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Resilience and Financial Literacy

By Christopher Houghton Budd

Chapter 7 of:

Deliverable D1.1: Report on Institutions, Social Innovation & System Dynamics from the Perspective of the Marginalised

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Creating Economic Space for Social Innovation

Resilience and Financial Literacy

D1.1 Chapter 7

By Christopher Houghton Budd

Overview

This paper brings together two themes that are not usually juxtaposed – resilience and financial literacy.[1] 'Resilience' is understood as "the capacity of a system to absorb or even benefit from changes to the system, and so persist without a qualitative change in structure". (Holling, 1973; Costanza *et al.*, 2007). Given that societal changes today are wide-ranging and relentless, this is a broad topic that for many includes the pressures modern finance brings to bear on society, especially on marginalised people of all kinds. But in this paper, modern finance is regarded as the key driver.

To take a macro example, if the IMF did not insist on terms of lending that derive from the financial strictures of 'official funding' and the foreign policy objectives of 'donor' nations, would such things as 'structural adjustment' be different? As with 'western' funding in general, IMF funding is not really predicated on the inherent economic modalities of the cultures it lends to, or on trying to see how those cultures could develop unto themselves, albeit in financial terms. Instead, it presupposes adoption of a 'western' worldview that understands finance in a very Anglo-Saxon way, believing that to be also universal.

One can also take a micro example, the way young people in poor and marginalised contexts have (or do not have) access to credit and whether the terms of lending are in favour of the borrower or the lender. To whom or to what is the interest rate on student loans geared, for example? And what are the real effects of indebting students? Should education be a charge on society as a whole, which after all is the beneficiary or victim of an effective or dysfunctional education, funded via taxation or should that cost be borne by the individual on the grounds that he is investing in his future and can recoup his investment plus interest from future income? One understands the thinking behind the neo-liberal approach, but it is difficult to dissociate it from a strident form of social Darwinism, ideas that without debt people cannot be responsible, just as artists cannot be creative unless they are starving in a garrick. It is also very different in its effect if those required to self-finance their lives are not taught how to do so.

In both macro and micro cases, the simple argument of this paper is that the most effective way to counter such forces, to be resilient to them, is to be or become financially literate. This begins by giving thought as to the deeper meaning of finance in history and the role it could play as an enabler or disabler of what societies or individuals want to do. In CRESSI terms, can finance (working through economics) create economic space for social innovation, what would that space look like, how can it be created, and will it be resilient?

As meant here, 'financial literacy' is not simply the kind taught increasingly in secondary schools, where familiarity with the workings of the financial system is becoming common, but not an understanding of the deeper meaning of finance. "Mechanics without enlightenment", as a recent

[1] This report forms Chapter 7 of: Houghton Budd, C., Naastepad, R. and van Beers, C. (Eds.), *Report on Institutions, Social Innovation & System Dynamics from the Perspective of the Marginalised*, CRESSI Project Deliverable D1.1. Available at: http://www.sbs.ox.ac.uk/ideas-impact/cressi/publications-0

discussion on BBC's Radio Four put it (18 January 2014).

As used here, financial literacy entails accounting, but, again, not in the normal sense of a tool for tax avoidance or for declaring profits to shareholders, but as a way of mirroring one's intentions and thus enabling one to achieve one's objectives in life by honing one's abilities and realising one's own insights (Houghton Budd, 2011), whether the 'one' referred to is a community or group or an individual (who likely as not belongs also to a community or group). More specifically in terms of CRESSI, it can refer to those, especially young, people who find themselves marginalised under today's socio-economic paradigm. In several countries today youth unemployment is running at 40+ %.

7.1 Passing through reductionism

As a general statement, it is clear that much in society today is under threat from the so-called Western or Anglo-Saxon mindset, meaning a reductionist and ultimately merely financial approach to life. However, this approach is not always imposed from without; often it is welcomed in by those who see it as modern.[2] By reductionism we mean reducing life to its barest expression, understandable when devised as an abstraction – but not something that life can be reversed out of, as it were. Examples could be $P = f(S, D)$ from economics (which expresses real economic relationships in terms of supply and demand theory) and the accounting equation *Assets = Debt plus Equity* which, when rearranged as *Equity = Assets minus Debt*, reduces the firm to a means of cash extraction.

A merely adversarial stance towards western finance and economics can be an imprecise, not to mention dangerous, approach, however. Seen more subtly, the evolution of finance is such that thereby the whole of humanity is adopting, and therefore adapting to, a self-aware, often individualistic, attitude to life, for which 'modern' and even 'reform' are often thought to be synonyms. Indeed, advocates of 'financial liberalisation' use just this argument as their justification: that in order to become modern one needs to reform, meaning to open societies to the cold winds of global capital markets and the technologies and conceptions that favour them. Individuals, too, must take their chances in a 'free', increasingly global economy without the protection of communitarian arrangements.

More accurately framed, therefore, the question is how can modern life survive the advent of self-awareness? How can cultures the world over be given a new lease of life? The answer proffered here is to use financial literacy to pass through the eye of the reductionist, financial needle, by adding rather than avoiding life's financial dimension by hitching it to one's own star, rather than allowing it to usurp rather than support traditional values. In the process, finance as generally understood will have to widen its own meaning in order to overcome the deficiencies – in its own terms – of its otherwise narrow purview.

The instrument that exists for this is accounting, properly understood and put to use. Indeed, accounting is the very stuff of financial literacy. Belonging neither to a world lacking in financial literacy nor to one invaded by reductionist finance, accounting provides a bridge or meeting point where heightened financial literacy can 'crowd out' the dominance of reductionism in finance. It should not be thought that what passes as finance today is itself resilient – i.e. able to avoid qualitative change.

[2] For a thorough review of this process, see Williamson and Mahar (1998) and Houghton Budd (2005). Also *CRS 007 Financial Liberalisation* circulated by email 11 May 2014.

Indeed, its own resilience relies on being faced with concrete examples that enable it, without any loss of modernity, to widen out beyond the necessarily narrow constructs that have typified its development *until now*, but will not serve the same purpose going forwards. It is important in this respect not to gainsay the importance of financial discipline in its own right simply because it is usually advocated in the context of capital-preferring contexts.

Serious commentators are increasingly pointing to the need for financial literacy on the part of all economic agents (whether first, second or third sector, businesses, government or charities, for profit or not-for-profit) if they are to be able to operate effectively in today's circumstances. In 2008, many 'top' people in finance and economics spoke and still speak of the collapse of the efficient market hypothesis as the intellectual demise of western economic thinking.[3] They include Alan Greenspan in the run up to the global financial crisis[4], and many since, who increasingly see a lack of 'financial astuteness' as a kind of void into which floods bare finance. Recent studies of financial crises, for example, have seen a correlation between the two.

7.2 The Meaning of Financial Literacy

Financial literacy can be of a narrow, unquestioning kind, however, that merely reiterates today's existing, often superficial and unquestioning, assumptions and practices concerning finance and accounting, many of which are becoming out-dated by events, in particular the development of a one-world economy because of technological changes especially in the field of Information and Communication Technology (ICT). Or it can be thoroughgoing, based on an awareness of the wider history of monetary and financial affairs and, in particular, the role of accounting as an instrument for goal achievement and effective organisational management. It can also be top-down, theoretical and remote, or bottom-up, based on the up-to-date accounts, financial planning and cash-flow realities of existing businesses, both for-profit and not-for-profit, first and third sector.

As meant here, financial literacy is of the thoroughgoing type, grounded in actual accounts. In this author's experience, based on many years study and practical involvement in economic life in fields such as farming, housing construction and management, food distribution and retailing, and civic and primary school governance, financial literacy means the ability to read, monitor and react to accounts, so that the organisations or people concerned can profitably achieve their stated objectives while maintaining their preferred ethos. In short, it is about demonstrating resilience – the financial term would be sovereignty – in the face of a prevailing socio-economic paradigm that increasingly only takes account of merely financial considerations and generally those of a global kind.

Such financial literacy entails a range of knowledge that includes being well versed in economic and monetary history, especially the evolution and deeper purposes of accounting and banking. But it also presupposes a readiness to go beyond the narrow confines of the currently prevailing western, Anglo-Saxon mindset in order to empathise with the true – that is, deeper – aspirations of peoples and individuals the world over today. Financial literacy of this kind comprehends the techniques and criteria of modern finance but is not slave to or captured by them. Spanning from self-employment or micro business to the International Accounting Standards Board's project for universalised accounting standards, it also challenges today's conceptual division between micro and macro economics.

[3] See, for example, *Prospect*, September 2009, No. 162.
[4] See remarks made at the Community Affairs Research Conference of the Federal Reserve System, Washington, D.C., April 6, 2001. *E-Perspectives*, Federal Reserve Bank of Dallas, Vol.1, Issue 2, 2001.

In this sense, financial literacy impacts on two worlds, which it necessarily thereby also bridges: the epistemological or conceptual and the practical, the way we think about economic affairs and the way we conduct them. This takes one into major issues concerning the way modern finance is conducted, along with the accounting and auditing profession which runs alongside it. For here there is a considerable problem insofar as financial literacy has come to mean speaking a false, Enronic language – false, that is, to the true meaning of both finance and accounting.[5] Unfortunately, this 'false' behaviour is then taken as normal by a wide range of monetary reformists[6] who then propose going from the frying pan of commercial bank credit to the fire of state-issued credit, when what is needed is an understanding that the individual, through the actualising of his skills, 'capabilities' and freedoms through his projects is the true source of credit. It is against this that banks advance liquidity, but that in itself is not and cannot be the source of initiative, only its enabler.

7.3 What is capital?

There is a further problem entailed by the kind of research proposed here. For more and more people, both lay and professional, finance is understood as a means for 'cash extraction', for getting out of the economy or a community what one can in terms of markets for labour and goods and access to its resources, without thought as to how that cash is economically possible – by whom and how the values are created that provide the profits from which interest is paid, or what the effects are of doing so. Cash extraction is the object of much investment behaviour today, rather than using capital as a means for enabling communities or their representatives to realise their own goals and potential.

'Cash extraction' does not mean retrieving one's savings and is not an argument against or a critique of savings in the normal sense of business and economics – as necessary to finance the means of production or the asset side of a balance sheet. It refers to the idea people increasingly have that the economy is some kind of money machine. One puts money in, and then pulls a lever to get it back, hopefully increased. This may read as somewhat inelegant. 'Releasing equity' by cashing in increased real estate values is less blunt, but both describe the behaviour adopted by more and more people, the very behaviour, of course, that led to the 2008 sub-prime crisis in the US, abetted, if not driven, by the banking system.[7] Likewise, the ease with which credit cards were issued and used to borrow money in excess of one's ability to repay out of income, but only because, on paper, one's property was worth way more than one paid for it.

At this point one needs to be careful when using the various quasi-financial terms commonly adopted in modern academic parlance concerning 'capital', for these, while understandable as to the intentions behind them, in fact make a muddle of our understanding of the role of finance in society. In its original accounting sense, capital is not only a reference to those who put the money into an activity ('equity'), but to the capital created through the profitability of the enterprise concerned, the wealth generated internally by achieving what its entrepreneurs set out to do ('own capital'). The issue here is whether those who provide capital should have full and/or permanent rights to any value created, or whether this should be shared among various stakeholders, such as the workforce, the communities in which it operates, and other stakeholders. This, on the grounds that capital unto itself, 'under the mattress', is both barren and at risk of losing its value, that is, its purchasing power, which economically speaking derives from the use not the ownership of capital.

[5] For an in-depth critique of this problem, see Cheffers and Pakkaluk (2005).
[6] See Houghton Budd, C. (2005) Auditorial Central Banking, Chapter 4.
[7] For which Bank of America was recently fined a record £10 billion.

To keep all this clearly in mind, 'capital' should be reserved to its accounting sense. 'Capital' in accounting and therefore in financial terms has a precise and singular meaning – the money invested in someone's initiative. The term need not be used otherwise, where 'fixed assets', 'debtors', 'creditors', and so on suffice for a full understanding of financial and economic considerations. Capital should not be allowed to drift into other realms where it works as a disguising of what is meant: human capital, natural capital, social capital, and so on, treating these categories as commodities rather than as rights – examples of Beckert's (2010) 'field supremacy' or Lazear's (2000) 'economic imperialism'. Such quasi-financial terms as natural capital, human capital and social capital belong to a nomenclature that, however unintentionally, is misleading. They refer to what economics means by land, labour and capital, respectively.

Moreover, all three categories already exist in accounting terms where, because economics sees them as factors of production, they are treated as costs, i.e. expenses before profit. The question is whether one wishes to keep these costs to a minimum, as if they were as inanimate and unaffected as, say, the telephone bill; or is willing to remunerate or 'reward' them as a sharing of the profit jointly created with the providers of capital but typically allocated to the latter alone. One can add further that treating land, labour and capital as expense items is linked to the idea that they are commodities, rather than matters of right or relationships. It is precisely in this way and at this point that economics oversteps its bounds, undermining the basis of traditional 'resilience', but here too that one can begin to set limits to the market, rendering the production, distribution and consumption of goods a part of life and neither the whole of it nor its end purpose.

Furthermore, if capital were accurately understood in accounting, financial and economic terms it would not be appropriated to one section of the community, thus engendering much of today's opposition to finance. We would especially not need to use the term 'natural capital' when referring to the environment, for then we bring that very dimension of society into the market, making it susceptible to a monetary value, the basis of all commodification and cash extraction, and arguably the root of today's environmental and social problems.

We are aware of the many programmes for carbon off-setting ad so on, but these are often market devices, often underpinned by the 1992 Rio Accords, a strange document that argues that the cause of its 17 documented ills – namely, the commodifying or marketising of things that are not really goods – will be remedied by more markets. In similar vein, the inauguration of the WTO in 1996 was marked by its inclusion of agriculture (and intellectual property rights) in the commercial field, whereas under GATT they were not.

For a guide to accurate use of the term 'capital', one needs to be familiar with double-entry bookkeeping, for which one need go no further than Luca Pacioli's original account of it in 1494 in his book *Summa de arithmetica, geometria, proportioni et proportionalita* [8], or any respectable representation of it since. What Pacioli wrote in 1494 would give anyone what he needed to understand the principles of double entry bookkeeping. In essence, that there can never be a debit without a credit, and vice versa. The rest comes from the doing of it. About this there can be no theorising. One simply 'gets it' or one does not; but getting it means doing it, going from theoretical to in-field research, hence case studies. Indeed, both researcher and researched need to understand double-entry bookkeeping, although here is not the place for a tutorial.

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[8] Pacioli, L. (1494) 11th Treatise of Section Nine of the *Summa de arithmetica, geometria, proportioni et proportionalita*, Venice.

7.4 Mechanism or organism

A subset or refinement of resilience is resilience engineering, defined as “the intrinsic ability of a system to adjust its functioning prior to, during, or following changes and disturbances, so that it can sustain required operations under both expected and unexpected conditions.”[9] Its advocates argue that it would help us in our understanding of the financial system, whose “behaviour is the result of the tight couplings among the humans, organizations, and technologies that are necessary to provide complex financial functions such as transfer of economic resources.”[10]

Such interrelatedness, along with the system’s supposed sense of its own habit, to use a gardening metaphor, is often referred to as autopoiesis – a term given currency by Chilean biologists Francisco Varela and Humberto Maturana as early as 1972.[11]

It is interesting to see economics being interpreted through engineering eyes – often in terms of a self-perpetuating kind of central heating system. The allure is obvious – one is looking for the economy to be analogous with flow and movement, rather than stasis and mechanics. But that only begs the question: Can the economy be likened at all to a closed system with an external control device, a mechanism in fact?

The point is that modern finance, especially global finance, calls into question the essentially mechanistic foundation of much economic thinking. George Soros, for example, makes it clear that this is the nub of the problem in finance – which in its true nature is *not* mechanistic, but alchemical. It cannot be thought about, but has to be entered into. Causation in finance is reflexive, and so we also have to think about it reflexively.[12]

If by ‘resilience’ one means designing a system that is robust – as in a resilient piece of furniture – then the financial system is implicitly regarded as a thing. If one means resilient – as in a person with a resilient character – then one implies some kind of beingness, some sense of an entity that can be conscious of itself and thus react, better yet *respond*, to external events.

Which is it to be? To speak of modern finance as a system retains overtones of mechanics, arguably one of today’s main impediments when it comes to understanding finance. In contrast, Andrew Haldane compares finance to viral behaviour, which suggests organism rather than system.[13]

7.5 Thinking and finance

At issue are two related experiences that modern finance in particular give rise to. *Epistemologically*, the cardinal feature of the recent (still current?) crisis is its global nature. That is to say, it operates beyond the conceptual and jurisdictional habits associated with thinking about economic affairs in merely national terms. *Ontologically*, it is not so much that ‘what you look for is what you find’, as ‘what you think is what happens’.

Presumably there is a place for making modern finance, *qua* thing, more resilient. But the real need

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[9] Synopsis of Sandstorm and Hollnagel, new book proposal.
[10] *Ibid.*
[11] Maturana, H. R. and Varela, F. J. (1980) *Autopoiesis and Cognition.* Boston: Reidel.
[12] Soros, G. (1994 [1987]) The Alchemy of Finance – Reading the Mind of the Market. New York: Wiley.
[13] Haldane, S. (2009) Rethinking the financial network. Speech to Financial Student Association, Amsterdam.

is for more resilient thinking in regard to it. And there's the rub: Does resilient engineering affect the way we *think* financially, not just the way we *think about* finances? For example, can finance ever be 'safe'? At its simplest, for money to be safe it must not be at risk. And yet, can finance be finance today if it is not at risk? If it does not in some way represent a world, reality, possibility or idea that has not yet been generally perceived but requires liquidity in order to come to expression?

If the above is true, then to be safe one cannot think in terms of not being at risk, but rather of permeating with consciousness that which is not yet known. This requires imagination and speculation (in the good sense of mirroring the future to oneself and one's part in it), and financial economists disequip themselves if they think such types or levels of cognition are not real.

On the other hand, if by 'safe' is meant prevention of accident or danger, as in 'health and safety', then what is wrong with good old-fashioned 'prudence'? Taking care and being conscious in one's behaviour, rather than (as is often the case in modern finance) transferring this role to some external agency – external, that is to say, to oneself.

What was 'wrong' with mortgages being predicated on three times income? The main thing was that this was told to one (even controlled) from outside. The new and right – and no doubt resilient – thing would be to know this from within, as it were. There is an economic reality implicit in three times income. The issue, therefore, is not to change or think one can change fundamentals, but to identify the right locus of awareness of them in today's world. Is it outside in central banks, experts, or theories, or inside in the minds and self-disciplined behaviour of citizens, both individually and collectively?

'Safety' also brings to mind 'moral hazard'. The greatest moral hazard connected to modern, global finance, however, is that the locus of responsible behaviour disappears from view, thus rendering finance inherently unstable.

7.6 Financial liberalisation and Financial Literacy

As the literature on financial liberalisation well knows, even if only with the wisdom of hindsight, what humanity is technically capable of doing (in this case, liberating finance from external constraints) can get ahead of our understanding. That is why financial liberalisation ought to have been – and going forwards ought to become – grounded in financial literacy. Mechanics with enlightenment.

In this reviewer's experience there is only one 'structure' that serves this purpose – that engenders resilience in financial thinking and behaviour – and that is the already-mentioned inherent structure of accounting. When conceived free of political and one-sided biases, the so-called International Accounting Standards are a touchstone. The supposition of the IASB project is not only that the standards can be given universal expression, but that they will appeal to and become the manifestation of a universal kind of financial awareness and therefore behaviour.

As regards economics, this writer is chary of any claims that resilience can be engineered or brought about in any other way because he doubts whether in a global economy finance is a thing which one can be outside of, as if it were a separate process inside a retort. Nowadays the observer has to include his own ideas and behaviour in the process. One can, of course, create 'fire walls' in finance, but they mean little if they are merely external regulations. In finance it is almost axiomatic that external regulation invites 'innovation' – often code for circumvention. What are needed are precepts of behaviour that one abides by of one's own volition.

7.7 Beyond Glass Steagall

To close with an example. The 1933 Glass-Steagall Act in the USA, whereby retail and wholesale banking were separated, was repealed in 1998. Some say this was instrumental in causing the global financial crisis and that the regulation, or a version of it, should be reinstated. However, one has to be careful not to be ahistorical by failing to recognise how not only the problem such an action sought to address (after the fact it has to be noted), but also the form of the problem, have metamorphosed. In 1933 the US banking system was structured in a very 'physical' way, with many local or state, rather than countrywide, banks. Likewise, money was also very physical because its digitalisation did not come until several decades later. It is the advent of computers and the internet, along with the desegmenting of the financial sector that have rendered both banking and finance 'unphysical', so that 'classic' distinctions and indeed the division of labour between retail and investment banks, for example, have been undone. 'Fire-walling' then becomes a matter of consciousness rather than external structure. For example, it is technically easy not to vire accounts, not to use money in the food 'pot' to pay for the car; but this is not readily achieved if money becomes tight or expenses are below income. Ultimately the ability to firewall from within, as it were, depends on being financially literate. Its external, structural expression would entail something like replacing every ATM with two.[14] The first has written on the outside for all to see that any money put in there belongs to the depositor and is to be used by the bank as the depositor's agent, for prudent investment pending its later withdrawal. This also signals to the depositor that he should not expect erratic or extravagant returns. The second is equally up-front: "Money put in here is to be gambled with. By definition, it might never come back."

Two ATMs and two banking arrangements (one is loath to say 'system' because it is all a matter of contracts, promises and entitlements). But also two things to think about, so that on the face of it the choice is with the user, who is thereby made 'astute'. He is required to keep two very different things distinct, rather than conflated, both in his mind and in his dealings, and therefore also in the structure of finance and the economy. Such behaviour will mitigate today's financial instability, or at least ensure that 'casino' behaviour rebounds only on those who undertake it, and not on those who choose not to.

In the process, individual citizens take over as the authors of financial events, not pension funds, 'the markets', central banks or government policies. These are but agencies; the problem is that we regard them as principals. The merit of resilience in finance would need to be measured by the extent to which it contributed to overcoming this confusion and its resultant or associated behaviours.

In sum, if social innovations are also to be resilient, social innovators have to sheath themselves in financial literacy. Today that means an awareness of finance and economics, not only as they are but as they *could become*. Otherwise they will not be able to create (or at least indicate) the kind of economic space that social innovation needs in order to thrive.

7.8 Concerning Sen, Mann and Beckert

Finally, how does financial literacy relate to the theses of Sen, Mann and Beckert? Insofar as none

[14] In this case, the idea is from Christopher Meakin's 'British Banks II', in *Britain and Overseas*, Economic Research Council, London, Spring 2010. For an imagined version, see 'The Twin Banks' in C. Houghton Budd (2005) *Rare Albion. The Further Adventures of the Wizard from Oz,* Canterbury: New Economy Publications.

of these approaches detail finance, at least not as a self-standing category or phenomenon, financial literacy is a 'new kid on their block', an outlier at the very edge of their radar. Conversely, financial literacy can be seen as a potential addition to their tool kits.

Why not financial capabilities or a financial power (both alongside, rather than subsumed within economics)? The wider implications of financial literacy for Beckert are treated elsewhere[15]. One understands that for many people, whether by reputation, hearsay or direct experience, finance is closely associated with power in its negative sense – power over one or power over others. But that is neither the only nor essential nature of financial power. Its truer nature is to free human beings from their circumstances, to empower them, to put air beneath their wings. There is a certain freedom that comes to one if one has the resources to meet one's daily needs, the capital to finance one's projects, and the cash flow to enable one to take initiative without having to go cap in hand to a bank or shackle oneself with debt, as very typically happens in the third sector and in may social innovations when they are financed by debt rather than equity.

There is also generosity, the true companion of 'surplus value'. That finance has been used for purposes far removed, even opposite to this, should not lead one to locate that problem in finance itself. It is, as Mann might put it, neutral. Or as Niall Ferguson once said: "Financial markets are like the mirror of mankind, revealing every hour of every working day the way we value ourselves and the resources of the world around us [so that] it is not the fault of the mirror if it reflects our blemishes as clearly as our beauty."[16] The question is not, therefore, how does finance fit, for example, into a social conception like Beckert's social grid, but what is or would be the consequence for cognitive frameworks, social networks and institutions were financial literacy to move centre-stage.

In terms of freedom, the epitome of finance is to be financially literate – to know how finance works, to know where one is financially and where one is going. Conversely, to be without money or capital is to be without air or water, without which the human being can do nothing; indeed, he cannot even be human.

In the long journey to free finance from its embeddedness in mystery, its sacred secrecy, its use and abuse by rulers and usurers, and its role as an external conditioner of human conduct in general, the technical aside has now been mastered – but not our understanding. When markets never close, we know we have a problem, because then nor should we.

The last hurdle, yet to be surmounted, is to develop and generalise a wide-awake consciousness about finance, to condition its mechanics with enlightenment. That kind of awareness – that once understood one never forgets the true nature of finance – has the effect that financial literacy also never sleeps.

There is no theory, no policy, no code of practice, no technique and no transaction that will be left unaffected by financial literacy. It puts consciousness into our dealings – with ourselves, with others and with the world as such. The locus of awareness and indeed responsibility moves from outside the human being to within. Then we step into the promise of our freedoms – all of them – but not if we do not accompany our financial acts with responsibility toward the rest of the world. In other words, "yes" we can become 'free', but in fact "no" if the thoughts; relationships and embodiments that make up social life are not imbued with responsibility.

[15] See C. Houghton Budd and C.W.M. Naastepad (2014) Open Access Credit. A response to marginalisation by today's prevailing monetary and financial environment, *unpublished paper* (see this report).
[16] Interviewed by Aida Edemariam in *The Guardian*, Saturday 25 October 2008.

To expect, let alone seek out, freedom without responsibility is to embrace a false freedom, in which self-deception finance – or rather ignorance of it, financial *il*literacy – plays a key role. The problem is not in its techniques, therefore, but in whether we use it to serve ourselves or our fellow human beings.

7.9 And so...

To sum up the above discourse, we examined the claim that financial literacy is the most effective way to be resilient. 'Most effective' is a strong statement, so what did we mean? Firstly, that finance should be seen (by its practitioners and by outsiders) as the friend of resilience (and by extension social innovation), as a partner in new developments in society, not just an exploiter of the profit opportunities they represent or as merely the providers of liquidity.

Secondly, this attitude entails rethinking many categories central to modern economic and financial life. Rather than resist or bemoan reductionism, to see it as a stage in the human journey, to be entered into then out of. For this a key instrument is accounting because it respects rational thought but is not a synonym for it – existing independently of it.

Thirdly, financial literacy in any deeper sense than merely knowing how to work the financial system, provides a bridge between economic and financial theory and practice. It does so, lastly, because it is a kind of thinking. Much of the debate about modern economics is about getting beyond its mechanistic allusions; for many, especially in the third sector, this means replacing this with something organic. It is a fraught, and possibly false or at least misguided endeavour, however, to move from stasis to autopoiesis. We can avoid going from the frying pan to the fire, however, if we see financial literacy as a form of thinking. Insofar as thinking is a self-supporting activity, so, too, is finance. What greater attribute could resilience have?

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