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Taking on board the long-term horizon in financial and accounting literature

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The views expressed are those of the authors alone.

Abstract

This policy paper aims to determine the extent to which academic financial economics and accounting literature considers the long-term horizon. It will focus in particular on singling out the mostly frequently used designations and the issues addressed, as well as how these have changed over time. The report is broken down into three parts: firstly an overview of academic research in the financial sphere[1] followed by a summary of work in the accounting domain – both of which will consider the long-term challenges – and lastly an assessment of these themes and thoughts for future research.

[1] This section is based on an article co-written with Caroline Granier, Doctor of Economics and Advisor at think tank *Fabrique de l'Industrie*.

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1 Is there such a thing as long-term finance?

1.1 Introduction

An initial online search via a search engine combining two key words « long-term » and « finance » shows that finance with a long-term horizon – which we could call long-term finance – is not described as such in academic literature, but rather it is addressed from a sustainable finance standpoint, which is generally defined as finance targeting sustainable development goals. Sustainable finance has been attracting growing interest from political decision-makers, regulators and civil society for the past 15 years, and this trend was further driven by the 2007-08 financial crisis and increasing awareness of climate change risks. This movement urges economic stakeholders to adopt more responsible behaviour and address economic, social and environmental questions. The United Nations (UN) has gradually recognised the importance of these challenge in our societies' sustainable development, with the creation of the Brundtland Commission in 1987 and the ensuing emergence of various initiatives, including the latest move in 2015 to include the 17 Sustainable Development Goals (SDG) in the 2030 Agenda for Sustainable Development.

The OECD has estimated that a hefty near-$6.9 trillion per year is required out to 2030 to comply with these goals, so efforts from all players across the financial system will be crucial. These economic participants are tasked with allocating investment from economic agents as efficiently as possible, and as such they play a fundamental role in financing the economy as a result of their ability to channel investment into sustainable projects. Investors and banks can leverage their investment and financing policies to step up the energy transition by encouraging firms to adopt more sustainable commercial practices or to up their investment in low-carbon sectors for example.

Against this backdrop, other initiatives have emerged to include this type of goal in international policymaking. Examples include the Equator Principles developed in 2003, which set out social and environmental criteria that major banks must consider when they provide project finance. Meanwhile the Principles for Responsible Investment (PRI) launched by the UN in 2006 aim to encourage professional investors to screen for environmental, social and governance criteria when making investment decisions and to apply these criteria in their shareholder practices. More recently in 2015, the Paris agreement marked a milestone as it aims to encourage the inclusion of climate change considerations in financial activities and thereby promote low-carbon development, with the ultimate aim of restricting global warming to a maximum of two degrees Celsius compared to pre-industrial levels.

This range of international initiatives helped foster the advent of what is known as sustainable finance. However, this term still remains ambiguous. The European Commission defined sustainable in 2018 as « the process of taking due account of environmental and social considerations when making investment decisions, leading to increased investment in longer-term and sustainable activities. » The Canadian Expert Panel on Sustainable Finance in 2018 defines sustainable finance as « capital flows (as reflected in lending and investment), risk management activities (such as insurance and risk assessment), and financial processes (including disclosures, valuations, and oversight) that assimilate environmental and social

factors as a means of promoting sustainable economic growth and the long-term stability of the financial system. »

Overall, a number of definitions exist and involve a wide range of terms, such as responsible finance or ethical finance, but there is no broad-based accepted definition of sustainable finance and what it actually involves. This initial part of our report will seek to outline a definition and the related features via a comprehensive review of literature pertaining to sustainable finance.

1.2 Methodology and descriptive statistics

This stage involved using lexical analysis tools to conduct a bibliometric review of academic articles published over the period 1981-2018 and listed in the Web of Science database (WoS). We opted for a systematic analysis of literature in order to provide a far-reaching review and list and group all relevant articles on the basis of their shared features. Our research sought to define clusters of articles on the basis of these shared features and map them according to the main issues under consideration. The main goal of this type of research is to assess whether there is a disparity between this increasing interest in sustainable finance and academic considerations, to ultimately determine whether academic research adequately addresses the challenges of the transition to a green and sustainable economy.

Our sample of 685 articles reflects an upsurge in the number of academic research articles addressing sustainable finance. Publications began to appear as early as the 1980s[2], but literature on sustainable finance really took off in the 2000s, with an increase in the number of articles in absolute terms since 2014 (more than 60 articles each year). We also witness a high concentration in published media (including the management review: Journal of Business Ethics) as well as significant author dispersion. This suggests that the issue of sustainable finance is not a major issue for most journals. The authors who publish the most articles in absolute number terms are mainly economists, specialised in portfolio models, financial economics or quantitative finance, from both economics faculties and business schools.

[2] For example Carroll, 1981, on US pension fund investments in South Africa during Apartheid and their social responsibility.

Chart 1: Number of articles in our sample per year[3]

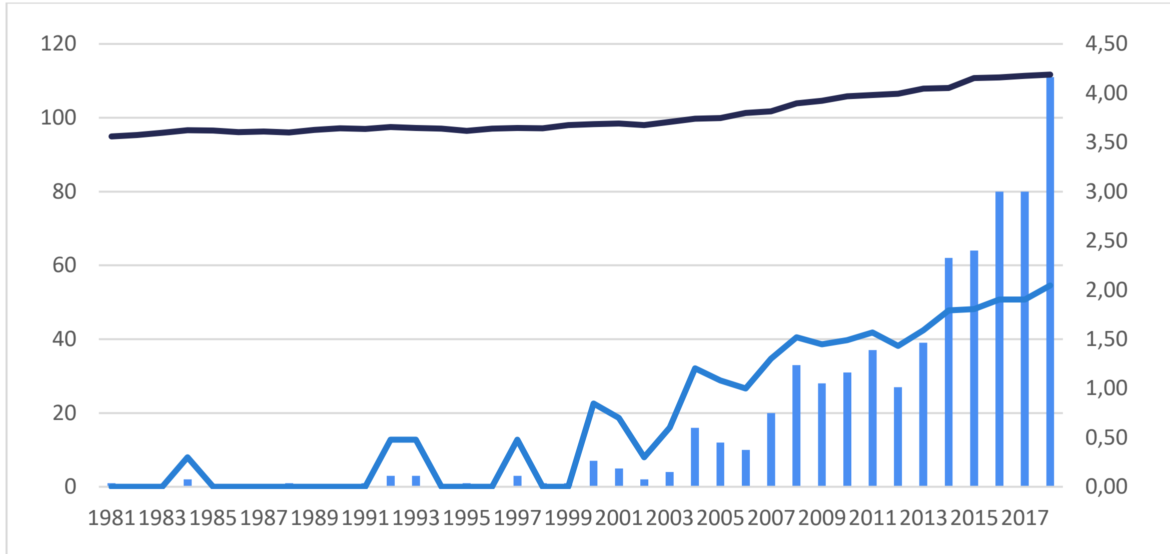

Table 1: Publication media for academic research on sustainable finance

Academic reviews	Number
JOURNAL OF BUSINESS ETHICS	115
SUSTAINABILITY	24
JOURNAL OF BANKING & FINANCE	17
JOURNAL OF CLEANER PRODUCTION	16
BUSINESS ETHICS-A EUROPEAN REVIEW	12
BUSINESS STRATEGY AND THE ENVIRONMENT	12
BUSINESS & SOCIETY	11
CORPORATE GOVERNANCE-AN INTERNATIONAL REVIEW	9
CORPORATE SOCIAL RESPONSIBILITY AND ENVIRONMENTAL MANAGEMENT	9
SUSTAINABLE DEVELOPMENT	9

1.3 Results

1.3.1 Designation for sustainable finance

An analysis of the terms used in abstracts and their frequency 4 shows that the term “responsible” features most in articles via expressions such as “responsible investment” / ”social responsibility” and “corporate social responsibility” (Chart 2). These two terms are connected as responsible investment is often defined as investment in companies that are managed in line with corporate social responsibility principles. The adjectives “ethical” and “sustainable” were used less frequently, and so we refer more to « responsible finance » than

[3] Bars, LH scale: number of publications), log of number of articles in our sample and log of number of articles published in English in the social science category of the Web of Science (curve, RH scale: log (number of publications).
[4] The size of words is proportional to their frequency

"sustainable finance" or "ethical finance". Our findings also highlight the high frequency of the terms "mutual funds" and "financial performance", consistent with the dynamic analysis of quotations.

Chart 2: Word-cloud derived from bibliometric analysis

1.3.2 Themes discussed in sustainable finance research

Chart 3 outlines the four main structural research themes that emerge from article clustering using lexical analysis.

Chart 3: Four main sustainable finance themes

Sustainable finance

SRI funds
Financial/stock-market performances for SRI funds

Sustainability market indices
Performances for firms making up responsible indices
Performances from sustainability indices

SRI markets
SRI determinants
Types of stategies and their limitations

SRI and sustainable development
Sectors considered as priority

SRI funds and their performances are a predominant and recurring theme

The majority of articles in our overall sample look at performances for a specific institutional investor category i.e. mutual funds or SRI funds. Most research compares stock-market returns for these types of funds with so-called conventional funds. However, the results are unclear as there is no consensus as to the best performances (Derwall and Loedijk, 2009). Leite and Cortez (2015) show that SRI funds significantly underperform characteristics-matched conventional funds during non-crisis periods, but match the performance of their peers during market downturns. According to Bauer et al (2005), SRI funds underperform conventional funds initially and then achieve similar returns over a long timeframe. This is to do with the funds' naturally restricted investment universe, as only firms with sustainable features can be included in the asset portfolio, or they must at least make up the large majority of securities held. Potential investments are therefore limited, with a subsequent effect on investors' expected returns, as screening for extra-financial criteria means that securities with optimum risk, return and correlation with other assets in the portfolio cannot necessarily be included. Only around ten articles looked at SRI practices from other financial intermediaries, such as pension funds or sovereign wealth funds, analysing their investment policies, determinants and performances.

Sustainability market indices and their performances

Another body of research looks primarily at sustainability stock-market indices. Some studies consider the performances from socially responsible stock-market indices in themselves, such as Sliwinski and Lobza, 2017, while others compare performances with conventional indices i.e. Belghitar et al., 2014, Charfeddine et al., 2016. Meanwhile some research looks at performances from companies that are listed on responsible indices, with Chow et al (2014) arguing that belonging to the MSCI KLD 400 social Index has positive effects on returns. Some authors posit that indices are no longer just a source of information or a benchmark for investors when building their portfolios, but that they also provide an incentive to implement responsible practices (Hsu et Chang, 2017; Orsato et al., 2015).

The common factor for these first two key themes is performance i.e. financial/stock-market performances for SRI mutual funds (comparing performance with conventional funds, stock-picking, etc.), funds that invest in sustainability market indices, and the financial performance from companies belonging to these indices.

SRI markets

A certain number of articles address the SRI markets and set out an analysis of determining factors for their development from a macro-economic standpoint on the one hand, or outline their limitations on the other hand. Some research analyses and compares SRI markets in Belgium and the Netherlands (Benijts, 2010) or Japan and Hong Kong (Park, 2009), Nordic countries (Bengtsson, 2008), post-communist countries and European countries (Adamska et al., 2016), while other articles examine the ethical and moral aspects of SRI, and the paradoxes related to its institutionalisation (Parfitt, 2018; Thomas, 2016).

SRI markets and sustainable development

A large number of articles – around a third – tackle a central and recurring theme i.e. an analysis of SRI markets applied to sectors deemed as priorities for sustainable development, such as agriculture, real estate, healthcare, public infrastructure, public transport, education, the food industry and tourism moreso in less developed countries. These pieces assess the extent to which SRI can play a role in financing these sectors in any given country (Bak et al. 2017; Malekpour et al., 2017; Cebula and Mixon, 2014; Deak and Hajdu, 2012), or consider which type of sustainable finance would be most suitable (Xue et al., 2017; Mactaggart et al., 2018; Van den Bossche et al., 2010).

Financial reporting and extra-financial reporting theme is present across all clusters

Few key words deal with information or reporting, but this term does feature broadly across most clusters. Saadaoui and Soobaroyen (2018) in particular look into methodologies adopted by CSR ratings agencies, while other articles consider extra-financial reporting and especially the emergence of integrated reporting (Atkins et al., 2015; Frias-Aceituno et al., 2014). Most argue that extra-financial reporting is very diverse and needs to be standardised. Financial reporting sits at the very heart of financial theory (clusters on financial performances) and the way stock-market indices work (clusters focused on indices that provide standardised information that is less costly for investors), making it a key challenge for sustainable finance in today's environment, with repercussions for portfolio management companies, investors and regulators. Companies are encouraged to issue reports on their business operations and related sustainability so that they can assess any negative environmental or social effects of their businesses and mitigate their impact. Reporting can also help firms enhance their reputation with clients and investors that screen for ESG criteria. Meanwhile for portfolio managers, reporting means explaining their investment strategy to both professional and retail investors and being transparent as to the characteristics of the products they sell i.e. funds etc.

2 What about long-term accounting?

This second part of our report looks at a range of research on the relationship between accounting and the long-term timeframe. We initially look at whether French accounting standards and international standards (IFRS) explicitly take on board the term, and then secondly, we examine whether the designations used for long-term accounting are the same as those used in finance i.e. sustainable, ethical, responsible.

2.1 Designation for sustainability accounting

2.1.1 Use of "long-term" in French and international accounting standards

Long-term finance is related to sustainable finance, which itself is defined as finance that screens for environmental, social and governance criteria (ESG) in investment decision-making in order to promote investment in sustainable and long-term businesses. We therefore felt it would be interesting to examine whether international (IFRS) and French (ANC) accounting standards factor in a long-term timeframe and/or ESG indicators.

Table 2: Word search on timeframes and ESG terms: number of occurrences and percentage as compared to number of words in document assessed

Themes	ANC 2019 General Chart of Accounts 230 pages	IFRS (conceptual framework) 69 pages	IFRS (2014 standards) 3,978 pages
Long-term	15 (0.02%)	2 (0.01%)	218 (0.02%)
Short-term	8 (0.01%)	1 (0%)	152 (0.01%)
Environment	7 (0.01%)	0 (0%)	51 (0%)
Social	58 (0.07%	1 (0%)	19 (0%)
Governance	0 (0%)	0 (0%)	16 (0%)

An analysis of French standards in the 2019 General Chart of Accounts shows that:

- The expression « 1 long-term » features 15 times, referring mostly to long-term contracts as well as the titles of accounts related to reserves, capital, receivables and loans. French standards do not provide a clear definition of long-term, but they do give guidance by indicating that it means an event that takes place over at least two accounting periods or years.
- Short-term refers to titles of accounts related to fixed assets, loans and receivables, as well as valuations for assets held for the short term, with no details as to length they are held.
- The term environment features primarily in an article on accounting for greenhouse gas and refers to the French Environment code. The term climate does not appear in the General Chart of Accounts.
- The term social in the General Chart of Accounts refers to social security, employer and employee contributions (*charges sociales* in French) and share capital (*capital social* in French).
- The term governance does not appear.

Looking to international accounting standards, or IFRS, and in particular the conceptual framework, we note that terms related to ESG indicators do not feature (mentions of social refer to share capital or *capital social* in French). The ideas of short- or long-term also feature very rarely.

- Long-term is used primarily to refer to the long-term advantages of pension schemes or long-term loans.
- Short-term is mostly used to refer to immediate employee benefits, as well as some accounting items i.e. receivables, debt, loans, investments, etc.

If we look at the broader body of international standards, IFRS often refer to 1-year or 5-year timeframes by way of example to illustrate certain standards i.e. IFRS 16 for leasing contracts, IFRS 9 for loans, and IAS 19 on employee benefits to name just a few. There is no clear definition of the distinction between short- and long-term.

It is worth noting that the expressions short-term and long-term are not very widely used overall in IFRS, but the standards do use the terms current and non-current to define assets and liabilities. IAS 1 §66 establishes that an entity shall classify an asset as current when:

a) it expects to realise the asset, or intends to sell or consume it, in its normal operating cycle[5];
b) it holds the asset primarily for the purpose of trading;
c) it expects to realise the asset within twelve months after the reporting period; or
d) the asset is cash or a cash equivalent (as defined by IAS 7) unless the asset is restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period.

The entity must categorise all other assets as non-current.

This breakdown between current and non-current applies to the company's liabilities with similar criteria (IAS 1 §69 and thereafter).

Current items fairly clearly seem to be items with short-term maturities, so we can extrapolate that IFRS takes long-term items to be those that are non-current.

Looking to ESG indicators:

- The environment almost systematically means the economic, market and regulatory environment. The environment in the ecological sense is only used once when referring to the additional environmental report that the company can publish, then around fifteen times in IAS 37 on provisions for environmental risks and in IFRIC 5 « Rights to Interests Arising from Decommissioning, Restoration and Environmental Rehabilitation Funds ». Lastly, we note that the word climate only features to describe the political climate.
- The term social primarily refers to employer and employee contributions (« charges sociales » in French) and to the social consequences of the various types of pension liabilities.
- The word governance is mostly used to discuss governance of the IFRS foundation.

We have found that French and international accounting standards make virtually no reference to long-term timeframes and even less so to ESG criteria. French accounting standards refer to the timeframe on items of more than or less than a year, for example to make the distinction between current assets and fixed assets. Meanwhile IFRS make the distinction between current items of less than 12 months and non-current items that automatically have a longer timeframe, although they do not include a strict definition.

2.1.2 Can we refer to long-term accounting?

Just like finance, an initial online search on academic research websites using a combination of two key words « long-term » and « accounting » shows that accounting with a long-term timeframe – which we could call long-term accounting – is not described as such in academic literature. This is feasible if we assume that accounting must be neutral i.e. neither long-term nor short-term. Elsewhere, French accounting dictionary (Colasse 2015) makes no reference to sustainable, ethical or responsible accounting, but there is a section on alternative accounting (p.60) aimed at informing stakeholders on a firm's non-financial features and in particular its

5 An entity's operating cycle is the time between the acquisition of assets for processing and their realisation in cash or cash equivalents. When the normal operating cycle is not clearly identifiable, it is presumed to last 12 months.

social aspects via the social audit[6] and any environmental questions in the environmental report[7].

However, this initial approach seems relatively restrictive, so we need to consider whether accounting may be viewed as responsible, like finance. If we look for the term « sustainable accounting » in an academic search engine, quite surprisingly the first result is the article from Atkins et al. (2015) « **Good news** from **nowhere**: **imagining utopian sustainable accounting** ».

If we take our search a step further, we find that accounting researchers have included ESG questions for several years. The concept of responsible – or sustainability – accounting emerged around thirty years ago as a sub-category of financial accounting (Tilt 2007). However, it is crucial to define this research theme to establish a clearer idea of its meaning. We will use the definition set out by the Sustainability Accounting Standards Board[8]: « sustainability accounting reflects the management of a corporation's environmental and social impacts arising from production of goods and services, as well as its management of the environmental and social capitals necessary to create long-term value. It also includes the impacts that sustainability challenges have on innovation, business models, and corporate governance and vice versa. »

According to this view, a sustainability-oriented company is fully aware of its responsibilities towards the different stakeholders and adopts methods and tools that allow it to improve its social and ecological performance (Perrini and Tencati 2006). On the basis of this view of the company, a number of researchers believe that new accounting systems are required to address the issues raised by sustainable development. An example of sustainability accounting was put forward by Elkington (1997) known as the Triple Bottom Line, which suggests adding two additional lines to accounting net income to reflect the effectiveness of the company's people and environmental policies, with the idea of incorporating the so-called 3Ps into this view i.e. people, planet, profit.

According to Rambaud and Richard (2016), this accounting approach – closely mirroring traditional accounting set-ups but merely adding additional lines to round out the bottom line – is very popular with companies, NGOs and public authorities due to its simple design and direct representation of the three key aspects. However, according to Richard and Plot (2014), this model is based on firm financial management ideology and does not enable readers to single out social and environmental criteria only to provide results in line with financial profitability standards. Following on in the same vein, Rambaud and Richard (2015) believe that this model runs up against severe limitations as it fails to safeguard human and natural capital, and they therefore suggest an alternative model, the Triple Depreciation Line, which sets out a new accounting model to safeguard/maintain human and natural capital.

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[6] The social audit covers a company's social aspects. It was introduced by the French Act 77-769 of 12 July 1977 and outlines the company's main social data and information in one single document, records achievements and any changes over the past year and the two previous years. The social audit includes information on employment, compensation and related expenses, health and safety conditions, other working conditions, training, professional relationships, employees' and their families' living conditions where these conditions depend on the company.

[7] To be defined

8 Set up in 2011, the SASB is an American independent non-profit organisation, which acts to set standards. It has published a set of 77 industry-specific standards for accounting and disclosure of information with a significant impact on the environment, social responsibility and governance.

These suggestions for setting new standards are particularly useful in developing future responsible financial accounting, but academic research on accounting adopts a more positive approach[9] that aims to observe ESG disclosure practices and assess financial markets', investors' and analysts' perception of this often voluntary disclosure.

2.2 Themes developed in responsible accounting research

Our review of literature aims to provide a general but not a comprehensive overview of the various areas of research on responsible accounting i.e. accounting that takes on board ESG indicators on the basis of the SASB's definition. We have therefore identified two main research themes:

Chart 4: Responsible accounting research themes

2.2.1. Research on degree and quality of voluntary ESG disclosure

A large portion of accounting research examines the extent of ESG disclosure and zooms in on social and/or environmental aspects, in order to identify companies with the best or most extensive disclosure.

Several research studies in France attempted to identify the effects of the New Economic Regulation law on the degree of disclosure when the legislation came into force (Ben Rhouma and Cormier 2007; Delbard 2008; Damak-Ayadi 2010). This research broadly shows that disclosure did not really meet expectations regardless of the business sector for the first five years after implementation of the law. However, ten years after the New Economic Regulation law was introduced, several articles showed an unquestionable increase in the level of ESG disclosure, both generally (Chauvey et al. 2015) and in terms of environmental information (Albertini 2014; Chelli et al. 2014).

Looking further afield to the international arena, a great deal of research has examined voluntary application of ESG screening such as GRI or Integrated Reporting (IR). Research analysing information in European companies' annual reports or CSR reports shows that the degree of ESG disclosure is broadly inadequate and that there is room for improvement (Beck et al. 2010; Lock and Seele 2016; Pistoni et al. 2018).

[9] Research on accounting standards aims to stipulate what practices should be, while positive currents of research aim to describe and explain stakeholders' behaviour.

However, a great deal of research attests to an improvement in disclosure over the past ten years. Russo-Spena et al. (2018) confirm the trend towards an increase in ESG disclosure for a sample of European automotive companies between 2009 and 2014. However, despite this improvement, a great number of studies find that disclosure is often descriptive, and is rarely quantitative or negative. Companies focus on upbeat information on environmental and social practices, while the negative impacts are largely ignored, as demonstrated by a French sample (Albertini 2014; Chauvey et al. 2015; Depoers and Jérôme 2017), British and German companies (Beck et al. 2010) and Indian firms (Sen et al. 2011). In this respect, Melloni et al. (2017) argue that international companies with weak social and/or environmental performances tend to disclose less complete information on their sustainability performance (Freedman and Jaggi 2005).

2.2.2 Research on the value relevance of ESG disclosure for financial market st akeholders

If we look to the contiguous value relevance theme, several researchers are interested in this aspect of ESG disclosure in light of expectations from financial market stakeholders. This research aims to demonstrate the financial power of extra-financial reporting, i.e. whether this information influences investors and therefore affects companies' stock-market valuations.

A whole body of research finds that ESG disclosure is value relevant for financial market participants (Margolis and Walsh, 2001; Orlitzky et al., 2003; Al-Tuwaijri et al., 2004). Companies with a high ESG score tend to attract more long-term and/or socially responsible investors, and they also have a lower cost of equity capital (Dhaliwal et al. 2011; Reverte 2012; Ng and Rezaee 2015). More specifically, some reports show that ESG disclosure helps cut back the cost of equity capital on the financial markets (Dhaliwal et al. 2011; Reverte 2012; Ng and Rezaee 2015). Based on identical results, El Ghoul et al. (2011) argue that firms with responsible practices boast better financial performances and carry lower risks for investors. Similarly the degree of extra-financial disclosure would appear to influence firms' financial performances (market value) (Wahba 2008; Schadewitz and Niskala 2010; Kumarasinghe et al. 2018).

Continuing on from research on value relevance, some other work looks more specifically at investors' viewpoints and in particular how useful extra-financial reporting is in making investment decisions. ESG disclosure improves stakeholders' insight into a company's business and management and therefore cuts information asymmetry on the financial markets (Cormier et al. 2011), so companies that disclose ESG information – mainly via voluntary reporting databases such as GRI – appear to be more attractive for investors (Jain et al. 2016; Verbeeten et al. 2016).

However, the increasing development of ESG screening along with a lack of regulation governing the information actually disclosed can confuse the situation. In this respect, Cormier et al. (2011) argue that companies must implement an efficient ESG reporting strategy if they want to provide a fair view of their CSR performances. The amount of ESG disclosure is soaring and its quality is sometimes doubtful, so a great deal of research argues that a regulatory process should be launched to develop a relevant and comparable set of ESG reporting criteria to help investors in their decision-making (Haigh and Guthrie 2009; Mackenzie et al. 2013; Stewart 2015; Quaadman 2019). Park and Ravenel (2015) take this reasoning a step further and posit that ESG disclosure should be sufficiently standardised for audiences to be able to make a robust comparative analysis of companies to support their decision-making.

Even before we get as far as investors, some authors believe that sell-side analysts should review and take on board ESG information given the potential impact on corporate share prices and risk, which in turn are crucial factors in optimising investment portfolios (Bos 2014). Ioannou and Serafeim (2015) argue that analysts have progressively assessed firms with a high ESG score more optimistically over time (since 2001), while analysts previously issued more pessimistic recommendations on companies with high ESG ratings. This reflects the importance and increasing presence of ESG reporting in valuing companies. According to Luo et al. (2015), analysts mediate the relationship between corporate social performance and firm stock returns.

3 Discussion and conclusion

Lack of diversity among stakeholders on sustainable finance and sustainability accounting

An analysis of sustainable development literature helps highlight several frequently-occurring themes, but we have found that themes directly pertaining to sustainable development goals and ESG criteria are not addressed: this is true of public financial intermediaries (banks and public investors), which do not encounter the same type of pressure as their listed private sector counterparts due to their different shareholder structures.

We can also consider how alternative funding methods that have emerged recently to address the limitations of conventional finance (particularly in light of research highlighting the negative effects of financialisation) bear little or no relation to sustainable finance. This is the case for crowdfunding, which provides financial resources through the internet in the form of donations or in exchange for some form of reward or for voting rights, to support initiatives with very specific goals (Lambert and Schwienbacher, 2010), and microfinance which seeks to promote access to credit for underprivileged groups. These themes feature only to a very small degree in our sample (Lopatta and Tchikov, 2016; Postelnicu and Hermes, 2018) for microfinance, despite the fact that their definition pertains directly to sustainable development goals. The gradual emphasis on stock-market performances outlined above partly explains this failure to connect the Social and Solidarity Economy (SSE) to socially responsible finance: socially responsible finance is not profit-driven or based on financial performance, but rather the focus is the ultimate usefulness of the project financed.

Similarly, venture capital or cooperative bank funding are not recurring themes featuring alongside the terms sustainable finance or responsible finance (the exception in our sample is Gill et al., 2017). In the banking sector, principles for responsible financing have existed since 2003 – the Equator Principles – and apply to large banks, but they only seem to have grasped the importance of climate change and taken them on board its challenges over recent years since the COP 21 and Mark Carney’s speech. Lastly, we highlight the absence of homogenous groups as regards clear governance, environmental or social-related goals. The terms “green bonds”, “green finance” and “climate finance”, unlike the term “climate change”, do not feature on the list of most frequently used words or in the pairs of most frequently used words. So climate finance and green finance are not a structural or emerging theme.

In addition, some argue that the focus on mutual funds and financial performances (for example Capelle-Blancard and Monjon, 2012) is data driven, resulting from the availability of data via financial databases developed by providers such as Thomson Reuters, as well information contained in investment funds’ marketing prospectuses. Similarly, the lack of analysis of funding methods used primarily for SMEs – such as microfinance – as compared to listed

companies can be attributed to different reporting and disclosure requirements. This reflects the real issue at stake in current academic research, which tends to focus mainly on existing information.

The same applies to accounting research, as themes analysed are very similar and issues that may be interesting to assess seem to be completely neglected. For example it would be noteworthy to consider why the degree of disclosure is not set into the broader context and compared with real environmental and social practices e.g. actual investments in renewable energy companies10. The effects of greenwashing are also inadequately reviewed in this area of research. Furthermore, the relationships between extra-financial reporting and the social and solidarity economy or the circular economy or the protection of biodiversity do not feature in accounting research topics, although other fields examine this issue, such as sociology for example. However these themes do have an impact on companies' accounting and financial running and their management.

Given participants' failure to address a diverse range of sustainable finance themes, the advisability of extending the definition of sustainable finance in literature and setting an academic research agenda on these themes should naturally be considered.

Conventional finance not called into question

Ethical, responsible and sustainable finance stakeholders, as well as those involved in crowdfunding, set out financial and extra-financial performance goals so they can finance long-term investment or investment in the energy transition. It is therefore interesting to examine how they contribute to reintegrating finance into the real economy, and how they revisit conventional private finance models traditionally based on shareholder value considerations by taking on board social, environmental and governance aspects that are unrelated to usual shareholding priorities.

However, our analysis of literature shows that the articles that feature most in our sample focus on the issue of financial performance. Research sits within the broader conventional finance framework, which is based on models that were built on the assumption of value maximisation via stock-market returns. This quest for shareholder value maximisation was underpinned by the dominant financial sector models as well as enterprise economics principles (agency theory and property rights theory), whereby shareholders are the main stakeholders and economic agents' moral aspects are not considered. This view contributes to the mainstreaming of SRI, which involves incorporating ESG dimensions into traditional or conventional approaches rather than radically transforming strategy to take on board ESG dimensions. This result is consistent with the multi-disciplinary aspect of reviews where the articles in our sample were published. It would be worth considering a research programme that seeks to revisit the interpretation of sustainable finance focused on stock-market performances.

[10] See OXFAM (2018) report, which highlights the contradiction between major French banks' green communications and their investment in polluting industries.

Regulatory theme is absent

We note the virtual absence of regulatory aspects and political instruments in the articles we examine, despite the fact that these issues are related to disclosure and reporting. Quantity, relevance and standardisation of disclosure are necessary, as reporting – and market discipline more generally speaking – is a key aspect of regulation in both banking and market finance e.g. Basel regulation. The word regulation features infrequently and this can be attributed on the one hand to the fact that regulation is an ongoing process (for example the European Commission is currently working on a taxonomy for sustainable activities) and on the other hand to the fact that SRI and CSR have mostly developed so far via soft law policies i.e. codes of conduct and governance standards (Richardson, 2009; Steurer, 2010) rather than laws or directives, or tax incentives. Lastly, we note the absence of climate finance and the carbon tax as an instrument, which means that these expressions are not used pertaining to sustainable finance.

Ultimately, an analysis of academic literature on finance and accounting with a view to the long-term horizon highlights the surge in non-transparent, non-comparable and sometimes potentially non-value relevant ESG disclosure, which is damaging for investors and the markets. This literature points to a real need to standardise information, which is becoming increasingly important for stakeholders. In these currents of research, the aim is not to offer solutions but rather to identify shortfalls and requirements, and it is therefore important for politicians and standard-setters to take up the subject and endeavour to standardise ESG reporting on a Europe-wide basis or internationally.

Absence of consensus on the definition of long-term finance or accounting

Analysis of financial and accounting literature shows that there is no definition for the idea of long-term. This issue has already been discussed and the issue of « volatility and long term » was raised during the 2012 Symposium on Accounting Research. As part of a research contract on short-term bias in accounting and prudential regulation with the ANC, we had proposed an extensive and standardised definition of long-term, whereby long-term investment had three additional facets i.e. the nature of the project to be financed, how the project is financed and the behaviour of funding providers (Demaria and Rigot, 2015). The table below outlines the dimensions identified:

Table 3: Overview of facets of the concept of long-term investment

3 facets of LT Inv.	Facet 1: Nature of long-term project	Facet 2: Long-term financing	Facet 3: Long-term behaviour
Sub-facet 1	Goals *LT/sustainable Growth*	Nature of resources *LT and/or stable savings*	Investment strategies *(contrarian, low turnover, minimum 5-year holding period for a financial asset)*
Sub-facet 2	Nature of assets and agents to be financed *Investment in tangible and intangible assets LT>> above all ST, MT*	Instruments/vehicles *Ad hoc LT*	Corporate governance *partnership-based*
Sub-facet 3		Providers of funding *LT investors Development banks Public investment banks*	

Source: Demaria and Rigot (2015)

From the standpoint of the first facet, the primary goal of this kind of investment is long-term growth (Facet 1.1). Sub-facet 2 (1.2 – the nature of the investment project) rests on the assumption that long-term investment involves investing in capital assets, i.e., capital which, by tying up financial resources over an extended period, makes it possible to create new production units, innovate and enhance production processes. This kind of capital is to be distinguished from financial capital. Although it requires the entity making the investment to take risks, financial capital does not directly push back the frontiers of production; it does not contribute directly to what the real economy produces. For that reason, only tangible and/or intangible assets used by businesses, rather than financial assets, should be viewed as candidates for such long-term investment projects. Moreover, capital assets must be enduring in nature, even if they have to be renewed in the short, medium or long term.

Defining the nature of an investment project in relation to long-term growth is necessary but not sufficient, however, as long-term needs must be financed in part by agents with excess savings. This underscores the importance of the second facet of long-term investing, which pertains to long-term financing. Facet 2 is in turn divided into three sub-facets.

The first sub-facet (2.1 – the nature of savings) pertains to the preferences of agents who have surplus savings. Their resources may be more or less short-term, public or private, internal or external. We believe that long-term savings (both contractual and de facto savings) should rank highest, as they involve lower liquidity constraints for providers of funds. The second sub-facet (2.2 – long-term financing instruments) raises the question of what vehicles/instruments should be promoted for financing long-term investment projects. Given that such projects originate with companies that have to plan for the future, we see a need to expand the range of ad hoc long-term financial instruments (e.g., long-term European funds, long bonds) directed at so-called long-term investors. In the third sub-facet (2.3 – long-term providers of funding), the

task at hand is to find investors willing to commit funding for a period long enough to finance long-term growth. They may be long-term investors with long-term liabilities (such as pension funds and insurance companies) or development banks and public investment banks.

This second facet is important in that it highlights the need to promote prior savings and appropriate long-term financing vehicles, but it, too, is insufficient, because the question remains as to how providers of funds will behave in the long term or actually hold securities for long time horizons (the third facet). An investor with long-term resources may very well prefer shorter investment horizons for any number of reasons, ranging from competition to regulations to existing incentives. This points to the need to consider a third facet focused on defining long-term behaviour and how it differs from short-term behaviour.

Because the three facets are complementary, a proper fit with the first two facets requires a certain degree of long-term commitment by the providers of funding. Without such commitment, projects geared to the future stand little chance of materialising. A business enterprise is an institution designed for the long haul, even though some of the providers of debt and equity financing may only wish to go part of the way with it. When major disagreements on strategy arise, providers of funding who have trouble convincing their partners may be tempted to give up and withdraw their funding from the company. To put it differently, only if investors and shareholders accept the relative illiquidity of the funds they have provided can capital expenditure take place and pave the way for future profits – the best guarantee of real lasting shareholder value. There is necessarily more to an investor's long-term behaviour than simply buying stock.

The first sub-facet (3.1 – long-term investment strategies) has to do with asset allocation by financial intermediaries who seek to finance long-term projects. Our starting premise is that such intermediaries should adopt contrarian or countercyclical investment strategies combined with flexible, dynamic allocation, with rebalancing (as opposed to momentum management) and low portfolio turnover. Our analysis of responses suggests there is a rough consensus on a five-year horizon, a view corroborated by the European Commission's summary of the results. In the case of bank intermediaries engaging in their traditional activity, long-term behaviour has to do with their ability to extend loans with differing maturities and keep those loans on their balance sheets so as to maintain their long-term relationship with the borrowers. In addition, the necessary long-term commitment by banks involves promoting partnership-based governance, both for asset management purposes and at the companies in which they invest their own funds (Facet 3.2). Those companies can in fact be defined as institutions with multiple stakeholders, including shareholders, directors, managers, suppliers and customers. To enable such a company, which forms a sort of community, to plan for the future, its stakeholders must build lasting relationships. This underscores the need for relatively long-term commitment, and for instruments that reflect it.

The European Commission seems to have endorsed a number of these conditions for investing under the European Long-Term Investment Fund (ELTIF) regulation, which was launched in December 2015. Examples include a five-year investment period, which amounts to introducing a certain amount of illiquidity into asset management, and the specification that long-term financing through such funds should go to real-economy assets, not to mention the prohibition of certain financial innovations. As we have seen, this definition of long-term investing was not reflected in academic research. Defining and outlining the long-term do not seem be a priority for researchers, which begs the question as to why.

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