CHAPTER 10

Sustainable Finance: A Common Ground for the Future in Europe?

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10.1 Introduction

Sustainable finance is a relatively recent term. Its diffusion is mainly due to a reaction to two circumstances not directly connected: the distortion of the role of the financial system and the environmental emergency. Consequently, it contains and somehow integrates two meanings.

Since the causes of the financial crisis that broke out in 2007 have become evident, the activity of the financial sector is not only under scrutiny of domestic and international regulators but also under the lens of a wider public including clients, investors, employees and stakeholders in general. In the two decades before the crisis, finance had—and largely still has—lost sight of its instrumental nature, being increasingly considered as an end in itself. Alongside the disproportionate increase in salary and profits, technological development and globalization have enhanced the growth in the size of the sector, largely engaged in activities poorly connected to the real economy and dominated by speculative reasons (Silver

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2017). As a result, the public opinion is distancing by seeing finance no longer as a tool of growth but as a form of appropriation of income and wealth. At the same time, global pollution, climate change and the unsustainable exploitation of resources, beyond their capacity of reproducing, are increasingly palpable and worrying issues.

By sustainable finance, we can therefore identify both a non-predatory finance, more attentive to the production, than to the extraction, of value, and a finance aimed at fostering development sustainable in the long term. The two meanings can obviously be integrated into one that includes both. A stronger targeted financial system is essential for achieving a successful transition to a new pattern of development more responsible and inclusive: the environmental dimension must integrate into a more complex frame designed to increase the value generated by investments. The aim is not only to guarantee resources but also to implement social objectives, generating at the same time an economic return for investors. This involves the integration of environmental, social and governance features with the mission of harnessing resilience, targeting capital allocation and improving accountability. It is a multidimensional approach that deals with ethical questions, environmental and climate issues, social responsibility considerations and risk management requirements.

To somehow redeem finance, its concept has been related with ethical and sustainable attributes, such as “social finance”, “impact finance”, “ethical banking” and “social and solidarity finance”. It is not just a terminological issue, but the choice of a new way to address resources for specific goals. The commitment by the financial world to take concrete actions to curb climate change and enhance the life condition of vulnerable people can be seen as the apex of a decade of effort to distance from the speculations that led to the crisis. The role that finance can play in addressing social and environmental needs is pivotal. The structural contraction of public resources and the social changes open the arena for new actors to drive the search of innovative tools. As a result, a closer cooperation between finance and social and environmental dimensions arises, which can create great potentialities to support the modernization of social and economic development policies. For finance this is a great opportunity to prove its capacity to add value in the economy.

This view is asserted by the 2015 Sustainable Development Goals and the Paris Agreement: the agenda they generated is intense and challenging. However, how underlined by Dombret (2018) in his speech at the 20th Bundesbank symposium “Banking supervision in dialogue”:

> If the global community is even half-way committed to hitting the ambitious target of 2 degrees Celsius, there will need to be some far-reaching changes to the economic systems as we know them. And as for the time frame, the later we get started, the deeper our intervention will have to be. […] Every area of the economy will need to adjust by correctly pricing the externalities of climate change and internalising them. And those adjustments mean more than simply trimming our CO_2 emissions. They will transform the entire way in which we do business and affect the path along which the economy and society are progressing.

The changes introduced here are more than a new combination of product features to capture a larger share of market. The challenge for the economy, in general, and for the financial sector, in particular, is to introduce a new paradigm in which the creation of value is at the core. Sustainable finance is a financial world which looks primarily at the long-term repercussions of its actions (Dombret 2018). In this process, the entire sector is required to intervene, not only cooperative or ethical banks.

Sustainability concerns the challenges and risks of failure together with opportunities. The core of any sustainability approach is the awareness of the relevant impact areas and the definition of the appropriate risk management strategies. There is a shared recognition that the so-called residual factors, as social capital and institutional framework, for a long time considered marginal, are able to create value.[1] As much as the financial system is progressively taking into consideration environmental and social factors in the allocation of its resources, the promising development in this contest has not yet achieved a systematic impact across the financial mainstream due to (UN Environment Inquiry 2016)[2]:

[1] The UN Environment Inquiry (2016) identifies only three factors: environment, society and governance. However, according to the authors of this chapter, this view is reductive since more elements, such as immaterial factors, might contribute in the process (Goglio 2002).

[2] The UN Environment Inquiry report on Italy includes in this list the limited access to finance, especially for SMEs, since it reduces their participation into green economy. In our view, SMEs might get advantages in investing in this sector given its potentiality. However, in their case, the limited access to finance is not a stringent limit, since their main sources of financing are the internal mechanism, such as collecting capital by the owners or angel finance.

- Unpriced environmental externalities that can tilt the risk/return profile away from sustainable finance.
- Financial decision-making who does not adequately take into consideration the long-term challenge of these investments.
- The achievement of sustainable strategy, which might result only in a reputation enhancement for the supplier.

Financial capital is not therefore a goal in itself, but a vehicle to achieve other goals, ultimately to produce a blended output of goods and services, for consumption and investment, which benefits the society. This means that financing should be addressed to economic activities able to generate social and environmental benefits, and financial profit has its raison d'être in the capacity to convey resources into such activities. However, the question is: which goods, services and investments really benefit the society and the environment and how can we measure its usefulness? The matter is that usefulness might be differently perceived from subject to subject. Indeed, the concept of utility developed by the marginalist approach is subjective: when the subject's needs (even the externally induced ones) are satisfied, though in contrast with the wellbeing or even the survival of the system, we have production of utility. Utility may be therefore in contradiction with sustainability. This leads us to consider the meaning of value and the processes of its creation and appropriation.

10.2 The Need for a Value-Added Approach to Sustainable Finance

The term *value* refers to the process of generating a surplus through the production of both tangible and intangible outcomes: the concept of wealth can be a synonymous, depending on how it is calculated. The process of distribution and redistribution of income through the price system can lead to the extraction of part of the value from the producers to subjects not involved in the production of the same (the rentiers): rent requires economic and/or political power, ultimately a monopolistic position. While the distinction between these two concepts—that is, value and rent—was crucial to the classic economists, it has become less relevant in the new schools of thought, up to the point of considering the extraction itself of value as productive and, as a consequence, to be included in the GDP computation. Following Mazzucato (2018), we maintain this dis-

tinction in our theoretical frame, trying to measure the role of the financial system in the creation of a value-based economy.

The way in which value and rent are identified influences the evaluation of financial system role. This can be clearer if we consider how the concept of rent has changed in economic thoughts. From an income originated by a non-productive activity, the rent has been seen as a reward for the marginal productivity of capital and land, likewise the determination of profit. Both the classic and the neoclassic approach see the rent as a monopolistic income; however, its nature is intrinsically different in the two schools because of the different theories of value at their base. For the classics, the rent is an income derived from the control of scarce resources not produced. In the neoclassical frame, since income must match productivity, there is no room for rent, understood as a gain in exchange for nothing. Marshall relaxes this result, including the quasi-rent, which differs from pure economic rent in that it is a temporary phenomenon. It can arise from the barriers to entry that potential competitors face in the short run, such as the granting of patents or other legal protections for intellectual property by governments. It can also emerge due to the entrepreneurial address of market fluctuation, or it can arise due to the lack of real capital to meet near term demand increases. In the longer term the opportunity to profit will bring new capital into existence and the quasi-rent will be competed away. Unearned income, seen by Smith and Ricardo as a parasitic behaviour, is considered in the mainstream economy just as an impediment to perfect competition equilibrium (Mazzucato 2018).

As we said, value is intended as a surplus, generated by the production of goods and services, net of direct and indirect costs. Once created at the micro level, value can be aggregated at the macro level in order to calculate GDP. About this, we need to clarify some points.

The first point refers to the production process. The ultimate factor of production is the knowledge embedded in capital and in labour (Marshall 1920, 4, I); capital may be physical, human and social. Land is a factor of production once its fertility is used to grow products. Natural resources are involved in the production as inputs but are not factors since they are not able to produce per se. Their use can be either sustainable or not sustainable in the long term. In our frame, a renewable resource is sustainably utilized when it is employed at a rate lower than its capacity of regenerate itself, or it can be substituted by other inputs. Also non-renewable resources can be substituted, thanks to progress in knowledge. In these cases, production is not affecting the sustainability of the ecosystem. When

resources are used in an unsustainable way—that is, when they are consumed at a rate higher or equal to their capacity to replicate themselves or valid substitutes are not introduced—this affects the creation of value as a negative externality.

Positive and negative externalities created in the process of production make that the value created might actually be higher or lower if compared to that deductible using the market prices system. In particular, negative externalities should be included in the national accountability with a negative sign, while positive externalities increase the net value. Statistical methods taking into account the externalities impact, if included in the national accountability, might describe the economy in a more precise way: indeed, an index calculating net social value could be more appropriate than current gross domestic product to compare economies.[3] Time horizon is relevant in the internalization of externalities, since the resultant net value might change if short or long term is considered. Positive externalities can require more time to be realized and evaluated, in particular, when they act as promoters of social and immaterial factors, as the level of civil engagement and recognition or ecological awareness.

A second point to clarify is the "detection of value". The productive process might indeed give rise both to value and to non-value, creating non-value when it exploits resources at a non-sustainable rate. It is not just a matter of balancing positive and negative externalities. As remembered above, production is characterized by externalities, positive or negative, independent of the way in which resources are employed. In particular, negative externalities are present even when the creation of goods and services is sustainable. On the contrary, when the use of resources is at a rate higher than their replacement, the result is non-value. Once again, non-value should be included in the national accountability with a negative sign.

A third point refers to the distribution of value and to the capacity and power of rent seeking groups to expropriate part of it. The unproductive process of rent seeking redistributes the net output to actors able to exploit a monopolistic privileged position. The result is an unfair redistribution,

[3] Many international organizations have introduced indices aimed to compare economic systems not on the mere GDP, but adding other relevant aspects, such as health and education (see the Human Development Index by the UNDP). What we propose here is not to add more items to the traditional GDP but to change the way in which the product is accounted by "cleaning" the value from negative externalities while adding positive ones.

where the unproductive activities grow at the expense of the productive business. The main negative aspects are that the rent-seeking activity is less interested in reinvesting in productive process, while more engaged to maintain its position, paving the road to a less efficient system in the long term.

To sum up, in an approach based on the theory of value, production generates value for the economy in the form of surplus, employing knowledge as a factor of production embedded in capital, labour and social relationships; natural resources take part as inputs. As by-products, positive and negative externalities are generated and should be accounted with respectively a positive and a negative sign to describe the actual outcomes of the economy. However, should the productive process exploit resources in a non-sustainable way, the result is non-value. The next question is what is the role of finance in this frame?

10.3 The Role of Value-Based Finance

The severity of the financial crisis in 2007 has pressed the attention of both the economists and the public opinion on the topic of the separation between the creation and the extraction of value. As underlined by Mazzucato (2018), before the emergence of the financial crisis, the income share of the richest 1% of the US population grew from 9.4% in 1980 to 22.6% in 2007. To generate gains without producing a surplus, but simply asking for prices higher than the competitive market ones, and cutting out competitors, is the way followed by the so-called *takers* to increase their income at the expense of the *makers*, who, on the contrary, create value. And financial intermediaries often fall into the group of takers.

The main allegation to banks and financial institution after the financial turmoil has been to extract profits from speculative transactions without adding value to the economy, by imposing an unjustified spread between buying and selling prices. The productive world of the factories has been contraposed to the rent-taking financial sector, opposing the “good guy”—the real economy—to the “bad guy”—the financial economy. However, such division of the world is too simplistic, since financial services do also play a crucial role in market interactions and investments. The question is how to shape these activities so that they can be instrumental to the production of value, supporting correct and sustainable use of the factors of production and of natural resources.

We cannot point out financial intermediaries as evil regardless of their way of operating. We can recognize value-based financial intermediaries when:

- They drive capitals in activities intensive in green and social productive capital.
- They support firms whose production is aimed at preserving the environment and at including vulnerable subjects.
- There is a human design in the capital invested.
- They exploit factors for a sustainable production.

In some case, financial intermediaries are considered "values"-based actors as long as they invest in projects aimed at enhancing vulnerable people or at saving the natural environment. The added label "values" implies an ethical understanding of the role of the intermediary. However, the mere fact of selling products, which supply capital for green or social projects, is not enough to include the financial intermediary in the list of the "good". As an example, the diffusion of green bonds, given the appealing of the market, could not be addressed at the creation of value, but it might be a strategy to extract rent from a speculative and growing market (see below). Moreover, banks can include some values-driven products to improve their reputation. Therefore, the simple involvement of financial products in the social and environmental sphere, though it is sufficient to bear the "values" brand, might not be enough to enhance the creation of actual value in the economy.

According to this view, to evaluate the coexistence of profit-driven and value and sustainable-based goals, it is important to analyse the real objective of the financial actors. Their institutional nature is not sufficient to detach their will to create or to extract value, that is, it is not guaranteed that a not-for-profit bank will avoid a speculative behaviour, while a profit-driven bank is not genuinely interested in supporting a sustainable project. To better understand this dichotomy, it is necessary to distinguish the meaning of the word *sustainability* when applied to intermediaries and when applied to financial products.

10.3.1 Financial Actors and Sustainability

Banks are not the only supplier of financial products dedicated to sustainability, in general, and to the green finance, in particular. On the one hand,

the public sector and the regional institutions are active in proposing financial solutions with the main objective of enhancing the achievement of the Sustainable Development Goals. On the other hand, non-intermediated forms of financing are emerging, thanks to the diffusion of the online instruments: crowd funding, for instance, allows the disintermediation of credit using mainly online platforms and can provide many types of financing tools, such as equity, loans, prizes or donations. However, the focus here is mainly on financial intermediaries, given their structured role in the economy and their business model.

We suggest a classification that goes beyond the usual institutional one, based on the actual capacity of the bank to support the social and green economy. In particular, we can distinguish among three types of banks committed towards sustainability not only through the selling of sustainable products:

- Profit-driven banks sustaining direct costs to support sustainable projects (reducing their earnings in terms of interest rates).
- Not-for-profit banks ready to diversify their traditional business towards sustainable projects (possible less profitable and more difficult to justify to their members).
- Specialized banks fully committed towards sustainability.

Three main dimensions should be considered when analysing the compliance of banks' operations with the sustainability requirements, that is, the business, the social and environmental, and the governance dimensions.

The Business Dimension

We will consider a bank as a value-based actor whether it is able to generate a surplus by its activity. The surplus should be intended as in the above theoretical frame—that is, as the difference between value and costs and not as rent. Banks mainly base their gains on both spreads between active and passive interest rates, and intermediation. Their productivity has been measured according to their capacity on these two margins. Cooperative banks and specialized banks, in particular, show a business model in which the main source of earnings remains the interest rate spread. This is partially justified by the risk assumed by the intermediary in its lending activity. However, when this difference is excessively high, the bank might hide a rent extraction strategy. In this case, even banks with a not-for-profit institutional form cannot be considered as

value-based financial institutions. On the contrary, banks that decide to invest their capital in value-driven activities and not in speculative business should be regarded as value-based intermediaries.

The Social and Environmental Dimension
The social and environmental goals of a sustainable bank, even though not specifically expressed, should aim to positively impact the communities and the environment they serve: achieving this goal requires a long-term perspective. Moreover, it is pivotal to include a set of stakeholders larger than the mere group of shareholders. The sustainability of the financial intermediary is constituted by a direct and an indirect impact. The direct aspect refers, for example, the choice of reducing the use of paper or the consumption of energy or the attention towards gender discrimination in carrying out the daily activities of the bank. The indirect part refers to the sustainable impact of the projects financed. While it is easier for local banks, traditionally more integrated into the social and economic network of the served area to show its sustainable efforts, for larger banks it is more challenging. However, the diffused network of branches, the employment policies and the capacity of learning about clients' behaviours through internet devices may cut the distance between the profit-driven (and larger size) bank and the community of interest. In this logic, in financing projects banks may play an educational role by monitoring and by pushing firms to operate in an eco-friendly and a socially responsible way.

The Governance Dimension
The inclusive governance of sustainable intermediaries implies participatory and often democratic decisional processes. Targets are fixed by involving a significant number of stakeholders such as employees, owner, final users and the local community. The democratic voting system, distinctive of cooperative banks, does not guarantee per se a higher level of participation into the governance, since it offers few incentives for investors to own more share and thus to participate actively in the management and control of the bank. Other mechanisms, which enhance the bottom-up approach and the inclusion of stakeholders, might be implemented by non-cooperative banks, with good results in terms of participation, such as open forums to collect clients' wishes or mobile applications to increase the participation of the youngest in the banking activities.

10.3.2 Sustainable Finance Products

While it is a Copernican revolution to shift from a traditional to a sustainable form of business, offering sustainable products can be just considered as a market strategy. As a matter of fact, such products are offered on the market by non-intermediary actors (such as the online platforms), whose sustainable features are not indeed determinant for the consumer's choice. To be qualified as sustainable, products must provide the consumer a transparent option to reduce the indirect impacts of their banking activities, that is, to decrease significantly negative environmental impacts or provide social benefits. Sustainable investment products represent a niche yet promising market. Their share in 2018 was about 5–10% (depending on the scope and definition used), while sustainable savings products had a share of about 1% of total savings (Sustainable Saving and Investing 2019). To have any meaningful impact on the transition towards a sustainable economy and society, the supply of these products should go beyond this niche and reach the mainstream financial products and services.

There are several kinds of sustainable financial products. Green car loans, energy efficiency mortgages, alternative energy venture capital, eco-savings deposits and "green" credit cards, together with social bond, social impact bonds, crowd lending, represent merely a handful of innovative products that are currently offered around the globe. The sustainable character is guarantee by three dimensions: environmental, social and governance ones. However, it is not always easy for a consumer to detach the genuinely sustainable products, given the presence of different opinion about what is meant by "sustainable" or "ethical". Nuclear energy, tobacco or genetically modified organisms are just some examples of "controversial activities", whose financing by means of a sustainable product is currently under discussion. Moreover, some financial products are characterized by attributes that may not be readily assessed or measured, such as products or services that are linked to a charitable donation. For consumers transparency is pivotal. He/she should be able to judge in a clear and easy way whether the sustainable elements of a particular product correspond to his/her requirements.

According to the theoretical frame presented here, a financial product is sustainable to the extent that it is able to create value and not a mere rent and if the value created embeds social and/or environmental aspects. Thus, the capacity of products to answer sustainable standards should be evaluated according to the environmental dimension, the social dimension

and the market dimension. However, unlike the concept of sustainability analysed for intermediaries, in this case, it is enough to evaluate the sustainable features of the single product and not its connection with the business model of the bank.

The environmental dimension of the financial products deals mainly with the fragility of ecological systems and their capacity to bear damages and deterioration. In particular, products and services provided by banks meet the environmental standard when the project financed does not pollute the environment. Financial mechanisms are environmental credit risk assessment procedures, initiatives to provide sustainability products and services, support of businesses adopting environment-friendly practices. However, it is widely recognized that the indirect ecological impacts of funding enterprises and projects have to be controlled, managed and followed with attention too: several examples of green product/service innovation, such as the investing in fuel cell companies (utilization of biomass and other renewable energy resources, hydrogen industry, etc.), or the support to ecotourism, can be found in financial sphere.

The social dimension includes initiatives aimed at enhancing welfare (security, health, education), fairly distributed among social classes and genders. Within a territory, the investment in social financing tools encourages the close interaction of stakeholders. There are a number of social initiatives aiming to help the poor, the disabled, the elderly, children and charitable activities. The actions undertaken might create job opportunities for unemployed youth, loans for start-ups and fostering development for women.

The economic sustainability refers to the capacity of the financing products to generate a constant flow of revenues. The products should not only be profitable but also be able to generate positive externalities. Within a territorial system, economic sustainability means the capability, through the most efficient mix of resources, to produce and maintain the highest added value in order to enhance the specificity of territorial products and services and their competitiveness.

While it might be relatively easy to retail financial products with sustainable features, choosing the business model of a financial institution based on sustainable principles is more challenging. This is mainly due to the fact that it is not just a choice of diversifying the supply on the market, but it involves all the operational and governance aspects of the bank. Shareholders might fear a reduction in their revenues and address their funds to more profitable (at least perceived) institutions. In particular, it

might be difficult to assess the impact of social and environmental choices, especially for banks whose "production" exploits capital and only marginally labour and natural resources. Hereafter we will first present the market appeal for alternative financial products, such as green bonds. Next, we will focus on the features and the challenges of sustainable banks in the European context.

10.4 Market Appeal of "Alternative" Forms of Finance

New financial products classified as sustainable are available according to region, market and industry structure, and consumer preference: green bonds, social and solidarity financial products are receiving growing attention by the market. In particular, the new remunerative market of green bonds, consisting of green and social finance products, is very appealing, not only for not-for-profit actors but also for profit-driven players. The issuer of these bonds should finance projects (i) aligned with climate bonds taxonomy and (ii) contributing to the reduction of carbon emissions. At international level, insurance systems have been developed for investors that guarantee the development of a transparent market. The Green Bond Principles (GBP), developed by the International Capital Markets Association (ICMA), outline clear requirements for issuers about the definitions of projects to be funded, their selection process, revenue management and reporting. An increasing number of the world's largest banks and corporations have adopted this approach to align their funding to sustainable economy requirements.[4]

The Italian green bond market was created in 2014, with the issuance of a EUR 500 million bond by Hera and a € 3.2 million mini green bond by Enna Energia to finance renewable energy projects. This market has reached a total volume of USD 5.9 billion in mid-January 2018, of which USD 3.3 billion issued in 2017 alone, a value eight times higher than the emissions that were recorded in 2016. Profit-driven actors not usually involved in the sustainable economy (such as private companies and financial organizations) cover about 80% of the volumes. Historically, investments in renewable energy have always dominated all other sectors, but with the growth of the market, some interesting changes have been noted.

[4] For more details on definition of green bonds, see Chap. 2.

In 2017, direct funding for energy efficiency and low-energy buildings more than doubled, compared to 2016, representing 29% of investments. The low-emission transport sector also grew considerably, almost doubling the volume compared to the previous year, thanks to the increase in funding for railway infrastructures and public transport.

The year 2017 has been particularly relevant for the diffusion of the sovereign green bonds. The French Green Bond of EUR 9.7 billion has become the biggest single green bond ever issued. The Fiji Islands announced the issuance of a green state bond of EUR 40 million. Nigeria, in December 2017, issued a EUR 24 million green state bond, the first green state title ever launched by an African country, and the first to obtain certification for the Solar and Land Use Criteria under the Climate Standard Bonds. Sovereign green issues were carried in 2018 in Indonesia, followed by Belgium, Sweden, Morocco and Kenya. United States, China and France dominate the global green bond rankings, accounting together for 56% of the global market in 2017. On a global scale, the green bond market has attracted issuers from 37 different countries, 10 of which made their entrance for the first time in 2017. Table 10.1 reports the green bond issuance in the first four months of 2018.

Table 10.1 Top 15 geographies by issuance of green bond in 2018 (including supranational)

#	*Geography*	*YTD 4/2018 (USD BN)*
1	United States	7.30
2	Belgium	5.55
3	China	4.83
4	France	4.03
5	Supranational	3.72
6	Spain	2.73
7	Sweden	2.27
8	Germany	1.86
9	Indonesia	1.83
10	Italy	1.53
11	Netherlands	1.42
12	Norway	1.24
13	Poland	1.23
14	Canada	1.19
15	Japan	0.94

Source: Adapted from Kaminker and Sachs (2018)

10.5 Sustainable Banks in Europe: Which Challenges?

From a bank's perspective, addressing sustainability implies building both a strategic and a commercial frame of reference. The threats and opportunities resulting for commercial banks that move towards a sustainable model and for ethical and cooperative banks range from risk reduction to profit generation and from business to ideological reasons (Carè 2018). The choice of financial institutions to switch into a sustainable business model have multiple results: they (i) spread a "sustainable business thinking" among their stakeholders, (ii) enhance their reputation and the perceived commitment of the bank, (iii) sustain not-for-profit organizations and projects and (iv) lobby the local and national government to support sustainable projects (according to the bank's capacity of influence). As underlined above, being sustainable is not related to the provision of certain products and services, they come as a consequence. The sustainability involves the offer of an inclusive approach in terms of products, governance, transparency and communication. When reputation is the principal goal of a bank, the effort towards sustainability is not achieved (even though sustainable products are sold), since more convenient tools might replace in the future sustainability to achieve the same goals, that is, better reputation. In this case, we can speak of *weak sustainability* since it is not an internalized choice, but only instrumental. The creation of sustainable value gives a long-term perspective and a stronger commitment to social and environmental dimensions. In this case, we have *strong sustainability*, since the bank switch completely towards a new banking model. In the next paragraphs, the focus is on the sustainability features, either strong or weak, of European banks as classified in Sect. 10.3.1.

10.5.1 Sustainable Profit-Driven European Banks

To highlight the efforts towards sustainability of European banks, we can analyse the top 100 Global Sustainability Index from 2005 to 2019. The companies included in the index are publicly-listed which generate more than USD 1 billion in annual revenue. The ranking is compiled by a Canada-based sustainability-focused financial information company and it is based on 21 key performance indicators (KPIs), covering resource management, employee management, financial management, clean revenue and supplier performance. Among the variables evaluated, there are reduc-

tion of carbon emissions and waste, gender diversity in leadership and revenues derived from clean products. In this perspective, sustainability is not only related to the products sold but it involves the whole business model.

The sustainability of profit-driven larger banks might derive from a strategic more than an ethical choice, directed to increase the reputation among shareholders and clients. The analysis can hardly assess whether the bank is strongly or weakly interested in sustainability. However, it may be a starting point for a discussion on these themes. As shown in Fig. 10.1, the number of banks included in the Global 100 has increased since 2005 from 4 to 14. In the case of European banks, their number increases only from 3 to 6. In particular, the gap between the growth trend of European and world banks raises especially after 2009. Not only their number is low but it is difficult to find the same bank constantly ranked in the list. The reasons are manifold but can be related to the fact that these banks put more attentions on reputation than on the creation of sustainable values, and their efforts towards sustainability are only occasional.

To better understand the sustainability commitment, Carè (2018) has analysed the corporate reports published by European banks listed in the Global 100 from 2014 to 2016 using the UN development goals criteria.

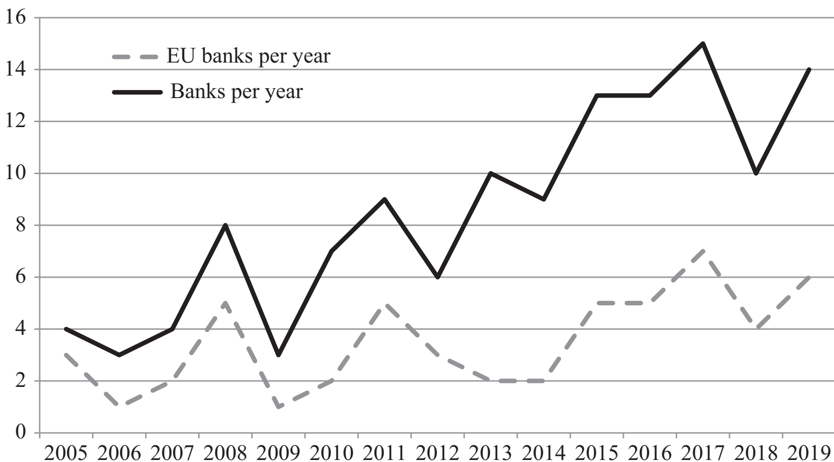

Fig. 10.1 Banks in the global 100 from 2005 to 2019. (Source: Authors' elaboration on "2019 Global 100 Results")

She identifies two main topics on which the commitments to sustainability are based: (i) environmental considerations in terms of direct/indirect impacts and dedicated products and services, and (ii) international engagement and initiatives. The results show how these banks are mainly sensible to enhance climate change actions, together with more economically driven goals such as employment and economic growth. Quality education is relevant for four out of six banks, followed by the creation of the international partnership, and by the goal named "peace, justice and strong institutions". Social issues are less significant: no poverty, zero hunger, reduced inequality, responsible consumption are not popular objectives among sustainable European banks (Table 10.2). It has to be noticed that BNP Paribas and Intesa San Paolo are among the European banks more long-lived in the Global 100. Moreover, BNP Paribas and ING are committed to more than 10 goals out of 17. From the data shown, we can reckon that these banks are more strongly bonded to sustainability, while other banks have a weaker approach.

Table 10.2 Sustainable development goals (SDG) and European banks' approaches

Sustainable development goal	*Danske bank*	*ING*	*BNP Paribas*	*DNB*	*SEB*	*Intesa*	Total
1 No poverty			√				1
2 Zero hunger			√				1
3 Good health and wellbeing	√		√				2
4 Quality education	√	√	√	√			4
5 Gender equality	√		√				2
6 Clean water and sanitation		√	√				2
7 Affordable and clean energy		√	√			√	3
8 Work and economic growth	√	√	√	√	√	√	6
9 Industry, innovation and infrastructure		√			√		2
10 Reduced inequality			√				1
11 Sustainable cities and communities		√	√				2
12 Responsible consumption		√					1
13 Climate action	√	√	√	√	√		5
14 Life below water			√				1
15 Life on land			√				1
16 Peace, justice and strong institutions		√	√		√		3
17 Partnership for the goals	√	√	√			√	4
Total	6	10	15	3	4	3	41

Source: Authors' elaboration on data from Carè (2018)

Two main conclusions can be drawn from the above analysis. First, larger banks committed to sustainable issues prefer a more secure and easy-to-sell involvement in environmental goals compared to social issues, which involve a precise (political) choice from the financial institutions. Second, maintaining a strong commitment to these objectives requires constancy and efforts and does not repay the investments made in the short term in terms both of revenues and of reputation. The role of profit-driven banks is relevant in the European context and their effort to include some sustainable aspects in their business model is precious. The challenge is to switch from an instrumental use of sustainability to a more tangible involvement in supporting a socially and environmentally sensible creation of value.

10.5.2 Not-for-Profit and Specialized European Banks

Even though less relevant in terms of market shares, banks with a not-for-profit aim are pivotal in supporting sustainable finance. Even if usually jointly considered, not-for-profit and specialized banks have different approaches to sustainability. As mentioned in Sect. 10.3, specialized banks do not necessarily have a cooperative nature and they are completely devoted to environmental and social initiatives. We consider not-for-profit banks financial intermediaries with a cooperative form but different from specialized banks since in this classification cooperative banks might be more or less perceptive to these themes according to their priorities set.

Specialized Banks

For over 30 years, alternative financial institutions have been created in order to disseminate ethical and solidarity-based financial models in the European economic and political area. A specialized bank, such as an ethical bank, guarantees that the administered deposits will be channelled to cultural, social and environmental projects. Through their activity, they promote social inclusion, sustainable development, development of social economy and social entrepreneurship. Ethical banks also help to raise public awareness about the role of money and the failure of the economy based on short-term approaches and profit as the only objective.

As other local banks, an ethical bank is rooted in the territory in which it operates and exploits its socio-economic networks. This allows to have full knowledge of its clients and their projects. A fundamental value for them is transparency, especially towards customers, both in the origin and use of money and in credit and business management. The European

Table 10.3 Comparison between European *ethical* and *systemic* bank (percentage)

		2016	*2011*	*2006*
Loans/total assets	European ethical banks	73.42	75.25	64.87
	European systemic banks	38.53	34.62	32.93
Deposits/total assets	European ethical banks	80.87	69.10	62.31
	European systemic banks	42.15	32.57	33.98
Net equity/total assets	European ethical banks	11.22	11.22	10.94
	European systemic banks	5.63	4.39	3.86

Source: Authors' elaboration on Cavallito et al. (2017)

Federation of ethical banks counts 26 members (12 banks, 8 savings and loan cooperatives, 4 investment companies and 2 foundations) across 15 European countries, with different sizes and legal forms.

A specialized bank can play a significant role in the development of a new banking system in Europe. Their business model, mainly based on the intermediation between borrowers and lenders, can foster a return to the root of banking, closer to the real economy than to the financial speculation. This emerges from data in Table 10.3, comparing the percentage of loans on total assets. Moreover, ethical banks rely more on client deposits to fund their activities unlike systemic banks that issue bonds or use deposits from second banking market. Finally, the ratio between net equity and total assets underlines the strong capital position of ethical banks; in other words, they are closer to the OTH (originate to hold) model, than to the OTD (originate to distribute) one.

Specialized banks in general, and ethical banks, in particular, can represent an opportunity for the development of a strong sustainable business model in Europe. Their attention to offering services to the real economy, their reduced volatility on the market and their stronger capital position underlines the care to the old-style banking method, that is, the intermediation between demand and supply. The value created is conveyed to the productive economy involved in social and environmental projects. The exclusiveness might reduce their capacity to differentiate the risks; however, it strengths the linkages with their customers, sensitive to these themes.

Cooperative Banks

The role of cooperative banks in sustainable finance has been recognized both in the Commission's High Level Group Report on Sustainable finance and in the European Parliament's own initiative report, where it is stated:

"we should also acknowledge the leading role played by cooperative and community finance in pioneering green investments" (EACB 2019).

Cooperative banks can exploit a large network in Europe with 58,000 branches and 209 million clients and they can play a key role in financing socially and environmentally sustainable projects. Thanks to their decentralized model, these banks are crucial to integrate productive activities with a sustainable use of capital. As retail banks, they channel finance to the real economy and to local SMEs, key actors in job creation. Moreover, by statute they reinvest significant quotas of their available profits in the society they belong, by supporting social and cultural projects with a long-term perspective, and encourage their clients/members to follow this behaviour.[5] Their success depends strongly on the economic, ecological and social wellbeing of their operating territory. To enhance sustainable finance, the stability of fundamental parameters such as environmental policy, taxation, prudential requirements is essential. In this sense, cooperative banks have carried out sustainable finance since their birth, placing deposits for the benefit of the local real economy. However, the complexity and the continuous review of the regulatory framework is affecting the capacity of cooperative banks to finance real economy (e.g. the long-term funding), and reducing their peculiarities as a result of a standardization process.

The threat for cooperative banks is that, not being specialized banks, they are likely to follow a weak sustainable strategy. In some countries, cooperative banks are key player in green bonds issuing. In Germany, DZ BANK has been active in this market segment since 2013 and it is one of the ten leading syndicate banks. The fact that sustainability is a major aspect of the cooperative principle and culture is proving to be an advantage. Beside DZ Bank in Germany, also Crédit Agricole in France and Rabobank in the Netherland are in the list of market leaders. The question is whether cooperative banks have entered this market for ethical or for profitable reasons.

If we compare the green bond market with energy efficient mortgage loans, we might better assess the sustainability of banks. The stock of buildings in the EU is relatively old and, therefore, more energy consuming: renewing it is crucial if the energy consumption is to be reduced. Renovation leads, among other, to higher property values, lower energy

[5] For more information on future challenges and perspective of cooperative banks, see Migliorelli (2018).

bills, hedging of energy price with particular relevance in peri-urban and rural households. Dedicated loans are a critical financial instrument to redirect private capital into energy efficiency investments and lowering carbon emissions. However, this market is not as attractive as the green bonds.

There are, however, signs of the commitment of cooperative banks to investments possible less remunerative than the green bonds, but relevant in terms of energy savings. In Spain, Grupo Cooperativo Cajamar has financed in 2016 about 5.000 transactions for a total amount of EUR 600 million. In Austria, the regional banks of the RBI have contributed EUR 411 million. In the Netherlands, Rabobank has contributed EUR 50 million in 2016. In France, Crédit Mutuel has financed 5.400 projects for a total amount of EUR 100 million. Crédit Agricole's regional banks have financed home energy renovations in 2016; over 104,000 offers have been made totalling over EUR 2.1 billion. German cooperative banks had a high market share (more than 30%) in offering promotional housing loans of KfW regarding energy efficiency in 2016. Groupe BPCE was the first pilot bank to sign an agreement with the European Commission in 2012 to organize the financing of the energy transition in the territories. Households have benefited from EUR 2.8 million in loans from participating Banques Populaires and Caisses d'Epargne, allowing a total final investment of EUR 29.9 million and an energy saving of 56.68 GWh/year (EACB 2017).

Cooperative banks might play an active role by promoting within their network the distribution of services and investment or savings products in favour of sustainable development. Their expertise in gathering local needs and in supporting actors should be exploited to address stakeholders to sustainable productive initiatives. These banks should put in place innovative solutions to use in a responsible manner the resources that are indispensable to their activities. However, cooperative banks must not be lured by short-term profits coming from green financial markets: they must support socially and environmentally sustainable economic growth even at the cost of renouncing to immediate high performances.

10.6 Conclusions and Further Perspectives

Moving from the definition of sustainable finance in terms of value, the chapter attempts to read the recent phenomenon of the growth of the ESG—that is, environment, social and governance—investments in the

banking sector. The scrutiny of the different forms of bank present in the European market, according to their involvement with sustainable products, has allowed defining a weak versus a strong form of sustainability. While it is easy and appealing to sell green products in the actual economic context, this is not sufficient to match the sustainable policy as defined in this chapter, that is, it is not yet the creation of genuinely sustainable value, since still moved by redistributive motivations. In this case, sustainability might be used to enhance the reputation of the financial institutions (consider the case of blockchain offering financial green products). A strong effort towards sustainability involves all the aspects of the banking model. In this perspective, the life horizon is the long term and the switch to a sustainable business frame should not be considered as an ephemeral fashion, but as a new banking paradigm. The differences among institutions in term of ownership may still play a role, since listed banks should pay returns to their shareholders. However, the emphasis should not be on the rent, but on the added value generated by investments. In this context, cooperatives and specialized banks can be less restricted in addressing their investment choices.

Sustainable finance is still in its infancy. Actions should be taken to increase its relevance in the economy. A first step could be the development of a common taxonomy for sustainable assets, with minimum standards. Second, a stable legislative and regulatory framework, able to catch the peculiarities of each bank models and to enforce an ecosystem able to cater to different needs and longer-term approaches, is pivotal. However, key parameters for environmental policy, taxation and prudential requirements should be clearly defined in order to favour strong sustainable banking model. Finally, a particular effort should be put in reviewing the methods of computation of GDP, so that value (created also by the financial intermediaries) increases the total, while negative externalities reduce it.

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