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Sustainable Finance and Investment

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Abstract: *The development of innovative finance tools and instruments to address social and environmental problems is nothing new. Historically, such finance has focused on concessionary finance, including grants, and mutual finance to support the "social economy" or "social and solidarity economy". In many countries, the social economy has long played an important role in the provision of nonmarket goods and services outside of government or mainstream markets.*

Keywords: finance

I. INTRODUCTION

A. Historical Context

The development of innovative finance tools and instruments to address social and environmental problems is nothing new. Historically, such finance has focused on concessionary finance, including grants, and mutual finance to support the "social economy" or "social and solidarity economy". In many countries, the social economy has long played an important role in the provision of nonmarket goods and services outside of government or mainstream markets. For example, the cooperative and mutual sector represents an important element of many economies globally, employing more than 1.2 billion people (one in six of all employees) in more than three million organizations. In 2019, the largest 300 cooperatives had a turnover of more than $2 trillion, 1 of which 41 were in Asia. 2 The key sectors in which cooperatives and mutual organizations operate are work integration, agriculture, microfinance, and consumer groups. Most cooperatives and mutual organizations are small, but a number operate at significant scale. For example, Amul Dairy is the largest dairy producer in India.3 Moreover, the larger social economy in the European Union (EU) 4 represents an important element of the overall economy, both in terms of its economic impact (13.6 million jobs, 8% of gross domestic product across the EU), 5 but also its wider social impact in terms of innovations designed to address intractable social, community, and environmental issues.6 In the post–COVID-19 world, the social economy also offers an alternative economic model that connects actors from government, not-for-profit, and for-profit organizations; and may provide important insights into how to increase the resilience and heterogeneity of business ecosystems more generally and to reduce the risk of exogenous shocks to the economy as a whole.

The social economy in the EU consists of 2.8 million social enterprises, mutual and cooperative associations and foundations.

B. Terminology

Despite the long history - and continued growth -of the social economy globally, it is only relatively recently that a market of finance specifically aimed at creating social and environmental impact, as well as a financial return, has emerged. However, today, this market remains somewhat confused and under-institutionalized - lacking a consistent terminology, consolidated financial or impact performance data sets despite a plethora of competing reporting standards and principles (for example, the UN Principles for Responsible Investment [PRI], 7 the Global Reporting Initiative [GRI], 8 and the Social Accounting Standards Board [SASB]. 9))) and limited regulation around disclosure (though see recent EU and UK regulatory models).10 Variously, the finance that is deployed for social and environmental impacts has been categorized as grants (philanthropic finance);11 venture philanthropy (long-term start-up grants plus other pro bono support);12 mission and program-related finance (charitable asset finance); 13 development finance (from transnational development finance institutions [DFIs]); 14 ethical finance (that is based upon moral judgements of performance, often linked to faith systems);15 social (impact) finance (that supports the social economy more widely, particularly in Europe);16 green finance (that is focused on the climate crisis and associated issues of pollution);17 and

impact finance (that is focused specifically on measurable impact). Table 1 summarizes these types of finance with example organizations.

Type of Finance	Example Organization
Grants	Rockefeller Foundation
Venture Philanthropy	New Philanthropy Capital
Program-related investment	Ford Foundation
Mission-related investment	KL Felicitas Foundation
Development finance	Centers for Disease Control and Prevention
Ethical finance	Faith Invest
Social (impact) finance	RBC Wealth Management
Green finance	Resonance Fund
Impact finance	Bridges Fund Management
Socially responsible finance	Nutmeg

Despite this variety of definitions, some consistency of terminology has coalesced around the construct of "sustainable finance" in terms of a range of environmental, social, and governance (ESG) variables that are material in terms of investor decision-making around asset allocation strategies:

Sustainable finance generally refers to the process of taking due account of environmental, social, and governance (ESG) considerations when making investment decisions in the financial sector, leading to increased longer-term investments into sustainable economic activities and projects.

The market for sustainable finance can be divided into two subcategories: negative sustainable finance that is characterized by investments screened according to their material risk profile on the three ESG dimensions ("do no harm");19 and positive sustainable finance that is characterized by investments identified according to their potential for significant, additional, social, or environmental impact 20 often aligned with the United Nations (UN) Sustainable Development Goals (SDGs). 21 For example, whereas the former would screen out tobacco companies or high

C. Investor Preferences

A key driver behind the emergence of sustainable finance has been changing investor preferences, notably from the millennials who will benefit from the largest transfer of inherited wealth in human history over the two decades,23 accounting for $68 trillion. Of these millennials, 45% stated that they wished to invest their funds to help others and considered social responsibility a key factor in making investment decisions.24 Moreover, 90% of women investors also believe making a positive impact on society is important. In addition, institutional investors, such as pension funds and insurance firms, are recalibrating their long-term investment risk models to include social governance and, particularly, environmental factors as material for their investment portfolios.25

II. SUSTAINABLE FINANCE INVESTMENT STRATEGIES

Sustainable finance investment strategies are either negative/exclusionary or positive/integrated.

A. Negative (Exclusionary) Sustainable Finance

This category is typically risk screened against a range of non-financial performance metrics across ESG categories, that leads to a recalibration of the long-term risk profiles of, for example, high-carbon intensity companies. Strategically, such screening results in divestment from, or the avoidance of, ESG high risk investments. The most common risk screen is high carbon intensity, but other risks include failures in:

Internal organizational structures, practices, and processes, such as effective internal accountability and transparent governance; strong worker relations; fair pay and safe working conditions; clear strategies to improve the inclusivity and diversity of the communities; using recycling models to maximize the effective use of resources External organizational effects and outcomes, such as respect for human rights and strategies to tackle inequality; and minimizing pollution An extension of passive screening that developed more recently is the more active use of voting rights to challenge corporate behaviour.

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B. Positive (Integrated) Sustainable Finance

This category typically aims to achieve a 'Double Delta'27 of impact by providing both new, additional, capital and by focussing on high potential start-ups or high growth potential impact companies. Positive sustainable finance is often aligned with making an additional contribution towards one or more of the 17 UN SDGs (Figure 1). This is sometimes called

Socially Responsible Investment.28 F28 To date, the main categories for SDG investing have been SDG 8 (decent work and economic growth), 12 (responsible consumption and production), and 13 (climate action) with the least prioritized SDGs including 1 (no poverty), 2 (zero hunger), and 10 (reduced inequalities).2 9F29 Growing this market is of central importance to the achievement of the SDG targets by 2030, since there is currently an estimated annual shortfall of $3 trillion–$4 trillion in available finance.3 0F30 Positive sustainable finance investment strategies focus on providing new capital into high impact companies.

III. SUSTAINABLE FINANCE CATEGORIES

A. Environmental (Green) Finance

In terms of ESG categories, environmental finance is more commonly described as 'green finance'. Green finance provides start-up or growth capital into innovative enterprises that address climate related issues (positive/integrated) or divests from companies that perpetuate the climate crisis (negative/exclusionary).

Negative - exclusionary - green finance typically focuses on moving investments from high carbon intensity to low carbon intensity companies (as divestment) or allocating capital to companies that are aiming to reduce their overall carbon footprint. A particular issue here is the long-term risk profile associated with investments in petrochemicals companies has been categorised as reflecting the mispriced balance sheet value of so-called 'stranded assets.' These are future extractions of existing oil and gas deposits that will not be able to be used without precipitating a total climate collapse. Carbontracker has estimated that this will result in the price of oil dropping below the marginal price of production by 2050, making it unviable and significantly downgrading the value of petrochemical stocks today.

Positive – integrated- green finance typically invests in companies that provide green technology, such as solar or carbon capture technologies to address the climate crisis. Green investments also focus on companies working on environmentally sustainable management of natural resources, biodiversity conservation, renewable energy, energy efficiency, the circular economy, clean transportation, and pollution prevention and control. 32 The positive green finance market is dominated by debt products, notably green bonds.33 Broadly speaking there are six forms of green bond:

(i) Corporate bonds issued by a corporate entity to finance asset acquisitions

(ii) Project bonds backed by single or multiple projects for which the investor has direct exposure to the risk of the project

(iii) Asset-backed securities collateralized by one or more specific projects, usually providing recourse only to the assets

(iv) Supranational, sovereign, sub-sovereign, or agency bonds issued by international financial institutions such as the World Bank or the European Investment Bank (EIB)

(v) Municipal bonds issued by a municipal government, region, or city, which also includes sovereign bonds

(vi) Finance sector bonds issued by a financial institution to raise capital to finance on–balance-sheet lending (such as loans) to green activities Some carbon-intensive or high-polluting companies have raised green "transition" bonds to fund decarbonizing projects. For example, in 2020, Cadent Gas, a British firm, raised a €500 million green bond to fund works on reducing the leakages from its pipelines. In 2019, Enel, an Italian electricity firm, issued a green bond index that is linked to increasing the share of renewables in its generation capacity.35 Related to this form of green finance has been the move towards divestment from carbon-intensive companies.36 technologies, water management models, meat analogues, or carbon capture. 37 More recently, there has been a growing interest in blue bonds and blended finance models that are focused on the "ocean economy" and issues of biodiversity and marine sustainability.38 Overall 'sustainable' debt issuance (including green bonds) reached $732 billion in 2020 – a 23% increase compared to the year before (see Figure 2).

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B. Social (Impact Investment) Finance Second, social finance provides start-up or growth capital into innovative enterprises that address a social market failure in the provision of welfare in sectors such as health, education, and employment (positive/integrated) or divests from companies that increase inequality of perpetuate social welfare failures (negative/exclusionary). As a result, finance deployed intentionally for social impact is sui generis positive social finance. In this context, over the past 20 years, a new model of positive social finance has emerged: impact investment. The Global Impact Investing a not-for-profit organization dedicated to building the infrastructure of the field via convening and research, defined impact investment as:

Impact investments are investments made with the intention to generate positive, measurable social and environmental impact alongside a financial return. More recently, the Global Steering Group for Impact Investment (GSGII), 41 a transnational coalition of 33 national advisory boardsthatsupports the development of the impact investing field globally, has extended this definition:

Impact investment optimizes risk return and impact to benefit people and the planet. It does so by setting specific social and environmental objectives alongside financial ones and measuring their achievement. The emphasis in both definitions on measurement as an integral element of the impact investment model further confirms it as positive social finance that deploys capital to address social issues directly.

A more recent innovation in social finance has been the emergence of social bonds. Social bonds are any type of bond where the proceeds will be used exclusively to finance (or refinance) projects focused on water infrastructure, health or education sectors, affordable housing, work integration, food security, and access to services. Social bonds are designed directly to address or mitigate a specific social or environmental issue often involving a particular target population. In 2020, the International Capital Market Association (ICMA) published a set of Social Bond Principles,42 with four core components to be calibrated to the stated social or environmental purpose of the bond: the use of finance, the processes for project evaluation, the management of finance, and the reporting impact.

40 Established in 2009, the Global Impact Investing Network (GIIN) is a not-for-profit organization with 280 members across 41 countries that builds industrial infrastructure and supports activities, education, and research to help accelerate the development of the impact investment industry. https://thegiin.org. 41 The GSGII was established in August 2015 as the successor to, and incorporating the work of, the Social Impact Investment Taskforce established under the UK presidency of the Group of Eight (G8). Currently, the GSGII's membership consists of 32 countries plus the EU.

C. Governance (Stakeholder) Finance

Third, governance finance - which is sometimes elided with environmental or social finance -is distinctive in that it focuses on stakeholder finance that invests in companies that adhere to international standards of employee welfare (such as those set by the International Labour Organization),43 or that have a strategic aim to incorporate elements of purpose44 into their governance structures for example, by establishing employee representation on the management board (positive/integrated) or divests from those that do not (negative/exclusionary). Governance finance relates to the effects of investment on a range of key stakeholders around the firm. In this regard, it has many overlaps with the impact objectives of green and social finance, both negative and positive. These also link to issues around stakeholder finance that have been conceptualized in terms of a wider set of debates around corporate "purpose".45 However, the most distinctive features of positive stakeholder finance relate to organizational ownership and forms of legal incorporation. In terms of stakeholder ownership, cooperative and mutual finance represent a significant driver of stakeholder impact. This is a product of investment into an organizational structure, based upon equal membership, that is designed to address market failures or pattern of monopsony in markets. Cooperatives and mutual organizations play a key role in several impact sectors, including housing, 47 agriculture, 48 health, 49 work integration, 50 insurance, 51 and banking.52 Many of these sectors are substantial. For example, the global market share of mutual and cooperative insurers stood at 26.7% (2017), in more than 90 countries, with assets worth $8.9 trillion. This market employs more than 1 million people and serves 960 million people as members or In terms ofstakeholder forms of incorporation,several legal forms for social purpose organizations exists globally that are designed to attract stakeholder focused finance. These include benefit corporations (in the United States [US]), 55 community interest companies (in the United Kingdom [UK]), 56 and social cooperatives in Europe.57 Each of these legal forms of incorporation have

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various disclosure and financial requirements that are consistent with being a legitimate social purpose organization. For example, community interest companies have an asset lock provisions which protects them from a hostile takeover to access the value of a real asset such as property.58 Figure 3 summarise the categories of sustainable finance as a taxonomy by ESG category and investment approach with indicative investee profiles and investment strategies.

IV THE SPECTRUM OF SUSTAINABLE FINANCE: MARKET SIZE

An important and distinctive feature of the sustainable finance market is the variety of types of capital available to be deployed (and co-invested in blended structures) for sustainable impact. These range from grants, foundation assets deployed as program-related investment (PRI) or mission-related investment (MRI), sub-market and market return impact investments, development finance, green and social bonds, and market rate return screened investments in public and private equity and debt. Figure 4 sets out the spectrum of sustainable finance in terms of both the broad positive/integrated and negative/exclusionary ESG categories set out above.

ESG = environmental, social, and governance.

Next, each element of the spectrum is considered, in turn, with respect to the approximate market size of each.

A. Positive/Integrated Environmental, Social, and Governance Finance: Market Size

1. Grants

Grants, which play an important role in structuring blended sustainable finance deals as concessionary capital have an expected return of -100% as they are never repaid. The market size figure - $75 billion - is approximated from 5% of total foundation assets globally. This is the legal requirement for charitable status in the US, though not elsewhere.60 This figure also excludes government grants to social enterprises, although these may be quite substantial sums. For example, the Government of the UK has deployed in excess of £1 billion of public money to support the development of the social enterprise sector and impact investing infrastructure since 2010.61

2. Program-Related Investment and Mission-Related Investment

PRI and MRI form a part of a foundation’s overall invested assets by using endowment capital to generate impact. PRIs typically take the form of debt capital to fund programmatic activities, often in concert with grants, and may make a financial return.62 In the US, PRIs can be included in the annual 5% allocation of “grant” capital. 63 MRIs take the form of debt or equity and typically aim to further the foundation’s mission and make a competitive financial return. 64 Potentially, the potential market size of MRI investments could equal the total assets of all foundations, or roughly $1.5 trillion globally. 65

3. Impact Investing

Following the definition noted above, in the 2020 annual report, the GIIN estimated the core impact investing market size at $715 billion of assets under management in 2020.66 However, the 60 Calculating the total value of philanthropic assets globally is difficult, since there is no single data set available. This figure is, therefore, an estimate based upon P. Johnson. 2018. Global Philanthropy Report (Hauser Institute for Civil Society) valuation of global foundation assets at $1.5 trillion, see https://cpl.hks.harvard.edu/files/cpl/files/global_philanthropy_report_final_april_2018.pdf. This is likely to a larger figure in 2020. 61 This figure includes: the endowment of UnLtd (£100 million); grants from the Futurebuilders (£215 million) and Investment and Contract Readiness (£60 million) Funds; co-investments with Bridges Fund Management (>£20 million); unclaimed bank account assets to the Reclaim Fund (> £ 850 million) of which Big Society Capital has deployed > £600 million to 2019.

62 In the USA, the IRS defines PRIs ‘as investments in which: the primary purpose is to accomplish one or more of the foundation's exempt purposes; production of income or appreciation of property is not a significant purpose; influencing legislation or taking part in political campaigns on behalf of candidates is not a purpose. In determining whether a significant purpose of an investment is the production of income or the appreciation of property, it is relevant whether investors who engage in investments only for profit would be likely to make the investment on the same terms as the private foundation. If an investment incidentally produces significant income or capital appreciation, this is not, in the absence of other factors, conclusive evidence that a significant purpose is the production of income or the appreciation of property. To be program-related, the investments must significantly further the foundation's exempt activities. They must be investments that would not have been made except for their relationship to the exempt purposes. Examples include: low-interest or interest-free loans to needy students; high-risk investments in non-profit

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low-income housing projects,; low-interest loans to small businesses owned by members of economically disadvantaged groups, where commercial funds at reasonable interest rates are not readily available; investments in businesses in low-income areas (both domestic and foreign) under a plan to improve the economy of the area by providing employment or training for unemployed residents; investments in non-profit organizations combating community deterioration. survey data will, likely, under-estimate the total market size as it is based on a sample of only 290 respondents. Of these assets, 37% was invested through private debt, which also accounted for well more than half (61%) of the number of investments made. Publicly traded debt accounted for nearly a quarter of the total volume of capital invested (16% of transactions), and private equity comprised 16% (11% of transactions). The overall average deal size was relatively small - at $5 million - across all asset classes. 76% of investments were directly into companies, projects, or real assets. By asset class, the average deal size was largest among investments in real assets ($28 million), followed by public equity ($22 million), private equity ($ 7 million), and publicly traded debt ($7 million). In terms of investors, the largest group was pension funds (18% of total investments). In terms of investments, energy was the largest sector (16% of total investments). 55% of all investment went into "mature" public and private companies. In terms of sectors, the GIIN (2020) data suggested that the categories of impact investments were evenly spread between energy (16% of all investments), financial services (12%), forestry (910%), food and agriculture (9%), and microfinance (8%). According to the GIIN (2020) survey, 67% of its sample investors expected market-rate returns, whilst 18% aimed for close to market rate returns and 15% accepted below-market-rate returns (but close to capital preservation). This data suggests that impact investing can be either impact first (with sub-market returns) or finance first (with market returns) depending on the structure of the fund/deal and investor expectations. 67 In terms of expected financial returns, foundations, not-for-profit asset managers, and family offices were largely "impact first" and would accept some sub-market rate investments. On the other hand, pension funds, insurance companies, for- profit asset managers, and DFIs were "finance first" and generally expected market returns.

4. Development Finance

Development finance is increasingly being categorized as a form of sustainable finance.68 This sector includes multinational agencies, such as the Asian Development Bank (ADB); Inter- 67 The GIIN Annual Impact Investor Survey 2020 included data from 294 impact investors. In terms of returns, 67% of this sample suggested that their investments achieved market rate returns, 18% achieved below market rate returns (but close to the market rate) and 15% achieved below market rate returns (closer to capital preservation) see: https://thegiin.org/impact-investing/need-to-know/%23s2. 68 In earlier estimates of the size of the impact investing market, development finance was typically excluded. The GIIN Annual Impact Investor Survey 2019.

5. Positive/Integrated Sustainable Finance

The central element of the positive/integrated ESG finance market is sustainable bonds. The sustainable bond market has grown substantially since 2015 (Figure 5), driven primarily by green bonds. By the second half of 2021, sustainability bond issuance had reached $91bn an increase of 131% compared with the same period in 2020.71

i. Green Bonds

By the first half of 2021, $227.8bn green bonds had been issued meaning that the total cumulative green bond volume was 1.4tn. This represents a 49% growth rate in the period 2016- 2021.The projected forecast for full year 2021 was $400-$450bn.

In 2019, $257.7 billion of green bonds were issued globally- a growth of 51% on the 2018 total of $167.3 billion. Of these, Europe accounted for 45% while the Asia and Pacific market issued 25% with the People's Republic of China (PRC) the largest Asian issuer. 72 In 2019, the largest cumulative issuers of green bonds were the US Federal National Mortgage Association ($22.8 billion), the German Reconstruction Credit Institute ($9.02 billion), the Dutch State Treasury Agency ($6.66 billion), France ($6.57 billion), and the Industrial and Commercial Bank of China ($5.85 billion) (footnote 75). Moreover, in 2019, a survey of 135 hedge funds in 13countries with assets under management of $6.25 trillion, 84% reported "an increased interest in SG-orientated funds and strategies over the last 12 months".73 All the major global stock

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exchanges have listings for green bonds as public debt. 74

ii. Social Bonds

The first social bond was issued by the Instituto de Credito in Spain in 2015. It focused on offering sub-market loans to small and medium-sized organizations in deprived areas with the aim of accelerating economic growth and creating local jobs. The 3-year social bond raised €1 billion from a range of international investors. Also, in 2015, this was followed by a second €1 billion Spanish social bond issued by Kutxabank to provide affordable housing in the Basque country. 75 In 2017, the IFC launched a Social Bond Program that offered investors an opportunity to allocate social bond investments that are focused on the SDGs with a triple A-rated credit risk. Finance from the bonds focused on supporting banking for women and inclusive business programs, which benefit underserved populations in emerging markets, including women and low-income communities with limited access to essential services, such as basic infrastructure and finance. By 2020, the IFC had issued 39 social bonds that raised $3.1 billion.

In 2020, the SDG Impact project, within the United Nations Development Programme (UNDP), launched a set of SDG Impact Standards for Bonds. 77 These standards contained six standards under four topic areas: strategic intent and impact goal setting, impact measurement and management, transparency and comparability, and context and governance. By 2020, total issuance had reached $33.1 billion, up from $6.2 billion in 2019. This accounted for 28% of the total sustainable finance bond market. 78 However, as the social bond market grew, there has been an increasing demand for standards of impact reporting and disclosure. 79

6. Negative/Exclusionary Sustainable Finance

By 2021, the global total of assets under management that followed some form of ESG screen80 - including sector, corporate practices, norms-based analysis against global standards (International Labour Organization, United Nations Children's Fund [UNICEF], Organization for Economic Co-operation and Development), and the level of ESG integration in corporate strategy - amounted to $37.8 trillion - a growth of over 24% since 2018. It has been estimated that by 2025, ESG assets will reach $53 trillion or over a third of the projected $140.5 trillion global total.

Data also suggests that the majority of ESG investment is into public equity and fixed income debt- categories that indicate a focus on mainstream businesses that are publicly listed. Following the logic of the Double Delta model, these ESG investments are not materially impactful.

A. Positive/Integrated Environmental, Social, Governance Finance: Returns In terms of returns on investment, a key feature of the spectrum of sustainable finance is that it includes finance with a wide range of return expectations. At one extreme, grants expect a zero return and, on the other, negative/exclusionary ESG funds can achieve above market returns. However, with the exception of the GIIN data on the two forms of impact investing (impact first and finance first), there are no consolidated data sets for the returns of other types of capital in the spectrum. As such, the returns presented here have been estimated from available sources and should be seen as indicative.

B. Grants and Program Related Investment

As 100% loss finance, grants play an important role both as start-up risk capital and as concessionary sustainable finance within blended finance structures and deals. The returns to PRI may vary between loss-making to market rate returns (more typical in the US) under the conditions that were noted above. For example, KL Felicitas Foundation, which aims to invest 100% of its assets as impact, reported a 2.5% per annum loss on its PRIs.