



Achieving the United Nations Sustainable Development Goals: an enabling role for accounting research

Journal:	<i>Accounting, Auditing & Accountability Journal</i>
Manuscript ID	AAAJ-05-2017-2929.R2
Manuscript Type:	Research Paper
Keywords:	Accounting, Sustainable Development Goals, Social and environmental accounting, Accounting and sustainable development

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Abstract

Purpose: This paper aims to establish and advance the role of academic accounting in the pursuit of the United Nations Sustainable Development Goals, which are regarded as the most salient point of departure for understanding and achieving environmental and human development ambitions up to (and no doubt beyond) the year 2030.

Design/Methodology/Approach: Synthesis of interdisciplinary perspectives on sustainable development and integration of this with the accounting for sustainability literature. In addition, potential accounting research contributions are proposed so as to support the development of new research avenues.

Findings: Existing research in accounting that is relevant to individual Sustainable Development Goals serves as an initial link between them and the accounting discipline. At the same time, the Sustainable Development Goals focus highlights new sites for empirical work (including interdisciplinary investigations) as well as inviting innovation in accounting theoretical frameworks. Moreover, the Goals provide a context for (re)invigorating accounting's contribution to sustainable development debates.

Originality/value: This is the first paper to explore the roles academic accounting can play in furthering achievement of the Sustainable Development Goals through enhanced understanding, critiquing and advancing of accounting policy, practice and theorizing. It is also the first paper to propose a research agenda in this area.

Type of paper: Research paper.

Keywords: Accounting; Sustainable Development Goals; social and environmental accounting; accounting and sustainable development

1 Introduction

Research into the roles of accounting in furthering sustainable development has expanded, and become more sophisticated, over the three decades since the concept of sustainable development was proposed by the seminal *Brundtland Report* (United Nations World Commission on Environment and Development (UNWCED), 1987) as being a guiding principle bridging environmental and human development concerns (Bebbington and Larrinaga, 2014; Bebbington *et al.*, 2014).

In the most recent iteration of the global sustainable development agenda, the United Nations' *Transforming Our World: the 2030 Agenda for Sustainable Development* (United Nations (UN), 2015) adopted 17 Sustainable Development Goals (SDGs) that are intended to "stimulate action over the next 15 years in areas of critical importance for humanity and the planet" (p. 3). These SDGs are increasingly being referred to in policy circles simply as 'The Global Goals'. While being intergovernmental commitments, the SDGs have rapidly gained traction and salience among a broad range of actors beyond the 193 member states of the UN who unanimously endorsed them, such as public policy bodies, NGOs and many public sector and private sector organizations (including many businesses and professional bodies). As evidence later in this paper demonstrates, elements of the accounting profession are among actors who have enthusiastically embraced the SDGs, seeing a pivotal role for accountants and accounting in supporting their realization.

In the academic world, SDG-related research has begun to emerge in several disciplines, including business and management (Annan-Diab and Molinari, 2017; Schaltegger *et al.*, 2017; Storey *et al.*, 2017). Some of this research identifies and develops the energizing effects of committing to an SDG framework in guiding organizational policy and action. However the SDGs and their potential and saliency have only just started to make an appearance in the accounting literature (see Bebbington Russell and Thomson, in press). In this paper we argue that accounting academics can and should play a substantial role in helping embed policy and action at an organizational level in a way that contributes towards achievement of the SDGs. We therefore believe there is a need to raise awareness of the SDGs among accounting academics to help in the in initiation, scoping and development of high quality research projects in this area. Equally, accounting scholarship has much to bring to the pursuit of the SDGs, a point that will be further developed in the latter sections of this paper.

While insights from the academic accounting literature are of relevance to individual SDGs, adoption of the SDG framework provides both an opportunity and need for research in this area to advance, refocus and become more impactful. In this context, this paper aims to establish and advance the role of academic accounting in pursuit of the SDG's, the most salient point of departure for understanding and achieving environmental and human development ambitions up to (and no doubt beyond) 2030. We show (through illustrative examples) how SGD-related accounting research can/could build on existing areas of research into accounting for sustainability and suggest some broad avenues for SDG-related accounting research.

In addressing its aims, this paper:

1. Identifies the history, context and significance of the SDGs and thereby renews and deepens the knowledge and understanding within the academic accounting community about sustainable development;
2. Explains the manner in which the SDGs have gained saliency among stakeholders in the accounting profession, including large professional bodies and large firms; and

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3 3. Builds on illustrative examples from existing social, environmental and sustainable
4 development accounting scholarship and practice in order to propose new avenues for
5 evolution of accounting research. Indeed, it is our contention that the SDGs provide the
6 impetus for accounting research into sustainable development to enter a new phase,
7 both in terms of the design and execution of research as well as the intellectual
8 underpinnings of the field.
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10 To achieve these objectives the paper is structured as follows: The next section explains the
11 source of the SDGs, outlines the Goals themselves and discusses their importance in global
12 sustainable development governance. In the subsequent section the focus shifts to
13 accounting practice and research, including explaining (and interrogating) the accounting
14 profession's engagement with the SDGs. This section also analyses how existing academic
15 literature that focuses on sustainable development might be relevant to the SDGs. The
16 following section extends this analysis to suggest an agenda for accounting research that
17 focuses on the SDGs directly by: drawing out accounting's role in regimes of measurement
18 associated with the Goals; introducing new and emerging research foci that might emerge
19 from a SDG framing; and providing potential novel conceptual challenges that emerge in this
20 context. This section is not an exhaustive listing of all possible new avenues for research.
21 Rather, our aim is to suggest prompts both to open out existing scholarship of the many
22 possible roles accounting could play in furthering organizational-level contributions to
23 achievement of the SDGs, and to spark points for other ideas where interdisciplinary work
24 involving accounting will be of value. The penultimate section outlines some considerations
25 in resourcing SDG-related accounting research and in disseminating its results to impact
26 positively on organizational-level policy and practice towards achievement of the SDGs.
27 Finally, the paper makes some closing observations.
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30 2 Introducing the SDGs 31

32 To provide context within which accounting academics can develop research projects that
33 contribute towards achievement of the SDGs, this section explores key UN initiatives in the
34 sustainable development arena (including the SDGs), and explains how the UN develops
35 and implements such initiatives.
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37 2.1 Key UN sustainable development initiatives preceding the SDGs 38

39 Founded in 1945 at the end of World War II, the UN currently comprises 193 countries. This
40 makes it an organisation with a unique span of influence. It provides a forum for member
41 countries to express their views on the nature of the challenges facing the world and is a
42 "mechanism for governments to find areas of agreement and solve problems together
43 [addressing issues such as] peace and security, climate change, sustainable development,
44 human rights, disarmament, terrorism, humanitarian and health emergencies, gender
45 equality, governance, food production, and more" ([http://www.un.org/en/sections/about-
46 un/overview/index.html](http://www.un.org/en/sections/about-un/overview/index.html), accessed 28th June 2017). As such, the UN has the formal authority,
47 as well as a long and substantive track record, in developing leadership positions and
48 specific initiatives that aim to create the conditions for equitable and environmentally
49 sustainable forms of development. These initiatives include a series of conferences linking
50 environment and development (Stockholm in 1972; Rio in 1992; Johannesburg in 2002 and
51 Rio+20 in 2012) and seminal documents such as the *Brundtland Report* (UNWCED, 1987).
52 Sustainable development has emerged as an overarching organizing principle of this stream
53 of work (see Bebbington, 2001, who traces the history and relevance of these initiatives for
54 accounting).
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3 All of these conferences, and the international agreements, working groups, publications,
4 goal setting and associated activities, have had ramifications: primarily for national
5 governments, but also for other global institutions (for example, the OECD, the World Bank
6 and the International Monetary Fund). At the same time these processes and initiatives also
7 affect organizations, as the ramifications that emerge from global level processes translate
8 through to organizational-level impacts and through businesses engaging as part of the
9 solutions to the problems identified. This is intentional as the UN bodies realise that action
10 arises in particular physical locations/industry settings/organisations and hence cascades of
11 initiatives from global to local layers is to be expected. Additionally, given the nature of the
12 issues considered, entities other than governments are likely to wish to be (and indeed need
13 to be) involved in implementation of global visions. The manner in which this linking arises is
14 specific to each issue area. To provide a taste of how this has emerged in the past, the links
15 from global concern for biodiversity to organisational and accounting salience are explained
16 below.

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18 In the area of biodiversity high-level global commitments have crystallised into concrete
19 requirements that affect organizations (and stimulate accounting action). The Stockholm
20 Conference in 1972 led to the creation of the United Nations Environment Programme
21 (UNEP) and provided the framework for addressing environmental concerns in the context of
22 human development, and for development concerns to be cognizant of environmental
23 concerns (Nelson, 2007). UNEP has the ability to lead international treaty processes (for
24 example, it was at the heart of the Montreal Protocol) and was the lead organization for the
25 Convention on Biological Diversity (signed at the Rio Earth Summit in 1992 and focusing on
26 advancing global co-ordination of the protection of biodiversity).

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28 As part of this process, there are a series of targets for biodiversity (the Aichi Targets) that
29 shape activities across many domains (see also Bebbington *et al.*, 2015). Achi Target seven
30 has a direct impact upon organizations, stating that “by 2020 areas under agriculture,
31 aquaculture and forestry [should be] managed sustainably, ensuring conservation of
32 biodiversity”. These are sectors where the actions of organizations will be impactful and
33 have led (amongst other things) to the Global Partnership for Business and Biodiversity
34 (<https://www.cbd.int/business/gp.shtml> –accessed 28th June 2017) which seeks ways for
35 organizations to contribute to broader biodiversity goals. In addition, a number of tools have
36 been developed that are used to provide information on biodiversity in a way that seeks to
37 support sustainable production and consumption (itself a major theme in sustainable
38 development initiatives in the UN). Perhaps the most recognizable tools using accounting
39 and audit methodologies are in the area of product certification (see, for example, Moore,
40 2004). The time elapsed from the creation of an international framework and the use of
41 (accounting) tools within organizations can be longer or shorter than this for different
42 initiatives, but this example demonstrates that supranational process can and do cascade to
43 individual organizations and hence involve accounting and accountability routines.

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45 At a broader level, the SDGs themselves are an example of policies cascading from earlier
46 policy initiatives – in this case the Millennium Development Goals (MDGs). The MDGs were
47 originally developed by the OCED in 1996 as part of their strategy paper for the 21st century.
48 They were then taken forward by the UN. After an “iterated distillation, extracted from a wide
49 array of global processes, with many actions involved over several years” (McArthur, 2014:
50 6, see also Scheyren *et al.*, 2016), the MDGs were agreed by Heads of State at the
51 Millennium Summit in 2000. They were the “world’s first explicit development partnership
52 framework between developed and developing countries” (McArthur, 2014: 20). The eight
53 MDGs sought to: (1) eradicate extreme poverty and hunger; (2) achieve universal primary
54 education; (3) promote gender equality and empower women; (4) reduce child mortality; (5)
55 improve maternal health; (6) combat HIV/AIDS, malaria and other diseases; (7) ensure
56 environmental sustainability; and encourage (8) global partnerships for development
57 (<http://www.un.org/millenniumgoals/>, accessed 28th June 2017).

As will be apparent in the ensuing discussion about the SDGs, one defining difference between SDGs and MDGs is the opening up of MDG Goal 7 into more detailed elements (namely: water, energy, climate change, oceans and terrestrial ecosystems), reflecting the functioning of the biosphere and its contribution to human development. Since the MDGs were developed, knowledge about ecosystem integrity has highlighted that the stability of ecosystems has deteriorated such that there may be “large-scale, abrupt, and potentially irreversible changes” on the horizon (Griggés *et al.*, 2014: 49, see also Scheyvens *et al.*, 2016). Griggés *et al.*, (2014: 49) further argue that without “economic, technological, and societal transformation ... the potential for large-scale humanitarian crises is significant and could undermine any gains made by meeting the MDGs, necessitating a fundamental re-evaluation of the relationship between people and planet”. These concerns indicate how the SDGs can be linked back to the core motivation of the 1972 Stockholm Conference: developing a framework that can integrate human development and ecological integrity. The context within which such a purpose is pursued, however, has become more pressing.

2.2 The SDGs

To address their aims of “end[ing] poverty and hunger ... protect[ing] the plant ... [and] ensur[ing] that all human beings can enjoy prosperous and fulfilling lives” (UN, 2015: 3), the SDGs comprise 17 goals (see Table 1) relating to social, ecological and economic outcomes. They “serve as guideposts for a difficult transition to sustainable development” (Le Blanc, 2015: 176). All 193 UN Members States have committed to seeking to achieve the SDGs by 2030 (UN, 2016).

Table 1: The United Nations Sustainable Development Goals Summary

(quoted from: <https://sustainabledevelopment.un.org/sdgs>, accessed 28 June 2017)

Goal number	Outline description
1.	No Poverty End poverty in all its forms everywhere
2.	Zero Hunger End hunger, achieve food security and improved nutrition and promote sustainable agriculture
3.	Good Health and Well-being Ensure healthy lives and promote wellbeing for all at all ages
4.	Quality Education Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
5.	Gender Equality Achieve gender equality and empower all women and girls
6.	Clean Water and Sanitation Ensure availability and sustainable management of water and sanitation for all
7.	Affordable and Clean Energy Ensure access to affordable, reliable, sustainable and modern energy for all
8.	Decent Work and Economic Growth Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
9.	Industry, Innovation and Infrastructure Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
10.	Reduced Inequalities

	Reduce income inequality within and among countries
11.	Sustainable Cities and Communities Make cities and human settlements inclusive, safe, resilient and sustainable
12.	Responsible Consumption and Production Ensure sustainable consumption and production patterns
13.	Climate Action Take urgent action to combat climate change and its impacts by regulating emissions and promoting developments in renewable energy
14.	Life Below Water Conserve and sustainably use the oceans, seas and marine resources for sustainable development
15.	Life on Land Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reversing land degradation and halt biodiversity loss
16.	Peace, Justice and Strong Institutions Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable, inclusive institutions at all levels
17.	Partnerships for the Goals Strengthen the means of implementation and revitalize the global partnership for sustainable development

Programmes of action (many of which are continuations of longstanding streams of work) underpin the SDGs, as does a measurement and performance framework consisting of 169 targets in total (for details and explanations of the 169 targets, along with the context for each of the Goals, click on each individual Goal at:

<http://www.un.org/sustainabledevelopment/sustainable-development-goals/>, accessed 28th

June 2017). As a result, the SDGs “have the potential to become the guiding vision for governmental, corporate and civil society action for a shared and lasting prosperity” (Hajer *et al.*, 2015: 1657) and have been described as “the next era of human development that is transformational” (Caprani, 2016: 102).

Even though the global public policy-making apparatus has coalesced around the SDGs, they are not without their critics, albeit that these critiques are not fully developed in the academic literature given the recent arrival of the SDGs to the policy stage. There are two areas where we might expect to see concerns emerge, namely in the execution of the Goals and in the ideological commitments inherent in the Goals. These critiques can be predicted as they are also the grounds on which the MDGs and the idea of sustainable development have been critiqued in the past. Governance and execution concerns emerge from a number of sources including: linkages of SDGs to existing governance processes (Kim, 2016, explores how the SDGs mesh with international law); the placing of agency at a state level (which is subject to ongoing contestation given globalisation, see Sexsmith and McMichael, 2015); and the technologies of control and accountability (including the role of markets) that might be fit for purpose to guide and evaluate actions taken to achieve the SDGs (Biermann *et al.*, 2017). At the core of ideological concerns is the extent to which the SDGs reinforce or challenge a neo-liberal, Eurocentric agenda (Nilsen, 2016; Weber, 2017). In this context there are longstanding debates that challenge the possibilities for continued economic growth; contest notions of development; and which explore the impact of class, gender and race on life experiences along with consideration of the impact of past and present colonisation (see Gore, 2015, and Nilsen, 2016, for a taste of the elements of these concerns).

None of these problems are resolvable (this is the lesson of wicked problem settings –see Bebbington and Larrinaga, 2014; Biermann *et al.*, 2017) and do not negate the SDGs. Rather, it is relevant to note that despite the enthusiasm for the SDGs, their pursuit will raise points of contestation. What is suggested in their formulation, however, is that we are in new times where “human activity is pushing crucial global ecosystem functions past a dangerous threshold, beyond which the earth might well encounter abrupt, highly non-linear, and potentially devastating outcomes for human wellbeing and life in general” (Sachs, 2012: 2207). As such, and despite the issues alluded to above, inaction is not an option.

While a list of goals provides an indication of the aspects that are considered important, it does not illuminate how these goals might relate to one another, nor the underlying drivers of the impacts that the SDGs seek to address (see Griggs *et al.*, 2017, for an extended analysis and synthesis). There is, however, a recognition that the SDGs “are integrated, that is ... each goal incorporates social, economic and environmental dimensions” (Griggs *et al.*, 2014: 49). Other analyses (specifically Le Blanc, 2015) seek to elucidate inter-connectivity through identifying which goals the various targets point to. For example, 60 of the 169 SGD targets refer to two or more of the SDGs with 19 targets pointing to three or more SDGs. Le Blanc (2015) also identifies those goals which are most integrated (by way of the analysis of targets), these being the criticality of responsible consumption and production (Goal 12) and the promotion of sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (Goal 8). These are areas where accounting scholarship might most obviously be linked to the SDGs (see the next section of this paper for a fuller discussion). In the same vein, Storey *et al.*, (2017: 98) suggest that responsible management education has “strength in contributing to goals promoting economic growth (SDG 8); industry, innovation and infrastructure (SDG 9); sustainable cities and communities (SDG 11); and responsible consumption and production (SDG 12)”.

Other SDG-related literature undertakes a thematic analysis. For example, Hajer *et al.*, (2015) identify four themes around which the goals assemble as being: (1) planetary boundaries, sometimes identified as the climate, land, energy and water nexus (drawing from Rockström *et al.*, 2009); (2) safe and just operating space (drawing from Raworth, 2012 – see also Raworth, 2017); (3) an energetic society (related to models of governance which include more actors and multiple initiatives each of which have their own logics); and (4) green competition, which acknowledges the role of the markets and tones “down the narrative of limits and ... [emphasises] the narrative of opportunities” (Hajer *et al.*, 2015: 1656 – see also Folk *et al.*, 2016 who suggest a similar thematic arrangement). Accounting scholarship is relevant to all these themes (some particular examples are developed in the remainder of the paper).

3 The SDGs and accounting practice and research

To further elucidate the roles that accounting can play in achievement of the SDGs, this section explores the leadership role that elements of the business world and accounting profession are playing with respect to the SDGs. Beyond business and the profession, it also examines how existing research in social, environmental and sustainable development accounting could inform accounting research relevant to particular SDGs, and the knowledge and skills of accountants in enabling areas of measurement, reporting and performance management. The SDGs are likely to further open up new avenues for accounting research, as well as remind us of previous work that has recently been relatively neglected. It is also likely to be the case that a sustainability science framing will be useful. In brief, a sustainability science framing requires two changes to business-as-usual accounting scholarship. First, the subject of the research emerges from problems being faced (rather than the interests of accounting scholars). This makes sustainability science interdisciplinary with contributions being developed by reference to the problem being

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3 addressed. The second hallmark of sustainability science is that those affected by problems
4 are full partners in the research (that is, the work is transdisciplinary). These two aspects fit
5 well with the problem focus of the SDGs as well as reflecting the engaged processes that led
6 to the development of the Goals (see Bebbington and Larrinaga, 2014, for a fuller discussion
7 of sustainability science and its relevance to accounting).
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9 10 3.1 Traction in the business world

11 Development of the SDGs involved extensive consultation and inter-governmental
12 negotiation from when they were first mooted in 2011 (in discussions preparing for the 2012
13 United Nations Conference on Sustainable Development – the ‘Rio+20 Earth Summit’) until
14 they were formally adopted in September 2015. Indeed, commentators describe the process
15 as ‘hyper participatory’ (Scheyvens *et al.*, 2016) and “formulated following one of the biggest
16 consultation exercises the world has ever seen” (Caprani, 2016: 102).
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18 Although the SDGs are very clearly an intergovernmental initiative and agreement,
19 committing governments of nation states rather than individuals or businesses to action, the
20 process of developing the SDGs was different from what had gone before due to “the
21 foregrounding of the role of the private sector” (Scheyvens *et al.*, 2016: 372). The SDG
22 framework recognizes that government action alone cannot achieve the SDG targets, as this
23 will require concerted action across governments, public and private sector organizations,
24 civil society and individual citizens. As a result, many individuals and organizations involved
25 in sustainable development debates and initiatives would have been aware of proposals for,
26 and details of, the SDGs long before they were formally adopted. Organizations committed
27 to furthering sustainable development thus had time before the formal agreement and
28 launch of the SDGs to consider how an SDG framing could impact on their sustainability
29 policies and practices – including how they could most effectively contribute to attainment of
30 the SDGs.
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33 Among the limited empirical evidence on business engagement with the SDGs, in June-July
34 2015 PwC (2015) undertook a survey of business awareness and intentions regarding the
35 SDGs. This showed that even before the SDGs had been formally adopted, and six months
36 before they were officially launched, 92% of the 986 businesses that responded to the
37 survey were aware of the SDGs – compared to 33% of the 2,015 citizens who responded.
38 Clearly there could be a response bias within this result, with businesses more willing to
39 participate in the survey if they were already familiar with the SDGs through their
40 engagement with sustainable development agendas. However, even allowing for possible
41 response bias, this still represents a reasonable number of businesses with awareness of
42 the SDGs six months before they were launched. 71% of the business respondents
43 indicated they were actively planning how they would engage with the SDGs, 34% indicated
44 they would focus their attention on a selection of the SDGs, while 1% indicated that they
45 “plan to assess their impact on all 17 SDGs” (PwC, 2015: 12). However, only 13% of the
46 businesses responding had “identified the tools they need to assess their impact against the
47 SDGs” (PwC, 2015: 8). This gap between (a) the number of organizations committed to
48 engage with the SDGs and (b) the number who had identified how they would assess their
49 performance in relation to the SDGs they considered relevant indicates a need for new
50 forms of accounting interventions in this respect. PwC have developed accounting tools in
51 this area – such as their SDG Selector and SDG Navigator (Wilson, 2017). However, few
52 accounting academics appear to be working on research explicitly focused on supporting the
53 development (through theoretically-informed empirical analysis and/or critique) of the use of
54 (potentially novel) accounting tools in this SDG-related area of emergent practice.
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56 Results of a survey among global CEOs published about 6 months after the SDGs were
57 launched (Accenture, 2016) showed that the SDGs had by then developed even greater
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3 traction and salience among business leaders than revealed in the earlier PwC survey.
4 Among the 1,000 responses to the Accenture survey, 89% indicated that “commitment to
5 sustainability is translating into real impact in their industry” and 87% said that they “believe
6 the SDGs provide an opportunity to rethink approaches to sustainable value creation”
7 (Accenture, 2016: 1). Accenture commented that for the first time since their triennial survey
8 was launched over a decade earlier, 2016 saw “business leaders accepting a mandate for
9 radical change, harnessing the [SDGs] as a universal roadmap for action” (Accenture, 2016:
10 1), with 70% regarding the SDGs as a powerful framing within which their companies’
11 actions towards sustainable development could be developed.
12

13 While the above two surveys are from credible professional sources, there is scope for
14 collection and analysis of much deeper empirical evidence on these matters – including
15 problematizing the manner in which SGD have been embraced by the business world and
16 the accounting profession. For example, the robustness of results and interpretations of
17 surveys of this nature, including the potential for specific business-friendly neo-liberal
18 appropriations of terms such as ‘sustainable value creation’, ‘radical change’, and ‘universal
19 roadmap for action’ could benefit from academic scrutiny and critique (see Malsch, 2013, for
20 an earlier critique of the role of the profession in defining the grounds on which corporate
21 social responsibility is to be identified and measured).
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23 3.2 Traction in reporting

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26 In the reporting arena, several companies quickly incorporated the SDGs into their
27 sustainability reports. For example, in their 2016 *Delivering our purpose report* (BT, 2016),
28 the telecoms group BT incorporated the SDGs into their GRI index (see pp. 56-74 of the
29 report) explaining that “We have used the SDG Compass tool to map our response and
30 increase transparency”. Their report indicated the relevant SDG(s) (if any) for each item in
31 the GRI index. While (as is common and reasonable) many items in the GRI index were
32 identified as not being material enough to be covered in the BT report, the items covered in
33 the report encompassed all of the SDGs – some more extensively than others.
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35 In contrast to BT’s broad approach, Unilever’s (2016) *Sustainable Living Plan: Summary of*
36 *Progress* report provided in-depth discussion of those SDGs that were considered most
37 relevant to Unilever’s operations (it should be noted that Unilever’s CEO Paul Polman was a
38 member of the United Nations High Level Panel on the SDGs). After explaining the role and
39 importance of the SDGs for both Unilever and society more broadly, the report discussed in-
40 depth how Unilever was acting in respect of SDGs 2 (Zero Hunger), 6 (Clean Water and
41 Sanitation) and 15 (Life on Land) through: “mainstreaming sustainable agriculture” (Unilever,
42 2016: 18); “supporting the delivery of sustainable access to safe drinking water, sanitation
43 and hygiene” (p. 19); and working to “eliminate deforestation from the world’s commodity
44 supply chains [and] tackling climate change” (p. 17).
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46 The emerging impacts of the SDGs on sustainability reporting, along with insights from the
47 Accenture survey, reinforce the view that the SDGs have rapidly gained traction among
48 large businesses. While the SDGs appear to be accelerating, motivating and focusing the
49 sustainability-related efforts of many of these businesses, they could also be being used (by
50 some organizations, to some extent) to camouflage *business-as-usual* by disguising it using
51 SDG-related sustainability rhetoric. Academic investigation is needed to help understand
52 where specific SGD-related accounting initiatives lie on the continuum between pure rhetoric
53 and meaningful action, and to inform the most effective use of the SDGs by a broad range of
54 organizations in developing policies and practices that will contribute towards achievement
55 of the SDGs.
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3.3 Traction in the accounting profession

The accounting profession have also been quick to comprehend the importance and potential of the SDGs, the substantial engagement by business with the SDGs, and the role the accounting profession can play in pursuing meaningful action within the SDG framework.

Some professional accounting bodies, which have been developing substantive commitments to sustainability and accounting for sustainability over many years, have begun to enrol the SDGs in furthering their championing of accounting for sustainability. For example, the Institute of Chartered Accountants in England and Wales (ICAEW) are among the professional accounting bodies that have “embraced the SDGs as a new framework for their existing commitment to pursuing the public interest” (Wilson, 2017: 40). Moreover, the ICAEW’s championing and partnership with the Natural Capital Coalition resonates with the SDG framing and focus. In a recent interview, the ICAEW’s Director of Sustainability, Richard Spencer, explained that the SDGs:

“are an articulation by the world of what the world wants, and that actually is a very good articulation of the public interest ... we have taken the view that this provides an objective standard that we can use to focus our work and it has helped to reposition our vision, to be less introverted as a profession. Our vision now is that a successful economy depends upon and interacts with a successful society and a successful environment” (Wilson, 2017: 40)

The ICAEW example shows that where a public interest remit is taken seriously the SDGs resonate strongly with the profession’s mission. Using this as a route or justification to raise awareness of the SDGs among accounting firms and consultancies, and encouraging them to promote recognition of the SDGs among their clients, has potential as these firms and consultancies can act as conduits of ideas from one setting or organization to another. In this context, the accounting profession can develop an important role for itself as part of the intervening process in helping translate and adapt the government-level commitments within the SDG targets into organizational-level actions and achievements.

The accounting profession have also been active at a global level in relation to the SDGs. In November 2016, the International Federation of Accounting (IFAC – the global representative body of professional accounting bodies) published a policy document explaining how the accounting profession could help in realization of the SDGs (IFAC, 2016). This document resulted from workshops held by IFAC which identified eight of the 17 SDGs as the goals on which the accounting profession could have the greatest impact, and explored how the accountancy profession could contribute the most towards achievement of these goals (echoing Storey *et al.*’s, 2017, list). The eight goals selected through IFAC’s processes are:

- Goal 4 – quality education
- Goal 5 – gender equality
- Goal 8 – decent work and economic growth
- Goal 9 – industry, innovation and infrastructure
- Goal 12 – responsible consumption and production
- Goal 13 – climate action
- Goal 16 – peace and justice and strong institutions
- Goal 17 – partnerships for the goals

IFAC’s CEO, Fayez Choudhury, has indicated that, with 3 million accountants being members of the bodies that comprise IFAC, “the skillset, experience, and influence

professional accountants possess gives them enormous scope to shape solutions to sustainable development challenges” (Wilson, 2017: 41). With the accounting profession identifying a role for accountants in policy and practice, we argue that the accounting academy also has an opportunity to help ensure that SDG-related accounting interventions actually do advance the achievement of the SDGs.

3.4 Accounting research relevant to the SDGs

Since the *Brundtland Report* (UNWCED, 1987) the academic discipline of accounting has sought to respond to sustainable development in a variety of ways, including:

- Tracing the history, possible meaning and ramifications of sustainable development (see, for example: Bebbington, 2001; Gray, 1992, 2002, 2010; Unerman and Chapman, 2014).
- Linking accounting techniques that have (and may be) used in support of sustainable development ambitions (see, for example: Atkinson, 2000; Bebbington *et al.* 2007; Buhr and Reiter, 2006; Crutzen *et al.* 2017; Figge and Hahn, 2004; Frame and Cavanagh, 2009; Hopwood *et al.* 2010; Milne, 1996; Russell and Thomson, 2009; Schaltegger *et al.* 2006; Spence and Rinaldi, 2014; Thomson *et al.* 2014; Xing *et al.* 2009).
- Considering particular aspects of the sustainable development agenda in conjunction with accounting scholarship (including, for example, carbon accounting, water accounting, accounting and human rights and accounting for biodiversity, see Bebbington *et al.*, 2014 for a synthesis).
- Exploring the ontological, epistemological and methodological ramifications of sustainable development thinking, most often framed under the exploration of sustainability science (Bebbington and Larrinaga, 2014; Bebbington and Thomson, 2013; Frame and Brown, 2008).

Social, environmental and sustainable development inspired accounting research, which is located at what is now the interface of particular aspects of the SDG goals, also has a long history. For example, there is a critical mass of existing research relating most clearly to:

- SDG 6 - clean water and sanitation (see: Hazelton, 2013, 2015; Jenkins *et al.*, 2014; Larrinaga-González and Pérez-Chamorro, 2008);
- A combination of SDGs 5, 10 and 16 – focusing on human rights and equalities (see: Arnold, 2010; Haller *et al.*, in press; McPhail *et al.*, 2016; McPhail and McKernan, 2011; Tweedie and Hazelton, 2015);
- SDG 13 - climate action (see: Ascui and Lovell, 2011; Bebbington and Larrinaga-Gonzalez, 2008; Brander, in press; Kolk *et al.*, 2008; Stechemesser and Guenther, 2012); and
- SDGs 14 and 15 - life below the water/life on land (see: Bebbington *et al.*, 2015; Cuckston, 2013; Georgakopoulos and Thomson, 2005, 2008; Jones, 2014; Siddiqui, 2013; Van Liempd and Busch, 2013).

While the above research provides insights that relate to some of the SDGs (individually and in combination) and broader accounting concerns relevant to the SDGs, this work was clearly not undertaken within, or informed by, the SDG framing (as it was undertaken before the SDGs were formulated). The SDGs may therefore provide openings to extend research studies in the above areas to provide on-going insights that will help advance sustainable development. Issues covered by other SDGs do not yet appear to have prompted accounting-related research projects, but may well be potential sites for future interaction. With this in mind, the next section sketches a research agenda to establish and advance the role of academic accounting in the pursuit of the SDG's.

4 An accounting research agenda for the SDGs

As explained above, the SDG framing provides an opportunity and need to revisit, redefine, and refine the topics and issues studied by social, environmental and economic sustainability accounting researchers – as well as providing opportunities to re-examine the conceptual underpinnings of these fields. Building on these opportunities and needs both for research into the possible roles accounting can play in furthering organizational-level management and operational contributions to achievement of the SDGs, and for broader interdisciplinary research involving accounting, this section seeks to prompt specific areas of work and provide general encouragement to use the SDGs as a way of reflecting upon accounting research. This is not an exhaustive list of possible avenues, but offers suggestions designed to prompt our collective imagination.

In so doing, it is important for accounting academics to appreciate that much of the information and underlying data that will need to be used within meaningful SDG-related accounting practice will probably come from systems that have so far been beyond the boundaries of entity-level sustainability accounting and reporting. Where such systems have been outside the purview of social and environmental accounting academics, this makes embracing interdisciplinarity even more important in a research agenda seeking to enhance the role of accounting in achievement of the SDGs.

4.1 Accounting technologies in SDG analysis

As noted earlier in this paper, the SDGs are underpinned by 169 targets which are used to monitor progress towards the SDGs as well as to provide data regarding how delivery needs to be adjusted over the period to 2030. These targets can be considered both individually and in terms of combinations between two or more targets and/or between targets and SDGs (Kumar *et al.*, 2017). The same kind of process underpinned the MDGs, and indeed various sustainable development target-setting and performance measurement frameworks within the UN. With limited exceptions (see Russell and Frame, 2013, Russell and Thomson, 2009) it is not evident that the academic accounting discipline has been fully engaged in questions of how action for sustainable development can be co-ordinated or how accounting technologies (for example, though indicator sets) can be used to steer actions and outcomes. More usually this type of investigation is undertaken by ecological economists (see, for example, Selomane *et al.*, 2015) who have a greater focus on country/region level analysis. There may also be an opportunity for accountants to collaborate with researchers who work on various spatial scales to see if an integration between data generated in (say) regions and from organisations can be linked so that entity level measures sit within (and support) regional level analysis of SDG-related performance (see also the discussion below concerning how entity boundaries are defined).

To achieve meaningful collaboration in this area it will be necessary for accounting academics to broaden the scope of organizational boundaries and communicative technologies that have traditionally been considered to be the remit of social and environmental (as well as financial and management) accounting. For example, the *Accounting, Auditing and Accountability Journal* special issue on 'Social Media and Big Data' (2017, Vol. 30, No. 4) provides insight into the nature, scope and drawbacks of new media that can be used to collect, synthesise and communicate novel forms of data and is relevant for any attempts to achieve data coherence around SDG analysis (see Arnaboldi *et al.*, 2017b, for an introduction to the issues).

Papers in the Social Media and Big Data special issue also highlight how big data can be used to provide insights across whole populations rather than just samples. SDG-related accounting interventions can potentially use and develop insights in both of these areas to

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3 good effect. But this requires researchers to expand their horizons, moving beyond more
4 familiar forms of organization-centric annual sustainability reporting (such as GRI reports)
5 that have focused on concerns of organizational-level responsibility, performance and
6 accountability, and embracing issues such as novel types of performance indicators
7 channelling the power of various stakeholders articulated through social media and other
8 emerging technologies (Agostino and Sidorova, 2017; Bellucci and Manetti, 2017), and
9 novel visualization technologies coupled with real-time reporting (Arnaboldi *et al.*, 2017b).
10 Effectively embracing these new technologies in SDG-related accounting practice may also
11 require changes in the role accountants play in accounting and decision-making processes,
12 with expertise of professionals from other areas becoming increasingly more significant (Al-
13 Htaybat and Alberti-Alhtaybat, 2017; Arnaboldi *et al.*, 2017a).

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15 Drawing on the power of new technologies in developing SDG-related accounting
16 interventions may require greater humility than is often the norm among accounting
17 practitioners and researchers. In the words of Arnaboldi *et al.* (2017b, p. 769) “[t]he digital
18 revolution seems to offer an opportunity to question and imagine what we cannot know
19 rather than reassure us of what can be measured”. We argue that this observation is likely to
20 apply even more acutely with the challenging multifaceted complexity of achieving the SDGs
21 than it does in the less complex (albeit still very complex) economic world traditionally
22 addressed by financial and management accounting practices and technologies.
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24 These observations point towards the opportunity for accountants to collaborate more
25 closely with governance researchers. In particular, Meuleman and Niestroy (2015) outline
26 the tenants of ‘metagovernance’ – a field which explores how to combine different
27 governance styles, enacted on different scales (global, national and local, for example) into
28 successful and coherent governance frameworks. Meuleman and Niestroy (2015: 12298)
29 conceive of governance as encompassing the “totality of interactions ... [including entities
30 such as] government, other public bodies, private sector and civil society” actors. The
31 accounting discipline brings a wealth of knowledge and experience to understanding the
32 possibilities and pitfalls in private sector governance. This focus is also inherent in SDGs 16
33 and 17 which include the aspirations to “build effective, accountable and inclusive institutions
34 at all levels” (Goal 16) and includes a variety of means for implementation (Goal 17 – Kumar
35 *et al.*, 2017 also place this goal at the apex of their hierarchy of SDGs). We now turn to
36 suggesting some (among a universe of a great many) possible topics for researchers to
37 consider in SDG-related accounting research.
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39 40 4.2 Re-discovering topics of relevance

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42 The SDGs provide a series of prompts to our scholarly community with respect to topic
43 areas that have particular salience in the pursuit of the Goals. Three relevant aspects are
44 suggested here as examples: refocusing on economic fairness; putting ecological
45 responsibility back into the heart of analysis; and a renewed focus on the responsibilities of
46 higher education.
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48 For the first of these, Caprani (2016:103) highlight that “the SDGs have been designed with
49 inclusive economic development at the core of the strategy”; albeit that others, such as
50 Weber (2017: 4), are critical of the SDGs, seeing them as a “neo liberal development
51 project”. Regardless, the SDGs highlight for accounting scholars aspects such as economic
52 democracy (see, Bebbington and Campbell, 2015, for a provocation); tax equity
53 (Christensen and Murphy, 2004; Sikka and Willmott, 2010); and what constitutes fair wages.
54 There are also attempts in this context to develop certifications to provide assurance about
55 corporate actions, including the fair tax mark (<https://fairtaxmark.net/>, accessed 28th June
56 2017) and being a certified living wage employer ([http://www.livingwage.org.uk/what-is-the-
57 living-wage](http://www.livingwage.org.uk/what-is-the-living-wage), accessed 28th June 2017). These mechanisms warrant, but lack, in-depth and
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critical academic evaluation (but see Ptashnick and Zuberi, 2015). These debates also have resonance with discussions about how we might champion a circular economy (see Murray *et al.*, 2017); prosperity without growth (Jackson, 2009) and also link to the forthcoming *Accounting, Auditing and Accountability Journal* special section on accounting for (in)equitable organizations and societies and the *Critical Perspectives on Accounting* call for papers on the role of accounting technologies in the creation of social and societal risk.

In the second suggested research area, that of putting ecological responsibility back into the heart of analysis, SDG commentators are clear that planetary limits are at the core of Goals (Schyevens *et al.*, 2016; Sterling, 2016; Caprani, 2016). This is a focus that needs to be replicated in accounting research (see George *et al.*, 2016, and Whiteman *et al.*, 2012, for equivalent work in management). In this context, the *Accounting, Auditing and Accountability Journal* special issue on ecological accounts in 2017 provides support for this ambition and also highlights the need to critically examine the conceptual distinctions made between nature and culture. These are questions that go to the heart of human-nature relationships and link back to earlier accounting scholarship (see Birkin, 1996; Birkin *et al.*, 2005; Hines, 1991).

Another rationale for the call to refocus on ecological responsibilities lies in the tendency of accounting research to focus on organizations perceived to be significant in terms of size or listed status, which may be different from organizations and contexts of ecological importance (Atkins *et al.*, 2014, and Dey and Russell, 2014, demonstrate this contrast). Another example in this area may illuminate this distinction. If one is seeking to interrogate accountability for the governance of endangered species, the accounting entities of relevance are likely to be national governments, conservation agencies and national park authorities. This is because these are the entities who (in many countries) act as custodians of endangered species and who have signed international conventions for their preservation. Listed corporations who operate in the countries where iconic species are endangered (but who are not involved in poaching and/or habitat destruction) are unlikely to be fruitful sites for analysis on endangered species as they are not the responsible entities.

The final example proposed as an area of existing research that might be stimulated by a focus on the SDGs is that of education (for higher education this would emerge from a combination of SDGs 4 and 17). Academic accountants spend much of their working lives in organizations within which they have a degree of authority, autonomy and influence (for an introduction of this context see Godemann *et al.*, 2014 and for SDG specific insight see Annan-Diab and Molinari, 2017; Storey *et al.*, 2017). The pursuit of education, as well as participation in the management of higher education institutions, provides a site from which to support the SDGs. One such site where this may take place is under the auspices of the UN's Principles of Responsible Management Education (PRME – see <http://www.unprme.org/resource-docs/SDGBrochurePrint.pdf>, accessed 28th June 2017 and <http://www.unprme.org/news/index.php?newsid=428#.WMwZsWekKic>, accessed 28th June 2017). Indeed, the Kemmy Business School at the University of Limerick in Ireland provides an example of how teaching, research and external engagement can be motivated, shaped and tracked by reference to the SDGs (<http://www.unprme.org/reports/KBSPRMEReportJune2016.pdf>, accessed 28th June 2017). Drawing on this example, engaging in action research within our employing organizations, redoubling efforts as educators and researching the effectiveness of SDG engagement in educational organizations would be fruitful areas of work for many academics (building on Collison *et al.*, 2014).

The above discussion suggests that the SDGs provide a fresh lens through which academics can fruitfully view the accounting field and, in particular, point towards aspects that are currently under-researched. Not only have we seen the energizing effect of the

SDGs on the accounting profession, there is also potential for inserting new impetus into existing accounting-sustainable development scholarship.

4.3 Re-examining conceptual commitments

Where new practices and policies emerge from a (claimed or substantive) focus on the SDGs, existing theoretical frameworks may well illuminate empirical work. For example, an interest in the accounts offered by organizations as interpreted through the lenses provided by institutional theory could continue to offer insights. However, it is also the case that social and environmental sustainability accounting is poised to, and urgently needs to, develop some new conceptual frames (Unerman and Chapman, 2014), with the SDG focus likely to accelerate this trend. The need and likelihood of conceptual innovation arises from the nature of the challenges that gave rise to the SDGs (global scale, wickedly complex and post normal – see Frame and Brown, 2008; Bebbington and Larrinaga, 2014; Bebbington and Thomson, 2013) as well as the integrated nature of the goals (across country context, spatial scales and between social, environmental and economic dimensions). This gives rise, for example, to three potential sites for theoretical innovation: challenging definitions of entity boundaries; introducing new conceptual frameworks for analysis; and re-examining the conceptual basis of justice, responsibility and accountability.

Highlighting novel challenges in defining entity boundaries, it is unproblematic to assert “that we live in historically extraordinary times, characterized by hyperconnectivity, complexity, contingency, critical wicked problems and systemic issues – and rapid changes at local and planetary levels, which are mostly on unsustainable trajectories” (Sterling, 2016: 209). The SDGs (among other initiatives) seek to address this context. At the individual organizational scale, a concern with externalities has been evident in the accounting literature (Bebbington *et al.*, 2001) with this work highlighting the need to re-define the boundaries of any entity (the usual object of analysis by accounting scholars) in order to understand its full impacts. Likewise, a desire to understand the ultimate impacts of organizational behaviour is evident in the work of Collinson *et al.*, (2012) and Ferguson *et al.*, (in press) who explore how social outcomes arise from the collective operation of shareholder-orientated capitalism. Both of these types of investigation are relevant to accounting scholarship for the SDGs. What this work also does, albeit not always explicitly, is to create the space within which we might question what entities are relevant for accounting scholarship. There are goals within the SDGs that focus on entities that mediate between scales and which are pivotal to social outcomes. For example, SDG 11 (sustainable cities and communities) and SDG 9 (innovation and infrastructure) focus on entities that are not usually investigated by accounting scholars (but see Baker, 2014; Lapsley, *et al.*, 2010; and Storey *et al.*, 2017: 97, who note the relevance of place as a “unifying and dividing metaphor”). These entities, however, offer rich sites for empirical investigations (this potential was prefigured in the 2010 special issue of *Accounting, Auditing and Accountability Journal* on cities).

A second area for theoretical innovation builds off this first observation. As accounting researchers become more attentive to the context within which organizations operate, conceptual frames from policy and geography domains become more relevant. Again there are papers that already point towards new theoretical framings, including those offered by: governmentality (Gouldson and Bebbington, 2007; Russell and Frame, 2013; Spence and Rinaldi, 2014) and arena studies (Dey and Russell, 2014; Georgakopoulos and Thomson, 2008; Thomson *et al.*, 2015). Moreover, it is likely that careful exploration and engagement with science and technology studies (for an introduction see Geels, 2010) and resilience (for an introduction see Walker *et al.*, 2004) literature will yield potentially useful framing devices for SDG-related accounting studies. What these conceptual frameworks have in common is that they consider systems dynamics and the nesting of impacts across spatial and temporal scales and seek to explain how change happens on multi-scales (see, for example, Starik

and Rands, 1995; and Whiteman *et al.*, 2013 for related work outside of accounting). Work using these frames might be usefully developed in partnership with cognate disciplines.

Finally, for accounting researchers the SDGs prompt a re-consideration of the social contract basis for determining corporate social responsibilities (embedded in Rawls 1971, 2001) and point towards the potential of a capabilities approach (exemplified by Nussbaum, 2006, 2011, and Sen, 1999, 2009) providing the political philosophical basis for analysis (see Pogge, 1992). Consideration of the relevance of the capabilities approach arises from a number of sources, namely: business ethics explorations of corporate citizenship (Crane, *et al.*, 2008); political corporate social responsibility (Whelen, 2012); human rights investigations (McPhail *et al.*, 2016, hint at this connection); and sustainable development work that focuses on what human flourishing/ prosperity entails (Jackson, 2009). The SDGs emphasis on “dignity and justice” (Scheyvens *et al.*, 2016: 373) makes exploration of the capabilities approach highly pertinent (see also Langhelle, 2000).

Taken together, this section has sought to open up accounting for sustainable development research to empirical contexts and theoretical approaches that are not fully developed in the existing literature. If accounting’s engagement with the SDGs is to reflect and help realize their transformational nature, it should be anticipated that our scholarship will also change – with major developments in both sustainability accounting-focused research and in interdisciplinary research with accounting as one of its disciplinary elements. However, realizing this potential will only be possible if academics have access to sufficient resources to undertake high quality SDG-related accounting research, and effectively disseminate the outcomes of such research beyond the academic community. The next section briefly sets out some considerations in these regards.

5 Facilitating and disseminating SDG-related accounting research

As indicated in the foregoing sections, addressing the accounting-related research needs and possibilities that are opened up by the SDGs will likely involve research projects focusing on a variety of issues at different levels. While some of these may be undertaken very effectively within the traditional boundaries of social, environmental and financial accounting and accountability academic work, others will need to be part of broader interdisciplinary, multidisciplinary and transdisciplinary projects. It may be possible for some academics to undertake some projects in these areas without additional funding beyond their time funded internally by their universities. However other projects are likely to require external funding to provide the time of academics and other resources necessary to collect and analyse data, and develop relevant theories, in producing high quality research insights.

Given the high-profile commitment of some professional accountancy bodies to the SDGs, as set out earlier in this paper, these bodies’ research boards and committees might be a useful source of funding for some SDG-related accounting research projects. However, the professional accountancy bodies tend to have limited resources to fund research, and typically are only able to fund marginal costs of a research project. As a result, larger projects are likely to require looking beyond the professional accountancy bodies for funding – although professional accountancy bodies are sometimes willing to consider joint funding in partnership with other types of funders.

Governmental and intergovernmental research funding bodies (such as national research councils, the European Union, and the UN) may be especially receptive to research projects that have clear potential to help further achievements of the SDGs – and thereby help governments (and the UN) deliver on their SDG commitments. Furthermore, government overseas aid agencies and philanthropic foundations may welcome, and be willing to contribute funding towards, SDG-related research projects that clearly have potential to help

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3 make the work of the aid initiatives they fund more effective and efficient. Funding
4 applications to many government agencies, intergovernmental agencies, or philanthropic
5 foundations are often more likely to succeed if they are jointly funded in partnership with
6 another body (even if not in equal measure) – and joint funding by a professional accounting
7 body (or even a for-profit corporation) could be an important factor in successful research
8 funding bids.
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10 Developing a strong research team is a prerequisite to scoping a successful research project
11 and developing a proposal that forms the basis for a funding application. Identifying the
12 strongest, most experienced and relevant members for the research team often requires
13 building teams across different universities, disciplines and countries. Organizations such as
14 *Future Earth* and its *Knowledge-Action Networks* can be particularly important in this regard
15 (see: <http://www.futureearth.org/knowledge-action-networks>, accessed 28th June 2017).
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17 These academic networks can also be important in disseminating the outputs of elements of
18 research projects in a timelier manner than is often possible when researchers are solely
19 focused on publishing their insights in peer-reviewed journals. They can therefore be an
20 important supplement to peer-reviewed journal articles in leveraging policy impacts from
21 SDG-related accounting research. In addition, academics seeking to have the largest
22 possible impact on policy and practice need to consider dissemination through a variety of
23 channels and media outside the academic world, that are more likely to be read by policy
24 makers and practitioners (see Bebbington *et al.*, in press, for a discussion of the
25 complexities of this ambition). Examples of such media are well-established SDG blogs,
26 discussion fora, UN agency (and government agency) newsletters and professional
27 accountancy magazines and conferences. In addition to the academics who are involved in
28 these forms of dissemination, universities are also likely to increasingly value non-academic
29 channels of dissemination as research impact becomes a key performance focus for higher
30 education in more countries.
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32 Finally, given the interdisciplinary nature of the SDGs, even where an SDG-related
33 accounting research project has not been interdisciplinary in its conduct (ie: it has been
34 undertaken solely by academics from within the social and environmental (and possibly
35 financial) accounting community) it will be important to disseminate its insights through
36 publication in peer reviewed journals read by academics working on SDGs research in other
37 disciplines. This can be addressed, for example, by submitting papers to a wide range of
38 sustainability-related journals to help academics in other disciplines appreciate the power
39 and potential of accounting policy, practice and research to contribute to realization of the
40 SDGs (see Bebbington and Larrinaga, 2014, footnote 20 at page 402 who highlight such
41 crossover outlets).
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45 6 Closing reflections

46 The UN SDGs represent the ‘state of the art’ thinking of governments around the globe as to
47 the challenges that face the world as well as the mechanisms by which these challenges
48 might start to be addressed. The SDGs require us to act “within our current obsolete
49 development framework to bend environmental and social justice curves as much as
50 possible, while simultaneously fostering the longer-term shift in consciousness to values and
51 institutions that equitably integrate people and planet” (Sterling, 2016: 210 – quoting
52 Rockström, 2015). With this in mind, the purpose of this paper has been to establish and
53 advance the role of academic accounting in pursuit of the SDGs. In pursuing this aim, the
54 paper has proposed three elements of an accounting research community response to the
55 SDGs and their implementation. First, the technologies of accounting, target setting and
56 reporting are required within the UN SDG architecture of ‘metagovernance’ and this
57 represents an opportunity for scholars in evaluating and advancing how accounting is used
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3 in these contexts. Second, the SDGs touch upon topic areas that are already researched in
4 some manner within social, environmental and sustainable development accounting
5 scholarship; each of whose parameters and focus may be shaped and transformed by the
6 impetus behind the SDGs. Finally, it has been suggested that there are new avenues for
7 investigation and theorization that are prompted by the SDGs and their connection with
8 'more than accounting' domains of scholarship (including natural science, other social
9 sciences and humanities). While knowing about the SDGs is productive in and of itself, this
10 paper suggests that they provide the opportunity for the accounting for sustainable
11 development academic field to further develop its contributions. The SDGs have already
12 generated engagement across a wide array of actors including, significantly for our
13 purposes, actors engaged with business, accounting and finance. Indeed, one of the
14 hallmarks of the SDGs is that they reflect a consensus "that business had a crucial role to
15 play in achieving transformational global development" (Caprani, 2016: 103). Our proposition
16 in this paper is that accounting academics (as a community and in concert with others) can
17 contribute substantively to that challenge.
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22 7 References

- 23
24 Accenture, (2016), *The UN Global Compact-Accenture Strategy CEO Study 2016 Agenda 2030: A*
25 *Window of Opportunity Accenture Strategy*, 22 June 2016. See: [https://www.accenture.com/us-](https://www.accenture.com/us-en/insight-un-global-compact-ceo-study)
26 [https://www.accenture.com/t20161216T041642_w_us-en/](https://www.accenture.com/t20161216T041642_w_us-en/acnmedia/Accenture/next-gen-2/insight-ungc-ceo-study-page/Accenture-UN-Global-Compact-Accenture-Strategy-CEO-Study-2016.pdf#zoom=50)
27 [acnmedia/Accenture/next-gen-](https://www.accenture.com/t20161216T041642_w_us-en/acnmedia/Accenture/next-gen-2/insight-ungc-ceo-study-page/Accenture-UN-Global-Compact-Accenture-Strategy-CEO-Study-2016.pdf#zoom=50)
28 [2/insight-ungc-ceo-study-page/Accenture-UN-Global-Compact-Accenture-Strategy-CEO-Study-](https://www.accenture.com/t20161216T041642_w_us-en/acnmedia/Accenture/next-gen-2/insight-ungc-ceo-study-page/Accenture-UN-Global-Compact-Accenture-Strategy-CEO-Study-2016.pdf#zoom=50)
29 [2016.pdf#zoom=50](https://www.accenture.com/t20161216T041642_w_us-en/acnmedia/Accenture/next-gen-2/insight-ungc-ceo-study-page/Accenture-UN-Global-Compact-Accenture-Strategy-CEO-Study-2016.pdf#zoom=50) accessed 1 February 2017.
30
31 Agostino, D. and Sidorova, Y. (2017), "How social media reshapes action on distant customers: some
32 empirical evidence", *Accounting, Auditing and Accountability Journal*, Vol. 30 No. 4, pp. 777-794.
33
34 Al-Htaybat, K. and Alberti-Alhtaybat, L. (2017), "Big data and corporate reporting: impacts and
35 paradoxes", *Accounting, Auditing and Accountability Journal*, Vol. 30 No. 4, pp. 850-873.
36
37 Annan-Diab, F., and Molinari, C. (2017), "Interdisciplinary: Practical approach to advancing education
38 for sustainability and for the Sustainable Development Goals", *The International Journal of*
39 *Management Education*, Vol. 15, No. 1, pp. 73-83.
40
41 Arnaboldi, M., Azzone, G. and Sidorova, Y. (2017a), "Governing social media: the emergence of
42 hybridised boundary objects", *Accounting, Auditing and Accountability Journal*, Vol. 30, No. 4, pp.
43 821-849.
44
45 Arnaboldi, M., Busco, C. and Cuganesan, S. (2017b) "Accounting, accountability, social media and
46 big data: revolution or hype?", *Accounting, Auditing & Accountability Journal*, Vol. 30, No. 4, pp.762-
47 776.
48
49 Arnold, D. (2010), "Transnational corporations and the duty to respect basic human rights", *Business*
50 *Ethics Quarterly*, Vol. 20, No. 3, pp. 371-399.
51
52 Ascuri, F. and Lovell, H. (2011), "As frames collide: making sense of carbon accounting", *Accounting,*
53 *Auditing and Accountability Journal*, Vol. 35, No. 3, pp. 130-138.
54
55 Atkins, J., Gräbsch, C., and Jones, M. (2014), "Corporate biodiversity reporting: Exploring its
56 anthropocentric nature", Jones, M. *Accounting for Biodiversity*, Routledge, London, pp. 2015-244.
57
58 Atkinson, G. (2000), "Measuring corporate sustainability", *Journal of Environmental Planning and*
59 *Management*, Vol. 43, No. 2, pp. 235-252.
60

- 1
2
3 Baker, R. (2014), "Breakdowns of accountability in the face of natural disasters: The case of
4 Hurricane Katrina", *Critical Perspectives on Accounting*, Vol. 25, No. 7, pp. 620-632.
- 5
6 Brander, M, (in press), "Comparative analysis of attributional corporate greenhouse gas accounting,
7 consequential life cycle assessment, and project/policy level accounting: A bioenergy case study",
8 *Journal of Cleaner Production*.
- 9
10 Bebbington, J. (2001), "Sustainable development: a review of the international development, business
11 and accounting literature", *Accounting Forum*, Vol. 25, No. 2, pp. 128-157.
- 12
13 Bebbington, J., Brown, J., and Frame, B. (2007), "Accounting technologies and sustainability
14 assessment models", *Ecological Economics*, Vol. 61, No. 2-3, pp. 224-236.
- 15
16 Bebbington, J. and Campbell, D. (2015), "Economic democracy: exploring the ramifications for social
17 and environmental accountants", *Social and Environmental Accountability Journal*, Vol. 35, No. 2, pp.
18 77-85.
- 19
20 Bebbington, J., Gray, R., Hibbitt C. and Kirk, E, (2001) *Full cost accounting: an agenda for action*,
21 Association of Chartered Certified Accountants, London.
- 22
23 Bebbington, J., and Larrinaga-Gonzalez, C. (2008), "Carbon trading: accounting and reporting issues",
24 *European Accounting Review*, Vol. 17, No. 4, pp. 697-717.
- 25
26 Bebbington, J., and Larrinaga, C. (2014), "Accounting and sustainable development: an exploration",
27 *Accounting, Organizations and Society*, Vol. 39, No. 6, pp. 395-413.
- 28
29 Bebbington, J., Larrinaga, C., Russell, S., and Stevenson, L, (2015), "Organizational, management
30 and accounting perspectives on biodiversity", Gasparatos, A., and Willis, K. *Biodiversity in the Green
31 Economy*, Routledge, London, pp. 213-239.
- 32
33 Bebbington, J., Russell, S. and Thomson, I. (in press), "Accounting and sustainable development:
34 reflections and propositions", *Critical Perspectives on Accounting*.
- 35
36 Bebbington, J., and Thomson, I. (2013), "Sustainable Development, Management and Accounting:
37 Boundary Crossing", *Management Accounting Research*, Vol. 24, No. 4, pp. 277-283.
- 38
39 Bebbington, J., Unerman, J., and O'Dwyer, B., Eds, (2014), *Sustainability Accounting and
40 Accountability*, London, Routledge.
- 41
42 Bellucci, M. and Manetti, G. (2017), "Facebook as a tool for supporting dialogic accounting? Evidence
43 from large philanthropic foundations in the United States", *Accounting, Auditing and Accountability
44 Journal*, Vol. 30 No. 4, pp. 874-905.
- 45
46 Biermann, F., Kanie, N. and Kim, R. (2017), "Global governance by goal-setting: the novel approach
47 of the UN Sustainable Development Goals", *Current Opinion in Environmental Sustainability*, Vol. 26,
48 No. 1, pp. 26-31.
- 49
50 Birkin, F. (1996), "The ecological accountant: from the cogito to thinking like a mountain", *Critical
51 Perspectives on Accounting*, Vol. 7, No. 3, pp. 231-257.
- 52
53 Birkin, F., Edwards, P. and Woodward, D. (2005), "Accounting's contribution to a conscious cultural
54 evolution: an end to sustainable development", *Critical Perspectives on Accounting*, Vol. 16, No. 2,
55 pp. 185-208.
- 56
57 BT (2016) *Delivering our purpose*, update on progress in 2015/16, London: BT Group PLC. See:
58 [http://www.btplc.com/Purposefulbusiness/Deliveringourpurpose/Downloads/2016/2016_BTDelivering
59 OurPurposeReport.pdf](http://www.btplc.com/Purposefulbusiness/Deliveringourpurpose/Downloads/2016/2016_BTDeliveringOurPurposeReport.pdf) , accessed 9 March 2016
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2
3 Caprani, L. (2016), "Five ways the sustainable development goals are better than the millennium
4 development goals and why every educationalist should care", *Management in Education*, Vol. 30,
5 No. 3, pp. 102-104.
- 6
7 Collison, D., Cross, S., Ferguson, J., Power, D. and Stevenson, L. (2012), "Legal Determinants of
8 External Finance Revisited: The Inverse Relationship between Investor Protection and Societal Well-
9 being", *Journal of Business Ethics*, Vol. 108, No. 3, pp. 393-410.
- 10
11 Collison, D., Ferguson, J., and Stevenson, L. (2014), "Sustainability accounting and education",
12 Bebbington, J., Unerman, J., and O'Dwyer, B., *Sustainability Accounting and Accountability*, London,
13 Routledge, pp. 30-48.
- 14
15 Christensen, J., and Murphy, R. (2004), "The social irresponsibility of corporate tax avoidance: take
16 CSR to the bottom line", *Development*, Vol. 47, No. 3, pp. 37-44.
- 17
18 Crane, A., Matten, D., and Moon, J. (2008), "Ecological Citizenship and the Corporation: Politicizing
19 the New Corporate Environmentalism", *Organization & Environment*, Vol. 21, No. 4, pp. 371-389.
- 20
21 Crutzen, N., Zvezdov, D., and Schaltegger, S. (2017), "Sustainability and management control.
22 Exploring and theorizing control patterns in large European firms", *Journal of Cleaner Production*, Vol.
23 143, No. 13-14, pp. 1291-1301.
- 24
25 Cuckston T. (2013), "Bringing tropical forest biodiversity conservation into financial accounting
26 calculation", *Accounting, Auditing and Accountability Journal*, Vol. 26, No. 5, pp. 779-714.
- 27
28 Dey, C., and Russell, S. (2014), "Who speaks for the river?: Exploring biodiversity accounting using
29 an arena approach", Jones, M. *Accounting for Biodiversity*, Routledge, London, pp. 245-266.
- 30
31 Ferguson, J., Power, D., Stevenson, L. and Collinson, D. (in press), "Shareholder protection, income
32 inequality and social health: a proposed research agenda", *Accounting Forum*.
- 33
34 Figge, F., and Hahn, T. (2004), "Sustainable Value Added—measuring corporate contributions to
35 sustainability beyond eco-efficiency", *Ecological Economics*, Vol. 48, No. 2, pp. 173-187.
- 36
37 Folk, C., Biggs, R., Norström, A., Reyers, B., and Rockström, J. (2016), "Social-ecological resilience
38 and biosphere-based sustainability science", *Ecology and Society*, Vol. 21, No. 3, pp. 41.
- 39
40 Frame, B., and Brown, J. (2008), "Developing post-normal technologies for sustainability", *Ecological
41 Economics*, Vol. 65, No. 2, pp. 225-241.
- 42
43 Frame, B., and Cavanagh, J. (2009), "Experiences of sustainability assessment: An awkward
44 adolescence", *Accounting Forum*, Vol. 33, No. 3, pp. 195-208.
- 45
46 Geels, F. (2010), "Ontologies, socio-technical transitions (to sustainability), and the multi-level
47 perspective", *Research Policy*, Vol. 39, No. 4, pp. 495-510.
- 48
49 Georgakopoulos, G. and Thomson, I. (2005), "Organic salmon farming: risk perceptions, decision
50 heuristics and the absence of environmental accounting", *Accounting Forum*, Vol. 29, No. 1, pp. 49-
51 75.
- 52
53 Georgakopoulos, G. and Thomson, I. (2008), "Social reporting, engagements, controversies and
54 conflict in an area context", *Accounting, Auditing and Accountability Journal*, Vol. 21, No. 8, pp. 1116-
55 1143.
- 56
57 George, G., Howard-Grenville, J., Joshi, A., and Laszlo, T. (2016), "Understanding the Tackling
58 Societal Grand Challenges Through Management Research", *Academy of Management Journal*, Vol.
59 59, No. 6, pp. 1880-1895.
- 60
61 Godemann, J., Bebbington, J., Herzig, C., and Moon, J. (2014), "Higher Education and Sustainable
62 Development: exploring possibilities for organisational change", *Accounting, Auditing and
63 Accountability Journal*, Vol. 27, No.2, pp. 218-233.

- 1
2
3 Gore, C. (2015), "The post-2015 movement: towards sustainable development goals and a new
4 global development paradigm", *Journal of International Development*, Vol. 27, No. 6, pp. 717-732.
- 5
6 Gouldson, A., and Bebbington, J. (2007), "Corporations and the governance of environmental risk",
7 *Environment and Planning C: Government and Policy*, Vol. 25, No. 1, pp. 4-20.
- 8
9 Gray, R. (1992), "Accounting and environmentalism: an exploration of the challenge of gently
10 accounting for accountability, transparency and sustainability", *Accounting Organizations and Society*,
11 Vol. 17, No. 5, pp. 399-425.
- 12
13 Gray, R. (2002), "The social accounting project and Accounting Organizations and Society. Privileging
14 engagement, imaginings, new accountings and pragmatism over critique?" *Accounting Organizations
15 and Society*, Vol. 27, No. 7, pp. 687-708.
- 16
17 Gray, R. (2010), "Is accounting for sustainability actually accounting for sustainability ... and how
18 would we know? An exploration of the narratives of organizations and the planet", *Accounting
19 Organizations and Society*, Vol. 35, No. 1, pp. 47-62.
- 20
21 Griggs, D., Nilsson, M., Stevance, A. and McCollum, D. (2017). *A guide to SDG interactions: from
22 science to implementation*. International Council for Science: Paris.
- 23
24 Griggs, D., Stafford Smith, M., Rockström, J., Öhman, M., Gaffney, O., Glaser, G., Danie, N., Nobel,
25 I., Steffen., and Shyamsundar, P. (2014), "An integrated framework for sustainable development
26 goals", *Ecology and Society*, Vol. 19, No. 4, pp. 49.
- 27
28 Hahn, R., and Kühnen, M. (2013), "Determinants of sustainability reporting: a review of results,
29 trends, theory, and opportunities in an expanding field of research", *Journal of Cleaner Production*,
30 Vol. 59, No. 1, pp. 5-21.
- 31
32 Hajer, M., Nilsson, M., Raworth, K., Bakker, P., Berkhout, F., de Boer, Y., Rockström, J., Ludwig, K.,
33 and Kok, M. (2015), "Beyond Cokpit-ism: Four Insights to Enhance the Transformative Potential of the
34 Sustainable Development Goals", *Sustainability*, Vol. 7, No. 2, pp. 1651-1660.
- 35
36 Haller, A., van Staden, C. and Landis, C. (forthcoming), "Value Added as part of Sustainability
37 Reporting – reporting on distributional fairness or obfuscation?", *Journal of Business Ethics*.
- 38
39 Hazelton, J. (2015), "Sustainability After Rio: Developments in Corporate Water Accounting and
40 Accountability", *Developments in Corporate Governance and Responsibility*, Vol. 8, No. 1, pp. 27-55.
- 41
42 Hazelton, J. (2013) "Accounting as a human right: the case of water information", *Accounting,
43 Auditing & Accountability Journal*, Vol. 26, No. 2, pp. 267-311. Hines, R. (1991), "On Valuing Nature",
44 *Accounting, Auditing and Accountability Journal*, Vol. 4, No. 3, pp. 27-29.
- 45
46 Hopwood, A., Unerman, J., and Fries, J. (2010), *Accounting for Sustainability: Practical Insights*,
47 Earthscan, London.
- 48
49 International Federation of Accountants (2016), *The 2030 Agenda for Sustainable Development: A
50 Snapshot of the Accountancy Profession's Contribution*, International Federation of Accountants, New
51 York.
- 52
53 Jackson, T. (2009). *Prosperity Without Growth: Economics for a Finite Planet*, Earthscan, London.
- 54
55 Jenkins, B., Russell, S., Sadler, B. and Ward, M. (2014), "Application of sustainability appraisal to the
56 Canterbury Water Management Strategy", *Australasian Journal of Environmental Management*, Vol.
57 21, No.1. pp. 83-101.
- 58
59 Jones, M. (2014), *Accounting for Biodiversity*, Routledge, London.
- 60
61 Kim, R. (2016), "The Nexus between International Law and the Sustainable Development Goals",
62 *Review of European Community & International Environmental Law*, Vol. 25 No. 1, pp. 15-26.

1
2
3 Kolk, A., Levy, D. and Pinkse, J. (2008), "Corporate responses in an emerging climate regime: The
4 institutionalization and commensuration of carbon disclosure", *European Accounting Review*, Vol. 17,
5 No. 4, pp. 719-745.

6
7 Kumar, P., Ahmed, F., Singh, R. and Sinha, P. (2017), "Determination of hierarchical relationships
8 among sustainable development goals using interpretive structure modelling", *Environment,
9 Development and Sustainability*.

10
11 Langhelle, O. (2000), "Sustainable Development and Social Justice: Expanding the Rawlsian
12 Framework of Global Justice", *Environmental Values*, Vol., 9, No. (3), pp. 295-323.

13
14 Lapsley, I., Miller, P., and Panozzo, F. (2010), "Accounting for the City", *Accounting, Auditing and
15 Accountability Journal*, Vol. 23, No. 3, pp. 305-324.

16
17 Larrinaga-González, C. and Pérez-Chamorro, V. (2008), "Sustainability Accounting and Accountability
18 in Public Water Companies", *Public Money & Management*, Vol. 28, No. 6, pp. 337-343.

19
20 Le Blanc, D. (2015), "Towards Integration at Last? The Sustainable Development Goals as a Network
21 of Targets", *Sustainable Development*, Vol. 23, No. 3, pp. 176-187.

22
23 Malsch, B. (2013), "Politicizing the expertise of the accounting industry in the realm of corporate social
24 responsibility", *Accounting, Organizations and Society*, Vol. 38, No. 2, pp. 149-168.

25
26 McArthur, J. (2014), "The Origins of the Millennium Development Goals", *SAIS Review*, Vol. XXXIV,
27 No 2, pp. 5-24.

28
29 McPhail, K., Macdonald K., and Ferguson, J. (2016), "Should the international accounting standards
30 board have responsibility for human rights?", *Accounting, Auditing and Accountability Journal*, Vol. 29,
31 No. 4, pp. 594-616.

32
33 McPhail, K., and McKernan, J. (2011), "Accounting for human rights: an overview and introduction",
34 *Critical Perspectives on Accounting*, Vol. 22, No. 8, pp. 733-737.

35
36 Meuleman, L. and Niestroy, I. (2015), "Common But Differentiated Governance: A Metagovernance
37 Approach to Make the SDGs Work", *Sustainability*, Vol. 7.

38
39 Milne, M. (1996), "On sustainability; the environment and management accounting", *Management
40 Accounting Research*, Vol. 7, No. 1, pp. 135-161.

41
42 Moore, G. (2004), "The fair trade movement: Parameters, issues and future research", *Journal of
43 Business Ethics*, Vol. 53, No. 1-2, pp. 73-86.

44
45 Murray, A., Skene, K., and Haynes, K. (2017), "The Circular Economy: An interdisciplinary exploration
46 of the concept and application in a global context", *Journal of Business Ethics*, Vol. 140, No. 3, pp.
47 140-369.

48
49 Nelson, L. (2007), "The role of the United Nations from Stockholm to Johannesburg" Thai, K., Rahm,
50 D., and Cogburn, J. *Handbook of Globalization and Development*, Taylor Francis, Boca Raton, pp.
51 155-174.

52
53 Nilsen, A. (2016), "Power, Resistance and Development in the Global South: Notes Towards a Critical
54 Research Agenda", *International Journal of Politics, Culture and Society*, Vol. 29, No. 3, pp. 269-287.

55
56 Nussbaum, M. (2006), *Frontiers of Justice: Disability, Nationality, Species Membership*, Harvard
57 University Press, Cambridge, MA.

58
59 Nussbaum, M. (2011), *Creating Capabilities: The Human Development Approach*, Belknap Press,
60 Cambridge, MA).

Pogge, T. (1992), "Cosmopolitanism and sovereignty", *Ethics*, Vol. 103, No. 1, pp. 48-75.

- 1
2
3 Ptashnick, M., and Zuberi, D. (2015), "Certifying voluntary living wage employers", *International*
4 *Journal of Sociology and Social Policy*, Vol. 35, No. 9-10, pp. 618-634.
- 5
6 PwC (2015) *Making it your business: Engaging with the Sustainable Development Goals*, PwC,
7 London.
- 8
9 Rawls, J. (1971), *A theory of Justice*, Oxford University Press, Oxford.
- 10
11 Rawls, J. (2001), *Justice as Fairness*, Universal Law Publishing, Delhi.
- 12
13 Raworth, K. (2012), *A Safe and Just Space for Humanity*, Oxfam, Oxford.
- 14
15 Raworth, K. (2017), *Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist*,
16 Chelsea Green Publishing, Vermont.
- 17
18 Rockström, J. W. (2015), "Bounding the planetary future: Why we need a great transition. Boston,
19 MA: Tellus Institute. Retrieved 23 March 2017, from [http://www.tellus.org/pub/Rockstrom-
20 Bounding_the_Planetary_Future.pdf](http://www.tellus.org/pub/Rockstrom-Bounding_the_Planetary_Future.pdf)
- 21
22 Rockström, J., Steffen, W., Noone, K., Persson, A., Chapin, F. S., Lambin, E. F., . . . Foley, J. A.
23 (2009), "A safe operating space for humanity", *Nature*, Vol. 461, No. 7263, pp.472-475.
- 24
25 Russell, S. and Frame, B. (2013), "Technologies for sustainability: a governmentality
26 perspective", *International Journal of Sustainable Development*, vol. 16, No. 1/2, pp. 91-106.
- 27
28 Russell, S., and Thompson, I. (2008), "Accounting for a sustainable Scotland", *Public Money and*
29 *Management*, Vol. 28, No. 6, pp. 367-374.
- 30
31 Russell S., and Thomson, I. (2009), "Analysing the role of sustainable development indicators in
32 accounting for and constructing a Sustainable Scotland", *Accounting Forum*, Vol. 33, No. 3, pp 225-
33 244.
- 34
35 Sachs, J. (2012), "From Millennium Development Goals to Sustainable Development Goals", *The*
36 *Lancet*, Vol. 379, pp. 2206-2211.
- 37
38 Schaltegger, S., Bennett, M., and Burritt, R. (2006), *Sustainability Accounting and Reporting*,
39 Springer, Delft.
- 40
41 Schaltegger, S., Etxeberria, I. and Ortas, E. (2017), "Innovating Corporate Accounting and Reporting
42 for Sustainability – Attributes and Challenges", *Sustainable Development*, Vol. 25, No. 1, pp. 113-122.
- 43
44 Scheyvens, R., Banks, G., and Hughes, E. (2016), "The Private Sector and the SDGs: The Need to
45 Move Beyond 'Business as Usual'", *Sustainable Development*, Vol. 24, No. 6, pp. 371-382.
- 46
47 Selomane, O., Reyers, B., Biggs, R., Tallis, H., and Polasky, S. (2015), "Towards integrated social-
48 ecological sustainability indicators: Exploring the contribution and gaps in existing global data",
49 *Ecological Economics*, Vol. 118, No. 1, pp. 140-146.
- 50
51 Sen, A. (1999), *Development as Freedom*, Oxford University Press, Oxford.
- 52
53 Sen, A. (2009), *The Idea of Justice*, Allen Lane, London.
- 54
55 Sexsmith, K. and McMichael, P. (2015), "Formulating the SDGs: Reproducing or Reimagining State-
56 Centred Development?", *Globalizations*, Vol. 12, No. 4, pp. 581-596.
- 57
58 Siddiqui J. (2013), "Mainstreaming biodiversity accounting: potential implications for a developing
59 economy", *Accounting, Auditing and Accountability Journal*, Vol. 26, No. 5, pp. 779-805.
- 60
61 Sikka, P., and Willmott, H. (2010), "The dark side of transfer pricing: Its role in tax avoidance and
62 wealth retentiveness", *Critical Perspectives on Accounting*, Vol. 21, No. 4, pp. 342-356.

1
2
3 Spence, L. and Rinaldi, L. (2014), "Governmentality in accounting and accountability: A case study of
4 embedding sustainability in a supply chain", *Accounting, Organizations and Society*, Vol. 39, No. 6,
5 pp. 433-452.

6
7 Starik, M., and Rands, G. (1995), "Weaving an Integrated Web: Multilevel and Multisystem
8 Perspectives of Ecologically Sustainable Organizations", *The Academy of Management Review*, Vol.
9 20, No. 4, pp. 908-935.

10
11 Stechemesser, K., and Guenther, E. (2012), "Carbon accounting: a systematic literature review",
12 *Journal of Cleaner Production*, Vol. 36, No. 1, pp. 17-38.

13
14 Sterling, S. (2016), "A Commentary of Education and the Sustainable Development Goals", *Research*,
15 Vol. 10, No. 2, pp. 208-213.

16
17 Storey, M., Killian, S. and O'Regan, P. (2017), "Responsible management education: Mapping the
18 field in the context of the SDGs", *The International Journal of Management Education*, Vol. 15 No. 1,
19 pp. 93-103.

20
21 Thomson, I., Dey, C., and Russell, S. (2015), "Activism, arenas and accounts in conflicts over tobacco
22 control", *Accounting, Auditing and Accountability Journal*, Vol. 28, No. 5, pp. 809-845.

23
24 Thomson, I., Grubnic, S., and Georgakopoulos, G. (2014), "Exploring accounting-sustainability
25 hybridisation in the UK public sector", *Accounting, Organizations and Society*, Vol. 39, No. 6, pp. 453-
26 476.

27
28 Tweedie, D and Hazelton, J. (2015,) "Social Accounting for Inequality: Applying Piketty's Capital in the
29 Twenty-First Century", *Social and Environmental Accountability Journal*, Vol. 35, No. 2, pp. 113-122.

30
31 Unerman, J., and Chapman, C. (2014), "Academic contributions to enhancing accounting for
32 sustainable development", *Accounting, Organizations and Society*, Vol. 39, No. 6, pp. 385-394.

33
34 United Nations World Commission on Environment and Development, (1987), *Our Common Future*
35 (*The Brundtland Report*), United Nations World Commission on Environment and Development,
36 Oxford University Press, Oxford.

37
38 United Nations. (2015) *Transforming our world: the 2030 Agenda for Sustainable Development*, New
39 York: United Nations, New York,
40 <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>, accessed 7 March 2016

41
42 United Nations (2016), *The Sustainable Development Goals Report*, United Nations: New York.

43
44 Unilever (2016) *Unilever Sustainable Living Plan: Summary of Progress 2015* Rotterdam and London:
45 Unilever, May 2016 see: [https://www.unilever.com/Images/uslp-mobilising-collective-action-summary-
46 of-progress-2015_tcm244-424809_en.pdf](https://www.unilever.com/Images/uslp-mobilising-collective-action-summary-of-progress-2015_tcm244-424809_en.pdf) accessed 9 March 2017

47
48 Van Liempd, D. and Busch J. (2013), "Biodiversity reporting in Denmark", *Accounting, Auditing and*
49 *Accountability Journal*, Vol. 26, No. 5, pp. 833-872.

50
51 Walker, B., Holling, C., Carpenter, S., and Kinzig, A. (2004), "Resilience, adaptability and
52 transformability in social-ecological systems", *Ecology and Society*, Vol. 9, No. 2.

53
54 Weber, H. (2017), "Politics of 'Leaving No One Behind': Contesting the 2030 Sustainable
55 Development Goals Agenda", *Globalizations*, Vol. 14, No. 3, pp. 337-342.

56
57 Whelan, G. (2012), "The Political Perspective of Corporate Social Responsibility: A Critical Research
58 Agenda", *Business Ethics Quarterly*, Vol. 22, No. 4, pp. 709-737.

59
60 Whiteman, G., Walker, B., & Perego, P. (2012), "Planetary Boundaries: Ecological Foundations for
Corporate Sustainability", *Journal of Management Studies*, Vol. 50, No. 2, pp. 307-336.

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53
54
55
56
57
58
59
60

Wilson, P. (2017) 'Goal Setters', *Economia* Issue 57, February 2017, pp. 40-44.

Xing, Y., Horner, R. M. W., El-Haram, M. A., & Bebbington, J. (2009). A framework model for assessing sustainability impacts of urban development. *Accounting Forum*, Vol. 33, No. 3, 209-224.