seized for improvement and integration:

- ⦿ Companies faced internal organizational difficulties in managing and answering the survey;
- ⦿ The energy and banking sectors, followed by the insurance sectors, have proven the most advanced on the subject, both as level of participation and final scores obtained;
- ⦿ None of the companies obtained the maximum score with reference to the “ability to integrate ESG factors, incentivize a long term perspective and promote the use of tools – such as the balance score card – within the remuneration structure of executive directors and managers.

### 4.3 CHALLENGES AND BARRIERS TO PROGRESS

The challenges and barriers to the improvement, in terms of quality and quantity, of sustainability reporting are different in nature and significance:

#### **Cultural**

- ⦿ Lack of knowledge and understanding of ESG issues, both in companies and in financial institutions: the Novethic Survey 2015, on EU countries, reveals that only 26% of the investors surveyed have internal teams of analysts on ESG. This represents a substantial decrease compared with 2014 (35%) and 2013 (49%). They are now mostly relying on specialized rating agencies.<sup>100</sup>
- ⦿ Personal values and perceptions: some of the main challenges for integrating sustainability into companies' strategic and operational behaviours are related to cultural resistance. The lack of a uniform definition for sustainability makes this barrier even more difficult.
- ⦿ Competing organizational priorities: short-termism can still prevail over long-term profitability and resilience.
- ⦿ Reporting as marketing tool: there is a possible tendency for sustainability reports to resemble marketing tools aimed at improving the firms' image and social legitimacy rather than to provide a balanced, complete and reliable representation of the CSP.

#### **Structural**

- ⦿ Mandatory vs. voluntary requirements: on the one hand, the selection of KPIs required by standards can lead companies to focus on issues that are not material to the specific sector/company; on the other hand, the voluntary selection of KPIs by companies is sometimes determined on the basis of “the most easily measurable metrics” rather than the issues that are more material to their business.
- ⦿ Need for comparable information standards and measurement units across companies and industries, and countries and regions: a trade-off between standardization and personalization exists. Flexibility in reporting should be preserved to allow, for instance, investors to report in a way that suits their portfolio, reflecting specific asset classes. However, information on the methodology used and justification of the approach should always be provided.
- ⦿ Lack of methods of measurement that can represent the overall value of the company and the impacts generate by its activity: the measurement of effects and impacts, not just performance, would allow companies to assess their real contributions to the achievement of the SDGs.
- ⦿ Lack of effective and agreed impact assessment models that can link Corporate Sustainability Performance and Corporate Financial Performance:

- ⦿ The risk of introducing pay for performance mechanisms creating perverse incentives or additional ways to pay executives without concretely promoting an overall approach to sustainable performance.
- ⦿ Reporting on sustainability performances of suppliers (starting from first tier to reach sub-tier suppliers).

### **Organizational**

- ⦿ The introduction of regulatory developments could determine two main scenarios from an organizational perspective: 1) those institutions already engaged in sustainable reporting will need to develop further mapping processes to determine what additional information is required; 2) those undertakings not yet reporting on non-financial and diversity information will need to set up the processes for data collection and reporting, as well as the relative supporting structures.
- ⦿ Resource constraints for the development of reporting processes in SMEs.

## **4.4 LOOKING AHEAD**

A number of actions could be taken in order to increase trust, shared responsibilities and mutual accountability in the Italian context. They concern all actors in the public and private sector, as well as the society in general.

The government could consider:

- ⦿ Integrating BES indicators developed by Istat in order to promote the integration of financial and non-financial information firstly at a system level.
- ⦿ Designing the path towards sustainable development and the related targets (decarbonization targets, SDGs adoption at a country level). This is the only way to allow effective alignment and contribution to common objectives by other actors.
- ⦿ Adopting a long-term perspective at the legislative level and increase coordination among regulatory initiatives to progressively prepare for continuous improvements. Stakeholder engagement is an essential ingredient to enhance shared responsibility and mutual accountability.
- ⦿ Granting flexibility, at the base of the materiality principle, a range of methodological choices should be provided to undertakings to quantify and explain their contribution. This could help to overcome the trade-off between the materiality and the comparability principles.
- ⦿ Promoting verifiability of data by external parties. It could help fostering stakeholder trust in the reporting pathways activated by the companies. It could also encourage companies to the application of a greater rigor in the reporting of balanced, complete and reliable information.
- ⦿ Implementing an assessment of best disclosure practices in two years from the transposition of the EU Directive into the Italian legislation. The aim of such an assessment should be the one to analyse the state of the art and observable trends that could constitute the base for the subsequent implementation of ambitious and smart reporting guidelines to enable and inspire the financial sector and the private sector as a whole.
- ⦿ Encouraging non-financial reporting beyond the scope of the Directive, towards medium-sized enterprises, with 250 employees as a new possible threshold. Consistently with the structure of the Italian economy, also SMEs could be incentivized in the same direction.

The industry could consider:

- ⦿ Providing information on the methodology used and justification of the approach applied.
- ⦿ Encouraging the application of Corporate Governance Code recommendations regarding sustainability and address this issue in the forthcoming Annual Report of the Corporate Governance Committee.

- Issuing guidelines on governance practices directed to a long term and to sustainability issues for non-listed companies (out of the scope of the Code).
- Extending to suppliers the assessment/self-assessment of sustainability performance to first tier suppliers and then progressively to sub-tiers suppliers. Several existing tools can be used (such as the TenP Platform managed by the Global Compact network Italy Foundation).
- Extending progressively the scope of the reporting activity to the entire value chain. For the financial sector, the attention should be focused downward (clients).
- Promoting a shift from performance to impact identification, assessment, reporting and disclosure. This would also allow companies to measure and communicate their real contribution to the achievement of the SDGs.

Civil society organizations could consider:

- Maintaining pressure and engagement around annual report information, adopting new collaborations and providing support.
- Assuring a continuous and proactive role in driving up industry standards.
- Participating to the debate with regulatory bodies, governments, private sectors for instruments (standards, methodologies) harmonization.

## 4.5 CONCLUSIONS

There is a significant support in Italy for non-financial reporting, disclosure and integrated governance practices. The rigour and quality of the reporting process matters and is directly connected to the value and benefits that the final output can generate. There is no need to start from scratch: many good practices are available and efforts should be concentrated on understanding the applicability and adaptability to local necessities and specificities. To pursue these aims, all actors – asset owners, investors, companies, governments, and standard setters – have to recognize their responsibilities in the overall value chain. Collaboration among subjects and harmonization among instruments will be essential for facilitating the cultural, structural and organizational changes that could arise.

Overall, four main pathways exist to improve reporting and disclosure:

- **Stock Market Disclosure:** Borsa Italiana is launching new reporting guidelines in 2016 to raise the level of disclosure on its markets. Following this, it could take further actions to increase the level of transparency and facilitate the engagement of responsible investors.
- **Corporate Reporting:** Implementation of the EU's non-financial reporting directive should be a first step for improving transparency and preparing for the recommendations of the FSB task force. More companies should be encouraged to disclose their ESG data from investors and others, with different expectations for SMEs.
- **Investor Disclosure:** Building on the example of Article 173 in France, all institutional investors should publicly report on how ESG factors impact their portfolios and how they are supporting the climate transition. They should also disclose on the extent to which their investment and voting policies cover ESG issues and which results come from their implementation.
- **Corporate Governance:** The Italian Corporate Governance Committee could further strengthen the focus on the importance of sustainability issues – such as environmental and social issues – for long-term value creation, calling on boards to take on the responsibility of developing consistent strategies, establishing culture and values of the company setting the correct “tone from the top”, and encouraging specific measures on linking, for instance, executive pay to sustainability performance.

## **Part C**

# **Key Sectors: Taking Stock, Identifying Opportunities**

## 5 GREENING THE BANKING SYSTEM

### HIGHLIGHTS

- Italy's economy, dominated by SMEs, is particularly reliant on financing from the banking sector – including enterprises seeking to expand within the growing green economy.
- The banking sector has risen to the challenge of financing the expansion of renewable energy and is now exploring the strategic opportunities presented by energy efficiency.
- The current momentum could be taken forward through a focus on three priorities: a dedicated focus on innovative financing mechanisms for green SMEs; a consolidated effort to scale up energy efficiency finance; and building the capacity of banking professionals to strengthen 'sustainability literacy'.

### 5.1 THE STRUCTURE OF THE BANKING SECTOR AND ENTERPRISES IN ITALY: FOCUS ON THE CREDIT MARKET

Bank credit is the main source of finance for the Italian entrepreneurial system, which consists primarily of small and medium-sized enterprises. These number about four million, compared with two million in Germany. The financial leverage of Italian enterprises is around 44%<sup>101</sup> and two thirds of financial debt is owed to banks. In other European countries, like Germany for example, a model for relations between companies and banks has developed under the Housebank scheme, in which the enterprise has a single reference bank that fulfils its various financial needs. Instead, Italy has a weaker enterprise-bank relationship, and the historically predominant arrangement is the multi-commitment pattern, in which the enterprise relies on a large number of possible lenders, deciding on which of these to approach from time to time depending on its particular requirements. This difference in conditions has accentuated the information asymmetries between banks and enterprises.

Across Europe, recent surveys suggest that just over a quarter of SMEs offer green products.<sup>102</sup> Many SMEs wish to invest in the transition to a more circular model for their businesses. But more than a quarter (27%) say that they encounter difficulties in accessing financing.<sup>103</sup> The barriers to financing green SMEs are wide-ranging. SMEs can face daunting challenges, particularly in accessing early and growth stage financing; their investment projects can often involve riskier technologies and longer timeframes to market. Information asymmetries between suppliers and users of capital are also a major constraint, including a continuing lack of robust data on the needs of SMEs for green finance, current flows and future prospects.<sup>104</sup>

A strategic task for the financial system is therefore to diversify the sources of funding for SMEs. One solution to this structural challenge is the emergence of a new trend towards capital market financing for SMEs, favouring a move away from bank loans for enterprises, to be replaced by alternative forms of direct financing on capital markets. This transition must necessarily be accompanied by the growth in size of SMEs and the adjustment of their disclosure and transparency standards to international benchmarks. For this purpose, the most effective measure introduced in the last decade is the so-called "mini-bond", i.e. corporate bonds of small size, with simplified administrative procedures, that can be easily issued also by SMEs. From 2012 to 2015, there were 179 issues in Italy, totalling more than €5.5 billion, of which over 100 issues totalled less than €50 million – with significant future potential for green SMEs. More detail on these capital market developments is contained in Chapter 6.

The rest of this chapter focuses on the core issue of bank lending – and steps being taken to scale up green finance across the Italian banking system.

## 5.2 RISK AND RETURN: THE STRATEGIC RATIONALE FOR LENDING CHOICES

Banks are businesses that use savings as the raw material for its activity of credit allocation. Like other businesses, banks have profit targets; unlike other enterprises, however, banks have specific obligations to protect the raw materials they employ, i.e. savings.

The lending decisions of banks inhabit an area circumscribed by two basic parameters: risk and return, connected in an inversely proportional manner in the context of each transaction.

The area of intervention of each bank is also further restricted by the lending policies that define in general terms the macroeconomic sectors eligible for financing according to overall assessments of risk, corporate sustainability,<sup>105</sup> reputation and other factors. Determining the efficiency of a loan transaction may be quite straightforward, but analysing credit risk is a more challenging task.

With the advent of rating systems, credit risk assessment has acquired greater objectivity than in the past, when such analysis was left largely to the opinion of the banking staff. The ratings system aims to translate all the experience of the bank into an algorithm – with ‘experience’ defined as the information acquired in customer evaluation and represented by the default statistics of loans granted in relation to a number of possible variables, including balance sheet data, the development of the relationship, and possible injurious factors.

The qualitative information, which may not always be systematized within the banks’ risk analysis models, is used mainly in the so-called ‘override’ process, i.e. to optimize the assigned rating. There is now a broad consensus on the need for a greater use of qualitative information for better risk assessment. However, as far as environmental risk is concerned, it is not always possible to transform a qualitative assessment into a number, using a standardized scale and usable in rating models. At times, there is a lack of sufficiently thorough statistics to show the impact of a specific qualitative variable in the explanation of credit risk. This step is essential in order to maintain the objective value of the evaluation process and to correctly calibrate the weight of different variables within the internal ratings systems.

The context for these qualitative evaluations is now influenced by trends related to sustainable development, in terms both of new business opportunities and management of risks linked to degradation of the environment. As we have seen in Chapter 3, the larger Italian banks have gained an awareness of these changes and have launched specific initiatives in response. Some have implemented credit policies aimed at steering the financing choices of their networks towards more environmentally sustainable projects.

As regards analysing the risks/opportunities for specific projects, the banking sector has taken important steps forward. It is evident that a thorough risk/opportunity analysis in environmental terms requires specialized skills – not always available inside the banks – and whose costs may be justifiable only in relation to the financing of projects or large-scale operations in which, for example, there are specific and significant loan repayment risks. For smaller operations, specialist evaluations may be a less viable option, also because the loan repayment is generally guaranteed by the enterprise’s overall equity and income capacity as well as any form of cover.

The University of Cambridge and UN Environment’s Finance Initiative conducted a global review of Basel III provisions in relation to the environmental risks,<sup>106</sup> noting that “*By failing to address systemic environmental risks, Basel III is arguably overlooking an important source of risk to the financial system and broader economy, despite its overriding objective of guaranteeing banking stability*”. The report suggests



a number of recommendations, one of which encourages Basel Committee to “ [...] support bank regulators to work with banks to adopt current best practice in the management of environmental issues, and to collect the necessary data and conduct analysis to refine the banking sectors’ understanding of, and ability to address, systemic environmental risk in the future”.

### 5.3 EXPANDING BANK LENDING TO THE GREEN ECONOMY

The further growth of bank lending to green projects requires a series of diverse initiatives, which together can create new and more acute awareness on the underlying issues and help change the financial world’s current valuations in terms of risk/return ratios.

In particular, such actions should focus on four different fronts:

- 1 Awareness: greater awareness of green economy risks and opportunities within the financial industry;
- 2 Demand: the growth in demand from clients for finance to deliver projects focused on environmental sustainability or energy conservation;
- 3 Costs: the reduction of costs associated with the risk/opportunity analysis of the various initiatives;
- 4 Supervision: new banking supervision rules to enhance environmental risk analysis.

#### **BOX 13: FINANCING INVESTMENT IN RENEWABLE ENERGY**

In recent years there has been a significant increase in investment in renewable electricity generation – one of the few sectors that bucked the trend during the downturn years of the financial crisis.

In Italy, renewable sources now represent about 37% of total installed generating capacity and 31% of total gross electricity production. In the electricity sector, the EU’s 20-20-20 goal of 100 TWh was achieved in 2013, seven years ahead of target with over 120 TWh produced in 2014.

Investment growth – particularly in solar photovoltaics, where an estimated 22.8 TWh was produced in 2015 – was driven by government incentives, particularly through the energy decree for photovoltaics, green certificates and the all-inclusive tariff for installations other than photovoltaics.

Banks and financial intermediaries have supported the sector’s massive growth through a range of financial services geared to the specific needs of households, enterprises and government agencies. The latest survey conducted by the “Banche e Green Economy” Observatory – coordinated by ABI and ABI Lab – estimates that in the 2007-2014 period the major banks in the sector took on financing commitments worth over €27 billion, just over €18 billion of which went to solar photovoltaics.

Depending on the size and complexity of the project, banks may offer different forms of financing, in particular: (i) project financing; (ii) leasing; (iii) traditional financing over the medium to long term. The finance duration is generally between 5 years and 15 years, depending on the project payback time, and the investment is covered up to 80%.

Many banks have established operational desks with highly specific skills including technical and engineering capabilities. These can also handle loan requests and can evaluate their inherent risks and financial viability.

Points 1 and 2 are particularly important: the first is a prerequisite for all the others – not only for the big banks but the smaller ones as well. For this purpose, closer cooperation is needed between the institutions and the Italian Banking Association to properly inform and train the banking sector on national and international policy issues, as well as on the opportunities arising from support for the ongoing transition to a more sustainable economy.

On the second front, namely the development of financial demand for environmentally sustainable projects, there is a need to strengthen economic policy both to ensure that market prices incorporate environmental factors. There is also a need to support entrepreneurial efforts through fiscal incentives public finance (such as those provided by EIB and Cassa Depositi e Prestiti). Experience in Italy shows that new demand for loans, generated through such public policy measures, can then be satisfied by banks. The example of renewable energy shows the supply of finance has matched the strong demand generated by public incentives, but more importantly, this new operating mode has prompted the banking sector to develop organizational skills and controls that can further the advancement of renewable energy, even without incentive schemes (see Box 13).

## 5.4 THE NEXT INVESTMENT OPPORTUNITY: ENERGY EFFICIENCY

Investment in energy efficiency looks set to become an area of interest, particularly for the banks, and may attract a significantly increased amount of financing in the coming years. Funding demand is growing and banks have acquired specific skills in the sector thanks to the experience gained in the financing of renewable energy.

An area of particular interest for the banking sector is the energy efficiency of buildings that are responsible for 40% of the total energy consumption and 36% of CO<sub>2</sub> emissions in the European Union. The EU has set itself an overall 20% energy efficiency savings target by 2020 and is now considering increasing this to a 30% target by 2030. The scale of investment needed to meet the 2020 target is estimated at around €100 billion per year at EU level. The average age of Italian buildings is over 30 years, the highest in Europe, which means that a fundamental thermal renovation of this stock is needed to reach the emission reductions goals. In this regard, it could be hoped that existing incentives for the energy rehabilitation of properties in the form of tax credits may be transferred to the banks and that they could deduct them from their tax returns. This would strengthen the existing extent of incentives, without increasing costs to the state. The beneficiaries could accomplish planned initiatives, being able to count on the tax credit in advance, instead of collecting it over ten years. The banks for their part could finance a greater share of the investment, since part of it would be guaranteed by the tax credit. In addition, further progress could be made by tagging loans to energy efficiency standards (see Box 13). The European Mortgage Federation and the European Covered Bond Council have proposed the introduction of a new “energy efficiency label” for mortgages. This would be based on key energy performance indicators, with a lower interest rate and additional retrofitting funds to improve the energy performance of the property, thus freeing up disposable income and, in parallel, reducing credit risk for borrowers, lenders and investors.<sup>107</sup> A clearly defined energy efficiency label for mortgages would, on its own as well as through collateral for green bonds, help reduce uncertainty regarding investments in energy efficiency and increase investor confidence, as well as support the integration of energy efficiency in portfolio management strategies for institutional investors or fund managers. This would also have an impact from a risk management point of view.

Reducing the costs of risk/opportunity analysis for energy efficiency projects is also needed. Here, encouragement should be given to the collecting and sharing of statistical data on variables relevant to the explanation of credit risk, allowing banks to have objective evidence on which to expand their own evaluations, possibly through the implementation of this additional information in their internal rating systems. Another important step would be to promote the supply of reliable and independent certifications with regard to environmental risks, which would allow banks to make their own estimates

#### BOX 14: HOW BANKS COULD INCREASE EFFICIENCY: TAGGING THE LOAN PORTFOLIO

A key innovation for banks would be to tag their loans to the underlying asset's energy performance, fuel efficiency or environmental standards used in other countries. For example, 20 countries now have energy performance standards for buildings (including the EU as one unit). In the EU, all properties when sold have to obtain an energy performance certificate that places the property on an A-G scale. However, at present there is no data on how many loans are going to A grade buildings, or how many are going to poorly performing buildings that can be retrofitted during the lifetime of the mortgage. Similarly, 10 countries and markets accounting for three quarters of vehicle sales have fuel economy and/or greenhouse gas automobile labelling. Labelling is also in place for other key products such as white goods and air conditioning, which could be relevant for consumer finance.

If banks tagged their loans to these existing energy and environmental standards, aggregated these and then published the results on an annual basis, we could take three steps forward in catalysing the finance market for energy efficiency:

- There would be a leap in market transparency on the flows of finance to energy efficient products
- This data would provide valuable information on the portfolios of energy efficient loans that could be packaged as asset backed securities into green bonds
- It could provide the basis for evaluating the financial performance of energy efficient loans relative to their inefficient alternatives. Energy efficient houses, for example, should be a better credit risk with fewer non-performing loans, as outgoings for heat and power are lower. But at present, the quantitative assessment of this hypothesis is not available due to a lack of data. As data became available through the 'green tagging' initiative, analysis could be conducted to better evaluate loan performance and correlate it to energy efficiency. If the link was proven, this could result in less capital being allocated by banks, thereby at the margin further improving the flow of capital to energy efficiency.

Moving ahead on this would be a simple and low-cost way for countries to scale up finance for energy efficiency using existing standards and it would also provide the platform for banks to grow the energy efficiency finance market by the multiples that are required to meet country targets.<sup>108</sup>

of default probability without having to set up specialized expertise within its own structure to cater for the various potential areas of interest.

For the industrial sector, in theory, energy efficiency financing lends itself to structuring along the lines of project financing; the repayment of the loan is guaranteed by the enterprise's increased cash flow, which in turn results from the energy savings delivered by improved efficiency. In this way, enterprises avoid the problem of finding financial resources to carry out efficiency enhancement works if the savings can pay off the bank loan even over a long period of time.

Banks, however, can encounter many difficulties in adopting a purely *project* line of reasoning and must decide the granting of loans based on the credit rating of the counterparty or the possibility of obtaining specific guarantees. There is not always enough data or sufficiently strong and reliable statistics to allow banks to accurately estimate the energy savings that can be achieved by a particular efficiency intervention in the relevant sectors. An element that further complicates the analysis is the degree of variability of consumption over time and the effect this produces on potential savings. For example,

schools have a quite stable energy consumption pattern over time. The consumption of enterprises and households is, however, less stable.

According to this logic, significant benefits could be gained from the systematic collection of information on: a) the extent of possible energy savings achievable over time by a particular action to increase efficiency; b) the trend of energy consumption for households, enterprises and public institutions, properly segmented – for example, by geographic area.

In addition, it might make sense to set up public guarantee funds to cover the risks that banks cannot evaluate on the basis of available information. These guarantee funds would have the function of boosting the market and facilitating the collection of performance data on the improvement actions taken. Article 15 of Legislative Decree 102 of 4 July 2014 provided for the establishment of the “National Fund for Energy Efficiency” with a budget of €30 million, which could perform this function – only in part though, considering the limited resources. Unfortunately, after more than two years the necessary implementing measures have not been issued.

There is also the question of whether the industrial plant, having undergone the efficiency improvement, will continue to perform its function for the entire life of the loan and then produce the savings needed to support the repayment of the loan as projected by the bank.

Regarding this eventuality, forms of public coverage may be appropriate in order to avoid the Bank having to evaluate the solidity of the counterparty and, where appropriate, demand specific guarantees. This kind of coverage seems even further justified in the case of actions on public buildings (such as schools and hospitals), where decisions to sell property may be motivated as much by political considerations as economic and functional evaluations.

Once the feasibility of the efficiency action is settled also from the economic and financial point of view, based on the most objective data available, the issue arises of how the bank can be certain that the additional cash flow generated by the energy saving is actually used to pay off the loan.

In the case of large investments, this problem can be solved by setting up a Special Purpose Vehicle to specifically operate under a purely project financing logic. For smaller transactions, a viable option would be an evolved version of the existing contractual schemes and their effective implementation to guarantee the lender’s revenues arising from savings generated by efficiency operations.

A final question concerns the use of Energy Service Companies (ESCOs) – entities that are specialized in the financing and implementation of energy efficiency actions. ESCOs should be the engine of the country’s energy renewal and deserve proper support in their capital strengthening processes. Unfortunately, they do not always have or are able to obtain the resources or have the track record needed to carry out large-scale actions. Environmental Performance Contracting could help ESCOs in increasing the energy efficiency of public and private structures. But in order to encourage the use of this form of contract, there needs to be a discussion on ways of protecting lenders, such as how they might benefit from the direct sale of part of the fee that the end customer must eventually return to the ESCO carrying out the action.

## 5.5 NEXT STEPS

Three priorities could take forward the momentum within the banking sector:

- ⦿ First, a new effort is needed to identify mechanisms for complementing traditional sources of bank credit for SMEs operating in the green economy with other, more sophisticated, financial instruments that allow a longer term view.

- ⦿ Second, a dedicated innovation lab could be established with banks, public bodies and enterprise to scale up the investment needed to improve the energy efficiency of buildings, as well as industrial companies; this could include the labelling and tagging of loans, the smart use of public funds and guarantees, and the expansion of energy service companies.
- ⦿ Third, banking institutions and associations should identify the skills needed to make ensure that their professionals have the right skills and expertise ('sustainability literacy'), and incorporate these into core training programs. In parallel, universities and academic bodies should enrich their educational offer on green finance sector reform and integrate these into professional curricula for continuing development.



## 6 GREENING THE EQUITY AND DEBT CAPITAL MARKETS

### HIGHLIGHTS

- Italy's capital markets relatively small compared with the overall size of the economy – but steps are being taken to increase their role, particularly in financing SMEs.
- Sustainability disclosure on Borsa Italiana is improving – and the green revenues of listed companies rank the Borsa as 10<sup>th</sup> in the world. Stronger demand for Green IPOs is needed.
- The green bond market has not yet developed – but there is significant potential in the green mini-bond market, along with strategic issuance from public entities. A green bond development committee could help design a roadmap for expansion.
- Italy's private equity sector is allocating increasing capital to the clean tech segment and taking greater account of ESG factors in core investment decisions – and has further potential to finance SMEs linked to the green economy.

This chapter reviews the current developments in green and sustainable finance on Italy's public equity and debt capital markets, as well as a review of the private equity landscape.

### 6.1 PUBLIC EQUITIES: DISCLOSURE, REVENUES AND INVESTMENT VEHICLES

With 356 listed companies<sup>109</sup> and a market capitalization of around €500 billion, Italy's public equity market is relatively small when compared to its GDP and its role as a G7 economy: the market capitalization to GDP ratio is only 35%, compared, for example, to 106% in the UK.<sup>110</sup>

This reflects the fragmented nature of Italy's industrial make-up, whose growth is predominantly driven by the productivity of SMEs and is characterized by the presence of a limited number of large corporations, and a reliance on loans as the priority source of funding. Only 55 of Italy's listed companies can be considered large by international investment standards<sup>111</sup> and the Italian equity market benchmark, the FTSE MIB, is made up of 40 companies.

The Italian equity market is, however, highly transparent with a significant share of trading taking place “on book”, and records the highest turnover velocity in Europe. It is also one of Europe's leading retail venues, as c33% of trade comes directly from private investors.<sup>112</sup> Italy's equity markets have also given particular attention to expanding equity finance for SMEs (see Box 15).

A number of key developments are under way to align Italy's equity markets with sustainable financing:

- Improving the disclosure of listed companies;
- Generating greater visibility of the green revenues of listed companies;
- Developing passive green investment vehicles.

**BOX 15: HELPING SMEs ACCESS NON-BANK FINANCE**

Over the course of the past 10 years, the development strategy of Borsa Italiana, the Italian exchange market operator part of London Stock Exchange Group, has focused on developing tools aimed at removing barriers that prevent SMEs from getting access to financial capital. Key initiatives include:

**STAR segment** – A market segment dedicated to medium caps that commit to higher governance and transparency standards. It currently includes 67 companies.

**AIM Italia** – Italy's growth or junior market, offering SMEs a simplified procedure to get access to public equity. It currently includes 77 companies.

**Elite Growth** – The London Stock Exchange Group's pre-IPO initiative, which prepares SMEs for long-term finance (including M&A and private equity). It currently involves 380 Italian companies.

**Elite Club Deal** – Elite Club Deal is an online private placement platform designed to streamline the capital raising process for SMEs. It the opportunity to connect to professional investors (institutional investors, VCs, private equity firms and other professional investors) offering them a host of funding options (equity and debt) in an online integrated environment.

**ExtraMOT Pro** – The segment offers SMEs (especially private, non-listed ones) the opportunity to list bonds, convertible bonds, commercial paper, and project bonds in a flexible and cost effective way, taking also advantage of the tax benefit arising from a new regulatory framework.

**1000 Companies to Inspire Europe** – The London Stock Exchange Group's report and database profiling some of the fastest-growing and most dynamic SMEs across Europe, to facilitate their access to funding. The 2016 edition includes 110 Italian companies.

**6.1.1 SUSTAINABILITY DISCLOSURE**

In a 2016 survey based on 2014 data, Borsa Italiana ranked 19<sup>th</sup> out of 45 exchanges based on the quality of sustainability disclosure of its listed companies. This is up from 30<sup>th</sup> position in the previous survey. Of the largest 100 listed companies, only 51 report their environmental performance to the Carbon Disclosure Project (CDP). On 1 January 2017, the coming into effect of the EU Non-financial Reporting Directive will mandate all listed companies with at least 500 employees to report on – or explain – their compliance with standards for environmental performance, human rights, social issues and anti-corruption. To help issuers navigate the new regulation and to encourage them to see it as an opportunity to tap into a diversified investor base, Borsa Italiana, as a member of the UN Sustainable Stock Exchanges Initiative and of London Stock Exchange Group, has put in place the following measures:

- Guidance on ESG disclosure: Commitment to issuing guidelines on voluntary ESG disclosure, promoting the adoption of global standards, by the end of 2016.
- Italian Corporate Governance Code: The Italian Corporate Governance Committee, promoted by Borsa Italiana, included ESG risks and governance considerations in its review of the Italian Corporate Governance Code issued in July 2015.
- ESG section of Borsa Italiana's company profiles: In December 2015 Borsa Italiana created an ESG-dedicated section in the company profiles of all the listed companies available on [www.borsaitaliana.it](http://www.borsaitaliana.it). The website records on average more than 30 million monthly views.





## 6.1.2 GREEN REVENUES OF LISTED EQUITIES

Over 70% of Borsa Italiana's market capitalization is screened by London Stock Exchange Group FTSE Russell's ESG analytics services, with inclusion of qualifying companies into FTSE4Good and other sustainability index families. In addition, in June 2016 FTSE Russell launched its Green Revenues database and index series, tracking the percentage of revenues that listed companies derive from product and services serving the transition to a low carbon economy (LCE).

Currently, 31 Italian companies are listed in the FTSE Europe Green Revenues Index. Based on a recent review of 48 countries run by FTSE Russell, 3.72% of the revenues of listed companies on Borsa Italiana have been categorized as green, ranking it in 10<sup>th</sup> position.<sup>113</sup> The number of companies that are considered pure-play cleantech is 29, comprising both companies listed on the main market and quoted on AIM Italia, Borsa Italiana's growth market.<sup>114</sup>

There are currently 9 green ETFs ( exchange-traded funds tracking sustainability themed indices) listed on Borsa Italiana. Total turnover in 2015 for these ETFs was £138.6 million across 11,119 trades

### BOX 16: CHANNELING INVESTMENT TOWARDS GREEN INFRASTRUCTURE: ITALIAN INFRASTRUCTURE DAYS

Borsa Italiana, in collaboration with banks and intermediaries, annually convenes a selection of Italian public and private infrastructure companies to discuss their strategic and financial prospects with the international financial community.

International fund managers are invited to join one-to-one meetings, presentations and thematic discussions among companies.

The events have been increasingly focusing on the cleantech sector.

## 6.1.3 NEXT STEPS

To increase the number of green companies entering the market to raise capital for the transition to a low-carbon economy:

- market participants should encourage listings on the public markets as an alternative to bank loans;
- institutional investors should channel more funds towards green IPOs to help reduce the relative cost of capital (compared to non-green listings).

## 6.2 GREENING DEBT CAPITAL MARKETS

### 6.2.1 THE STATE OF THE ART

In Italy, the debt market can be divided in the following segments:

- 1) Public market: benchmark transactions by large issuers (both SSA, Corporates and Financials) targeted to institutional investors, usually listed on the Luxembourg Stock Exchange.
- 2) Mini bond market: small-medium size transactions issued by SME, targeted to professional investors, listed on the ExtraMOT Pro.
- 3) Retail Market: usually benchmark transactions by Large Issuers listed on the MOT.

Worldwide, there has been a rapid growth in bonds whose proceeds are ring-fenced for investment in a range of green activities such as clean energy, building efficiency, sustainable transport as well as water and waste. Issuance has grown from US\$2.6 billion in 2012 to US\$42 billion in 2015. Issuance has continued to grow in 2016 – resulting in an outstanding stock of green bonds of some US\$118 billion.<sup>115</sup> Key issuers have included international financial institutions (such as the World Bank Group and the EIB), municipal organizations, banks and corporations. In addition to this labelled green bond market, the Climate Bonds Initiative has identified US\$694 billion of bonds that are aligned to the transition to a low-carbon economy; in Italy, the stock of these climate-aligned bonds is estimated at €738 million. The green trend in the Italian bond market is at the moment very limited. Talking about large issuers (mostly utility companies) and the institutional market, Hera issued in 2014 the first Italian green bond of €500 million. In July 2016, Alperia launched a Green Bond for €225 million and proceeds will go to support the South Tyrol-focused energy company's green investments, including to refinance its buy of several hydropower plants. More recently, Enel issued a €1.25 billion green bond,<sup>116</sup> registering a demand from institutional investors (many of whom SRI) higher than double.

Some foreign supranational issuers already entered the Italian Market issuing green bonds listed on the Italian Stock Exchange (MOT and Euro MOT). Recently, the World Bank has issued two sustainable bonds listed on the EuroMOT, targeted to Italian retail investors: one in Renminbi and one in Indian Rupees

The Italian mini-green bonds market is slightly more developed than the benchmark one. The VedoGreen observatory<sup>117</sup> has been detecting an increasing trend by listed SME of the green economy to use the debt instrument to collect funds for their business growth: in 2014, 7 mini-bonds valued at €259 million were issued as diversification of funding sources, with an average coupon of 7.9%.

Mini-bonds are medium/long term debt instruments for small and medium-sized enterprises intended to development plans, such extraordinary investment transactions or refinancing. The instrument is promoted and facilitated by the Decree of Development: from 2012 to 2015, there were 179 issues totalling more than €5.5 billion, of which over 100 issues totalled less than €50 million. There's a big 'green' potential in this market.

Besides, on February 11th, 2013 Borsa Italiana has launched the new Professional Segment of the ExtraMOT (The ExtraMOT PRO) dedicated to listing of bonds, financial bonds, commercial paper, participatory tools and project bonds. The segment has the same structure of ExtraMOT, but trading is allowed only to professional investors. It is also optional for the presence of a specialist in support of liquidity.

The listing of mini-bonds on the ExtraMOT is convenient for SMEs for several reasons:

- Economy: ExtraMOT is a regulated market by the Italian Stock Exchange recognized by ESMA, *managed by a team of professionals that allows SMEs to benefit from the tax advantages of the new regulatory framework with low costs and competitive.*
- Flexibility: Borsa Italiana adopts a flexible and streamlined regulatory approach to enable SMEs to shape their own access to the market in a 'tailor made' manner.
- Visibility: Being an international brand and having the extensive network of domestic and international intermediaries makes Borsa Italiana the ideal stage for SMEs to gain visibility among potential investors.

In the mini-bond market, the green segment is taking large place for the following reasons:

- strategic importance of the energy sector, especially after the 2015 Paris Agreement
- existence of a real assets
- low correlation to traditional equity market
- low risk

- ⊙ stable and predictable cash flows
- ⊙ natural protection against inflation.

In 2014 Enna Energia Srl issued on the ExtraMOT PRO Market the first Italian mini-green bond for €3.2 million, with coupon 5% and maturing on May 2019. In the same year, Terni Energia, a company listed on the Milan Stock Exchange (ExtraMOT Pro), successfully launched a small bond issue for €25 million. The new bond, sold exclusively to institutional investors, is 5-year fixed rate senior note. The funding will be dedicated to optimize the financial profile of the group, specializing in renewables, energy efficiency and waste management, as well as to reduce bank debt. Furthermore, Innovatec, a sub-holding for the energy efficiency business, issued in 2014 a 6-year green bonds transaction for €15 million, listed at ExtraMOT PRO.

## 6.2.2 GREENING THE ITALIAN DEBT MARKET: CHALLENGES AND BARRIERS

The main challenges for Italian Issuers can be summarized as follows.

### Corporate Issuers

The benchmark issuance size for attracting mainstream investors is at least €200 million. Renewable energy and energy efficiency markets are much more disaggregated than traditional energy sectors, with many small projects, and smaller projects need to be aggregated into larger offerings suitable for the appetite of larger investors. Besides large energy companies, such as Eni or ENEL, which could tap the institutional market through large size green bonds appealing to institutional investors, for smaller entities it could be difficult to collect enough green projects to be financed by the proceeds of a large size transaction.

On the legal/documentation side, there is an active international market on green private placements that allow small-medium corporates to raise green funds under their current EMTN Programmes. In Italy, smaller entities do not have standardized issuance programmes, such as the EMTN, and it would be too expensive for them to issue private placements on a stand-alone basis. In this case, the solution could be to tap the market with the mini-green bond instrument listed on the ExtraMOT Pro.

SMEs can also face cultural and managerial barriers: the reporting process required by the Green Bond Principles could be difficult to implement, expensive and not an economic priority.

### Financial Issuers

Beside the major financial institutions that already focus on sustainability, other players in the market do not have dedicated green financing and their existing IT systems cannot easily identify loans responding to Green Bond Principles, making it difficult for them to link their proceeds to specific green financing.

Public sector issuers such as the government, supnationals and state-owned enterprises (i.e. Treasury, CDP, Ferrovie dello Stato) often have an EMTN Programme, out of which they could issue green bonds to institutional Investors. Internationally, strategic public issuance of green bonds has been pivotal in pump-priming the market – and this could be taken forward in Italy as well. Options could include a sovereign green bond: France has already announced that it will issue a sovereign green bond in 2017.<sup>118</sup>

### Institutional Investors

The role of investors in creating a demand for green bonds in Italy is critical – and at present, there is limited collective expression of demand by Italian investors. Internationally, investors have made public commitments to invest in green bonds – with Zurich Insurance committing to allocate US\$2 billion.<sup>119</sup>

### 6.2.3 LOOKING AHEAD: OPPORTUNITIES

For Italian large issuers, green bonds would be simple to issue under the current standard documentation processes and could provide many benefits, such as:

- Expand investor diversification by accessing new sustainability-focused/SRI investors and broadening interest among general investors.
- Demonstrate innovation by embracing a new and fast-growing market.
- Enhance investor loyalty by penetrating different pools of liquidity within the existing investor base and offering products aligned with investors' core corporate values.
- Profit from price tension: outstanding green/social bonds by foreign issuers usually price in-line with and may eventually price inside of conventional benchmarks. Some big issuers, such as EIB and the World Bank, have already a green bond curve. This curve is tighter than their conventional senior bond curve during normal market conditions and much more resilient during high volatility periods.

Furthermore, the majority of potential buyers in green bonds do not have a specific and/or dedicated fund; they evaluate the attractiveness of a green bond by using the same criteria of any other notes issued by such a borrower.

- Stability of the curves: as the public green bonds market is still quite new, there is not enough room for switches on the existing curves.
- Ease of issuance: issued under the same documentation as regular bonds, use existing EMTN Programme.
- Image improvement: align with the sustainable growth agenda and plan for the next generation.
- Development of a sustainable business platform: to save money in the long run.

In order to be cheaper for borrowers to issue green bonds in the future and compensate the burden of post-issuing procedure, reporting, etc., it would be important to promote the products among institutional investors, especially the Italian ones. In this way, a secondary market could be developed and this could create the possibility for issuers to lower their funding costs.

- Promotion of sustainable products and efficiency: for example, Apple's recent green bond will finance the construction of new office green buildings.
- Value of marketing: display the institution's green agenda in connection with finance activities.

For SMEs, a segment exclusively dedicated to mini-green bonds could be created inside the ExtraMOT PRO market, allowing an easier access to green-oriented companies and more liquidity for professional investors willing to diversify their investment in the green economy.

Financial institutions should be helped to introduce systems that recognize and flag green funding from regular funding, in order to be able to provide clear annual reporting, consistent with the Green Bonds Principles. This definitely would require an innovative effort and costs that banks often are not willing to bear. Government directives, incentives or tax relieves promoting the use of green bonds as financing tool could also encourage banks to make these technical implementations.

Looking ahead, a more active green debt market both on the public and the mini-bond side can be expected, as between two to four benchmark transactions by Italian large corporates and public entities are most likely. Italian banks and investment banks, rather than being first issuers, could develop their role of consultants in helping the system (especially SMEs) to switch towards green debt financing (i.e. give advice on how to issue a green bond). The green bond channel could be developed by selected Italian issuers, which already have a domestic prospectus (Treasury, CDP, etc.), including through a sovereign green bond.

Green bonds targeted to ‘dedicated’ institutional investors could be more liquid on the secondary market and, in the long run, and could contribute to lower funding cost for the borrowers. There is also an opportunity to encourage retail investors to allocate savings to robust ‘green investments’ and raise public awareness on consequences of climate change for their portfolios. Finally, tax relief and incentives for borrowers, decided by the government, could encourage the use of this tool.

To take this forward, a green bond development committee including public and private entities could be formed to identify and deliver the critical steps to develop the market, including strategic issuance by public bodies, providing access to SME issuers (for example, through green mini-bonds) as well as savings opportunities for retail investors.

### **BOX 17: GREENING PRIVATE EQUITY IN ITALY**

The Italian private equity market closed 2015 with 109 monitored operations and an increase of approximately 22% in comparison to 89 operations in 2014, thus confirming the positive trend of the last two years. Only in 2006, 2007 and 2008 was the number of closing investments lower. In terms of market concentration, during 2015, 26 investors have gathered 50% of the whole investment activity. Therefore, the market results are less concentrated than in the previous year, when about half of the operations were realized by 20 operators. Regarding the economic and financial characteristics of target firms, the median value is €34.2 million, a decrease in comparison to 2014 data. In 2015, the share of cleantech deals on the total has almost doubled, moving from 2.5% to 4.9%.<sup>120</sup>

In 2016, AIFI, the Association of PE fund managers, published a guideline,<sup>121</sup> in cooperation with Forum per la Finanza Sostenibile, on why and how to integrate ESG factors into investment strategies. The rationale for General Partners (GPs) to set a sustainable investment policy is linked to:

- Risk reduction and value creation – using an ESG filter can help GPs to detect sources of risks that the traditional due diligence process tends to overlook. Moreover, a clear orientation towards sustainability allows invested companies to leverage on new market opportunities;
- Meet investors’ demand – more and more often, either private and institutional investors ask GPs to adopt a sound ESG approach. A ESG-compliant portfolio protects LPs from reputational risks and is more likely to provide good financial results in the long term;
- Anticipate future regulation – investing in sustainable and responsible companies means to prevent future unexpected costs of compliance to a regulatory framework that becomes more and more strict on environmental and social issues.

The guideline provides a number of examples on how to design and implement practical tools to enhance the ESG dimension in the typical business process (selection, due diligence, portfolio management, measurement, reporting) and offers examples from Italy and abroad.

The role of a private equity investor is particularly important for the full maturation of SMEs, as they bring sound corporate governance rules when they invest in a company that typically has an entrepreneur (and/or his family) as the only shareholder. Introducing a transparent decision-making process and accountability is the best way to facilitate the entrance of new capital providers and then unlock the value of a small business. In this perspective, Italian GPs think that sustainability of investees is a must for a good exit strategy.



# 7 GREENING INSTITUTIONAL INVESTORS



## HIGHLIGHTS

- Italy's institutional investors – pension funds, banking foundations, insurance companies and asset managers – are increasing their engagement with sustainable and responsible investment.
- However, a number of challenges stand in the way of mainstreaming, including short-termism, perceptions of materiality, as well as inconsistent data and definitions.
- A range of priorities emerge to strengthen the sustainability contribution of the sector, including actions by asset owner to drive financial innovation, improved disclosure by corporations and investors as well as efforts to build the capacity of professionals. Reforming fiscal policy to incorporate the environmental dimension could also provide stronger underlying incentives for green investment.

## 7.1 INTRODUCTION

Institutional investors can be defined as financial players that manage assets on behalf of third parties, notably: pension plans (including both pension funds and professional pension schemes), banking foundations, insurance companies<sup>122</sup> and asset managers.

Institutional investors manage significant amounts of assets and need to ensure their trustees and beneficiaries' long-term value. As socio-environmental issues are shown to be more and more crucial to creating financial value,<sup>123</sup> integrating such aspects into investment decisions enables institutional investors to better manage risks and opportunities and thus meet their fiduciary duty. Moreover, by including socio-environmental concerns into investment policies, institutional investors can contribute to steer economic development towards a more sustainable model, creating environmental and social value in addition to financial one. This is true for both asset owners (AOs) and asset managers (AMs): although AOs hold final responsibility to allocate resources consistently with their fiduciary duties and investment policies, AMs can influence their clients' decisions through the products and services offered, highlighting the opportunities connected to SRI approaches.

This chapter reviews the adoption of SRI by Italy's institutional investment community, the challenges that exist and sets out opportunities for a more strategic approach.

## 7.2 THE STATE OF THE ART

### 7.2.1 PENSION PLANS

The Italian pension system is made of two main pillars. The first pillar is compulsory, based mainly on public, unfunded, pay-as-you-go schemes run by INPS, the Italian Social Security Agency. This covers the overwhelming majority of the work force. For most categories of self-employed professionals, the first pillar includes dedicated pension plans (so-called "Casse di Previdenza"), run as partially funded plans. According to data published by COVIP (the Italian Supervisory Commission on Pension Funds and Plans) the assets represented by Casse di Previdenza amount to €71.9 billion.<sup>124</sup>



A comprehensive framework for developing the second pillar was introduced in 1993, encouraging the establishment of private, voluntary schemes operating through a collective funded system. Before 1993, private, funded pension plans were available only for a few workers: the so-called *Fondi Pensione Pre-esistenti* (FPP). Afterwards, several industry-wide pension schemes were introduced, in the form of *Fondi Pensione Negoziali* (FPN) – by means of collective agreements between the relevant employers' representatives and labour unions. *Fondi Pensione Aperti* (FPA) were introduced as well, established by financial and insurance undertakings; FPA are allowed to collect members from both individuals and groups (e.g. employees of a given company). Then, in 2000 the regulatory framework was extended to the so-called *Piani Individuali Pensionistici* (PIP), to be established by insurance undertakings in the form of life-insurance policies.

Regarding the second pillar, as of December 2015, there are 469 voluntary schemes operating in Italy: 304 FPP, 36 FPN, 50 FPA, 78 PIP and Fondinps. The total assets amount around €140 billion, of which €55 billion are represented by FPP and €42.5 billion by FPN.

Following the introduction of Legislative Decree 252/2005, all pension schemes in Italy are obliged to include in their annual report and to communicate to members whether and to what extent socio-environmental criteria are incorporated in the management of their assets. At present, the development of SRI strategies to integrate ESG factors by Italian pension funds is still limited and, even when adopted, sometimes it is not communicated effectively. According to the 2015 and 2016 edition of the 'Responsible Investment by Italian Pension Plans Survey'<sup>125</sup> – which monitored the 50 biggest professional pension schemes, FPP, FPA, FPN and PIP – SRI strategies are still restricted to a small proportion of the assets under management and to some specific asset classes.

Leadership is being taken, however. In November 2014, a group of 14 pension funds led by Fondo Cometa – the largest in the country – and coordinated by Assofondipensione launched the first collective engagement action in Italy. The initiative was aimed at asking a group of international banks to disclose more information about climate-related risks. In May 2015, another engagement action was launched by Fondo Cometa focusing on children's rights in the supply-chain of 40 listed companies, including 20 corporations part of FTSE MIB index. This second initiative involves 32 Italian investors representing €50 billion AuM. Also, three Italian pension funds (Fondo Cometa, Fondo Pegaso and Fondo Pensione Gruppo Intesa Sanpaolo) recently decided to join the PRI initiative.

### 7.2.2 BANKING FOUNDATIONS

Banking foundations are private, non-profit, philanthropic, autonomous organizations born in the early 1990s as a result of the privatization of Italy's Savings Banks. Even if they differ in terms of origin, size and local activity, they share the common mission of promoting cultural, social and economic development, particularly at local level. This role is carried out through charitable donations to non-profit entities and public institutions as well as through investments. In their capacity of grant makers, every year these banking foundations distribute about one billion euro: the resources used for philanthropic grants come from income generated by capital investments.

Total assets of the 88 foundations amount to about €48.5 billion, of which €23.0 billion (48%) is accounted for by the five biggest foundations (Fondazione Cariplo, Compagnia di San Paolo, Fondazione Cariverona, Fondazione Cariparo and Fondazione CRT). Less than 30% of these assets are invested in the banks that originated the foundation, the rest being allocated to diversified equity portfolios and in medium/fixed term assets. Only a few foundations have formally adopted any kind of SRI policy.

At present, foundations are mostly engaged in "mission-related investments", to which they allocate around 10% of their total assets. With increasing frequency, Italian foundations are choosing to invest their assets in the same areas of intervention of their grant-making activity, thus generating positive



social or environmental impacts, while sustaining long-term financial returns. For instance, social housing investments can generate positive impacts through the reuse of existing building and urban regeneration, sustainable building and energy savings.

### 7.2.3 INSURANCE COMPANIES

In Italy, there are 220 Italian and foreign insurance companies; their investments amount to €693 billion, including about €300 billion investments in government bonds.

As highlighted by the last IVASS report,<sup>126</sup> the Italian insurance market is mainly driven by a few big players. In particular, in the life insurance branch the first five companies account for 60% of market share; while in the “loss-damage” branch the top five and top ten companies account for respectively 71% and 86% of market share.

In a context where the reduced supply of bank credit is encouraging companies to search for other sources of funding, the insurance industry could play a new role in supporting the national and local economy. In particular, the recent changes introduced in the Italian legal framework are encouraging a more active role of insurance companies that will be able to directly fund the enterprises (under certain conditions).<sup>127</sup>

Insurers can contribute to financing the economic recovery and foster sustainable development by taking into account environmental aspects. In particular, climate change is a very crucial issue for the insurance industry, which will need to develop new products with the aim of both protecting against extreme weather events and ensuring new businesses that offer solutions in terms of mitigation and adaptation.

In the last years, a few Italian insurance companies have started to implement SRI policies or products such as Cattolica Assicurazioni Group, Generali Group, UnipolSai Group and Reale Group. Foreign insurance companies operating in Italy with good SRI practices include Allianz GI, Aviva, AXA Group and Zurich. These companies have both integrated ESG criteria into their policies and processes at group level and/or through specific products. For more information on the insurance sector, see Chapter 8.

### 7.2.4 ASSET MANAGERS

After the crisis of the late 1990s, the Italian asset management industry has been regaining ground among both retail and institutional investors and is now responsible for the management of €1,900 billion, equivalent to c10% of Italian household financial portfolio. The assets managed by Italian AMs are almost equally split between funds (mostly UCITS) – 49% at the end of 2015 – and mandates 51%; insurance companies account for more than two-thirds of mandates with less than 10% of mandates from pension funds.

With regards to retail funds, SRI products still represent a small share, with only 2% of total assets. However – according to the study conducted by Vigeo-Eiris Green, *social and ethical funds in Europe* – in 2015, there was a flurry of activity with 19 SRI funds being launched in 2015, up from 12 in the previous year. Another factor driving growing interest in SRI strategies is the presence of foreign institutional investors, who account for c40% of ownership of companies on the Borsa Italiana.

Nine Italian AMs have decided to join the PRI, including Eurizon Capital SGR and Pioneer Investments. Currently, Etica SGR, which exclusively offers SRI funds, is the first Italian institution to join the Montreal Carbon Pledge, which commits investors to publish the carbon footprint of their portfolios. A number of smaller but innovative players such as Azimut, Sella Gestioni and Symphonia SGR have developed new products applying different sustainable investment strategies such as best in class, impact investing and thematic investment.

## 7.3 GREENING THE INSTITUTIONAL MARKET: CHALLENGES AND BARRIERS

### Long-termism

The first step towards greening institutional investors is to promote the development of institutional investors themselves in general and retirement provision in particular. The experience of other European countries – such as France, the Netherlands, Sweden and the UK – shows that stronger pension funds are naturally more inclined to adopt a long-term approach, which represents the main challenge for Italian institutional investors. Stronger institutional investors would also be better equipped to develop the knowledge and the skills need to adopt SRI strategies. When institutional investors move from a short-term approach – where sustainability issues are faced only when they become overwhelming and near-term gains have priority over long-term returns – to a more precautionary and far-sighted approach, they become capable of promoting not only financial resilience, but also contribute to wider economic and social recovery. Within a long-term approach, investment decisions cannot overlook emerging socio-environmental challenges such as climate change, water and air pollution, water stress that have strong impacts on economic performance. A systematic integration of socio-environmental factors into financial analysis at the portfolio level is crucial.

### Materiality

At the global level, many investors have already decided to include ESG issues into their investment practices. More and more countries are introducing regulations requiring institutional investors to take into account material ESG criteria, arguing that these are not simply consistent with their fiduciary duties, but are essential for enabling their full achievement.<sup>128</sup> Examples of the materiality of ESG criteria include the risk of stranded assets among fossil fuel producers that might put at risk a growing number of investments. To ensure that environmental concerns are fully incorporated into long-term investment strategies, more awareness on the financial impacts of risks related to environmental issues have to be pursued both among AOs and AMs. The continuing misconception of a supposed trade-off between ESG concerns and financial return needs to be addressed.

### Active Engagement

Sustainability factors also need to be part of institutional investors' relationships with the companies they own. On behalf of their ultimate clients and beneficiaries, institutional investors need to exercise stewardship over the assets they hold through shareholder engagement, voting and dialogue. This has started with governance, and now needs to extend to environmental and social factors. This can also be encouraged by policymakers and regulatory agencies.

### The Investment Chain

Investment consultants play a key role in the investment, acting as an intermediary between AOs and AMs. Indeed, they can encourage institutional investors to integrate ESG criteria in the upstream definition of their strategic asset allocation. The advisor will thus set a long-term investment strategy – more and more based on an Asset and Liability integrated analysis – to reach economic, financial and institutional targets, as well as to be coherent with sustainability principles and legal and regulatory restrictions. This activity will complement short-term tactical asset allocation and dynamic portfolio review. A deeper understanding of these issues can also be developed through financial education at investor level and the training of investor professionals focusing on ESG matters.

## Data and Definitions

Other barriers to action include the need for a common definition of green finance and the quality of ESG data. The Directive on non-financial reporting is expected to be of help in this sense. The lack of accurate and standardized reporting on ESG issues from investee companies hinders the more widespread adoption of SRI approaches to investment – while the emerging status of tracking green assets (such as green bonds) can hamper investor efforts to set targets for green asset allocation.

## Transparency and Dialogue

Another key challenge for institutional investors is transparency and dialogue towards clients and beneficiaries as well as stakeholders and wider society. Asset owners and asset managers should start communicating efficiently how they are addressing the socio-environmental challenges within their investment policies and practices. For the time being, the 19 Italian PRI signatories – 4 asset owners, 9 investment managers and 6 service providers – are publishing their reports on how they are implementing responsible investments. A further step that is required is to harmonize portfolio measurement methodologies, such as carbon footprints.<sup>129</sup>

## 7.4 LOOKING AHEAD

### 7.4.1 EMERGING OPPORTUNITIES

The Paris Agreement and the launch of the UN SDGs offer tremendous opportunities for institutional investors, providing a basis for greening the Italian financial market, with a strong focus on the measurement of achievements at the local level. In Italy, this could involve a more comprehensive interpretation of ‘fiduciary duty’ to include material ESG factors.

In Italy, the level of investments in the green economy (particularly in sustainable infrastructure) shows great potential for development. Innovative financial strategies such as green bonds (see Chapter 6) and impact investing<sup>130</sup> can also meet institutional investors’ demand for greener products. The recent launch of the initiative “Social Impact Agenda per l’Italia”<sup>131</sup> could give further impulse to the development of such investments in Italy.

### 7.4.2 POTENTIAL PARTNERSHIPS

In order to maximize the results of green financing initiatives institutional investors should strengthen their cooperation, through active participation in networks at both the international and the national level, such as the Principles for Responsible Investment, the Institutional Investors Groupe on Climate Change, the Portfolio Decarbonization Coalition as well as the different sustainable investment forums (in Italy Forum per la Finanza Sostenibile – FFS).

Moreover, it is useful to partner with academia and training agencies that can guide and direct the capacity building of the Italian policymakers and financial specialists, according to a lifelong learning approach. Moreover, these actors – together with national and local authorities – could promote financial education programs in order to spread knowledge and literacy on sustainable investment among young and adult population.

### 7.4.3 MARKET AND POLICY REFORMS REQUIRED

The first and more important step forward would be greater push from AOs to implement responsible investment by defining it in their strategy, policies and crucially in their selection and monitoring of their investment managers. Product and strategy innovation is a key element in order to facilitate the

development of liquid markets for quality green assets, focusing on listed fixed income and equities. The increased awareness and availability of information on environmental matters could help this process, while enhancing the effectiveness of stakeholder engagement (beneficiaries, clients, companies, banking system). One approach would be to adopt broader investor reporting requirements, similar to Article 173 of France's Energy Transition Law.

Regarding the policy framework, fiscal measures can also support long-term investment in general and green investments in particular. Along with other market-based instruments, 'environmentally friendly' taxes, with a right balance between incentives and disincentives, while respecting overall fiscal constraints and fiscal neutrality, could stimulate innovation and benefit the three components of sustainable development (environmental protection, economic growth and employment).

Further opportunities can come from the transposition at national level of the European legislation. In particular, the Capital Markets Union (CMU) Action Plan, the Non-financial Disclosure Directive and the revision of both IORP II and PRIPs regulation can be important drivers to address properly environmental concerns within the legal framework. Indeed, under the recently approved IORP II Directive, member States should require Institutions for Occupational Retirement Provision to explicitly disclose where ESG factors are considered in investment decisions and how they are part of their risk management system.

## 8 GREENING THE INSURANCE SECTOR

### HIGHLIGHTS

- Insurance is the financial sector most exposed to climate change risks – but also faces new opportunities presented through digitization and growth markets in sustainable finance.
- Italy's insurance sector is responding with actions across underwriting, claims management and asset management. Over 22% of the market is represented by companies supporting the Principles for Sustainable Insurance.
- The outlines of a national roadmap for sustainable insurance are beginning to emerge, bringing together policy and market reforms with targeted financial innovations. In particular, the establishment of a national scheme to cover risks from climate-related natural catastrophes, in particular for residential properties, adopting both traditional and non-traditional reinsurance structures (CAT bonds, ILS, collateralized, etc.) should be explored with public and private actors.

### 8.1 THE STRATEGIC IMPORTANCE OF SUSTAINABLE DEVELOPMENT FOR THE INSURANCE SECTOR

Moving from the emergency culture to a culture of prevention is a global challenge requiring a collective response. Insurance is the financial sector that is going to be one of the hardest hit by climate change, from rising claims to losses on investments. The winners in this sector will be those companies that understand the risks and opportunities facing their businesses, and embed it into their strategies and operations.

Significant losses from natural catastrophes and a growing awareness of climate change risks have made sustainable development a matter of strategic importance for the global insurance sector:

- According to the Report of Agenzia italiana risposte emergenze (Agire) in 2013, there have been 330 natural catastrophes that affected over 96 million people, causing 21,600 deaths and damage for US\$118.6 billion.<sup>132</sup>
- Between 1980 and 2015, according to the Geneva Association,<sup>133</sup> 91% of disaster events were weather related, 51% of fatalities were caused by weather related extremes, 79% of economic losses were related to weather extremes, and 90% of insured losses were caused by weather extremes.
- The Global Risks Report 2016 of the World Economic Forum surveyed a sample of 750 experts who evaluated 29 different types of global risks in terms of both impact and probability of occurrence – and identified climate change as having the greatest impact potential.
- According to a comparative AXA-Ipsos survey<sup>134</sup> for 30% of respondents climate change has already had an impact on their lifestyle and as many as one third are concerned about the consequences of floods, increase in average temperatures, drought and poor harvests. For 61% of those surveyed, a greater awareness on climate change brings underlines the role and responsibilities of the insurance industry.
- In Italy, government expenditures on emergency response and reconstruction related to hydrological events has been estimated at €2.6 billion per year between 2010 and 2012. The effectiveness of strong legislative requirements for assessing flood hazard in new constructions

has been limited by gaps and a number of amnesties provided for properties that were constructed without regard to flood hazard levels.<sup>135</sup>

The insurance sector has a strategic role to play in terms of underwriting, claims management and asset management. Countries with mature insurance markets recover much faster and more efficiently when struck by a disaster. So the question is not whether insurance can play a meaningful role, but rather how to set the rules for its maximum engagement. In 2010, the OECD highlighted how *“the tools for financing and risk transfer, such as insurance products, can play a key role in reducing the economic impact of catastrophic risks”* in providing effective responses and to promote an increased awareness and knowledge of the risks.<sup>136</sup> The *Green Paper on insurance against natural and man-made disasters*, of the European Commission (2013), highlights the need to increase the penetration of the market in insurance against natural disasters and to *“fully develop the potential of the insurance premiums and other financial products to raise awareness on prevention and mitigation of risks and for the long-term resilience of investments and business decisions”*.<sup>137</sup>

Importantly, the new Sendai Framework for Disaster Risk Reduction<sup>138</sup> prioritizes *“investing in disaster risk reduction for resilience”*. In this context, *“public and private investment in disaster risk prevention and reduction through structural and non-structural measures are essential to enhance the economic, social, health and cultural resilience of persons, communities, countries and their assets, as well as the environment. These can be drivers of innovation, growth and job creation. Such measures are cost-effective and instrumental to save lives, prevent and reduce losses and ensure effective recovery and rehabilitation.”* As regards the role of the insurance industry, the Sendai Framework identifies the need for national and local level mechanisms for disaster risk transfer and insurance, risk-sharing and retention and financial protection should be promoted as appropriate, for both public and private investment in order to reduce the financial impact of disasters on governments and societies, in urban and rural areas.

The characteristic of natural disasters is that they can simultaneously harm many people and properties in a very limited area. It is to some extent an anomaly compared to other types of risk covered by insurance (e.g. theft or fire), because it is unlikely, though not impossible, that neighbouring properties are affected on a large scale at the same time as in the case of natural disasters. An Insurance Europe position paper outlines the criteria for assessing the insurability of a given risk. In particular *“...risks must be quantifiable: the probability of occurrence of a given peril, its severity and its impact in terms of damage and losses, given the structural characteristics and vulnerabilities of the insured assets, must be assessable. A sufficiently large community with assets at risk can be established to share the risk (mutuality), allowing for sufficient diversification of the risk based on differences across the community in terms of risk exposure. Risks must occur randomly: the time and location of an insured event must be unpredictable and the occurrence must be independent of the will of the insured.”*<sup>139</sup>

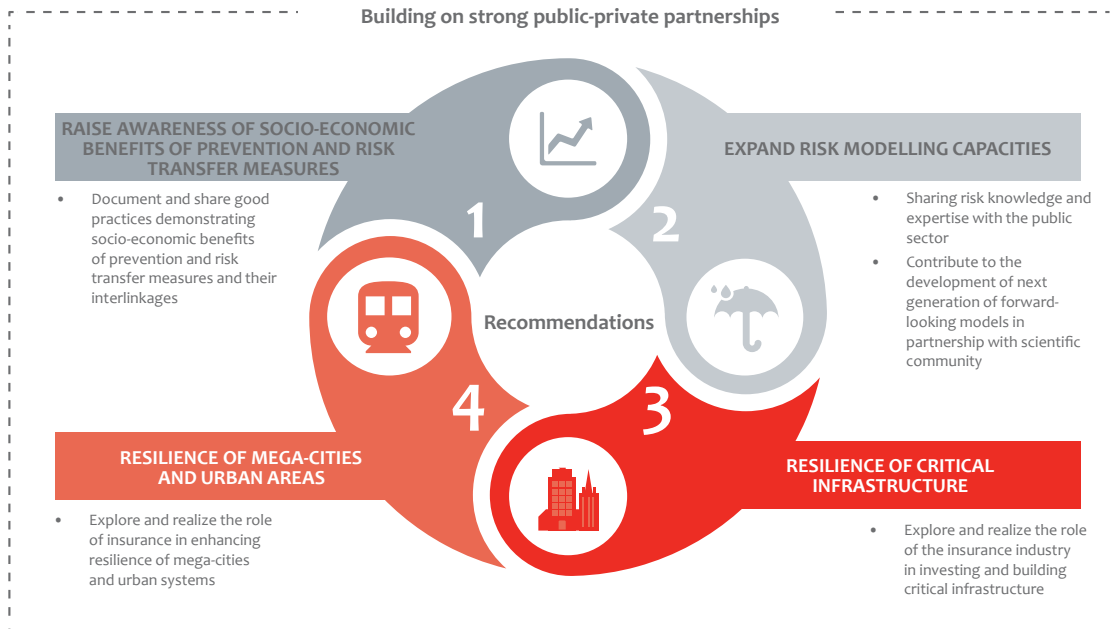
The OECD identifies flooding as one of the most common, widespread and destructive natural perils, affecting approximately 250 million people and causing US\$40 billion in losses on an annual basis. The increasing accumulation of assets in floodplains and coastal zones, combined with the expected impacts of climate change on precipitation patterns and sea levels, are likely to lead to increasing losses in the future. As a result, significant policy attention is being focused on finding ways to effectively manage the financial impacts of flood risk, considering the roles of investments in risk reduction as well as mechanisms for transferring flood risk. Insurance and other risk transfer tools can make an important contribution to the financial management of flood risk by spreading the risk across domestic and international (re)insurance and capital markets and reducing the share of losses absorbed by households, businesses and governments.<sup>140</sup>

The ability to quantify exposure to flood risk is a prerequisite to the effective financial management of flood risk and a necessary input or assessing the costs and benefits of different approaches to risk reduction and for transferring risk to (re)insurance capital markets. However, a number of challenges remain in terms of the quality and consistency of flood risk maps and the coverage of probabilistic flood

models. In many countries, the development of private flood insurance markets has been a key driver for the development of flood modelling capacity. Information on past events, including from the insurance sector and satellite imagery, can provide an alternative source of information on potential exposure where probabilistic flood models do not exist.

The form of insurance coverage can have important implications for take-up rates and the incentives created for risk reduction. In fact the contribution of insurance to the financial management of flood risk will be maximized where insurance promotes risk awareness and risk reduction. Government involvement is key in supporting the insurability of flood risk through effective land-use planning and investments (or encouraging investments) in risk reduction at the community and household level. A number of countries specifically link issues of insurance availability and affordability to decisions on land-use and flood protection investments. Given the range of policy tools that need to be considered, a holistic approach to the financial management of flood risk requires effective coordination across governments, including across levels of government, supported by strong leadership aimed at addressing the financial vulnerabilities created by exposure to flood risk.<sup>141</sup>

**Figure 6: Recommendations for Expanding the Contributions of the Insurance Industry to Managing Risks of Extreme Events and Climate**



Source: [https://www.genevaassociation.org/media/952149/20160909\\_ecoben4\\_final.pdf](https://www.genevaassociation.org/media/952149/20160909_ecoben4_final.pdf)

While climate change poses material threats to the insurance industry, it also presents enormous market-based opportunities for advancing innovative and proactive solutions. Insurers have much to offer in confronting the risks posed by climate change. In fact, insurance is the business of risk and insurers have built up a detailed body of knowledge of the loss causes associated with many of the risks anticipated from climate change, such as extreme weather or complex liability regimes.

The development of technology and digitization of the insurance industry – the so-called connected insurance<sup>142</sup> or InsTech – besides making the customer experience more stable, efficient and satisfactory, will also achieve beneficial effects on sustainable development of society as a whole by promoting a greater awareness in the insureds, and more generally among consumers, about the way the company finances and produces the goods and services it needs and influencing lifestyles with a view to overall economic and social sustainability. When properly designed, insurance contributes to adaptation by reducing the overall losses from climate change-related extreme events through the use of risk-based premiums, deductibles and premium discounts that encourage risk reduction.

The increased availability of data – aided by technology and the use of big data – along with the ability to use predictive models, will help to develop the insurance market capacity to better assess the risks and will help preparing a more balanced bid by raising social awareness and working closely with institutions and the public administration, also in view of identifying policies for prevention, intervention and resilience, improving the management of emergencies.

New technologies, however, which are increasingly ‘soft’ and less invasive, can easily be implemented in any environment, especially the urban one; a key element that will be further stressed by digital technologies is the gradual transition from ownership to the mere possibility of access to material goods with undeniable advantages in terms of environmental impact.

## 8.2 THE STATE OF THE ART

Through each of its three key functions – underwriting, claims management and asset management – the insurance industry can play a central role in contributing to sustainable development and dealing with climate change, and in articulating a framework under which public policy should be framed in order to avoid unsustainable risk creation and accrual in our approach to climate change.

Globally, a key framework for action is the Principles for Sustainable Insurance, managed by the UN Environment Finance Initiative. As of July 2015, 83 organizations have adopted the Principles, including insurers representing approximately 20% of world premium volume and US\$14 trillion in assets under management. The vision of the PSI is of a risk aware world, where the insurance industry is trusted and plays its full role in enabling a healthy, safe, resilient and sustainable society. Signatories to the PSI currently account for over 22% of Italy’s insurance market including Generali are also supported by the *Italian Federation of Banks, Insurers and Finance (FeBAF)*. The four principles set out commitments to embed ESG factors in decision-making, to work together with clients and business partners, to work together with regulators and governments and to disclose performance in line with the Principles.

The first step in the path of integration of sustainability concerns into business practices has been, for many Italian insurers, the development of new products. Generali, for example, provides products and services with a special environmental value such as coverage for the losses caused by natural disasters or, in case of motor policies, rewards drivers with low mileage and grants discounts to those that drive low-emission vehicles or electric, hybrid or gas-powered cars. Besides, with regards to corporate clients, Generali implemented specific programs aimed at supporting companies to lower their environmental impact. Generali Performance Globale is a successful example of this service. Key objectives for the AXA Group include €165 million worth of green commercial insurance by 2020, +55% of gross written premiums on offshore wind power by 2016 compared to 2013, €450 million added to internal reinsurance offshore wind power capacity (80% increase compared to 2013).

The largest insurance companies have framed the green product policies into a broader and consistent business strategy. UnipolSai introduced its Sustainability Plan in 2010, monitored, by the Senior Executives and the Board of Directors’ Sustainability Committee. This lays down goals and policies for sustainable management, with a focus on risk/opportunity and innovation. The 2013-2015 Plan set the objective of emission reduction Scope 1 (-5%) and Scope 2 (-10%). In 2016 the Board passed a comprehensive CSR Policy that integrates sustainability with business, setting specific targets such as increase by 20% products and services with a high social and environmental value and reduce emissions (Scope 1 + Scope2) per employee by 15% by 2018.

Following the recommendations of the Corporate Governance Code, Generali allocated the responsibility to address all sustainability related issues to the corporate governance, social and environmental sustainability Committee of its Board, while the Group CEO is charged with implementing the CSR strategies and policies.



As major institutional investors, insurers are on the front line in the promotion of responsible investment. In 2015, for instance, AXA made a series of commitments in the run-up to the Paris climate conference, including divesting from coal assets, tripling green investments to €3 billion by 2020 and publishing its carbon footprint. Among the various international commitments, in 2016 AXA joined the FSB task force as Vice Chair. Similarly, Generali also set up a working group to devise the most appropriate way of evaluating the carbon footprint of its financial portfolios and the related carbon risk. While considering the full range of different strategies (from divestment to reweighting and engagement), as an engaged long-term investor and active shareholder, Generali focused on the engagement strategy to better address this issue in terms of risks and opportunities.

Moreover, insurers manage an immense real estate portfolio, often made up of both historic and recently constructed buildings. In this respect, they developed in-depth know-how of technological innovation and sustainability. Generali, as part of the European Green Building Workshop project, issued the Green Building Guidelines, which aim to improve the environmental performance of the Group's real estate assets, ensuring they reach high levels in order to create long-term value.

Last but not least, insurance companies also have a direct impact on the environment and some of them have decided to implement an environmental management system to assure a continuous improvement of their performance. Real Mutua and Italiana Assicurazioni, for example, got their ISO 14001 certification in 2012 and 2015, and, thanks to that, all the firms of Reale Group Italy adopted a strategy that allows an integration of the assessment of environmental aspects and impacts in the mapping of operational risks and non-compliance in order to not only identify risks themselves but also to highlight any opportunities (for example through reports from stakeholders).

### 8.3 LOOKING AHEAD

The contours of a national roadmap for sustainable insurance are beginning to emerge, bringing together policy and market reforms with targeted financial innovations. Looking ahead, further work could be done on a number of key elements including:

#### **Disaster Prevention and Risk Reduction**

To ensure adequate insurance solutions, governments should implement prevention and risk reduction measures, including the promotion of construction and renovation of buildings resistant to extreme climatic factors, the review of urban plans to identify specific risks, tax incentives for the modernization of infrastructures and the insurance coverage on properties. Premium payment mechanisms could be envisaged encouraging local communities pursuing serious preventive policies through the strengthening of resilience to extreme events.

#### **Public-Private System for Natural Disaster Insurance**

Unlike many other developed countries, Italy does not have a public-private system that guarantees to citizens the payment of damage arising from natural disasters. For many years the introduction of an insurance scheme has been considered by the policy as a new tax, thus reinforcing the illusion that there is a “no cost” coverage at present. In fact, the cost of ex-post interventions weighs heavily on the general taxation system. In addition, the use of insurance coverage for buildings is penalized by a tax on premiums paid by the insured. This tax is among the highest in Europe (22.25%). Instead, the purchase of insurance policies could be encouraged, for example, through the tax deductibility of the premiums paid by those who ensure their own home, performing a responsible act of prevention. The Italian Senate, in examining the Senate Act 2111/2016 on “Measures for the formation of annual and pluriannual budget of the State” (the 2016 Stability Law), called upon the government to intervene on natural disasters, defining the terms and conditions to allow the start of an insurance regime for the insurance of risks deriving

from earthquakes and natural disasters in general, on private owned buildings destined to housing. It is also necessary to increase the insurance coverage of major transport infrastructures against the risk of extreme events, providing an appropriate spreading of risk-awareness and introducing compulsory insurance and compensation schemes between risks.

The establishment of a national scheme to cover risks from climate-related natural catastrophes, in particular for residential properties, adopting both traditional and non-traditional reinsurance structures (CAT bonds, ILS, collateralized, etc.) should be explored with public and private actors.

### **Incentivizing Preventive Behaviour**

Insurance companies could use commercial levers, such as the price of policies, to promote good practice behaviour on the part of customers and citizens, in terms of risk prevention and adaptation to climate change. Besides compensation, insurers can also provide information on climate-related risks and price signals through premium pricing. In fact, charging premiums based on extant risk is a key mechanism by which insurance products can encourage behavioural changes to help the adaptation. Insurers might also reward behaviour that reduces risk of financial losses from climate change, such as offering premium discounts on property insurance for climate-resilient buildings.

The state can play a key role in this field, having the opportunity to work together with the insurance companies in fostering the marketing of insurance policies, with solutions such as the taxation of premiums or by covering part of the premium, as in France, contributing to moderating premiums.

Premium should be proportionate to the risk, so as to implicitly provide incentives for responsible behaviour, i.e. the adoption of preventive or risk reduction measures. Moreover, to prevent moral hazard, insurance schemes should be designed with the application of excesses, deductibles and legal minimum limits so that policyholders also participate in the risk, as well as insurance schemes that provide cover only to local authorities that adopt minimum prevention measures (like the National Flood Insurance Program in the US).

Basically the price of insurance policies can be calculated in two different ways: in proportion to the risk or by establishing an average price that redistributes in a mutualistic way the risk among the most exposed population and the least exposed. Even the construction of the prize with a fixed rate and one commensurate with the risk, which is variable in the event of protective or preventive actions, is an incentive model for the adoption of good practice behaviour that has already been applied in some mature markets, such as the MTPL (BlackBoxes).

### **Developing Natural Disaster Insurance Solutions**

To manage this kind of risks, the insurance can resort to different solutions, such as:

- Aggregation of unrelated risks in one policy – This means aggregating into a single contract different types of unrelated risks: fire, flood, storm, and earthquake. Since each risk is independent from any other contemplated by the policy, the covered cumulative risk is reduced.
- Creating pools of policyholders – Another proposal would be to expand the pool capacity, so as to avoid including neighbouring communities and to minimize the probability of a high correlation between individual risks, due to a potential disaster.
- Compulsory insurance – Compulsory insurance for all citizens to insure themselves against natural disasters may represent a viable option for resolving the reluctance of contractors to insure against risks considered unlikely. Often people and businesses underestimate the real risk of being affected by a disaster and are not adequately prepared to deal with the financial consequences, because they rely on social networks or on the rescue of the state (moral hazard).

- (d) Creation of insurance pools – Another mechanism for an efficient coverage of natural disaster risks is represented by insurance pools, i.e. consortia that are made of insurers sharing the risk of certain events by means of co-insurance or reinsurance solutions or other contractual forms, thus expanding the system's capacity to absorb risks. The Italian insurance market is made of pools for civil liability insurance from pollution, with the aim of sharing technical insurance competences, but it does not have a very broad penetration and it does not cover risks deriving from floods but only those deriving from environmental pollution produced by industrial activities.<sup>143</sup>

In the event that there is the intention to establish a public-private system for coverage of earthquakes, ANIA's Position Paper on Housing and Floods should focus on: 1) extension to floods, but only after a start-up period of the earthquake coverage, which allows to reach a critical mass, able to minimize the risk of adverse selection; 2) clearly define the responsibility to make the necessary maintenance interventions and defence of the territory to mitigate flood risk; 3) in the absence of preventive examinations, it is necessary to classify buildings according to their vulnerability to various natural disasters; 4) finally, it is necessary to consent the access to all available information produced by different public authorities for the purposes of flood risk management.<sup>144</sup>

### Exploring Parametric Insurance

There also are innovative instruments to measure damage, which could be implemented through appropriate legislative adjustments, such as parametric insurance. In this system, loss is compensated when a certain objective and independent atmospheric index diverges from the historical average, no matter what the loss suffered amounts to. Traditional insurance, based on compensation and parametric insurance may be combined. Parametric insurance does not involve any claims evaluation procedure and so reduces administrative costs, therefore lowering the price of insurance.

The use of a parametric insurance could be useful in certain cases, for example where the State or a representative body wishes to guarantee its protection (in terms of an amount of capital linked to the intensity of the event) to finance emergency measures or macroeconomic subsidies associated with a disaster. There remains the problem of the lack of intensity indexes for the event published by third parties on which parametric insurances could be based.

The settlement process may be associated with more simple insurance contracts reducing the informational asymmetries between insurer and policyholder. It may even eliminate them since the assessment of the cause of the damage is a parameter measured by a third party. Parametric contracts have a considerable basis risk because the settlement does not correspond to the actual loss suffered, which the insured may not necessarily be able to evaluate.

### Improving Data

Available data on past disasters are often not detailed enough (e.g. not making distinctions between damage to infrastructure, commercial property and private dwellings) and often do not record the intensity of the phenomena in question (e.g. the hydraulic head or the water level reached in the event of flooding). It would therefore be useful to harmonize the data on events so as to provide a certain level of detail (e.g. distinguishing the characteristics of the object damaged). In this regard, the EU's intervention to create minimum standards to which individual entities (insurance companies, states, evaluators) would have to adhere could be useful.

It would be very useful to have damage caused by natural disasters ascertained and evaluated by experts so as to be able, over time, to perfect the vulnerability tables (the damage coefficients to be applied to the value of goods depending on the intensity of the event) applied to the simulation models, which have decisive consequences on the setting of premiums.

## Mobilizing long-term investment

To increase insurance capacity of the system against the effects of climate change and reduce the burden of the state, insurance linked securities (ILS) have been developed, notably catastrophe bonds (cat bonds). The mechanism behind these tools is simple and effective: the investors who purchase these bonds are provided with a periodic return, but when a natural disaster occurs, the capital is in part used to unlock the necessary resources to compensate the damages resulting from the event.

As for the medium-long term investments – implemented by the supplementary pension funds – it is interesting to refer to the recent Italian law 190/2014 (“the 2015 Stability Law”), which established (see Article 1, paragraph 92) a tax credit of 9% of the net income annually accrued, provided that an amount corresponding to the result just mentioned is invested for at least five years in financial assets represented by:

i) Shares, or shares in companies and entities established in Italy or in the EU or in the EEA, or bonds or other debt securities issued by the same persons, who operate *mainly* in the development or implementation of projects related to the infrastructures linked to tourism, culture and environment, water, road, rail, port, airport, health, public non-residential real estate, telecommunications, including digital ones, and related to the production and transportation of energy.

ii) Shares and units of collective investment undertakings for saving (UCI) over a period of not less than five years, which invest primarily in securities of such companies.

The norm is a sure incentive for those companies who want to renew their production processes by deploying infrastructure and more environmentally friendly technology.

# 9 LEVERAGING PRIVATE CAPITAL WITH PUBLIC FINANCE



## HIGHLIGHTS

- Smart use of public finance can help to crowd in private capital for critical dimensions of the green economy, notably infrastructure and technological innovation.
- As the National Promotional Institution, the role of Cassa Depositi e Prestiti (CDP) is crucial for supporting profitable investment projects related to innovative technologies, environmental protection, clean energy and energy efficiency.
- To take this forward, the CDP could further develop its sustainable development mandate into a systematic approach covering policies and processes and strengthen its accountability towards all stakeholders.

## 9.1 THE NEED FOR AN EFFECTIVE AND EFFICIENT USE OF PUBLIC FINANCE

The transition to an economy based on sustainable development implies a significant rethinking and a radical transformation of the traditional economic and industrial model. Coupled with the widely recognized investment need in the infrastructure sector, this requires the allocation of a huge amount of financial resources. Public budgets, already under pressure during the sovereign debt crisis, are increasingly constrained.

Capital and private markets have the size and depth to meet these requirements – if policy incentives and frameworks can be improved to reward long-term investment. The public sector has a critical role in setting goals, building an appropriate regulatory environment, establishing clear incentives and price signals as well as investing in public infrastructures to promote the conditions for suitable risk/return profile for private investors. As part of this, the efficient blending of public and private finance becomes unavoidable. A wide range of public policy and financing mechanisms can be used for this purpose. Investment can be scaled up by adopting a range of risk reduction strategies, such as co-investment, credit enhancement and guarantees. Those include reducing risks, direct risk-sharing and increasing rewards compared to existing alternatives.

Boosting investments, with a specific focus on sustainability and innovation, is a key component of the comprehensive policy approach adopted by the Italian government to lift actual and potential output. Since 2014, the Italian government has adopted several measures to address Italy's long-standing challenges. This effort is complemented by i) actions to boost investments in the infrastructure sector having due consideration for prudent growth and employment friendly fiscal policy, ii) the involvement of private investors through public-private partnerships (PPPs), and iii) initiatives to reform the strategic planning of public investments, particularly in the public procurement of transport infrastructures.

In particular, with the enactment of Law Decree n. 133/2014 ('Unblock Italy') the government introduced a broad range of measures to accelerate infrastructures investments and to involve private investors through PPPs, including among others: i) the provision of €3.9 billion to finance projects ready for execution in the priority areas of roads, railways, airports, local mass transport and water infrastructures; ii) simplified procurement procedures, particularly regarding the approval phase; iii) the exclusion from

Internal Stability Pact of payments made by municipalities investing in school buildings, sport facilities, soil conservation and road safety; iv) an increase in toll road investments of up to €10 billion to be carried by highways concessionaires; v) the role of CDP as National Promotional Institution in supporting profitable investment projects related to innovative technologies, environment, energy and energy efficiency; vi) introduction of a tax credit for all public works between €50 million and €2 billion carried out via PPPs schemes; vii) promotion of project bonds issuance (e.g. assuring a tax treatment equivalent to government securities) and facilitating their transferability (e.g. flexibility and reduced costs on the related guarantees).

Moreover, the National Research Plan 2015-2020 has been finalized. The Plan aims at stimulating industrial competitiveness and promoting the development of the country, through the allocation of €2.4 billion of public funds from 2015 to 2017 (and €4.16 billion over the whole period of the plan) in strategic sectors for the Italian research system. The Plan is organized around six pillars: internationalization, human capital, national infrastructure programme, public-private cooperation, programme for the South, efficiency and quality of expenditure.

These efforts have been backed by the 2016 Stability Law, which set forth strong action to boost co-financing with the European Funds by Regions and local Authorities, including through reforming the domestic stability pact. The Italian government has also adopted measures to promote non-banking sources of financing and equity investments, including: i) the removal of legal and fiscal barriers to issue corporate bonds by unlisted companies (particularly SMEs), granting access to capital markets and enabling the solicitation of national and international institutional investors; ii) opening a trading platform for mini-bonds (ExtraMOT PRO) within the Italian Stock Exchange including simple, fast and low-cost admission procedures.

A multi-year strategy, now in its third year of implementation, is based on three mutually reinforcing pillars: a) a growth and employment friendly fiscal policy; b) an ambitious agenda of structural reforms; c) a boost to investments, both private and public, through a broad array of actions (investment financing, business environment, high-quality public investment).

As to the structural reform of the strategic planning of public investments, the New Public Contracts Code” (Legislative Decree n. 50 of 18 April 2016) contains specific provisions that update and re-launch the previous regulations laid down at the end of 2011 (Legislative Decree n. 228 of 29 December 2011).<sup>145</sup> In fact the new Public Contract Code requires the development of feasibility studies (now called “technical and economic feasibility project”), the use of cost-benefit analysis in project evaluation (in order to identify, among several project options, which one offers the best balance between costs and benefits for the community), and it confirms the requirement of the Ministerial “Pluriannual Planning Document” (Article 201) to be finally approved by the government (CIPE). In order to fully implement the on-going structural reform of public investment, it is essential that each ministry develops its own Guidelines for Public Investment Assessment and establishes its own independent body for the evaluation and verification of public investments, following the common format as required by in force legislation.<sup>146</sup>

## 9.2 CDP COMMITMENT TO SUSTAINABLE FINANCE

CDP, parent company of CDP GROUP, is a joint-stock company under public control, with the Italian government holding 80.1% and a broad group of private investors (bank foundations) holding 18.4%, the remaining 1.5% in treasury shares.

CDP is the Italian National Promotional Institution (NPI) supporting the economy since 1850. It intervenes in the Public Administration sector, financing investments and promoting the leveraging of the real estate assets, being also the leading Italian player in social housing; it also acts as a catalyst for the growth of Italian infrastructure.

The Group assists businesses of all sizes, in the export and internationalization process, with Venture Capital funds and investing as a long-term partner in relevant Italian companies.

CDP basically represents a successful outcome of an efficient public-private partnership both in terms of public and private governance as well as an institutional effort to catalyse private finance.

The Group's new business plan highlights the importance of stimulating the sustainable development of the Italian economy. Over a period of five years, the plan will seek to support the country's growth by mobilizing new resources amounting to €160 billion. In addition, CDP Group will be able to activate more than €100 billion of additional national and foreign private and public resources. The four pillars of the plan are: a) Support for government and other public entities (€15 billion), b) Infrastructure (€24 billion), c) enterprises (€117 billion, subdivided into five streams: venture capital, innovation and development, investment in companies of national importance, International expansion, Restructurings), and e) real estate (€3.8 billion).

Among the several initiatives undertaken by CDP in sustainability-related sectors, the following are of key relevance.

**CDP Investimenti SGR SpA:** Established in 2009 under the initiative of CDP and with the subscriptions of ACRI (the Italian association of savings banks) and ABI (the Italian Banking Association), CDP Investimenti SGR SpA is an asset management company with a leading role in urban development and marketing of real estate assets. The capital is held 70% by the CDP and 15% each by ACRI (banking foundations) and the ABI (banking association). The company is a leader in the real estate sector and holds two funds:

- **Fondo Investimenti per l'Abitare (FIA, Social Housing Investment Fund):** Launched in 2010 with an expected life of 30 years, the fund is reserved to qualified investors. The Fund operates in the social housing sector with a current size of €2 billion, half of which has been already committed by CDP. The Fund intends to increase the supply of social housing at affordable costs in Italy targeting 'socially vulnerable' families that are too 'rich' for entitlement to public housing (ERP) assignments, although too poor to enter the real estate market. The FIA mainly operates as a fund of funds, by investing in real estate investment firms and funds. Selected by the Ministry for Infrastructure, which participates to the fund with €140 million, the fund has become the single National Fund for the Integrated System of Real Estate Funds (SIF) under the National Housing Plan. SIF intends to achieve the measurable social goal of creating over 20,000 social houses and 8,500 social housing beds for students and a significant economic return for the investors.
- **Fondo Investimento per la Valorizzazione (FIV, Valorisation Investment Fund):** The FIV is a real estate umbrella fund reserved to qualified investors aimed at stimulating and optimizing the disposal processes of real estate assets by public entities and their companies.

**CDP Immobiliare Srl:** CDP Immobiliare Srl (former Fintecna Immobiliare), a real estate fund similar to CDP Investimenti SGR SpA, is one of the main players in the Italian real estate sector. The company operates in urban regeneration and the sale of real estate assets, including through partnership with private investors. Its activities include the acquisition of residential housing and their renovation, including energy efficiency investments.

**PPP Italia:** It is a closed-end fund specialized in public-private partnership (PPPs) and projects for the generation of energy for renewable sources. With an overall size of €120 million, the fund was launched in 2006 and ended its investment period in 2013, calling up approximately €106 million. The fund invested in 19 projects, of which nine are PPP and ten are projects in the renewable energy sector.

**Fondo Italiano d'Investimento (FII, Italian Investment Fund):** Another key asset in CDP's portfolio is FII, a €1.2 billion private-public fund to promote the capitalization and the aggregation process among SMEs.

The Fund operates through both direct investment in SMEs and indirect investments, as a fund of funds. It also operates as a fund of funds for private debt funds and for venture capital (VC). Summing all direct and indirect investments, the Italian Investments Fund's activities have involved 150 Italian firms for a total turnover of more than €5 billion and total employees of about 27,000.

**Venture Capital (VC) Fund of Funds:** Created within FII, the fund is providing an active contribution to the launch and development of innovative start-ups in Italy. With a fundraising target of €150 million, of which €50 million already committed by CDP and €30 million by other investors, it aims at fostering and supporting sustainable innovations among SMEs. CDP is currently one of the leaders in the Italian VC market. As confirmed in its new Business Plan 2016-2020, CDP aims at preserving such a leadership in the future and encouraging the creation of innovative start-ups intensifying its role in the innovation of the economy.

**F2i – Fondo italiano per le infrastrutture:** F2i is one of the world's largest infrastructure funds focused on a single country. Its mission is to operate as a long-term investor, by fostering infrastructure development in Italy. F2i consists of two funds: the first fund collected roughly €1.9 billion and it holds majority and minority stakes in nine infrastructure companies; the second fund successfully closed its capital raising in 2015 with €1.24 billion in excess of its initial target of €1.2 billion. The second fund holds minority stakes in 3 infrastructure companies. F2i's has been very successful in the privatization of ports, airports, motorways, power and gas infrastructures, utilities and other infrastructures.

In addition the above-mentioned successful national initiatives, CDP plays a key and active role also in the international market. In particular, CDP actively participated to the launch of important funds dedicated to transport, water and renewable energy infrastructure. Among them:

- **The 2020 European Fund for Energy, Climate Change and Infrastructure SICA – FIS SA (Marguerite Fund):** Launched in 2009 by CDP, together with the European Commission (EC), the European Investment Bank (EIB) and the national promotional institutions of France, Germany, Poland and Spain, the Marguerite Fund is an independent fund with total resources of €710 million investing in both European greenfield and brownfield infrastructures. Its goal is to significantly contribute to the development of trans-European infrastructures in the sectors of transportation and energy (TEN-T and TEN-E) and to climate change mitigation infrastructures investing in renewable energy technologies. The Fund was awarded the title of “Fund of the Year 2012 for energy” having played a catalytic role in attracting private capital in renewable energy projects especially in Eastern Europe.
- **Infrared Infrastructure S.A.S à capital variable:** Launched in 2010 by CDP, together with the EIB, Caisse des Dépôts, Caisse de Dépôt et de Gestion Maroc and EFG Hermes, with an initial commitment of €385 million and a final fundraising target of €1 billion, InfraMed represents the largest infrastructural investment fund dedicated to the South Mediterranean area, comprehensive of the Middle East and Northern Africa. Operating in partnership with important international investors and local stakeholders, the fund aims at promoting equity investments in infrastructural projects of urban development, energy and transportation. To date, the portfolio of the Fund includes four investments: two in Turkey, one in Jordan and one in Egypt. The main feature of InfraMed is its innovative network of specific co-investments agreement with other investment funds. In 2011, for example, along with CDG Capital Infrastructures (CKI), InfraMed launched the investment fund InfraMaroc for specific investments in Morocco.
- **European Energy Efficiency Fund:** Set up in 2011, the Fund is a financing facility in support of sustainable energy that the European Parliament and Council of Ministers agreed to launch using unspent funds from the European Energy Programme for Recovery (EEPR). The Fund aims at supporting EU member states in meeting their objective, by 2020, to reduce greenhouse gas emissions by 20%, to increase renewable energy usage by 20%, and to lower energy consumption through a 20% improvement in energy efficiency. Main targets are energy efficiency and small-scale renewable energy in the European public sector. Promoters are the European



Commission, the European Investment Bank (EIB) and the Cassa Depositi e Prestiti (CDP), with an initial commitment of €125 million for the European Commission in the Junior Tranche of the Fund (partly assuming the economic risks associated with the investment projects), and with €75 million for the European Investment Bank and €60 million for CDP in the Mezzanine Tranche and in Senior Shares as well as Deutsche Bank with €5 million acting also as Investment Manager. The Fund has a layered risk/return structure to stimulate private investment with a fixed commitment of EU budget funds and it now been seeing as the prototype to the European Fund for Strategic Investments. The EEEF aims to provide market-based financing for commercially viable public energy efficiency and renewable energy projects within the European Union. The three international initiatives mentioned above reveal CDP's interest in social urban development, renewable energy, energy efficiency and transportation and show CDP's commitment in playing a leading role also in the international scenario.

### 9.3 THE EUROPEAN DIMENSION

On 26 November 2014, the European Commission launched its Investment Plan for Europe, a coordinated and comprehensive effort to mobilize at least €315 billion in additional public and private investment into the real economy in three years. The European Fund for Strategic Investments (EFSI) has mobilized roughly €50 billion – translating to 15% of the €315 billion target of the Juncker plan – during its first six months of operations, with over half of approved projects in sustainability-related areas including energy and climate action, environmental and resource efficiency, transport, and research and development.

Italy is the EU one of the countries that has benefited most from the European Fund for Strategic Investment so far. To date, 13 projects amounting to €1.8 billion have been funded in the infrastructure and innovation area: transport and telecommunication infrastructures (roads, railways, broadband); energy efficiency and environmental protection; and, innovation and emerging industries (bioplastics and technologies). This is expected to trigger €5.7 billion in investments and create more than 3,800 jobs. In the SMEs area, 30 agreements with intermediary banks or funds amounts to €983 million have been approved. It is expected to trigger €8.1 billion in investments and benefit 58,850 SMEs and start-ups.<sup>147</sup>

While implementation of the plan relies mainly on the EC and European Investment Bank (EIB) working together as strategic partners, an effective involvement of NPIs is necessary to enhance its impact on investment, growth and employment due to their particular expertise and their knowledge of the local context, business and investor communities as well as national policies and strategies.

To date, eight NPIs (from Bulgaria, France, Germany, Italy, Luxembourg, Poland, Slovakia and Spain) have committed to provide co-financing to projects and investment platforms, for a total financing volume of up to €34 billion.

During the consultation on the Green Paper on long-term financing of the European economy, calls were made for better exploiting the synergies between the EU budget, the EIB Group and NPIs in policy areas such as climate change, environment, innovation and social and human capital development.

Given the urgent need to boost investment and the limited fiscal space available on average in Europe, an optimal use of public resources is needed more than ever. A smarter use of public resources, in order to crowd-in private actors, is at the heart of the Investment Plan for Europe. Enhanced cooperation between NPI's on the one hand and the EC and the EIB Group on the other is therefore a key condition for the success of the Plan. This is also clearly reflected in the regulation on the EFSI, which establishes the legal basis for the first strand of the Investment Plan.

While direct participation of NPIs in EFSI is allowed under the EFSI regulation, so far NPIs showed a clear preference for cooperating at the level of investment platforms and on the level of individual projects.

Furthermore, the EFSI regulation provides that NPIs are eligible for coverage by the EIB guarantee provided by EFSI under a counter guarantee of the EU Guarantee.

Investment platforms are in essence co-investment arrangements structured with a view to catalysing investments in a set of projects (as opposed to individual projects). Investment platforms are a means to aggregate investment projects, reduce transaction and information costs and provide for more efficient risk allocation between various investors.

Well-designed platforms have the potential to attract investment from private institutional investors, such as pension funds, and thus boost the impact of the public funds. A number of multilateral platforms, such as the Marguerite infrastructure fund, the European Energy Efficiency Fund (EEEF) and the European Fund for Southeast Europe (EFSE), are already in use and could be developed further.

These are complemented to varying degrees by private co-investors both at the fund level and at the level of individual projects supported by the platform. The platforms thus pool investments from a variety of sponsors to invest in a diversified portfolio of projects in the fund's target areas.

With public institutions acting as anchor investors and independent management, investment platforms have the potential to attract investment from institutional investors and, possibly, sovereign wealth funds at a significant scale. Where necessary, credit enhancement can be provided from EFSI to facilitate the entry of private co-investors by mitigating specific project or portfolio risks.



## **Part D**

# **The Way Forward**

# 10 MEASURING PROGRESS



## HIGHLIGHTS

- What gets measured gets managed – but currently there is no framework for measuring progress towards a sustainable financial system at the country level.
- Three key dimensions could be considered: first, the architecture of rules that govern the financial system; second, the behaviour of market actors in terms of sustainability; and third, an assessment of financial stocks and flows in terms of sustainability performance.
- Building on its expertise and data sets, the National Institute for Statistics (Istat) may encourage the development of a model for measuring the progress of the financial system towards sustainable development, drawing on national and international expertise. The output of this monitoring activity should become a compass to orientate public policies.

## 10.1 INTRODUCTION

Momentum towards a sustainable financial system is clearly under way in Italy – but measuring the level of country’s progress is not easy to track, as there is an absence of both a common framework and a lack of data. Some information is available at the micro-level in terms of the practices of banks, institutional investors and insurance companies, but often the data is not consistent, complete or comparable.

At the global level, the Agenda 2030, with its 17 SDGs, is underpinned by 169 targets. These include indicators for measuring financial inclusion, overseas development assistance and sustainability reporting, but not on the alignment of different parts of the financial system with sustainable development.<sup>148</sup> The Paris Agreement includes the goal to ‘make financial flows consistent’ with the transition to a low-carbon and resilient economy, but for the moment being there is no agreed set of indicators around climate finance.

This chapter reviews the overall challenge of measuring the performance of the financial system in terms of sustainable and then proposes a possible framework for Italy.

## 10.2 THE CHALLENGE OF MEASURING SYSTEM PERFORMANCE

Measuring progress in the alignment of the Italian financial system to sustainable development will involve a multi-dimensional performance framework. This is a complex exercise that will require further development of methodologies, the definition of indicators able to effectively track financial flows in terms of environment, social and governance performance as well as quality data. At the current time, we can aim to define an ideal set of indicators allowing us to conduct a gap analysis in order to identify missing data and design the way forward the elaboration of a proper measuring progress methodology.

A key starting point is to understand the scope of the financial system. Four key players can be observed:

- Households, where re-investable savings are shaped and debts with the financial system are contracted (mortgages and loans);
- Companies, financing their operations and investments, through equity and debt;



- ⦿ Financial actors, managing payments, carrying out capital intermediation, asset management and risk transfer, notably commercial and investment banks, capital markets, insurance companies and pension funds, etc.;
- ⦿ National and local government, managing fiscal policies and issuing public debt.

A narrow scope would consider just the performance of the financial sector. A more comprehensive approach would look at the two-way relationship between the financial sector with the real economy – in other words: between banks and households; between investors and companies; and between sovereign debt and public finance.

Linked to this is the scope of the sustainability performance of finance. Ideally, this would at least cover the 17 SDGs; in practice, it could be advisable to start with a more limited set of indicators.

At the global level, UN Environment has developed a beta version of a performance framework that seeks to track three aspects of financial system performance – rules, behaviour and flows of finance – across the key financial sectors as well as the system as a whole:

- ⦿ **Architecture:** This seeks to assess whether the rules of the game that govern the financial system are supportive of sustainable development. This would include a review of the rules, regulations, policies, norms and standards in the financial system that directly or indirectly influence sustainable development outcomes.
- ⦿ **Behaviour:** This seeks to understand how well financial institutions take account of sustainable development factors in terms of management practices and disclosure.
- ⦿ **Flows:** This seeks to measure consistency in the allocation of capital to sustainable or unsustainable activities, both in terms of annual flows and overall stock of assets.

Critically, market behaviour and financial flows will be influenced by factors outside the financial system, notably the macro-economic situation and the framework of government policies. A further step would be to link practices in the financial system with specific environmental and social performances that could form a fourth category of Impacts.

Ultimately, this performance framework should aid an assessment of three system characteristics:

- ⦿ **Effectiveness:** degree to which market prices sustainability factors into financial asset values;
- ⦿ **Efficiency:** costs of running the financial system that delivers flows against requirements;
- ⦿ **Resilience:** susceptibility of the system to adapt and react to disruptions related to unsustainable development.<sup>149</sup>

### 10.3 ELEMENTS FOR AN ITALIAN PERFORMANCE FRAMEWORK

Looking at the Italian situation, a number of key elements could be considered:

- 1 The number of policy and regulatory measures – and their implementation (Architecture);
- 2 The sustainability initiatives and activities undertaken by financial actors (Behaviour);
- 3 An analysis of the ‘green share’ of the financial assets (Flows);
- 4 New financial flows mobilized towards sustainable development objectives (Flows)
- 5 Pilot processes to evaluate impacts of financial system starting with climate (Impacts);

Taking into consideration the criteria and objectives described above, a pilot Italian performance framework has been developed aimed at measuring green progress of the Italian financial system articulated on two tasks applied to three levels. It defines a matrix system sufficiently large to allow the measuring of different aspects of the Italian financial system.



The two tasks of the framework identified are:

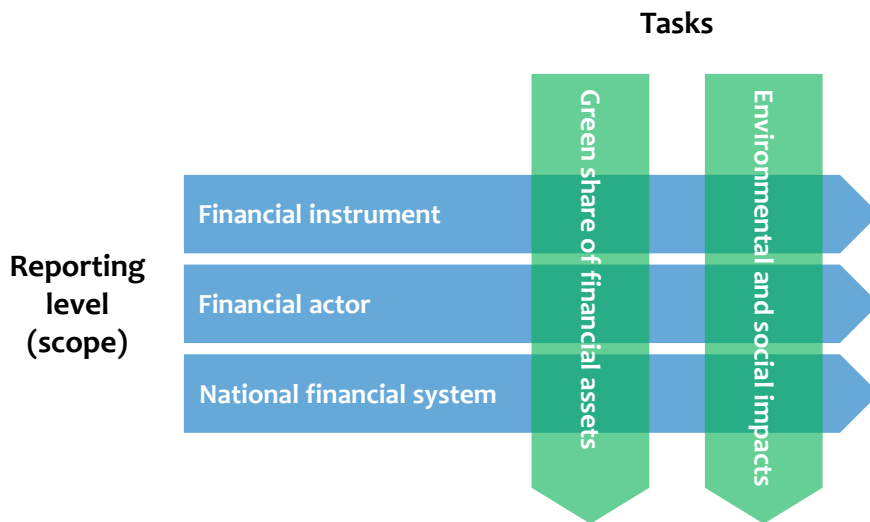
- 1 **Task 1:** the ‘green share’ of underlying financial assets in the portfolios measured through the analysis of financial markets and flows as well as the share of high carbon assets;
- 2 **Task 2:** the environmental impacts related to financial system’s activities with particular emphasis on climate change.

These two tasks should be addressed simultaneously since the evaluation of assets cannot be done separately from considering their impacts in environmental and social terms.

The levels of performance assessment that would need to be consistent and able to be aggregated are:

- 1 **Level 1:** financial instrument (equity, bond, insurance, etc.);
- 2 **Level 2:** financial institution (bank, pension fund, insurance company, asset manager, etc.);
- 3 **Level 3:** national financial system

**Figure 7: Measuring Progress Pilot Matrix**



**Task 1** regards the quantitative evaluation of the degree of orientation towards green economy of the financial assets. In order to measure the degree of green of a financial portfolio it will be necessary to “flag” single financed projects by identifying three categories: core-green; go-green; and at-risk assets.

**Core-green investments**

As defined by the Sustainable Development Foundation, these would include activities consistent with the Environmental Goods and Services (EGSS) definition of United Nations, namely those directly oriented to the production of goods and services whose main purpose is to deliver environmental results. Currently there is not a commonly agreed definition of green assets. However, there is potential for considerable convergence, drawing on the UN EGSS definition as well as the taxonomy used by the Climate Bonds Initiative. Sectors, activities and technologies that could be investigated to identify core-green investment in a portfolio could be:

- ⦿ **Renewable Energy:** Wind, solar, geothermal, small hydropower, biogas, biomethane, biomass, wave tidal;
- ⦿ **Energy Efficiency:** Demand-side management, waste heat recovery, industrial energy efficiency, cogeneration, energy efficiency products, battery, smart grid, energy storage, LED lighting, insulation, IT optimization;



- ⦿ **Sustainable Transport and Mobility:** Urban mass transit, non-diesel railways, clean transportation infrastructure, hybrid and electric vehicles, fuel cells/hydrogen systems;
- ⦿ **Green Buildings:** building retrofit, new green buildings, energy audit and energy services, equipment (e.g. lights, HVAC), green certified properties (e.g. LEAD);
- ⦿ **Pollution prevention and control:** Air and water pollution control, soil remediation;
- ⦿ **Sustainable waste management:** eco-design, reuse and recycling, composting;
- ⦿ **Water management:** water saving, water infrastructure and distribution, rainwater harvesting, metering devices, desalinization, waste water treatment, green chemistry;
- ⦿ **Sustainable agriculture and land management:** Organic agriculture, sustainable agriculture, afforestation/plantation, reforestation, sustainable forest management, water saving and renewable energy infrastructures, sustainable farming and fisheries;
- ⦿ **Resilience, biodiversity conservation and ecosystem services protection:** green infrastructures, restoration of wetlands, minimization of habitat fragmentation, restoration and offsets according to the mitigation hierarchy.

### Go-green<sup>150</sup> investments

This category represents those investments that we could define as “neutral” that, despite not having an environmental purpose adopt high environmental standards at the process and product level. Some examples of investment that fall into this category could be health care, telecoms and steel production. To measure the share of go-green investments in portfolios is very challenging since there are not commonly recognized criteria for their precise delimitation. Further studies should be conducted to define criteria, indicators, thresholds and benchmarks.

### At-Risk Assets

This category includes investments facing challenges in the transition to a sustainable economy, notably those at risk of being stranded either by physical shocks or by changing policy or market conditions (‘transition risk’). This is an area that presents difficulties in being properly assessed and that can be associated with “brown” investments that represent a brake to the shift to a sustainable economy. The performance aspect here is two-fold: first, to identify from a financial perspective those assets facing most material environmental challenges in terms of natural capital; second, to identify from a sustainable development perspective those assets with highest costs in terms of environmental externalities.

<b>Core business</b>	Environmental goods and services (EGSs) whose main purpose is to deliver environmental benefits	Neutral products that, despite not having a specific environmental purpose, result in processes and business models with a high environmental quality	Neutral products with the potential to go green if green changes in processes and business models are put in place	Products potentially harmful for the environment; stranded assets
<b>Investment classification</b>	Core-green investments	Go-green investments		At-Risk assets
	Green investments			

Regarding **Task 2** priority is the evaluation of the environmental impacts associated with investment and linked allocation of financial assets. Initiatives currently conducted at international level have been focusing mainly on the estimate of the carbon footprint of financial portfolios; this can also be conducted at the market level for exchanges. Ultimately, once all financial institutions report their carbon footprint





using a consistent methodology, an overall footprint for the financial system could be aggregated. This approach could be further extended by adding in the environmental performance assessment the water footprint, material footprint, as well as pollution and related impacts on human and natural capital. In addition, social impacts could be included notably job creation (with particular attention to women and young people) and, in principle, a systematic evaluation of all costs and benefits related to the investment, externalities included, could be performed, as it is already required for the major investment projects financed by EU.<sup>151</sup>

Besides quantifying the weight of the financial system in environmental and sustainable terms, this measuring of impacts allows:

- To verify its real contribution to the transition towards a green economy;
- To give financial operators evaluation tools to measure their exposure to climate and environmental-related risks;
- To provide data in order to internalize sustainability aspects into financial portfolios.

**Figure 8: A Pilot Italian Framework: Initial Set of Indicators**

MEASURING PROGRESS MATRIX		TASKS	
		1. Green share of financial assets	2. Environmental and social impacts
REPORTING LEVEL (SCOPE)	Financial instrument	<ul style="list-style-type: none"> <li>● Share of investments in environmental goods and services over total investments (Core-green)</li> <li>● Annual growth rate of investments in environmental goods and services (Core-green)</li> <li>● Share of investments in initiatives for a high environmental quality of processes, goods and services over total investments (Go-green)</li> <li>● Annual growth rate of investments in initiatives for a high environmental quality of processes, goods and services (Go-green)</li> <li>● Share of green investment over total investments (Core-green+Go-green)</li> <li>● Annual growth rate of green investments (Core-green+Go-green)</li> <li>● Share of the high carbon area over total investments (At-Risk)</li> <li>● Annual growth rate of high carbon from environmental harmful assets (At-Risk)</li> </ul>	<ul style="list-style-type: none"> <li>● Carbon footprint</li> <li>● Water footprint</li> <li>● Material footprint</li> <li>● Land consumption</li> <li>● Air pollution</li> <li>● Soil pollution</li> <li>● Impacts on Biodiversity stock</li> <li>● Impacts on health stock</li> <li>● Job creation (with particular attention to women and young people)</li> <li>● Gender inequalities reduction (e.g. wage differentials for women) salaries)</li> <li>● Others TBD</li> </ul>
	Financial actor		
	National financial system	<ul style="list-style-type: none"> <li>● Share of investments in environmental goods and services over GDP (Core-green)</li> <li>● Share of investments in initiatives for a high environmental quality of processes and services over GDP (Go-green)</li> <li>● Share of the high carbon assets area over GDP (At-Risk)</li> </ul>	

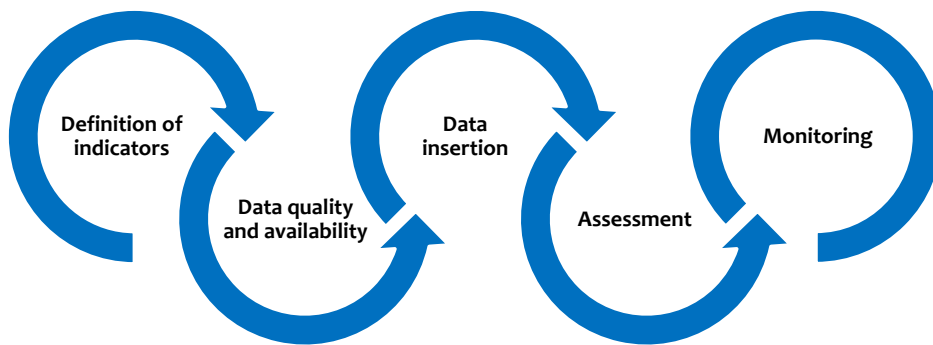
Source: Sustainable Development Foundation, 2016



## 10.4 NEXT STEPS

This pilot framework provides a basis for further discussion and analysis on how Italy can measure the progress of its financial system towards sustainable development. Defining the indicators is just the first step in a five stage process that also includes – data quality and availability; data collection; assessment; and then regular monitoring (see Figure 9). Building on its expertise and data sets, it would be useful to encourage the development of a model for measuring the progress of the financial system towards sustainable development, drawing on national and international expertise. To be effective, this would need to involve a wide range of public and private sector actors, such as the Treasury, Banca d'Italia, the Ministry of the Environment, Land and Sea as well as financial regulators, financial institutions, universities and civil society. The output of this monitoring activity should become a compass to orientate public policies and market action. The National Institute for Statistics can play a key role in both the design of the model as well as in the collection and elaboration of raw data and indicators to feed it.

Figure 9: Steps Towards a Performance Framework



# 11 CONCLUSIONS AND RECOMMENDATIONS



## HIGHLIGHTS

- The task of greening the financial system is moving from a magnanimous activity to a mainstream concern of both financial authorities and financial institutions.
- The national dialogue conducted through 2016 has identified a range of specific options to build on this momentum in Italy, grouped in four areas: policy frameworks; financial innovation; market infrastructure; and knowledge building.

### 11.1 THE MOMENTUM

Only a few years ago, green or sustainable finance was largely a curiosity, a boutique opportunity offered by a few banks and investment houses to clients with a conscience, wishing to invest in clean technology or low-carbon production. Though this niche market grew at impressive rates over the past decade it never amounted to more than a small percentage of assets under management.

What has happened in the past few years – described by the UN Environment Inquiry in its first report as a “quiet revolution” – represents a quantum change in the way in which finance is regarded and deployed. What is now under way across the entire spectrum of public and private finance is a deep rethinking of the purpose served by finance and the financial sector and the birth of a genuine and expanding determination to place finance at the service of the overarching global goals of sustainable development. In the words of Mark Carney, Governor of the Bank of England and chair of the Financial Stability Board: “achieving the SDGs will require mainstream finance. We need to build a new system – one that delivers sustainable investment flows, based on both resilient market-based, and robust bank-based, finance.”<sup>152</sup>

This phenomenon is reflected both in the expansion in market leadership by financial institutions as well as by the rapidly growing range of measures taken by finance ministries, central banks and financial regulators focused on environmental and social aspects. By the end of June 2016, UN Environment had identified some 217 policy and regulatory measures covering nearly 60 countries – a doubling in five years.<sup>153</sup> Reforms aimed at harnessing finance to sustainable development cover all asset classes and the full range of measures to reallocate capital, better manage risk, define responsibilities, improve reporting and introduce comprehensive strategic roadmaps – the 5Rs. The cumulative sense of momentum, however, is impressive.

The green bond market, for example, is growing by leaps and bounds, with new green bonds selling out in hours and oversubscribed many times over. Institutional investors such as pension funds are divesting high carbon assets with key sovereign funds following suit. The impact is beginning to send echoes throughout the world, with the message that high carbon assets could lose value dramatically and quickly. Financial technology – initially used to facilitate cell phone-based cash transfers – is also offering the potential to accelerate the transition to sustainable finance through peer to peer lending applications and the deployment of big data to better assess risk profiles.

One thing is clear: there is no readily applicable formula that can identify the right path for all countries, irrespective of their culture, size and shape of their economies, nature of their financial markets



or motivation of their political leaders to bring about change. Italy's financial sector – and indeed its economy – has a different composition from that of its neighbours. Its history and political culture are also different. Much can be learned from international experience, but the way this is brought together in each country will be different.

So in designing a package of reforms that might harness Italy's financial system to the many requirements of sustainable development – both social and environmental – there is no standard model that can be applied. Instead, this report is the fruit of a rich and varied dialogue that pulled together representatives from all parts of the financial community – both public and private – meeting over a period of a year on several different occasions. It is based on the work and inputs from eight different working groups, each led by the private sector or civil society, in a process designed and steered by MATTM and the UN Environment Inquiry and including a public event at Bocconi University.

The working groups, on their own or in dialogue with their wider constituencies and with members of the other working groups, identified the challenge and focused on identifying reforms that would be of benefit both to the sector itself and to the wider goal of sustainable development. Working group members brought to the table their experience working with peers in Italy and abroad, their observation of approaches that have showed promise elsewhere and that might be adapted to Italy, and their professional assessment of those reforms that might work in the Italian context.

## 11.2 A RANGE OF OPTIONS FOR GREENING ITALY'S FINANCIAL SYSTEM

The result of this dialogue is a first roadmap for building a sustainable financial system in Italy. From across the working groups, a set of options has been identified across four main categories.

Looking across Italy's financial system, the dialogue has identified 18 separate options that fall into four broad action areas:

### Putting in place supportive policy frameworks

- 1 Strategy:** The government could embrace the agenda set at the recent G20 summit and set a comprehensive national agenda that will enhance the role of finance as a driver for sustainable development. The fact that one of the three pillars of the Green Act (currently under discussion) focuses on that exact point is a unique opportunity to structure a national sustainable finance strategy, in the frame of the national sustainable development strategy, that would be capable of mobilizing the capital needed to deliver the SDGs and the Paris Agreement's objectives.
- 2 Public Finance:** The CDP could systematize its sustainable development mandate into consistent policies and processes, and strengthen its accountability towards all stakeholders. Specific attention could be devoted to the financing of energy efficiency and sustainable infrastructure. Local Authorities – regions in particular – should strengthen the importance of sustainability in their plans and policies and orientate their investments accordingly.
- 3 Fiscal Policy:** Tax expenditures could be reviewed to remove progressively – but with speed and certainty – environmentally harmful subsidies in the energy sector. Italy could also promote a debate in Europe on how best to give the right price signals to consumers, producers and the financial system, building on experience with carbon pricing.
- 4 Systemic Review:** Banca d'Italia and other market regulators could use their data bases and their knowledge to evaluate the implications of climate change for Italy's economy and financial system and suggest measures to encourage good practice by financial institutions.

- 5 International Cooperation:** Italy could include green finance as part of its cooperation activities with developing countries (as it has been done through the microfinance green schemes) and ensure that the funding profile of the export credit agencies is consistent with goals for decarbonization and resilience.

#### Stimulating financial innovation in priority areas

- 6 SMEs:** A new effort is needed to identify mechanisms for complementing traditional sources of bank credit for SMEs operating in the green economy with other, more sophisticated, financial instruments that allow a longer-term view.
- 7 Real Estate:** The government could take the opportunity of the Piano Casa to encourage significant investment on the quality of buildings and increase their resilience to natural catastrophes. Besides, an innovation lab could work with banks to design new financial instruments to support investment needed to improve the energy efficiency of residential, commercial and public buildings.
- 8 Green Bonds:** A green bond development committee including public and private entities could be formed to identify and deliver the critical steps needed to develop the market, particularly the provision of access for small issuers and savings opportunities for retail investors.
- 9 Insurance:** The government and insurance companies could explore a national scheme to cover risks from climate-related natural catastrophes, in particular for residential properties, that adopts both traditional and non-traditional reinsurance structures (CAT bonds, ILS, collateralized, etc.).
- 10 Clean Tech:** The government along with financial institutions could leverage the role of Italy in the Mission Innovation initiative to scale up private capital for breakthrough sustainable technologies.

#### Improving market infrastructure in terms of disclosure and governance

- 11 Stock Market Disclosure:** Borsa Italiana – in addition to its new reporting guidelines to raise the level of disclosure on its markets, including flows of green revenues – could take further actions to increase the level of transparency and facilitate the engagement of responsible investors. The introduction of a voluntary certification scheme on the sustainability of funds (e.g. the LuxFlag model) could also help transparency and accountability on the issuers side.
- 12 Corporate Reporting:** The EU's non-financial reporting directive could provide a first step toward improving transparency, and prepare the way for responding to the recommendations of the FSB Task Force. A higher number of companies could be encouraged to disclose their ESG data by investors and others, with different expectations for SMEs, in line with traditional comparable transparent economic, capital and financial data.
- 13 Investor Disclosure:** All institutional investors could publicly report on how ESG factors impact their portfolios and how they are supporting the climate transition. They could also disclose the extent to which their investment and voting policies cover ESG issues and identify the results that come from their implementation.
- 14 Corporate Governance:** The Italian Corporate Governance Committee could further strengthen the focus on the importance of sustainability issues – such as environmental and social issues – for long-term value creation, calling on boards to take on the responsibility of developing

consistent strategies, establishing culture and values of the company setting the correct “tone from the top”, and encouraging specific measures on linking, for instance, executive pay to sustainability performance.

### Building capacity, awareness and knowledge

- 15 Risk:** A collaborative consortium of financial institutions, academics and public authorities could be established to pilot ‘environmental stress testing’ models and to make recommendations for improved analysis and data availability. Supervisors and surveillance authorities could push their European peers to evaluate the relevance of ESG factors at both the micro and macro level and consider the extent to which they are implemented in risk control models.
- 16 Public awareness:** An information campaign could be launched in partnership with key financial institutions, civil society organizations, religious bodies, trade unions and banking foundations to highlight the importance of environmental threats and the role that consumers and investors can play in influencing the supply side in the market.
- 17 Capacity building:** Financial institutions could identify the skills needed to make their professionals green finance literate, and incorporate these into training programs. In parallel, universities and academic bodies could enrich their educational offer on green finance sector reform and integrate these into professional curricula for continuing development.
- 18 Measuring progress:** The government could – leveraging the competence and the data sets of the National Institute for Statistics (Istat) – encourage the development of a model for measuring the progress of the financial system towards sustainable development, drawing on national and international expertise. The output of this monitoring activity should become a compass for orientating public policies.

Progress on these proposed options proposed would make a material difference in closing the gaps across key financial sectors and issues.

## 11.3 TAKING FORWARD THE MOMENTUM

The policy options produced by the National Dialogue could generate enough momentum for green finance sector reform to ultimately transform Italy’s entire financial sector. However, the dialogue process also produced other benefits that could prove as important as the policy options.

One result is a networking of leaders and innovative thinkers who, by working together, have gained respect not only for one another, but also for the richness of the possibilities across the entire spectrum. It will be important to consolidate and build on what is effectively a multi-stakeholder movement aimed at securing a range of green finance reforms for Italy that will shift the centre of gravity of its financial sector closer to the needs of the real economy and of sustainable development.

This report of the National Dialogue represents only a first milestone in what must become a robust ongoing process. The options for reform that have been identified need to be taken up, refined and fleshed out and brought forward for implementation. The coalition of those necessary in both the public and private sectors needs to be formed and a timetable of action agreed for each of these priorities.

Further, it is important that the package of reforms are seen as elements of a strategic process, so that the successes and the failures be fed back to the wider community for debate, redesign, and further action. A key part of the dialogue has been to discover the richness of interaction across sectors, the cross-fertilization possible when many actors address a common challenge. It is necessary to see the

strategic movement as one whose internal dynamic is a large part of what makes it work. Success in implementing the recommendations will require a serious effort to broaden the movement and to recruit new supporters in a continuous process.

The first priority is therefore outreach. If green finance is not well understood, there is value in showing it can bring multiple benefits. A solid narrative needs to be built around the value of green finance reforms, not simply in addressing climate change, but over a very broad spectrum of issues about which Italians care – security, growth, employment, productivity, reputation and many more.

The narrative must become mainstream, especially in working with the media who have a tendency to focus on problems. A steady flow of information must come through the media to the public, focused on the excitement of the sustainable finance momentum. Closely related is the need to build dialogue with the political movements in Italy with a special focus on how green finance reform can address their priorities. There is also a traditional chasm that separates the world of finance from the world of civil society, and this gap needs urgently to be narrowed. Success will depend on finance and social movements finding common ground, and there is a great deal of ground to be explored and developed.

Finally, success in finance sector reform needs to be built not on dreams or good intentions, but on solid knowledge and deep experience. No single factor is more important than to recruit the best brains in the financial world into the exciting agenda of finance for sustainable development. They will likely to see the potential – indeed, the most experienced and imaginative people know too well where the world is going and the dangers of mal-development to themselves and their children. It will be important to create a high-level advisory group that can steer reform efforts, open the necessary doors, and become champions for green finance sector reform.

The message is clear. Green finance reform has the potential to address many of Italy's most urgent priorities and to close the gap that separates finance behaviour today with the needs of the real economy and of Italy's future. It could be a major piece of Italy's future profile as it takes on the Presidency of the G7 in 2017 and as it continues to play an active and positive role in the EU, the UN, the G20 and many other international processes. The prospect for leadership in this area is considerable.

We hope that this report – already the positive result of an inclusive and exciting process – will be only the first stepping stone in a journey that leads to a profound and comprehensive transformation of the role of finance in securing the future that we want and need.

## ABOUT THE ITALIAN NATIONAL DIALOGUE ON SUSTAINABLE FINANCE

The National Dialogue on Sustainable Finance was launched in February 2016 to identify practical market and policy options to mobilize Italy's financial system for sustainable development and climate action. The dialogue was convened by Italy's Ministry of Environment, Land and Sea (MATTM), in partnership with the United Nations Environment Programme (UN Environment).

The Secretariat was led by Francesco La Camera and Aldo Ravazzi Douvan (MATTM) and Nick Robins, Mark Halle, Davide Dal Maso and Pier Carlo Sandei (UN Environment). The work of the dialogue was based upon a number of working groups led by the following: Risk analysis (Gaia Ghirardi, UniCredit); Responsibility and Reporting (Marco Frey, Fondazione Global Compact Network Italia); Banking (Raffaele Rinaldi, ABI); Capital Markets (Fabio Ferrari, Intesa Sanpaolo and Sara Lovisolò, Borsa Italiana LSE Group); Institutional Investors (Sonia Cantoni, Fondazione Cariplo and Francesco Bicciato, Forum per la Finanza Sostenibile); Insurance (Pietro Negri, ANIA); Public Finance (Bernardo Bini Smaghi, Cassa Depositi e Prestiti); Measuring progress (Raimondo Orsini, Fondazione per lo Sviluppo Sostenibile).

The dialogue also benefitted from the participation of the following: Maurizio Agazzi (Fondo Pensione Cometa), Alessandro Alessandri (CDP), Isabella Alloisio (FEEM), Alessandra Bailo Modesti (Fondazione Sviluppo Sostenibile), Corrado Baldinelli (IVASS), Luciano Barsotti (ACRI), Tosca Barucco (MAECI), Marcello Bianchi (Assonime), Margherita Bianchini (Assonime), Giorgio Capurri (UniCredit), Salvatore Cardillo (Assofondipensione), Giorgia Caropreso (MATTM), Gionata Castaldi (MATTM), Edoardo Croci (Università Bocconi), Gino Del Bufalo (CDP), Alessandra Diotallevi (MEF), Fabio Eboli (MATTM), Ivan Faiella (Banca d'Italia), Davide Ferrazzi (ABI), Alessandra Franzosi (Borsa Italiana), Fabio Galli (Assogestioni), Vittoria Ghirlanda (FEEM), Ayumi Kikuchi (MEF), Antonio Keglevich (UniCredit), Francesco Lo Manno (Borsa Italiana), Michele Lanotte (Banca d'Italia), Vanessa Leonardi (MATTM), Francesco Lorenzetti (Fondazione Cariplo), Arianna Lovera (FFS), Margherita Macellari (Fondazione Global Compact), Gianluca Manca (Eurizon Capital), Federico Mannoni (MATTM), Simone Martelli (MEF), Manuela Mazzoleni (Assogestioni), Andrea Molocchi (MATTM), Sara Moratti (Prometeia), Filippo Natoli (Banca d'Italia), Alessandro Negrin (MATTM), Roberto Novelli (IVASS), Eleonora Padoan (CDP), Marisa Parmigiani (UnipolSai), Claudia Pasquini (ABI), Sabina Ratti (FEEM), Giorgio Recanati (ABI), Giorgio Righetti (ACRI), Daniela Ricci (Intesa Sanpaolo), Ambrogio Rinaldi (Covip), Giampaolo Ruggero (MEF), Lorenzo Saa (PRI), Swan Senesi (MATTM), Lucia Silva (Generali), Davide Squarzoni (Prometeia), Ludovica Soderini (MEF), Romano Stasi (ABI), Valentina Tecce (Intesa Sanpaolo), Veronica Vecchi (Università Bocconi), Gelsomina Vigliotti (MEF), Davide Zanoni (Avanzi), and Maurizio Zollo (Università Bocconi).

A number of international experts also contributed to the dialogue, including Careen Abb (UN Environment), Butch Bacani (PSI), Ian Cochran (Finance I4CE), Elodie Feller (UN Environment), Sir Roger Gifford (London's Green Finance Initiative), Sean Kidney (Climate Bonds Initiative), Justine Leigh-Bell (Climate Bonds Initiative), Jeremy McDaniels (UN Environment), Anthony Miller (UNCTAD), Romain Morel (Finance I4CE), Lorenzo Saa (PRI), Frederic Samama (Amundi), Eric Usher (UN Environment), Andrew Voysey (Cambridge Institute for Sustainability Leadership) and Simon Zadek (UN Environment).



## REFERENCES

- <sup>1</sup> UNEP Inquiry (2016). The Financial System We Need: From Momentum to Transformation. [http://unepinquiry.org/wp-content/uploads/2016/09/The\\_Financial\\_System\\_We\\_Need\\_From\\_Momentum\\_to\\_Transformation.pdf](http://unepinquiry.org/wp-content/uploads/2016/09/The_Financial_System_We_Need_From_Momentum_to_Transformation.pdf)
- <sup>2</sup> Krosinsky, C. (2015). The Value of Everything. <http://unepinquiry.org/publication/the-value-of-everything/>
- <sup>3</sup> Value of assets managed by institutions supporting the UN-backed Principles for Responsible Investment.
- <sup>4</sup> See Friede, G., Busch, T. and Bassen, A. (2015). ESG and Financial Performance: Aggregated Evidence from more than 2,000 Empirical Studies. <http://www.tandfonline.com/doi/full/10.1080/20430795.2015.1118917>; Friede, G., Lewis, M., Bassen, A. and Busch, T. (2015). ESG & Corporate Financial Performance: Mapping the Global Landscape. [https://institutional.deutscheawm.com/globalResearch/investment\\_strategy\\_3540.jsp](https://institutional.deutscheawm.com/globalResearch/investment_strategy_3540.jsp)
- <sup>5</sup> UN (2015). Transforming Our World: the 2030 Agenda for Sustainable Development. [http://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/70/1&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E)
- <sup>6</sup> Global Compact (2015). The SDG Industry Matrix for Financial Services. [https://www.unglobalcompact.org/docs/issues\\_doc/development/SDGMatrix\\_FinancialSvcs.pdf](https://www.unglobalcompact.org/docs/issues_doc/development/SDGMatrix_FinancialSvcs.pdf)
- <sup>7</sup> UNFCCC (2015). The Paris Agreement, Article 2c. [http://unfccc.int/files/home/application/pdf/paris\\_agreement.pdf](http://unfccc.int/files/home/application/pdf/paris_agreement.pdf)
- <sup>8</sup> UN (2015). The Addis Ababa Action Agenda on Financing for Development, paragraph 36. [http://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/69/313FFD](http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/69/313FFD)
- <sup>9</sup> CERES and Bloomberg New Energy Finance (2016). Mapping the Gap: the Road from Paris. <http://www.ceres.org/resources/reports/mapping-the-gap-the-road-from-paris/>
- <sup>10</sup> UNEP Inquiry (2015). The Financial System We Need. <http://unepinquiry.org/publication/inquiry-global-report-the-financial-system-we-need/>
- <sup>11</sup> Communiqué – G20 Finance Ministers and Central Bank Governors Meeting, 26-27 February 2016, Shanghai. [http://unepinquiry.org/wp-content/uploads/2016/09/Shanghai\\_Communique\\_G20\\_Finance\\_Ministers\\_and\\_Central\\_Bank\\_Governors\\_Meeting\\_26-27\\_February\\_2016.pdf](http://unepinquiry.org/wp-content/uploads/2016/09/Shanghai_Communique_G20_Finance_Ministers_and_Central_Bank_Governors_Meeting_26-27_February_2016.pdf)
- <sup>12</sup> A process of dialogue was also undertaken to understand the needs, concerns and ambitions of non-G20 developing countries with regard to green finance: see <http://unepinquiry.org/publication/green-finance-for-developing-countries/>
- <sup>13</sup> Communiqué – G20 Finance Ministers and Central Bank Governors Meeting, 23-24 July 2016, Chengdu. [http://unepinquiry.org/wp-content/uploads/2016/09/Chengdu\\_Communique\\_G20\\_Finance\\_Ministers\\_and\\_Central\\_Bank\\_Governors\\_Meeting\\_23-24\\_July\\_2016.pdf](http://unepinquiry.org/wp-content/uploads/2016/09/Chengdu_Communique_G20_Finance_Ministers_and_Central_Bank_Governors_Meeting_23-24_July_2016.pdf)
- <sup>14</sup> See <http://unepinquiry.org/g20greenfinancerepositoryeng/>
- <sup>15</sup> The SSE initiative is co-organized by the United Nations Conference on Trade and Development, the United Nations Global Compact, the United Nations Environment Programme Finance Initiative, and the Principles for Responsible Investment. <http://www.sseinitiative.org/>
- <sup>16</sup> <http://www.climatebonds.net/resources/press-releases/Paris-Green-Bonds-Statement>
- <sup>17</sup> <http://www.worldbank.org/en/news/press-release/2015/12/07/major-financial-institutions-move-to-integrate-climate-change>
- <sup>18</sup> <https://www.fsb-tcfd.org/>
- <sup>19</sup> [http://www.g20.org/English/Dynamic/201609/t20160906\\_3396.html](http://www.g20.org/English/Dynamic/201609/t20160906_3396.html); see also <http://unepinquiry.org/g20greenfinancerepositoryeng/>
- <sup>20</sup> UNCTAD (2014). World Investment Report 2014: Investing in the SDGs. <http://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=937>
- <sup>21</sup> UNEP Inquiry/2 Degrees Investing Initiative (2016). Building a Sustainable Financial System in the European Union: the Five ‘R’s of Market and Policy Innovation for the Green Transition. UNEP Inquiry/2 Degrees Investing Initiative. [http://unepinquiry.org/wp-content/uploads/2016/04/Building\\_a\\_Sustainable\\_Financial\\_System\\_in\\_the\\_European\\_Union.pdf](http://unepinquiry.org/wp-content/uploads/2016/04/Building_a_Sustainable_Financial_System_in_the_European_Union.pdf).
- <sup>22</sup> See SDG 12 Ensuring Sustainable Consumption and Production
- <sup>23</sup> See <https://www.abundanceinvestment.com/>
- <sup>24</sup> Brookings, New Climate Economy and LSE (2015). Driving Sustainable Development through Better Infrastructure. <http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2015/07/Bhattacharya-et-al.-2015.pdf>
- <sup>25</sup> OECD (2015). Mapping Channels to Mobilise Institutional Investment in Sustainable Energy. <http://www.oecd.org/env/mapping-channels-to-mobilise-institutional-investment-in-sustainable-energy-9789264224582-en.htm>
- <sup>26</sup> The Coalition is co-organized by the Climate Bonds Initiative, the PRI and the UN Environment Inquiry. <http://2xjmlj8428u1a2k50341m71.wpengine.netdna-cdn.com/wp-content/uploads/Green-Infrastructure-Investment-Coalition-Fact-Sheet-9th-Dec.pdf>
- <sup>27</sup> See the Statement by 100 banks and leasing organizations under Turkey’s G20 in 2015: <http://www.unepfi.org/fileadmin/documents/EnergyEfficiencyFinanceStatement.pdf>
- <sup>28</sup> Mission Innovation is supported by Australia, Brazil, Canada, Chile, China, Denmark, France, Germany, India, Indonesia, Italy, Japan, Korea, Mexico, Norway, Saudi Arabia, Sweden, the UK, the UAE and the US: <http://www.mission-innovation.net/>
- <sup>29</sup> <http://www.breakthroughenergycoalition.com/en/index.html>
- <sup>30</sup> World Economic Forum (2016). The Global Risks Report 2016. <http://www3.weforum.org/docs/Media/TheGlobalRisksReport2016.pdf>

- <sup>31</sup> Bank of England (2015). Prudential Regulatory Authority: the impact of climate change on the UK insurance sector. <http://www.bankofengland.co.uk/pradocuments/supervision/activities/pradefra0915.pdf>
- <sup>32</sup> SRB (2016). Too late, too sudden – Transition to a low-carbon economy and systemic risk. [https://www.esrb.europa.eu/pub/pdf/asc/Reports\\_ASC\\_6\\_1602.pdf](https://www.esrb.europa.eu/pub/pdf/asc/Reports_ASC_6_1602.pdf)
- <sup>33</sup> <http://www.unep.org/newscentre/Default.aspx?DocumentID=27074&ArticleID=36196>
- <sup>34</sup> The Natural Capital Finance Alliance (formerly Natural Capital Declaration) is an initiative of the UN Environment Finance Initiative and the Global Canopy with over 30 supporting financial institutions: [www.naturalcapitaldeclaration.org/](http://www.naturalcapitaldeclaration.org/)
- <sup>35</sup> UNFCCC (2016). Decision Adopting the Paris Agreement, paragraph 43.
- <sup>36</sup> UNEP Inquiry and UNEP FI (2015). Insurance 2030 [http://unepinquiry.org/wp-content/uploads/2015/06/Insurance\\_2030.pdf](http://unepinquiry.org/wp-content/uploads/2015/06/Insurance_2030.pdf)
- <sup>37</sup> <http://www.unepfi.org/psi/commitments/>
- <sup>38</sup> See SDG2.c and also SDG10.5.
- <sup>39</sup> See Institute for Human Rights and Business (2016). Human Rights and Sustainable Finance – Exploring the Relationship. [http://unepinquiry.org/wp-content/uploads/2015/10/Human\\_Rights\\_and\\_Sustainable\\_Finance.pdf](http://unepinquiry.org/wp-content/uploads/2015/10/Human_Rights_and_Sustainable_Finance.pdf) and UNEP FI (2015). Human Rights and Finance: a Legal Approach. <http://www.unepfi.org/fileadmin/documents/BanksandHumanRights.pdf>
- <sup>40</sup> See [http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR\\_](http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_) and <http://mneguidelines.oecd.org/text/EN.pdf>
- <sup>41</sup> <http://mneguidelines.oecd.org/rbc-financial-sector.htm>
- <sup>42</sup> PRI, Global Compact, UNEP Finance Initiative and UNEP Inquiry (2015). Fiduciary duty in the 21st Century. <http://2xjmlj8428u1a2k50341m71.wpengine.netdna-cdn.com/wp-content/uploads/Fiduciary-duty-21st-century.pdf>
- <sup>43</sup> Responses to a survey from investment managers and asset owners across the globe, with US\$5.9 trillion in assets under management, and interviews with 12 other stakeholders. Research conducted for a forthcoming 2016 PRI and ShareAction publication, Transforming our World through Investment.
- <sup>44</sup> [http://unepinquiry.org/wp-content/uploads/2015/10/Design\\_of\\_a\\_Sustainable\\_Financial\\_System\\_Netherlands\\_Input\\_to\\_the\\_UNEP\\_Inquiry.pdf](http://unepinquiry.org/wp-content/uploads/2015/10/Design_of_a_Sustainable_Financial_System_Netherlands_Input_to_the_UNEP_Inquiry.pdf)
- <sup>45</sup> <http://www.unepfi.org/fileadmin/documents/FromDisclosureToAction.pdf>
- <sup>46</sup> Ministry of Economy and Ministry of Ecology and Sustainable Development (2013). White Paper on Financing the Ecological Transition. [http://www.consultations-publiques.developpement-durable.gouv.fr/IMG/pdf/131220-lfte\\_LB-v\\_okPostCabPostPLF\\_UK-Clean\\_RetourDGT\\_ValidationsJ\\_retourDGT2\\_Propre.pdf](http://www.consultations-publiques.developpement-durable.gouv.fr/IMG/pdf/131220-lfte_LB-v_okPostCabPostPLF_UK-Clean_RetourDGT_ValidationsJ_retourDGT2_Propre.pdf)
- <sup>47</sup> See SDG12.6.
- <sup>48</sup> [https://www.fsb-tcfd.org/wp-content/uploads/2016/12/16\\_1221\\_TCFD\\_Report\\_Letter.pdf](https://www.fsb-tcfd.org/wp-content/uploads/2016/12/16_1221_TCFD_Report_Letter.pdf)
- <sup>49</sup> Corporate Knights (2015). Measuring Sustainability Disclosure: Ranking the World’s Stock Exchanges 2015. <http://www.corporateknights.com/reports/2015-world-stock-exchanges>
- <sup>50</sup> [http://ec.europa.eu/finance/company-reporting/non-financial\\_reporting/index\\_en.htm](http://ec.europa.eu/finance/company-reporting/non-financial_reporting/index_en.htm)
- <sup>51</sup> [http://ec.europa.eu/finance/consultations/2016/non-financial-reporting-guidelines/index\\_en.htm](http://ec.europa.eu/finance/consultations/2016/non-financial-reporting-guidelines/index_en.htm)
- <sup>52</sup> <http://www.novethic.fr/breves/details/le-decret-de-larticle-173-de-la-loi-de-transition-energetique-est-publie.html>
- <sup>53</sup> See Transforming Our World, paragraph 63.
- <sup>54</sup> <https://www.project-syndicate.org/commentary/g20-embraces-green-finance-by-ma-jun-and-simon-zadek-2016-09>
- <sup>55</sup> Research Bureau of People’s Bank of China and UNEP Inquiry (2015). Establishing China’s Green Financial System. <http://unepinquiry.org/publication/establishing-chinas-green-financial-system/>
- <sup>56</sup> People’s Bank of China (2016). Guidelines for Establishing a Green Financial System. <http://www.pbc.gov.cn/english/130721/3133045/index.html>
- <sup>57</sup> [http://www.dt.tesoro.it/it/debito\\_pubblico/\\_link\\_rapidi/debito\\_pubblico.html](http://www.dt.tesoro.it/it/debito_pubblico/_link_rapidi/debito_pubblico.html)
- <sup>58</sup> <http://www.istat.it/en/national-accounts>
- <sup>59</sup> <http://www.istat.it/it/archivio/190522>
- <sup>60</sup> <http://www.relbanks.com/worlds-top-banks/assets>
- <sup>61</sup> <http://www.investopedia.com/articles/personal-finance/010715/worlds-top-10-insurance-companies.asp>
- <sup>62</sup> <https://hub.ipe.com/top-400/total-global-aum-table-2016/10007066.article>
- <sup>63</sup> [http://www.statigenerali.org/cms/wp-content/uploads/2015/11/relazione\\_lo\\_stato\\_della\\_green\\_economy\\_in\\_Italia.pdf](http://www.statigenerali.org/cms/wp-content/uploads/2015/11/relazione_lo_stato_della_green_economy_in_Italia.pdf)
- <sup>64</sup> Provided by Edoardo Croci, Bocconi University.
- <sup>65</sup> Kroll, C. (2015). Sustainable Development Goals: Are the rich countries ready? <https://www.bertelsmann-stiftung.de/en/publications/publication/did/sustainable-development-goals-are-the-rich-countries-ready/>
- <sup>66</sup> Preliminary Sustainable Development Goal (SDG) Index and Dashboard, 2016.
- <sup>67</sup> <http://www.asvis.it/home/46-937/rapporto-asvis-italia-in-ritardo-urgono-misure-per-la-sostenibilita-dello-sviluppo#>
- <sup>68</sup> <http://www.isprambiente.gov.it/it/temi/cambiamenti-climatici/landamento-delle-emissioni>
- <sup>69</sup> Decisions and directives taken by EU in the 2020 time horizon adopted two EU-wide quantitative targets (-20% for all GHGs in the 1990-2020 period, -21% target for ETS emissions in the 2005-2020 period), complemented by country-level differentiated targets in the non-ETS sectors (Italy -13% in the 2005-2020 period) and for renewable energy (Italy 17% of final gross consumptions at 2020, including a renewable energy target of 10% in transport). A

country target for all GHG emissions (in the ETS and non-ETS sectors) is not set by the EU, but can be calculated at the national level by making assumptions of the country target in the ETS sector, as the National Energy Strategy does.

- <sup>70</sup> <http://www.eea.europa.eu/themes/climate/ghg-country-profiles>
- <sup>71</sup> Flash Eurobarometer 441, Briefing note: European SMEs and the Circular Economy, April 2016
- <sup>72</sup> <http://www.societabenefit.net/elenco-sb/>
- <sup>73</sup> Forum per la Finanza Sostenibile and Doxametrics, 2013.
- <sup>74</sup> <https://www.weforum.org/reports/the-global-risks-report-2016>
- <sup>75</sup> <https://www.fsb-tcfd.org/>, <http://web.unep.org/inquiry>, <http://unepfi.org/pdc/>
- <sup>76</sup> <http://www.naturalcapitalfinancealliance.org/water-risk-valuation-tool/>
- <sup>77</sup> [http://unepinquiry.org/wp-content/uploads/2016/09/2\\_Environmental\\_Risk\\_Analysis\\_by\\_Financial\\_Institutions.pdf](http://unepinquiry.org/wp-content/uploads/2016/09/2_Environmental_Risk_Analysis_by_Financial_Institutions.pdf)
- <sup>78</sup> [http://www.minambiente.it/sites/default/files/archivio/allegati/clima/strategia\\_adattamentoCC.pdf](http://www.minambiente.it/sites/default/files/archivio/allegati/clima/strategia_adattamentoCC.pdf)
- <sup>79</sup> [http://www.poolinquinamento.it/aziende/introduzionerischio/?lang=it\\_IT](http://www.poolinquinamento.it/aziende/introduzionerischio/?lang=it_IT)
- <sup>80</sup> [http://deepdecarbonization.org/wp-content/uploads/2015/09/DDPP\\_ITA.pdf](http://deepdecarbonization.org/wp-content/uploads/2015/09/DDPP_ITA.pdf)
- <sup>81</sup> Provided by Ivan Faiella, Banca d'Italia.
- <sup>82</sup> Faiella, I. and Natoli, F. (2016). Environmental risk and bank lending. Bank of Italy, mimeo.
- <sup>83</sup> <http://annuario.isprambiente.it/ada/indice>
- <sup>84</sup> <http://www.isprambiente.gov.it/it/pubblicazioni/rapporti/dissesto-idrogeologico-in-italia-pericolosita-e-indicatori-di-rischio-rapporto-2015>
- <sup>85</sup> <http://www.cmcc.it/wp-content/uploads/2012/08/rp0014-cip-02-2007-1.pdf>
- <sup>86</sup> UN SSE (2015). Model Guidance on Reporting ESG Information to Investors.
- <sup>87</sup> The third generation of the GRI Guidelines introduces the principle of materiality. It states that reports should cover the “most relevant sustainability aspects”, from both a company (organization’s significant economic, environmental and social impacts) and stakeholders (aspects that substantively influence stakeholders’ assessments and decisions) point of view.
- <sup>88</sup> [http://www.cnmv.es/DocPortal/Publicaciones/CodigoGov/Codigo\\_buen\\_gobierno.pdf](http://www.cnmv.es/DocPortal/Publicaciones/CodigoGov/Codigo_buen_gobierno.pdf)
- <sup>89</sup> The expressions “non-financial”, “ESG” (Environmental, Social, Governance) and “sustainability” information are used interchangeably all along the chapter to indicate social, environmental and governance factors.
- <sup>90</sup> KPMG International, GRI, UNEP, The Centre for Corporate Governance in Africa (2016). Carrots and Sticks. Global trends in sustainability reporting regulation and policy. <https://www.carrotsandsticks.net/wp-content/uploads/2016/05/Carrots-Sticks-2016.pdf>
- <sup>91</sup> KPMG Survey of Corporate Responsibility Reporting, “Current of change”, 2015
- <sup>92</sup> KPMG Sustainability Governance Survey, 2016.
- <sup>93</sup> Italian Corporate Governance Committee (2015). Corporate Governance Code (ed. 2015). <http://www.borsaitaliana.it/comitato-corporate-governance/codice/2015engclean.en.pdf>.
- <sup>94</sup> See Article 1 of the Corporate Governance Code.
- <sup>95</sup> See Article 4 of the Corporate Governance Code.
- <sup>96</sup> Assonime-Emittenti Titoli (2016). Corporate Governance in Italy: Compliance, Remunerations and Quality of the Comply-or-Explain. <http://www.assonime.it/AssonimeWeb2/servletDocAllegati?idSelectedDocument=264371&idSelectedDocumentType=374&idSelectedAttach=264481&reserved=false>
- <sup>97</sup> See Assonime, Circolare n. 31/2015. Le novità del Codice di autodisciplina 2015 per la governance delle società quote, p. 20, ft. 35.
- <sup>98</sup> Assonime-Emittenti Titoli (2016). Corporate Governance in Italy: Compliance, Remunerations and Quality of the Comply-or-Explain. <http://www.assonime.it/AssonimeWeb2/servletDocAllegati?idSelectedDocument=264371&idSelectedDocumentType=374&idSelectedAttach=264481&reserved=false>
- <sup>99</sup> The term *integrated governance* is used to indicate the evolution in terms of governance practices, processes and culture aimed to take into account all EESG factors (economic, environmental, social, governance).
- <sup>100</sup> [http://www.novethic.com/fileadmin//user\\_upload/tx\\_ausynovethicetudes/pdf\\_complets/2015\\_responsible\\_investors\\_survey.pdf](http://www.novethic.com/fileadmin//user_upload/tx_ausynovethicetudes/pdf_complets/2015_responsible_investors_survey.pdf)
- <sup>101</sup> This percentage has fallen from the 48% peak observed in 2011. A process of full convergence towards the prevailing leverage values of enterprises in the Eurozone would imply recapitalizations (replacing bank debt) for about €200 billion.
- <sup>102</sup> Eurobarometer (2013). SMEs, Resource Efficiency and Green Markets
- <sup>103</sup> Eurobarometer (2016). European SMEs and the Circular Economy
- <sup>104</sup> Topi, C. and Marini Govigli, V. (2016). Private Climate Finance Mechanisms for SMEs state of the art. [http://www.greeneconet.eu/sites/default/files/publications/03.GreenEcoNet%20TW6%20presentation%20-%20Valentino%20MARINI%20GOVIGLI\\_o.pdf](http://www.greeneconet.eu/sites/default/files/publications/03.GreenEcoNet%20TW6%20presentation%20-%20Valentino%20MARINI%20GOVIGLI_o.pdf)
- <sup>105</sup> “The responsibility of enterprises for their impacts on society. To fully meet their social responsibility, companies should have in place a process to integrate social, environmental, ethical, human rights and consumer concerns in their business operations and core strategy in close collaboration with their stakeholders, with the aim of:

maximizing the creation of shared value for their owners/shareholders and for their other stakeholders and society at large; identifying, preventing and mitigating their possible adverse impacts.” Source: European Commission, Communication 2011

<sup>106</sup> University of Cambridge and UNEP FI (2016). Stability and Sustainability in Banking Reform. <http://www.unepfi.org/fileadmin/documents/StabilitySustainability.pdf>

<sup>107</sup> <https://hypoblog.org/2016/07/01/the-future-development-of-eu-mortgage-and-covered-bond-markets-and-implications-of-the-energy-efficiency-debate/>

<sup>108</sup> See Robins, N. and Sweatman, P. (2016). How green tags could boost finance for energy efficiency. <https://www.environmental-finance.com/content/analysis/how-green-tags-could-boost-finance-for-energy-efficiency.html>

<sup>109</sup> As at 31 May 2016, source: Borsa Italiana’s Markets Analysis.

<sup>110</sup> Source: IMF

<sup>111</sup> Corporate Knights, Sustainability Disclosure report 2016

<sup>112</sup> Source: Borsa Italiana

<sup>113</sup> FTSE Russell data as at 12 September 2016

<sup>114</sup> <http://www.vedogreen.it/category/societa/societa-quotate/>

<sup>115</sup> <http://www.climatebonds.net/files/files/CBI%20State%20of%20the%20Market%202016%20A4.pdf>

<sup>116</sup> <https://www.enel.com/en/investors/Main-programs/green-bond.html>

<sup>117</sup> <http://www.vedogreen.it/chi-siamo/osservatorio/>

<sup>118</sup> See <http://www.climatebonds.net/files/files/Guide%2030Nov15%20FINAL.pdf>

<sup>119</sup> <https://www.zurich.com/en/corporate-responsibility/responsible-investment>

<sup>120</sup> Source: Private Equity Monitor (2016)

<sup>121</sup> [http://finanzasostenibile.it/wp/wp-content/uploads/2016/08/Private\\_equity\\_sostenibile\\_sito\\_web.pdf](http://finanzasostenibile.it/wp/wp-content/uploads/2016/08/Private_equity_sostenibile_sito_web.pdf)

<sup>122</sup> In this Chapter, we only consider insurance companies in their institutional investors’ role; a more comprehensive analysis of these actors is provided in Chapter 8.

<sup>123</sup> See, for instance, European Systemic Risk Board (2016). Too late, too sudden: Transition to a low-carbon economy and systemic risk. [https://www.esrb.europa.eu/pub/pdf/asc/Reports\\_ASC\\_6\\_1602.pdf](https://www.esrb.europa.eu/pub/pdf/asc/Reports_ASC_6_1602.pdf)

<sup>124</sup> See COVIP Annual Report 2015. For Casse Professionali, data refer to end-2014.

<sup>125</sup> [http://www.finanzasostenibile.it/images/stories/docs/benchmark\\_2015\\_per\\_web.pdf](http://www.finanzasostenibile.it/images/stories/docs/benchmark_2015_per_web.pdf)

<sup>126</sup> [http://www.ivass.it/ivass\\_cms/docs/F23273/Relazione%20IVASS%202015.pdf](http://www.ivass.it/ivass_cms/docs/F23273/Relazione%20IVASS%202015.pdf)

<sup>127</sup> It is with the Ivass Resolution n. 22 of 21 October 2014 that investment opportunities of insurance companies have been expanded, including direct funding to SMEs, while aiming to protect their stability and ensuring their sound and prudent management. Moreover, with the so-called “investment compact”, converted into the Law n. 133 of 24 March 2015, it has been extended the guarantee of the state to loans of insurance companies and collective investment schemes.

<sup>128</sup> PRI, Global Compact, UNEP Finance Initiative and UNEP Inquiry (2015). Fiduciary duty in the 21st Century. <http://2xjmlj8428u1a2k50341m71.wpengine.netdna-cdn.com/wp-content/uploads/Fiduciary-duty-21st-century.pdf>

<sup>129</sup> For instance, portfolio’s carbon footprint may vary considerably according to both the calculation method and the scope chosen. See Raynaud, J. (2015). Carbon Compass: Investor guide to carbon footprinting. [http://www.iigcc.org/files/publication-files/Carbon\\_Compass\\_final.pdf](http://www.iigcc.org/files/publication-files/Carbon_Compass_final.pdf)

<sup>130</sup> Impact investing is an SRI strategy based on investments made with the intention to generate social and environmental impact alongside a financial return. Impact investments can be made in both emerging and developed markets, and target a range of returns from below market-to-market rate, depending on the circumstances.

<sup>131</sup> <http://www.socialimpactagenda.it>

<sup>132</sup> [https://www.agire.it/filemanager/cms\\_agire/image/DRR/2014/dossier13ottobre2014\\_link.pdf](https://www.agire.it/filemanager/cms_agire/image/DRR/2014/dossier13ottobre2014_link.pdf)

<sup>133</sup> [https://www.genevaassociation.org/media/952149/20160909\\_ecoben4\\_final.pdf](https://www.genevaassociation.org/media/952149/20160909_ecoben4_final.pdf)

<sup>134</sup> [https://www.axa.it/documents/14601/108590/Italian\\_AXA\\_Paper\\_n\\_4\\_le\\_sfide\\_cambiamento\\_climatico.pdf/55bf507e-6307-4ffd-b7ba-ef7be9987d5a](https://www.axa.it/documents/14601/108590/Italian_AXA_Paper_n_4_le_sfide_cambiamento_climatico.pdf/55bf507e-6307-4ffd-b7ba-ef7be9987d5a)

<sup>135</sup> Swiss Re, 2015

<sup>136</sup> <http://acts.oecd.org/Instruments/ShowInstrumentView.aspx?InstrumentID=267>

<sup>137</sup> <http://ec.europa.eu/transparency/regdoc/rep/1/2013/IT/1-2013-213-IT-F1-1.Pdf>

<sup>138</sup> <http://www.unisdr.org/we/coordinate/sendai-framework>

<sup>139</sup> <http://www.insuranceeurope.eu/sites/default/files/attachments/Key%20points%20for%20insurers%20regarding%20natural%20catastrophes%20in%20Europe.pdf>

<sup>140</sup> <http://www.oecd.org/daff/in/insurance/Financial-Management-of-Flood-Risk.pdf>

<sup>141</sup> <http://www.oecd.org/daff/in/insurance/Financial-Management-of-Flood-Risk.pdf>

<sup>142</sup> <http://www.irs.it/it/df/paper-connected-and-sustainable-insurance/>

<sup>143</sup> [http://www.poolinquinamento.it/?lang=it\\_IT](http://www.poolinquinamento.it/?lang=it_IT)

<sup>144</sup> <http://www.ania.it/export/sites/default/it/pubblicazioni/Dossier-e-position-paper/Le-alluvioni-e-la-protezione-delle-abitazioni-Position-Paper-ANIA-Marzo-2015.pdf>

- <sup>145</sup> The new Code implements Directives 2014/23/EU, 2014/24/EU and 2014/25/EU on the award of concession contracts, public procurement and on procurement by entities operating in the water, energy, transport and postal services, as well as revises the current rules on public contracts for works, services and supplies.
- <sup>146</sup> A review of the state of implementation of the public investment reform has been provided by the Agenzia per la Coesione Territoriale: [http://www.agenziacoesione.gov.it/it/Notizie\\_e\\_documenti/Focus/Valutazione\\_OO\\_PP\\_e\\_Documento\\_Pluriennale\\_Pianificazione\\_AA\\_CC/Valutazione\\_OO\\_PP\\_e\\_Documento\\_Pluriennale\\_PianificazioneAACC.html](http://www.agenziacoesione.gov.it/it/Notizie_e_documenti/Focus/Valutazione_OO_PP_e_Documento_Pluriennale_Pianificazione_AA_CC/Valutazione_OO_PP_e_Documento_Pluriennale_PianificazioneAACC.html)
- <sup>147</sup> [https://ec.europa.eu/priorities/sites/beta-political/files/italy-ip-state-of-play-july-2016\\_en.pdf](https://ec.europa.eu/priorities/sites/beta-political/files/italy-ip-state-of-play-july-2016_en.pdf)
- <sup>148</sup> UN (2015). Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators.
- <sup>149</sup> UNEP Inquiry. (2015) The Financial System We Need, p. 60
- <sup>150</sup> Classification introduced by the Sustainable Development Foundation in 2014, starting from the OECD concept of greening the industries and published in Ronchi, E. (ed.) (2015). Report on the State of the green economy in Italy. and Ronchi, E., Morabito, R., Federico, T. and Barberio, G. (2014). Green Economy Companies. Edizioni Ambiente.
- <sup>151</sup> European Commission (2014). Guide to Cost-benefit Analysis of Investment Projects, Economic Appraisal Tool for Cohesion Policy 2014-2020.
- <sup>152</sup> <http://www.bankofengland.co.uk/publications/Pages/speeches/2016/897.aspx>
- <sup>153</sup> UNEP Inquiry (2016). The Financial System We Need: From Momentum to Transformation. [http://unepinquiry.org/wp-content/uploads/2016/09/The\\_Financial\\_System\\_We\\_Need\\_From\\_Momentum\\_to\\_Transformation.pdf](http://unepinquiry.org/wp-content/uploads/2016/09/The_Financial_System_We_Need_From_Momentum_to_Transformation.pdf)

# NOTES







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