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D3.2: Training Material on Accounting

Accounting, Social Innovation and Finance –
Teaching financial literacy using double entry bookkeeping

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Creating Economic Space for Social Innovation

D3.2: Training Material on Accounting

Accounting, Social Innovation and Finance – Teaching financial literacy using double entry bookkeeping

By Christopher Houghton Budd[1]

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Introduction

The context of this paper is given by the following passage in 'Social Innovation Research in the European Union, *Approaches, findings and future directions*.' EU Policy Review, Luxemburg, 2013:

> 'With the adoption of the EU's Europe 2020 strategy for smarter, more sustainable and inclusive growth, social issues have been brought to the fore. The long-held belief that economic growth creates employment and wealth resulting as a matter of course in the alleviation of poverty and social exclusion has been contested by recent crises, demanding new ways to tackle societal challenges not only for, but also with citizens.' (p.5)

To address this situation, many have taken the approach of qualifying such terms as economy, finance, and entrepreneur with the adjective 'social'. In the EU document cited above, for example, 'social economy' is defined as

> 'a sector of economic activity which is made up of social enterprises organised around five dimensions: shared values about the satisfaction of needs, not-for-profit principles, cooperation and self-organisation; distinctive types of inter-organisational relationship; pursuit of a new mode of production; a mode of economic integration characterised by norms of reciprocity.' (p.21)

Valid as such dimensions are as a critique of what today's prevailing economic paradigm does not take directly into account[2] and as a description of the changes needed, they all presuppose financial literacy on the part of the social innovators who aim to give them effect.

Financial literacy is a moot topic, however. Is it about learning how to work the existing system, the system

[1] Delft University of Technology.
[2] Because, it would argue, such 'welfare' outcomes will eventually be met by 'trickle down', 'all boats float on a rising tide', and similar figures of speech, on the grounds that free markets are also fair markets.

that is linked to the (unfinished) crisis of 2008?[3] Or is it about investigating and understanding that system and designing something more sustainable and social? If, as assumed here, it is the latter, the question arises: to what extent and in what way are social innovators themselves financially literate? And in what way does financial literacy enable them to be the change they wish to see?

This question has two sides – regardless of one's ideological aims and whether one avers a narrow or wide view of socio-economic life, both depend on an appreciation of accounting and on whether one can 'walk the accounting talk', a language that is beyond ideological capture and that provides the practical ground for any serious change, especially change in the world of finance. To aver not-for-profits over for-profits, for example, contradicts the fact that from an accounting point of view all organisations have to operate with adequate profitability, be appropriately capitalised, and maintain positive cash flow. This is a financial imperative regardless of juridical form or societal ideals. It is these three things that need to be achieved and maintained. Understanding and managing them is the substance of modern financial literacy – whether taught to young people or learned, probably in the doing, by social innovators.

That said, in the case of accounting it is not clear what needs to be or can be changed. As treated in this paper, the need is, rather, to look more closely at accounting and finance with a view to metamorphosing today's driving ideas and practices.

The descriptor of this task given in the CRESSI Grant Agreement[4] reads as follows:

> "As a specific, empirical subset of the broader theoretical work in WP3, this task will explore the potential of accounting as a mechanism to spread social innovation in finance, particularly through the restoration of (Aristotelian) ethics in accounting practices. In addition, this task will explore how to develop an accounting system that will facilitate new models of finance that can be directed at social innovation.
>
> "The aim of this task is to develop a method – based on conventional accounting practices – that will facilitate social innovation in finance directed at creating employment and business opportunities for individuals who are currently socio-economically marginalised. An accounting framework will be developed that rests on, and is intended to promote the restoration of (Aristotelian) ethics and character in business and accounting, meaning a sense of what is right compared to pragmatism and moral relativism.
>
> "The purpose of the accounting framework is to enhance awareness that money, or financial capital, can act as an enabler of empowerment and social integration, as well as a source of power to determine which individuals are permitted to deploy their talents and develop their capacities, and who are not. This task will also argue that, when properly understood, capital can be seen as inherently social, because no individual balance sheet can exist without the contributions and efforts of countless others. Not only is capital socially embedded, it can be social also in its effects and outcome if it is used to finance new human initiatives. Moreover, this is not a Pareto choice: increased social good does not, necessarily, conflict with overall profitability.
>
> "The accounting framework developed in this task will be used to teach financial literacy to new entrepreneurs and to create awareness of the social origins and potential outcomes of capital allocation strategies. It will also help new entrepreneurs use capital in ways that serve social, ecological and humane purposes more effectively."

Accordingly, this paper will explore what, in the writer's view, is needed if social innovation is to be spread through the medium of accounting as conventionally understood, rather than by rejigging it[5]. It will argue that what is needed is not any new accounting, or a revision of conventional practice, but a deeper understanding of its (essentially other-serving) nature, meaning that the neutral, mirroring role of accounting

[3] For example, *Time for Kids* programme in association with PwC Charitable Foundation.
[4] CRESSI Grant Agreement, Annex I: Description of Work (pp.14-15). Further details about the CRESSI project can be found at: www.sbs.ox.ac.uk/cressi
[5] This paper is a deliverable of the CRESSI project. It is downloadable at: http://www.sbs.ox.ac.uk/ideas-impact/cressi/publications-0

best comes into its own when the behaviour it records and reflects is not self-serving. If taken up in practical life, this approach promises to play an important part in enabling socio-economically marginalised people to undertake productive and profitable economic activity, hopefully self-directed and based on the unfolding of their own talents, capacities and initiative. Bottom up, citizen-driven economy.

In a word, the approach is conventional as to accounting, but not as to the paradigm in which its understanding of accounting is nested. In particular, as meant here,

- profit is a metric on the social validity of a business;
- capital is the counterpart to, and thus a measure of, the capacities of the user of it (the entrepreneur);
- cash flow is an expression of the ethical sovereignty of the enterprise, meaning that its ideal or social purpose is supported rather than subverted by its profitability.

The challenge to many modern economic and financial conceptions of these three aphorisms is considerable. To do it justice, one should begin by making clear one's terms of reference as regards finance and accounting. Beginning with finance, if one's intention is to innovate in the field of finance, especially if one's reason for doing so is that one thinks that field is deficient or defective in some way (as the qualifier 'social' implies), then one needs to be clear which kind of innovation (social or otherwise) is needed or intended. Per *Oxford English Dictionary*, to innovate is 'to change into something new, to bring something new into being, or to change something already established.' In this paper the focus is on changing what is already established, but in this case 'what is established' refers to the way we conceive finance, the associated policies, rules and regulations concerning it, and actual financial behaviours or organisations that give it effect. (In Jens Beckert's terms, cognitive frames, institutions and social networks.)

To give such an enquiry teeth, one needs first to review the meaning of finance. At its etymological simplest, finance is about making payment, bringing a transaction to an end (fin). But this hardly suffices to cover the whole of finance, especially modern finance. In this paper, 'finance' refers to the three already-mentioned aspects of an enterprise that 'completing transactions' presupposes, with each one qualified as earlier in order to reinforce its inherently social nature: *adequate* profitability, *appropriate* capitalisation and *positive* cash flow management.[6]

Second, concerning the role and nature of accounting, the question posed here is whether one sees accounting, not merely as a tool for profit reporting or tax minimisation, but as an instrument of perception, i.e. a way of seeing, even measuring economic facts, especially those represented by profitability, capitalisation and positive cash flow management?

Third, finance and accounting can also be seen as two sides of the one coin. In this sense, when speaking of accounting, as this paper mainly does, one is also speaking of finance. Both media, however, are invisible. And yet not so, since visible can mean two things: visible to the physical eye, and understandable, as when one says 'I see'. Both seeings are real; we can see physical objects (chairs and tables) and we can also see ideas or thoughts (prices, values, etc.). Both realms, the material and the non-material, are perceptible to us. We simply need to recognise their different modalities and not seek to transpose the circumstances of the one onto those of the other. Both are also empirical, meaning in neither case is it enough to merely believe what one perceives. What one sees has also to be proven independently, meaning by way of observations measurable externally to the observer.

1. The Accounting Process

Accounting can be essentially expressed by way of the accounting process (see below), a procedure that passes from *single entries* to *double entries* then via *closing entries* to the *trial balance,* following which one **chooses how to present those accounts to the outside world, whether, for example, without bias of any kind,** with an eye to profit, or with an emphasis on cash extraction.[7]

[6] Understanding these things is also the substance of any serious form of financial literacy – see *3.4.7 Teaching financial literacy through double entry bookkeeping*.
[7] Here one can do no more than describe the accounting process in stylised, external form. Experience of it requires one to make use of it in a practical instance, preferably that of the accounts of one's own economic undertaking.

One begins with *single entries*:

Cash

	Dr.[8]	Cr.	
Loan received	3		
Shares sold	4		
		6	Equipment bought
		1	Purchase made
Sale made	2		

Figure 1 Single Entries

Next, using the *double entry*, one identifies the single entries' counterparts in the five sets of accounts shown below alongside the Cash account, where they are differentiated as between assets (A), debt (D) and equity (E), shown in bold type, and income (I) and expense (X), shown in light type:

Loan (D)		**Shares (E)**		**Equip. (A)**		Purch. (X)		Sale (I)		**Cash (A)**	
Dr	**Cr**	**Dr**	**Cr**	**Dr**	**Cr**	Dr	Cr	Dr	Cr	**Dr**	**Cr**
	3									**3**	
			4							**4**	
				6							**6**
						1					**1**
									2	**2**	

Figure 2 Double Entry

The accounts which have now been 'opened out', revealing the scale, scope and effect of one's economic activity, are then closed (shown bold below), using balancing figures which are then transposed into the trial balance, which shows that one's impact has been correctly recorded (although that does not mean it is socially correct)[9]:

[8] By a convention not generally examined, debit is abbreviated as Dr. and always on the left, credit is Cr. and always on the right. One can understand this principle more exactly if one understands Debit as what comes *in* – so it must have come from somewhere (Cr.), just as Credit is what goes *out* – so it must go to somewhere (Dr.). In other words, one is looking for counterparts, not opposites. It may help to envisage to oneself that with this technique one is able to go behind the mirror, as it were, and see (i.e. experience) one's actions as the world sees (i.e. experiences) them. In essence, therefore, in addition to our ability to look from ourselves out to the world, double entry bookkeeping reflects an equal, but seldom-considered, ability to perceive ourselves from the world's point of view.

[9] In this sense, the accounting process is akin to observing one's thoughts, with double entry being in effect finance's equivalent to perspective, both of which were introduced in the Renaissance by the monk Luca Pacioli.

Loan (D)		Shares (E)		Equip. (A)		Purch. (X)		Sale (I)		Cash (A)	
Dr	Cr	Dr	Cr	Dr	Cr	Dr	Cr	Dr	Cr	Dr	Cr
	3									3	
			4							4	
				6							6
						1					1
									2	2	
0	**3**	**0**	**4**	**6**	**0**	**1**	**0**	**0**	**2**	**9**	**7**
3		**4**			**6**		**1**	**2**			**2**
3	**3**	**4**	**4**	**6**	**6**	**1**	**1**	**2**	**2**	**9**	**9**

Figure 3 Trial Balance

	Dr.	Cr.	
A	6	3	D
	2	4	E
X	1	2	I
	9	9	

To appreciate accounting as presented here, one needs to distinguish in thought between accounting per se and its use for specific, but selected ends – typically to identify profit and to minimise exposure to taxation.[10] When the instrument of accounting is used in this way, it is akin to a cataracted eye. Developing a mind of its own, as it were, the eye becomes 'alive' and so loses the transparency on which its ability to see depends. We perceive via our nerves precisely because they are nearly dead, without life – just like the numbers in accounts, which need to fall out as they will, not as one would like them to.

One can no more blame accounting for the ills of the financial world, therefore, than one can blame an eye for the effect of a cataract. In essence, and using the terms in a technical rather than moral sense, it is as if accounting per se is best matched to *selfless* use of the economy (just as the eye needs to be selfless if it is to see); as if when used to report self-centred purposes[11] it loses its ability to serve as an instrument of perception, becoming instead a tool of personal volition.

For example, while single entries provide a record of what has happened, they do not reveal if one has made a mistake or, by extension, if the error was accidental or intended (a quality that is at the same time an important ethical dimension). Either way, to move on – to complete the trial balance, in order to produce a set of accounts for the world of investors and tax inspectors to see – one simply has to resolve any issues this revealing of error(s) gives rise to.

Notwithstanding that some see double entry as something socially mischievous in that it is used to usher in and ground capitalism[12], it is in fact neutral to our behaviour. The source of mischief is the one whose behaviour accounting reflects, the one looking in the mirror, not the mirror.

[10] Insofar as economic activity, both as conducted and observed, involves the will, such a distinction may not be readily achieved – see discussion in *5. Accounting and Ethics*.
[11] For example, profit maximisation, where that entails unfair tax avoidance and the concepts and practices devised to further those ends, such as 'externalities', privatising gains and socialising losses, etc.
[12] See, for example, Gleeson-White, J (2012) Double Entry: How the Merchants of Venice created Modern Finance, London: W. W. Norton; also the review of it by Arthur Edwards in the journal of the Institute of Economics Affairs, *Economic Affairs*, London, October 2012, p.119.

2. The Structure of Accounting

Turning now to the architecture or structure of accounting, the setting within which the accounting process tracks (replicates in our thinking) human economic behaviour, this structure is not arbitrary. It acts as a mirror of our behaviour, a reminder of how, for better or worse, by being economically active we disturb the economy, adding to or subtracting from both individual and societal wealth and welfare.

At its simplest, and as conventionally represented, the architecture of accounting has five main elements, which together provide the scaffolding necessary to organise and maintain the crucial trio of adequate profitability, appropriate capitalisation and positive cash flow management:

1: The **General Ledger** comprising the five types of Accounts:

	Dr.	**Cr.**
R	Assets	Debt
R		Equity
N	Expense	Income

Figure 4 General Ledger

R denotes real (permanent) accounts that belong to the Balance Sheet directly because they exist as long as the activity being accounted for exists. *N* denotes nominal (fleeting or transitory) because these accounts exist at the moment of a transaction, after which they are but a record, a trace.

2: Comprising the single entries, the **Day Book** or **Journal** is a daily sequential record of all transactions kept.

3: Arrived at via the double entry, the **Trial Balance** shows whether one has made a mistake or not – in which case the mistake needs to be found and rectified, prior to presenting the **Balance Sheet**.

4: The accounts in the **Income and Expense Statement** show the result of trading, with the difference transferred to the Equity (Own Capital) account on the Balance Sheet.

5: The **Cash Flow Statement** identifies all transactions that have been booked but for which there have been no corresponding cash movements. (Without this, an enterprise may appear solvent 'on paper' but not be liquid in fact – a frequent cause of going out of business. Hence, the crucial importance of achieving and maintaining *positive* cash flow.)

It is important to recognise this 'structure' because it provides us with an external reflection by means of which we can make conscious our otherwise unseeable behaviour (and beyond that the motives that inform it) in order to ensure that our economic affairs, both in terms of their conduct and outcome, are, in the sense of this paper, truly social. That is, that the effects of our economic actions are beneficial and benign as regards the rest of humanity and the environment. Through the architecture of accounting, if we abide by it, we can reinforce the (inherently) social nature of our economic behaviour. Take away, distort, or not know about this aspect of accounting, and what other likelihood is there but that the realms of accounting, finance and economics will be invaded by the kind of relativism and consequentialism critiqued later in this paper by Cheffers and Pakaluk (see Section *5. Accounting and Ethics*)?

3. Economics and Accounting

A topic almost too large to embark on, it is, however, very necessary to consider the relation between economics and accounting if one wishes to challenge both the unsocial nature of much of modern finance and the prevailing orthodoxy, on which it is largely predicated and which places great reliance on the quantitative methodology associated with mathematical modelling and statistics in order to understand and approximate the real economy. The question is whether accounting (as an instrument of perception, not as a tool of personal volition) provides an alternative quantitative approach. This is especially true of measurement, for what does accounting do, other than measure economic life? Assuming it is social and not merely financial, what is profit, for example, if not a measure of the viability, even rightfulness, of an enterprise, bearing in mind that views vary as to what is 'rightful', but that accounting is not the arbiter of ethics? What are prices or ratios other than measurements – continuous in terms of income and expense accounts, moments in time as regards the balance sheet? Similar can be said of capitalisation and cash flow. The very substance of accounting is measurement.

This throws up a major problem, however – one that takes us to the heart of the relationship between economics and accounting, as the following, far-reaching example shows. Common to all schools of economic thought, orthodox *and* heterodox, land, labour and capital are regarded as commodities and described as factors of production, whose efficient allocation is conceived as being achieved by them being traded. The accounting or financial equivalent of this is to treat land, labour and capital as costs, expenses. Then, of course, the higher these costs are, the lower the profit, so that from a profit maximisation point of view such costs should be kept as low as possible, meaning externalised in some way – that is to say, incurred by someone else, often the public balance sheet, meaning, therefore, charged to those who pay tax.

Such an approach has obvious consequences since land, labour and capital are respectively what the sustainability movement refers to as the three Es of environment, equity and economy.[13] Obviously, if these 'costs' are kept minimal, those aspects of economic life will be impoverished; the 'bottom line' (shorthand for profit, strictly speaking internally generated capital) will be only narrowly financial in character and in that sense unsocial. Understandably, if such an approach is maintained (conceptually as well as practically) the call will then arise to 'remunerate' those factors paid short, hence 'triple bottom line' – a well-meant but unnecessary procedure if the three 'factors of production' are properly remunerated in the first place.[14]

By conceiving these factors as contextual – giving rise to the things we sell, rather than as goods themselves – we could dispense with the notion that land, labour and capital are commodities. When no longer seen and treated as costs to be avoided, our attitude to, for example, the environment would change from exploitation to husbanding. We would no longer pollute a river or, having done so, expect not to pay for that pollution directly by an invoice from the municipality, rather than indirectly through an unidentifiable portion of general taxation. At all levels from local to global, those responsible for 'public goods', would also become more vigilant when it came to individuals and firms passing costs onto their balance sheets.

Relative to the criterion of profit maximisation, the profit available to shareholders would of course fall (because shared with other stakeholders), but there would not be, because there cannot be, any change in the accounting process. The change would all be in human behaviour – where it needs to be if it is to be real, effective and lasting. One can, of course, invent all manner of ethical qualifiers and prompts, even a whole world of ISO regulations, provided these do not become a surrogate for or excuse to avoid real change. Today, there is any number of ethical standards targeted on changing behaviour, but they do so in an environment in which accounting is by and large a tool of personal volition. When, however, accounting is seen as an instrument of perception its very process and structure work to embed value in our transactions by ensuring that it is not 'disembedded' in the first place.[15]

[13] Various other threesomes are used: planet, people and profit; ecology, well-being, prosperity.
[14] By contrast, *triple entry bookkeeping* is a very different story (see Griggs, I. 2005). Accepting the evolution from single to double entry, it recognises that *in a digital world* this might not be enough. A third entry is needed, so that something that cannot be escaped in physical life cannot be escaped either in its facsimile or digital version, namely, the fact of a transaction's completion. Hence, the slogan: "The receipt is the transaction." One builds the accounting world on the receipt (in electronic format), rather than the transaction it represents. This is not really a next step in the evolution of accounting, therefore. Though something of a misnomer, it is about ensuring that digital finance does not create an illusion. One is aware there is another sense of triple entry, which is to use accounting for forecasting, but the validity and viability of using accounting to this end seems to us moot, a topic that is admittedly too large for this paper.
[15] Not unlike using whole flour for bread, rather than denaturing it then adding back 'goodness'.

4. Profit, Capital and Cash Flow

Much else could be said concerning the vocabulary used in both accounting and finance and its frequently misunderstood nature. We will confine ourselves to elaboration of the three points mentioned earlier:

As already noted, *profit* is a requirement of any organisation (not-for-profit as well as for-profit) – not for itself, but in the same way as air is needed by the lungs. The amount will be a function of the person (or company) doing the breathing, in turn a function of what he (or it) is doing. But an entity cannot have profits above or below what its 'lungs' need. Profit, in that sense, is not something to fight over. In fact, it is always transferred to the balance sheet as 'own capital', the appropriate and equitable amount of which one can indeed discuss (see next paragraph). But, provided it is *adequate* – meaning not achieved at the expense of people and planet – profit is merely a metric on the social validity of an enterprise.

The *capital* in an entity is likewise given by what the entity exists to do. In principle, the capital represents the liabilities side of a balance sheet, the purpose of which is to finance the assets. If these assets become fictitiously valued, then the amount (and value) of capital will go awry. But, again, an entity cannot have more capital than it needs; any surplus will be transferred to reserves or to expand the business (in effect, to start another business). In terms of their real (i.e. non-speculative) value, assets will reflect the activity of the business – the size of a baker's oven will be governed by the number of loaves he is able to bake in a day. Hence, *appropriate* capitalisation.[16]
Finally, 'social' or otherwise, if an enterprise is to stay in business and remain true to its ethos – assuming that ethos is something other than merely making money, but also remembering that accounting is not there to adjudicate the 'rightness' of that ethos – then it will need to maintain *positive cash flow*. This will ensure that its financial space is not invaded by banks or other creditors, and so ensure that its ethos is protected. Financial sovereignty and ethical sovereignty go hand in hand. Profitable operation need not entail unethical behaviour; ethical behaviour need not entail unprofitable operation.

In sum, the argument of this section is that, rather than create a new universe of concepts and techniques (as often as not predicated on the very paradigm they aim to displace), it behoves us to examine the deeper meaning of accounting and finance, so as to distinguish their essentially social (i.e. other serving) nature from their use by self-centred economic actors.

5. Accounting and Ethics

If, for example, the five dimensions cited at the beginning of this paper – shared values about the satisfaction of needs; not-for-profit principles, cooperation and self-organisation; distinctive types of inter-organisational relationship; pursuit of a new mode of production; a mode of economic integration characterised by norms of reciprocity – are to become reality, the ethical behaviour they presuppose on the part of human beings will have to become active. The question is whether such behaviour can best be engendered by 'ethicalising' economic life through external, regulatory means – lists of dos and don'ts designed to prompt the kind of behaviour that would in the end render any such external prompting unnecessary – or by appealing to humanity's inherent ethicality. In this sense, 'ethics' is arguably a more concrete word than 'social' because it is the presence or

[16] One writes fully aware that appropriate capitalisation may not be a matter only of amount and purpose, but also of form. The long-standing debate – in life, in academia and in policy circles – between the company and cooperative (as well as all hybrids) turns on this point: to which end and in whose interests is the control of capital in a business? In this writer's view, this debate could have been resolved and could yet be resolved very simply were the stock corporation to favour the user of capital, not the provider – as detailed in his book *The Right on Corporation: Rehabilitating the stock corporation* (2005) – and were those who work to sell the product of their labour not their labour.

absence of ethical conduct that gives our economic dealings their societal colour.

It matters, therefore, that – as we have seen in earlier sections of this paper – accounting is predicated on procedures that are both technical and ethical. For example, as part of the accounting process double entry bookkeeping requires one to identify one's mistakes, as also the motivation behind them, then remedy (or consciously falsify) them.[17] In that sense, double entry bookkeeping calls for technique *and* morality, mechanics *and* ethics. Indeed, when double entry is applied correctly these two dimensions cannot move apart.[18]

The need to highlight, rather than gainsay, the inherently ethical nature of economic life, is not a trivial matter, therefore, nor has it gone unnoticed. Much that is unsocial in modern finance – the Enrons of this world, for example – is also plain abuse. But abuse has become entrenched so as to be the norm, above all in the accountancy profession itself.

In *Understanding Accounting Ethics* (2007), for example, Mark Cheffers and Michael Pakaluk take a hard look at the state of ethics in accounting. Their main themes concern rules and principles, ethics, objectivity and independence. Under these headings, they review the gradual undermining of accountancy in recent decades in the USA by the conversion of the profession into a business – that is to say, its gradual move from serving the public interest by adhering to an ideal, auditing, to acting at the bidding of clients. (p.14) Enron, WorldCom and similar events are but spectacular instances of a more general problem, namely, the loss of north in the accountant's moral compass. The authors' aim is "to rearticulate the ideas of the profession and to show how they may be practiced with complete clarity and integrity…" (p.9) Their main argument is that while external constraints, such as the 2002 Sarbanes-Oxley Act, require or presuppose ethical behaviour, they cannot beget or guarantee it. This needs "a commensurate, serious response 'from the inside' of the profession itself" (p.11) to restore the 'Three Ps of Reform': principles, professionalism and pride.

This will not be possible, however, unless there is a wholesale return to and appreciation of "character", meaning a sense for what is right that is able to prevail over the pragmatic (or consequentialist) version, something that relies on unswerving adherence to an inviolable, and non-reversible, sequence: virtues → ethics → principles → rules → application. Cheffers and Pakaluk give no quarter to those who would argue otherwise. Virtues are the bedrock and ethics the foundation on which the profession should alone be built. Virtues and ethics, objectivity, integrity and independence must prevail over moral relativism, because "…sound ethics on average, and in the long run, leads to business success." (p.23)

Two aspects of their critique link to issues we have touched on earlier. Firstly, "…the most important action that [accountants] engage in is … accurate and truthful thinking [which] is not carried out with a view to consequences." (p.63-4) Secondly, being or becoming ethical is a matter of will and of being "concerned enough". (p.172-3) To paraphrase St. Augustine, it may be that some in the profession pray for "virtue – but not just yet," but for Cheffers and Pakaluk accountancy does not have the option of being half-ethical.

Here we come to a perhaps awkward dimension to ethics, the challenge it offers to the very epistemology of economics, tugging at its claims in regard to objectivity and science – namely, the role of human will. It is not for nothing that one speaks of 'good will' on a balance sheet, or that

[17] 'Off-balance sheet' sounds so much more technical than 'hide'.

[18] One should not be surprised by the in-built ethics of accounting and finance. Before their post Renaissance secularization they were not only monastic, even sacred concerns, but always relational, as the etymology of many terms illustrates. 'Interest' originally referred to the interest one had in one another. See discussion of changed meaning of usury and interest in *A History of Interest Rates*, Sidney Homer, Rutgers University Press, 1963. 'Fee', meaning cattle (*Vieh* in German) shows that money has foundations in the real economy. 'Fair' – a reference to fairs or markets and the equitable trade ensured by guilds and the like − is another social term, meaning in essence that any trade should benefit all parties to it and thereby society generally. In that sense, 'market' is also originally a social term.

those who champion free trade and free markets do so because they champion free will. *Laissez faire, laissez passer!* Nothing should constrain our free will. It is interesting, in this connection, that in her book, *Reassessing the paradigm of economics*, in which she endeavours to redress the imbalance she perceives between orthodox and heterodox economics, Mosini (2012) finds herself making three references to human will.

First, to Leon Walras, who disdained Say's configuring of political economy as a natural science in which production, distribution and consumption "take place, if not spontaneously, at least in a manner somehow independent of the will of man," regarding it "as convenient as mistaken … as pleasing as misleading." (p.60) Second, August Comte's claim that love, arguably an attribute of will, can lead egoism over into altruism. (p.81) Lastly, her own view, with which she ends her book, that "will, combined with hope, can provide a powerful propeller potentially capable of unravelling a paradigm that, in the name of 'positive' economics is putting the positivist dream of progress to bed." (p.139)

As Heilbroner and Milberg (1995: p.78) also note: "the existential impossibility of excluding from social analysis the entirely human categories of purpose and will." In short, when it comes to ethics, therefore, the role of will – an Anglo-Saxon word for the Latin motivation – is crucial. To think clearly takes a lot of effort of will, as also to resist the tendency (in all of us) to maximise profit. If not in our investments, then in our purchases – for who does not seek out the lowest price? Likewise, when it comes to economic dealings it is far easier to think of oneself than to give thought to one's effects on others or the environment – the more so if we have been schooled by the mantra of self-interest for well over 200 years. Hence the urgent need, starting with young people in secondary education, but including the world of social innovators and those responsible for central banks and teaching economics in universities, to review what we mean by financial literacy and how it is taught – whether in the classroom behind desks or, as intimated here, through understanding and using accounting and finance in the light of their deeper other-centred meanings.

6. Capital: Preservation or Circulation

Important though it is, the preceding discussion of ethics is not in the end the anvil on which a differently behaving humanity will forge its future economic life. The fulcrum of change, the pivot from the old to the new economics, is a much more easily stated affair – although to understand it, let alone to give it existence, will require all that has been said before to have become second nature. We need but discern the economic and thus social and cultural (in Beckert's terms, social networks, institutions and cognitive frames) differences consequent on switching from preserving capital to allowing it to circulate.

The link of this consideration to accounting may not be obvious, until one asks which paradigm is in play – preservation or circulation – and whether the truer thing to do economically is to retain in or transfer from an entity any capital in excess of that needed to finance its means of production. But this is far too great a detail and digression to enter into here.

A more tractable topic is the huge bias in the use of accounting that one can express by the equation, Equity = Assets – Debt, as if one's net worth were a synonym or at least surrogate for societal wealth generally.

To this is linked the habit, that has grown up alongside the focus on self-interest, of 'stocking' capital in financial markets, secured against the supposed value of real assets ('supposed' because they are simply marked up to match the actuarial demands made upon them), rather than transferring it from its currently competent user to the next one. That is how, for example, use of the 'commons' was allocated, or how farmers traditionally transferred their farms gratis to their following-on sons, but in order for them to farm, not to have an asset to cover debts or to be used for non-farming purposes. More modernly, that is also why a few years ago the aging Warren Buffet transferred the stewardship of huge sums of money to the younger Bill Gates – notwithstanding the discussion – already hinted at – one could have about whether it is right for private people to have such wealth to use at their discretion or how they arrive at such wealth in the first place.

Were capital again to be seen as the means of enabling those with the relevant capacities and competences to undertake economic activity for its own sake, not merely to provide (unearned) income with which to enrich their balance sheets, often by impoverishing those of others, the effect on modern economic life – but also on modern economics, not to mention taxation – would be dramatic. If such change is not to bring about the general nervous breakdown that Keynes (1930) worried about in his *Economic possibilities for our grandchildren*[19], the only non-upheaving way to manage such a change is probably via accounting because it is immune to ideological or political capture. Like falling apples, indifferent to the names we give them, accounting merely plots how things proceed in the real economic world. To repeat, one cannot have an enterprise that does not make a profit, or in which this profit is not an increase in internally-generated capital. Fight over it or tax it as one will, the question is whether that profit is arrived at fairly and then, not who owns it, but what use is it put to? In particular, is it used to stock or to circulate capital? Is it collateralised against real estate or lent against the borrower's capacities and initiative (what used to be called lending to the man not the asset)?

Fundamentally speaking, once we see capital's role as the economic counterpart and facilitator of people's capacities – capital as the concomitant of Sen's 'capabilities' – we will cease linking it to material security. Most of today's economic problems, including the way we account for transactions and the motivation behind them, stem from here. The result is that we account for our self-centredness, when we could be accounting for our other-centredness. For this is the true nature of economics, to which division of labour, the fact that one produces for others, and that capital loses value when not lent to others, all stand testament.

7. Teaching Financial Literacy through Double Entry Bookkeeping

As noted at the beginning of this paper, teaching financial literacy is not an easy task, unless by financial literacy one means teaching people to work the existing financial system as that system is currently conceived and implemented. The modern financial system, however, cannot be divorced from two main developments in economic history or the history of economic thought: the disconnection between economics and accounting, and the 'train wreck' of the efficient markets hypothesis[20], arguably the apogee of orthodox economics's triumph over heterodox. As part of that story, one has, in addition, to factor in the effect of an economic paradigm that, in both secondary schools and universities, is shorn of the context once provided by economic history and philosophy of science.

These weaknesses in the 'delivery' of economics – along with their de-socialising effect on society generally and their narrowing of economic life to a merely financial affair – cannot be avoided. More than that, a constructive strategy is needed, derived from within accounting itself, that can

[19] In: J. M. Keynes (1963[1930]) *Essays in Persuasion*, London: W. W. Norton & Company.
[20] The expression is from Lord Adair Turner, when head of Britain's now defunct Financial Services Authority. See 'How to tame global finance', Prospect, September 2009. Also Adair Turner (2012) *Economics after the Crisis: Objectives and Means* (Lionel Robbins Lectures), Cambridge Mass.: The MIT Press; and The Financial Crisis Inquiry Report, Authorized Edition (2011) *Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States*, Financial Crisis Inquiry Commission.

‘trim tab’[21] the evolution of economics, so that its change of direction comes from within.

In the writer’s *In the Shoes of Luca Pacioli*, the detail of what a financial literacy curriculum might look like has been essayed, although formulated bald of the complex contextual problems treated here. The aim of this paper, accordingly, has been to outline that context, and to map some of the challenging detail it entails.

Finally, two other overall considerations are the following:

1) Who is going to teach the kind of financial literacy meant here, which is the minimum needed if one is to evolve change out of the ethics and techniques inherent to accounting and finance, rather than surround both with regulatory constraints that require, but do not beget, real change?

2) Who is going to be taught? Obviously, young people. But what of those devising policy or running central banks? Lastly, there is the growing social innovation community.

For the purposes of this paper, the latter group has particular importance. The proposition that social innovation also presupposes adequate profitability, appropriate capitalisation and positive cash flow management applies equally, and perhaps especially, to them. Yet it has to be admitted that a gap continues to exist between many social entrepreneurs and today’s financial institutions, even ‘social’ ones. A gap, not in terms of greatly needing funds on the one side and having them in abundance on the other, but in terms of the type of financial literacy that will allow such funds to change hands.

This is in part due to social entrepreneurs being finance shy and to financiers being social shy, meaning the one group is not skilled enough on the profitable management of money as a means of achieving their objectives, the other is insistent on preserving rather than circulating capital, and so lends at interest rather than, for example by buying shares, let alone shares that give the control (and thereby the allocation) of capital to the user and not the provider of it.

If it is not due to the financial indolence on the part of the first group and/or the societal power of the second, this timidity is due to a misconstruing of accounting on both their parts, to which misreading this essay aims to provide a remedy. More than that, and to change the metaphor, if those in the ‘social’ sector in dire need of funding and those responsible for today’s substantial capital funds could rethink their understanding of finance and accounting, they would see in this the keystone of a bridge that could span between their otherwise separate worlds.

But bridges are made for crossing – and in both directions. This leads to our last consideration. The Luca Pacioli paper mentioned above raises the question of how financial literacy can be imparted – whether deskbound by rote, or through the very borrowing of it against the collateral of the borrower’s financial plan and the associated regular accounting? It avers the latter. It is not only by borrowing capital but by becoming responsible for it – by being in fact its allocator through use not dispensation – that one learns from within, as it were, the ways of adequate profitability, appropriate capitalisation and positive cash flow.

[21] A propos of its use as a metaphor in management contexts, in the February 1972 issue of *Playboy*, the American engineer Buckminster Fuller said: “Something hit me very hard once, thinking about what one little man could do. Think of the *Queen Mary* – the whole ship goes by and then comes the rudder. And there's a tiny thing at the edge of the rudder called a trim tab. It's a miniature rudder. Just moving the little trim tab builds a low pressure that pulls the rudder around. Takes almost no effort at all. So I said that the little individual can be a trim tab. Society thinks it's going right by you, that it's left you altogether. But if you're doing dynamic things mentally, the fact is that you can just put your foot out like that and the whole big ship of state is going to go. So I said, call me Trim Tab.”

Accounting enables one to hold this awareness, to have the ground of knowledge beneath one's otherwise wilful behaviour, for what does it mean to socially innovate in an economic sense if not to use one's will to serve others? The contention of this paper is that that ground is given by accounting provided it is understood and used as an instrument of economic (and even social) perception, and not as a technique for economic self-aggrandizement.

In the sense that, ideally at least and within the constraints of its paradigm, the profitability of a central bank reflects its ability to serve the entire population in its jurisdiction, so should the individual citizen be able to use accounting to ensure that what he does economically, albeit in full freedom, is done for the betterment of his fellow human beings (more abstractly, for the health of the economy). Then the bridge will be paved with the gold of shared economic awareness and responsibility rather than that of power and self-preservation.

8. Teaching Material and Curriculum Considerations

Here is not the time or place to map further in detail the ways in which financial literacy can or should be imparted – whether to teachers or to students directly. That task belongs to WP10 in the CRESSI project and comes later. Its bare bones can, however, be intimated for they are not complicated or mysterious.

What is important is to locate the teaching of finance in a process that exemplifies and reinforces the inherently social and ethical nature of accounting, by being both a process of development in itself, and by being participatory – so that people see its enabling and empowering effects by using it to enable and empower one another. To go beyond the three dependencies typical of many young people and social entrepreneurs: dependency on their providers of finance (especially banks), on experts and on their own financial *il*literacy.

Accounting is what it is, as is the accounting process described earlier. What matters is applying it to one's own activity and understanding that this is a process that in and of itself is socially and ethically challenging – but also enabling. This aspect of developing financial literacy comes alive and into its own by the simple medium of peer presentation – of people regularly sharing their accounts with one another, but for the sake of having a way of seeing what they are trying to achieve and whether they are doing so. Not, as cannot be over-stressed, in order to gladden the hearts of investors or tax inspectors alike.

As well as the above-cited Springer paper, mention can be made of the two-day conference at Said Business School Oxford in May 2013 on 'The Future of Finance' and subsequent work with UNESCO teachers in Germany.[22] That work and the related papers begins to map out a curriculum and training process based on the experience of teaching finance to young people, teachers and adults generally, as well as on-going discussions with finance and accounting professionals around the world. In that regard, although the presentation may seem dry, it is state of the art as to the issues and techniques in accounting.

It entails meta-teaching material, or teaching material for those teaching accounting. The focus is on the principles of accounting, on which any number of teaching materials can be based. It lacks detail and refrains from advocating one teaching method over another because experience shows there are any number of accounting and finance courses one can take, from aged 15 upwards, in schools, universities and adult training centres, which impart the techniques of accounting. After all, that is a wheel long ago invented. There is also a wide range of teaching tools, which it is best left

[22] See the discussion in Wrongly Thought; Wrongly Wrought. Teaching Financial Literacy – *A Case Study: UNESCO Project Schools in Germany*, Houghton Budd, C. 2013. Unpublished.

to teachers themselves to choose from according to their own and their students' competences, classroom dynamics, surrounding economic circumstances, and so on.

This reticence is for a simple reason: many of the teaching texts and a lot of the teaching methods are secondary to the essence of accounting, which they often overlook, pay scant attention to, or misdescribe. They also seldom have any bearing on the ethics of accounting and finance and often scarcely do justice to bookkeeping, preferring instead to reiterate economic and financial theories that are questionable in their own right, but which also are not a fit for the social innovation world. At least they are not written with social innovation in mind. Conversely, much that is written betrays the authors' lack of direct accounting or entrepreneurial experience, or even schooling in matters financial and monetary.

That is why the focus of this paper is on the piece that is missing: the very essence of accounting and finding ways to make that concise and clear, all understood as in and of itself social and the key to practical success in the field of social innovation. If any method or procedure is to be advocated, it is to learn accounting by using it in simple cases, then applying it to one's own activity; but also being lent money since capitalisation is a teaching tool in itself.

9. Smart Postscript

There is today a natural expectation that financial literacy will be 'smart'. In the context of the EU's 2020 concepts[23] concerning 'smart, sustainable and inclusive growth', this has three main aspects: To encourage young people especially to learn and update their skills, to create new economic growth, and to embrace the digital media of ICT.

These are important and readily stated aims, but in terms of financial literacy as averred here, the way to do this may be subtler and less brash than many suppose to be important. Understanding the accounting process is like teaching a person to fish, a deliberate approach that aims to ensure people do not simply become slave to financial techniques, the operation and availing oneself of which is readily facilitated by all manner of 'slick' heuristic devices. Not considered in any detail in this paper, for example, is the very different outcome when the uprightness of T-accounts, the very name 'balance sheet', and many other aspects of accounting are seen as metaphors for life.[24]

The need to promote new growth is addressed here indirectly in that, whether jobs or products, if these are to be created by social innovators, they will need to be financially literate at the very practical level of knowing how to achieve adequate profitability, appropriate capitalism and positive cash flow.

Finally, as regards embracing the ever-latest gadgetry and the fastest broadband, it goes without saying that one needs to keep abreast of ICT but one also has to be aware that technology can move ahead of morality, of our ability to give it ethical boundaries. Just because something can be done is not reason enough to do it. Is the fact that one can day-trade from one's mobile phone meritous in itself, for example? A recent (18 January 2014) panel discussion by experts on BBC Radio 4 chaired by Mariella Frostrup concerning financial literacy in schools, stressed the danger of teaching technique without ethics, "mechanics without enlightenment". It also warned against treating money as a source of value rather than as a means of exchange.

[23] There is, of course, another management meaning of SMART: *Specific* – target a specific area for improvement; *Measurable* – quantify or at least suggest an indicator of progress; *Achievable* – specify goals that are reachable; *Realistic* – state what results can realistically be achieved, given available resources; *Time-related* – specify when the result(s) can be achieved.

[24] See, for example, the discussion in Wrongly Thought; Wrongly Wrought. Teaching Financial Literacy – *A Case Study: UNESCO Project Schools in Germany*, Houghton Budd, C. 2013.

Equally important, although the ‘hard’ technology of finance has obviously changed and evolved with the times, becoming very refined – so that now one ‘moves’ gold stocks in Fort Knox by adjusting values in a digital column, rather than moving the gold on pallets, as used to be the case, let alone having it shipped back to one’s country as de Gaulle famously did in 1964 – one should not think that hard technology changes the ‘soft’, enduring nature of bookkeeping and accounting. This is unaffected by changes in technology. As explored by Görmez and Houghton Budd (2004), to be ‘smart’ is not to be wired up, equipped with the latest gadgetry and constantly updated as to market news; to be smart is to understand the why and how of accounting as such, to contextualise and condition its use and technology with understanding and ethics.

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