Research Report

Economic performance in rural systems: Social collision theory and its application to rural community food hubs

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1 Non-technical abstract

The performance of community food hubs (CFH) is complex because they pursue social, environmental, and economic goals simultaneously. Many of these explicitly tackle growth economy market failures. Broader measures of performance than just productivity are therefore required to capture their success. Many of these can be found in a range of social economy policies and principles which can embrace, for example, the distribution of wealth and poverty, the importance of localness and the value of volunteering, as well as a range of environmental externalities. Social (distinct from technical and economic) innovation has a role to play in performance here (including learning from the past) which embraces working collectively across systems rather than individually within sectors. Social collision theory offers the potential to understand such collective performance as it acknowledges the tensions of working in partnership and how this can best be turned to positive use through a series of interventions.

2 Acknowledgements and funding

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I am also grateful for the support of the NICRE team during the conduct of the research, and Professors Andrew Fearne from the University of East Anglia and Damian Maye of the Countryside and Community Research Institute at the University of Gloucestershire, who mentored the project. The project originated in a 'sandpit' of 84 participants convened by Professor Fearne in October 2020 to discuss research agendas for diet and health, sustainable food production and food chain resilience.

Thanks go, too, to all of the Local Enterprise Partnerships who responded to the survey, reported in section 7.1.3, to the participants in the interviews relating to social innovation in food in section 7.3.2, and to a series of anonymous referees for comments on the range of articles submitted for publication set out in section 5.

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4 Non-technical executive summary

CFHs are diverse and are seen to pursue multiple objectives (section 7.1.1), which are well suited to the precepts of social economy policy (section 7.1.2). But market measures of productivity dominate rural policy: community food hubs do not perform well against such measures as ‘balanced Gross Value Added’, for example (Section 7.1.4).

Because CFHs address market failures, different performance measures are required. Neoclassical economics does not offer adequate performance measures as it is seen to assume away equity issues, is aspatial, and has a poor empirical base (section 7.2.1). These limitations are explored in the context of CFHs and volunteering (section 7.2.2).

As an example of a different measure of performance, the nature of *social* innovation in counterposition to technical and economic innovation is explored. For community food hubs, it is found that much innovation can be learned from the past (section 7.3.1). Social innovations within a growth market context are explored in relation to collaborations and partnerships and market manipulations including alternative exchange mechanisms, to throw light on performance indicators independent of economic productivity (section 7.3.2).

Working as a hub in a ‘collective’ economy, through partnerships and collaboration requires a new frame of thinking to explore performance more fully. A theoretical framework is posited, based on precepts found in New Institutional Economics – social collision theory. Here, departure decisions are seen to offer economic progress but are not without their frictions or transactions costs (collisions). A range of interventions to ease frictions and reduce transactions costs is considered based on the structure of chemical kinetics (section 7.4). Success in these interventions can provide measures of successful performance in economic collectivities and partnerships where market failures are being addressed.

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5 Introduction and background

The aim of this project is to examine the economic performance of rural CFHs. The structure through which this is achieved, and the main findings, are summarised in section 4 above. In executing this work, a number of outputs have been produced relating to different stages of the work.

Blogs

22 September 2021 - New social economies: A social economic strategy for Lincolnshire. https://policyhub.lincoln.ac.uk/new-social-economies-a-social-economic-strategy-for-lincolnshire/

3 November 2021 - Thinking outside of the box scheme: learning from the past. https://foodresearch.org.uk/blogs/thinking-outside-of-the-box-scheme-learning-from-the-past/

16 December 2021 - Local Enterprise Partnerships (LEPs) and the rural social economy. https://policyhub.lincoln.ac.uk/local-enterprise-partnerships-leps-and-the-rural-social-economy/

04 January 2022 – Why research the performance of rural community food hubs? https://www.ncl.ac.uk/nicre/blog/blog-items/food-hubs/

06 January 2022 - How should we share prosperity in rural areas? http://www.ccri.ac.uk/curryblog-2/

Refereed Papers (accepted, under review, submitted and in discussion).

September 2021: The rural social economy, community food hubs and the market. *Local Economy*, accepted.

December 2021: Social innovation in community food and community energy: The Feeding Tariff. *Social Innovations Journal*, accepted.

November 2021: Volunteering in rural community food projects: Empowerment and exploitation. *Voluntary Sector Review*, under review.

December 2021 Community development and social food: the limitations of neoclassical economics. *Community Development*, under review.

December 2021: Citizen food hubs, social innovation, and the past. *People, Place and Policy.* submitted.

January 2022: Social collision theory: working collectively in the development of community food hubs. *Social Issues and Policy Review*, in discussion with editor.

The researcher was the Co-chair of the Lincolnshire Food Partnership (LFP) during the course of this research, adopting the perspective of a participant observer. The LFP is a rural county-level community food partnership with eight main purposes: sustainable food economy: food poverty and food health; public education; food governance; environment (including climate, nature, and waste food); local procurement; community food growing; developing innovative food projects. In pursuit of these, the LFP orchestrates significant rural economic activity, for example by coordinating 52 food banks and 90 community growing projects (at the time of writing) and encouraging significant volunteering.

6 Research design and methodology

The research was conducted from the standpoint of a practitioner participant observer within a qualitative research frame (Robey and Taylor, 2018), consistent with Gold's (1958) original taxonomy of participant observer roles:

"*the researcher gains access to a setting by virtue of having a natural and non-research reason for being part of the setting. As observers, they are part of the group being studied*" (page 219).

Within this approach, reflective (distinct from reflexive) practice has been used because it can distil common issues and points of reference that are recognisable by practitioners from diverse backgrounds, often quite different from those of the person reflecting (Bilous *et al*, 2018). Such practitioner reflection can elicit a complexity of issues not so apparent in research by third parties. This can be particularly important in the context of:

"*the deregulation of services and economies seen throughout health and social care systems*" (Morton-Cooper (2000), cited in McIntosh (2010), page 33).

Reflection might also be considered a useful vehicle through which to inform research agendas, rather than just be considered a research approach *per se*. As Hammersley (2012) stresses, for practitioners it can be a valuable tool with which to build research co-creation. Such reflection also can inform researchers of practitioner priority issues (Bilous *et al*, 2018). A core element of this research design has been to seat CFH practice in the wider academic literature, to test practice observations and to seek more general patterns of behaviour that might lead to generalisations from which recommendations might be made (Rozas and Klein, 2010).

In addition, an empirical survey has been conducted specifically for this research and data from 3 earlier empirical surveys conducted by the author have been reanalysed in the context of the aims of this study. For the primary survey, a series of semi-structured interviews, was conducted with CFHs to explore elements of social innovation, reported in section 7.3.1. The methodological approach for this is described fully in Curry (2022b). Use of earlier surveys of the Brighton and Hove Partnership and of older people's attitudes to food are also reported in this publication. The third survey reinterpreted was a desk survey of the social economy policies of all Local Enterprise Partnerships, the approach to which is reported in full in Curry (2022a).

7. Findings

7.1 Community food hubs in their policy context

7.1.1 Purposes and performance in rural community food hubs

Food hubs have been classified in different ways: by their customer base and ownership (Cheng and Seely, 2012); governance structures (Lerman *et al*, 2012); leadership arrangements (Morley *et al* (2008) define six types); and hybrid taxonomies. Horst *et al* (2011), for example, develop a nine-fold hybrid. Exploring their performance, suggests a classification by *purpose*. Berti and Mulligan (2016) identify producer and community hub purposes separately, but in practice this is more a continuum than a duality.

At one end, producer food hubs integrate supply chains and consumption for market efficiency (Mikkola (2008), Colasanti *et al* (2018)). As intermediary hubs, producers (usually small) collaborate to supply larger customers otherwise beyond reach (wholesalers, large institutions, and public procurement) (Barham *et al*, 2012). This enables aggregation in source-identified food products, in marketing, and in distribution (Cleveland *et a*l, 2014), and thus producer economies of scale (Reynolds-Allie, 2013). Producer hubs tend to be horizontally integrated around place (Fischer *et al,* 2015) allowing greater capture of consumer spend (Wilde, (2013), and the use of 'localness' in marketing (Matson and Thayer (2013).

Cooperation in producer hubs is commercial rather ideological: they have no necessary social goals (Avetisyan and Ross, 2019). Indeed, economic performance can be impaired by cooperation because of the need to agree on operational aspects amongst producers - such as collective capital items, who should pay for them, and how the cost of brokerage is determined (Colasanti *et al*, 2018). In these ways, producer food hubs provide a performance counterpoint to large-scale industrial, vertically integrated, and distant monopsonistic controllers of the food market (Hinrichs, (2000), Stevenson and Pirog, (2008)).

Porter and Kramer (2011) suggest that producer food hubs commonly have non-market characteristics but conclude that these are invariably by-products (positive externalities) rather than necessarily purposes against which performance is measured. These have been observed to include improvements in local employment (Berti and Mulligan, 2016), shorter food chains (Schmidt *et al*, 2011) and shorter food miles (Kirwan *et al*, 2017).

Community food hubs

At the other end of the continuum, community food hubs (CFHs) have much wider civic rationales. Some of their characteristics are common with producer hubs (environment, employment) but *motivations* in their development are quite different: they largely seek to address market failures in some way (Fisher *et al,* 2015). Their purposes, from the literature, are summarised in six groups below

Enhancing community values is considered a purpose of CFHs by Renting *et al* (2003) through community-building, reconnection, and developing the grassroots intersections of community organisations (Le Blanc *et al*, 2014). Sonnino and Griggs-Trevarthen (2013) suggest these are characterised by community supported agriculture, growing groups, community gardens and city farms. These are ‘collective’ activities that contribute to community capital rather than market returns where cohesion and collaboration are critical (Beckie *et al*, 2012). Mikkola (2008), too, suggests that CFHs are driven by solidarity, mutual aid, and anti-market food sovereignty, often stimulated by considerable volunteering (McKeon, 2015). Such community performance characteristics have allowed CFHs to adapt and respond quickly to the Pandemic, for example, despite having no historical experience in this area (Fardkhales and Lincoln, 2021).

Supporting the disadvantaged is another CFH purpose (Berti and Mulligan, 2016), where ameliorating food poverty, improving access to food, improving diets and nourishment, promoting healthier eating, and pursuing food justice (Rose 2017) all are stated purposes. Food education (nutrition, diet), and practical cooking classes buttress this support (Blay-Palmer *et al*, 2013).

Environment and sustainability purposes, thirdly, also are integral. Food waste reduction and shorter food miles are common CFH objectives (Stroink and Nelson, 2013) as is the transition to organic agriculture (Berti and Mulligan, 2016). Fourth, *food insecurity* and more global food issues such as fossil fuel dependence, crop failures, intensive animal production, soil erosion, climate change and resource depletion (including water) also are purposes of CFHs (Seekel *et al*, 2017). This includes addressing the increasing complexity of food systems, both local and global (Weber *et al*, 2020).

Two other CFH ‘purposes’ overarch these four. The first is that of *(re)localising food*. This is integral to the community, environmental and ‘disadvantaged’ purposes but is accorded a separate category, because the purpose here is about food reconnection with the local population (Cox, *et al*, 2008). It also embraces food advocacy and food campaigning (DuPuis and Goodman, 2005).

Finally, CFHs invariably are ‘not for profit’. Their non-market purposes invoke a blend of community shareholding, grant-aid support, donations, volunteering and some income generation (Yarnit, 2021). They commonly reinvest surpluses for community ends rather than to maximise profit (Crabtree *et al*, 2012). They are seen as “flagship models of socially conscious business” (Colasanti *et al*, 2018, page 11), but this can make them vulnerable (Le Blanc *et al*, 2014): trade-offs between environmental and economic equity purposes can be difficult (Mitchel *et al*, 2015). Here, CFHs commonly adopt hybrid forms of market and non-market activity as survival strategies (Food Research Collaboration, 2021).

Melded food hubs

Individual food hubs invariably lie somewhere on the producer/CFH continuum in respect of the above purposes and motivations. Across the continuum, Miller (2011) suggests that both operate as boundary organisations: brokers for multiple social political and scientific views, to enhance mutual understanding (Franks, 2010). All hubs are felt to operate within 'shared value strategies' (Porter and Cramer, 2011) aiming to enhance enterprise competitiveness and social and community improvement simultaneously. If there is a difference in emphasis in these shard value strategies, Berti and Mulligan, (2016) consider producer hubs to have an emphasis on market innovation and Seyfang and Haxeltine, (2012) consider CFHs to focus on social innovation.

Here, Franklin and Morgan (2014) observe hubs that sustain the supply of local produce at premium prices (producer purpose) whilst at the same time addressing food poverty and food education (community purpose). Hubbub (2021) suggests this is a good food hub model: a market-based platform for producers and consumers that also offers sharing schemes for donated food, access for all to healthy food and food box deliveries for households in need.

There is some suggestion, too, that this food hub melding is temporal. In the UK (Yarnit, 2019), the USA (Colasanti *et al,* 2018), and Canada (Stroink and Nelson, 2013) initial focus has been on producer hubs, commonly for both market (producer solidity), and non-market (food waste, shorter food miles, more sustainable production methods) reasons. Community objectives (food poverty, food education, community empowerment) appear later as the infrastructure and values allow.

The dynamic towards non-market activity in food hubs may grow because they sit in the shadow of mainstream agriculture. As hubs innovate, developing new ideas, mainstream agriculture is in defence and retrenchment (Stroink and Nelson (2013) term this the rigidity trap). Yet the latter receives nearly all 'agriculture' state support (and skills and training) through a 'one size fits all' mainstream policy framework.

Because of this, food hubs are pushed towards working in other policy domains for development opportunities and finance (All Parliamentary Group on the National Food Strategy, 2021). Most commonly these are the health, poverty and environment. In turn, this increases food hub emphases in these areas. Funding from the charitable sector, too (such as the National Lottery in the UK) also gives a necessary priority to non-market activities.

Wherever food hubs might be placed along the producer community continuum, Stroink and Nelson (2013) consider them to:

"*contrast with the dominant industrial food system that focuses primarily on efficiency in production and profit to the general neglect of social, health and community outcomes*" (page 621).

7.1.2 Operating within social economy precepts

CFHs, then, depart in their purposes and operation from growth economy 'economic efficiency' organisations. The inherent limitations of using growth economy yardsticks such as Gross Value Added (GVA) and Gross National Product (GDP) to measure economic performance are considered in section 7.2.1. Focus is given here to an alternative approach to development in which CFHs might operate: the social economy (SE). This is gaining ground in practice. The EU's SE priority, for example, called for national SE strategies. Scotland was an early adopter in 2016 and Spain followed in 2017, with a Madrid regional strategy in 2018. Many others were being finalised by 2020 (Curry and Purle, 2020). This section explores such a SE context for English rural areas.

At its most generic, the European Commission (2020) considers the SE, in counterposition to the market (growth) economy, to be concerned with social, societal, environmental and carbon reduction development, employing people inclusively, fairly and with dignity, in pursuit of the public interest, rather than financial return. This places individual and social objectives over those of capital: solidarity and sustainability rather than financial surplus (Janus (2018).

Scottish Government (2016, page 4) has identified the SE as pursuing community, employment and environmental (including carbon reduction) goals, delivered through blended economic and social mechanisms in pursuit of a fairer, more equal society and an inclusive economy. These goals should be delivered through participatory, democratic institutions and whilst goals will be emphasised differently, they concern objectives other than profit maximisation, providing a commitment to use all assets and surpluses for the public good, and to operate for the wider interests of society.

SE organisations - including voluntary groups, mutuals, charities, land trusts, credit unions, local exchange trading schemes co-operatives (Di Domenico *et al*, (2010), Paradi *et al*, (2018), Gullands, (2020)), Community Interest Companies (Shepherd and Haugh, 2013) and the Church all invariably engage in some form of trading activity, but this need necessarily only be a small part of their work (Department of Trade and Industry, 2002). Such trading invariably will pursue social rather than market goals within an 'ecosystem' involving collaboration, partnership, reciprocity and mutual support (Social Economy Data Lab, 2020) empowered through digital networks.

Trading amongst all of these organisational forms in the SE might include pursuing social justice through entrepreneurship; pursuing ethical asset acquisition, procurement and commissioning; providing supportive financial and business advice; developing partnerships, establishing an institutional support infrastructure and developing social innovation (Heap *et al*, 2017). The National Audit Office (2020) considers the 'third' sector, 'not for profit sector' and 'civil society' all to fall into the SE and stresses the critical role of volunteering in their operation.

SEs are built around economic systems rather than firms or sectors[1]. *Circular economies* are concerned to move from a linear economy – 'take – make – dispose' model to a 'reuse – share – repair - refurbish - remanufacture - recycle' model, to create a close loop system. This is designed to minimise resource use, waste, pollution and carbon emissions (Geissdoerfer *et al*, 2017). The *Inclusive Economy* places emphasis on the way that wealth is distributed rather than created, entailing 'fair' work (often for those furthest from the labour market) and tackling discrimination and prejudice (particularly in respect of race, gender, disability, and human rights) (Scottish Government, 2016).

The *sharing economy* prioritises access over ownership (Hossain, 2020) making use of otherwise underused resources, reducing waste, and enhancing social capital, through 'sharing' (Curtis and Mont, 2020). *Place-based development* is part of the SE lexicon, too, offering particular distributional benefits in less-developed areas (Duranton and Venables 2018). Sorensen (2018) explores this theme particularly in relation to rural areas. *Systems approaches* to development also feature in the SE, to develop mutual economic interdependencies in pursuit of collective gain rather than that of the individual units within the system (Sala *et al*, 2015). Again, such approaches are considered to have particular potential in rural areas (Carnegie Trust Rural Programme, 2010) where economic interdependencies can be high.

The House of Lords reflects these precepts. The most recent of the perennial reviews of the UK rural economy was by the House of Lords reporting in 2019[2]. The report asserts that rural development will be most successful if place-based, blending social, community and economic objectives (the LEADER approach is cited several times). Economic development should be 'bottom-up' and locally driven, making use of partnerships, collaboration, mutual support, self-help and community leadership (Chapter 3). The report concludes by calling for a new 'place-based Rural Strategy', a proposal which garnered the support of the broadly-based Rural Coalition which launched a roadshow and various elements of publicity to garner public support for such a Strategy.

And there is evidence that SE precepts are particularly advantageous in rural areas (Sorensen, (2018), Gkartzios and Lowe, (2019), Georgeos *et al*, (2021)). They have a heritage from the EU Integrated Mediterranean Programmes of the 1970s (Bianchi, 1992) to the LEADER Approach (Dax and Fischer, 2018). They are valuable in

[1] This, of itself makes it difficult to measure GVA performance, which is done at the firm level (Defra, 2020).

[2] House of Lords Rural Economy Committee Report: Time for a Strategy for the Rural Economy, 03 October 2019, HL Paper 330 of session 2017–19

developing local assets, local resources, local empowerment, and local actors (Bosworth *et al*, 2015), but SE models are also important in rural areas in the context of the shrinking of the state (Lubelcova, 2012).

Here, sparse populations do not facilitate economies of scale in creating markets (to displace state provision) to the same degree as in urban areas (Valentinov and Larsen, (2010), Neumeier (2012)). Inherently higher costs of rural economic activity (remoteness, low population density) are better absorbed by SE organisations which have objectives other than the 'bottom line' (Yates, 2004).

Consistent with this, there are more SE organisations in rural areas than in urban areas, per person (NCVO, 2020), although these tend to be smaller and with a more local reach (Harding (2006). Involving Lincs (2015) notes the critical importance of these very small SE groups to the UK rural economy - commonly self-funded and self-run – because of their ability to work with sparse populations to combat isolation – particularly with older people (Wilson *et al* 2017).

There is also more volunteering in rural areas than in urban ones per head ((Yates, 2002) and a more significant role for the SE in the provision of such services as transport, housing and environmental protection in rural than in urban areas (Blackburn *et al*, 2003). For Community Interest Companies in particular, their formation is highest, nationally, in the most deprived rural areas (Shepherd J, (2020) pers com).

7.1.3 The rural social economy and the English Local Enterprise Partnerships

Since the demise of the Regional Development Agencies in England in 2010, the principal engines for state intervention in economic and social change at the local level have been the Local Enterprise Partnerships (LEPs) (Broadhurst, 2018). They managed until 2020 (when the UK left the European Union), for example, the European Structural Investment Funds, including the LEADER Approach.

An evaluation of SE policies in the 38 LEP Local Industrial Strategies (LIS) was undertaken in 2020/2021 to examine the ways in which they embraced SE principles, to determine their receptivity to rural SE approaches. All but three LEPs contain significant rural areas. The evaluation methods are described in Curry (2022a). Nearly 70% of LEPs felt they embraced SE policies in their LISs and documents. This proportion is comparable with evidence of SE statements in all available LISs and on all LEP web sites, with rural areas within them.

All LEPs pay lip service to sustainability (or sustainable growth), most recognising that this requires a balance between social and environmental as well as economic interests. Specifically in terms of SE precepts, the rural LEPs of Heart of the South West, Cumbria, the Black Country, South East Midlands, West of England, Swindon and Wiltshire, Cambridgeshire and Peterborough and New Anglia (Norfolk and Suffolk) all have *inclusive growth strategies* or commitments.

Inclusion in these strategies has various interpretations embracing: considering all members of the population equally; actively working towards the redistribution of wealth; environmental sustainability; pollution reduction; reducing educational disparities; reducing workless households; improving accessibility to transport; seeking to develop social cohesion; nurturing a sense of place, and addressing youth unemployment.

New Anglia LEP (2017) includes the post-carbon economy, sustainable food production and renewable energy generation within its consideration of inclusiveness, and Cumbria LEP (2019) also seeks to make use of underused assets such as in the retired population (page 80) (similar policies pertain in Cornwall and the Isles of Scilly) and people engaged in social and community activity:

"*Cumbria's excellence in the voluntary and community sector and the strong nature of many of our communities provides a real launching pad"* (for the strategy) (page 9)

Of other SE precepts, York and North Yorkshire is the leading LEP in developing *the circular economy*:

"*By creating a Circular Yorkshire, we aim to move our region from a linear economy (take, make, dispose) to a circular economy (where all waste and resources have a value) through this process, we can not only address the challenge of climate change, but we can also add value to the local economy, communities and people's lives. As the majority of existing circular initiatives are based in cities, the rural nature of our region provides an opportunity to become the UK's first circular region*" (York and North Yorkshire LEP, 2020).

This LEP has many business-focussed resources for the circular economy (a circular economy strategy; demonstrator projects; circular guides; business case studies; assessments of natural capital, funding opportunities). The development of the circular economy, they say, requires systems collaboration, requiring businesses, local authorities, charities and community groups to work together. Strategic Priority 3 of the Swindon and Wiltshire LEP LIS (2020) also develops a multidisciplinary research centre to deliver sustainable technologies for a circular economy (page 13) in the context of a zero-carbon economy (page 10).

Cumbria LEP (2019) justifies its focus on the SE because of its strong rural networks of support (page 21) and sense of social capital and belonging (page 28). Priorities for place-based development include concentrating on "spots of worklessness and social deprivation" (place priority 1) and supporting local place-shaping programmes (place priority 2). The Black Country LEP (2020) LIS, too, notes that "social economy organisations are a major part of ensuring balanced and more sustainable growth". Dorset LEP (2018) also commits to social enterprise in its Vision for Growth:

"*Encourage business start-ups and social enterprise in difficult to reach and economically inactive communities by working collaboratively with business leaders, social entrepreneurs, universities and civil society organisations*." (Page 19).

The South East LEP (2014) will add social value through social enterprise in place-based frameworks. It has a SE rural working group. The Marches LEP LIS (2021), too, sees social enterprises (and cooperatives in particular) as a key to rural economic growth and has a LEP Board Member with specific responsibilities in this area. The West of England LEP LIS (2019) offers business advice explicitly for social enterprises (page 68), and forums for social innovators (page 67).

Of practical action**,** New Anglia has an *inclusive growth toolkit*, Derby and Nottinghamshire, a *third sector inclusion group*, the South East, a *social enterprise working group,* and Gloucestershire has *third sector representation* on the full LEP Board. Stoke on Trent and Staffordshire LEP (2020) will develop locally-delivered *social enterprise support schemes* (page 32).

Cornwall and the Isles of Scilly has *Social Enterprise Zones* that require specific environmental responsibilities. It has set up a *School for Social Entrepreneurs,* emphasising community businesses to improve social inclusion. The motivation behind all these polices fully reflects the purposes of the SE. Cumbria LEP sums this up well:

"*Traditional metrics of economic performance, such as GDP or at a regional level GVA, are a poor guide to social and economic welfare. They also do not tell us anything about how the opportunities and benefits of growth are distributed across different spatial areas and social or income groups*" (Cumbria Local Enterprise Partnership (2019), page 12).

7.1.4 The market orientation of current national rural policies

At the local level, then, there is receptivity to an economic policy frame favourable to the development of rural CFHs. In addition to LEPs, metropolitan regions (Heap *et al*, 2017) and shire counties such as Lincolnshire (Curry and Purle 2020) also have produced SE strategies. But at the *national* level, there is a resistance to this broader approach, as growth economy 'economic efficiency' measures still predominate in performance and grant allocation criteria. By mid 2021, Defra (2020) was still using a 'balanced' GVA productivity measure (a blend of income and production) to describe performance. This measure shows rural performance to be below urban – an enduring characteristic (Anderson *et al*, 2005) with a widening gap - despite time-honoured support instruments aimed at rural economy growth (for example, Defra (2012).

The limitations of GVA measures in particular, have led to a range of alternative proposals for the measurement of rural economic performance built around well-being (Treasury et al, (2007), Commission for Rural Communities, (2010)), endogenous and neo-endogenous development (Gkartzios and Lowe, 2019), income support (OECD,

2005) and low carbon (Fankhauser and Jotzo, 2017)). Despite these, and LEP developments in SE policy, GVA measures remain the official Government yardstick for rural economic success. This does not sit well with the objects of CFHs.

Policy retrenchment: review of LEPs

But even the LEP SE performance measures are vulnerable. Despite the House of Lords (2019) considering the LEPs to be appropriate vehicles for further developing the rural SE approach (paragraphs 150 – 171), by late 2021, the role of the LEPs overall was uncertain. A large-scale Whitehall review of the LEPs was announced, to be conducted by the Cities and Local Growth Unit (reflecting, itself, the 'urban' and 'growth' focus to be required of the LEPs), following the 'underperformance' of a number of them (Hill, 2021). The review was to explore how best to "transition from the current model to a future structure" (DWF, 2021), so the 'do nothing' solution is not on the agenda. Round table discissions in relation to this review have not included the LEPS themselves (D2N2 LEP (2021), section 2.1i, paragraph 12).

As a result of the review, LEPs are likely to become "even more business-led" (South East LEP, 2021, page 1) and positioned most effectively to "support productivity and growth" (DWF, page 1) in order to develop the Treasury's (2021) Plan for Growth, built around City Regions (Sunak 2021). There will be a smaller number of LEP-style organisations, not dissimilar to the geographies of the former Regional Development Agencies (DWF, 2021). The continued emphasis on the urban/city, and on growth, again does not bode well for rural SE organisations such as CFHs.

The role of LEPs in allocating development funding also had been curtailed by the beginning of 2021. The £4 billion UK Levelling Up Fund and the £220 million UK Shared Prosperity Fund (UKSPF) (House of Commons Library, 2021), due to be allocated by the LEPs, was pulled back to Central Government approval working through local authorities (Peters, 2021). Amongst other things, this would provide parity for Scotland, Wales and Northern Ireland (LEPS are only in England). LEPs now will be expected to operate without any underpinning capital programme (South East LEP, 2021).

This is significant for rural areas and CFHs, as the UKSPF in particular is seen as a replacement for the European Structural Investment Funds (House of Lords report (2019) paragraphs 134 – 149) which contained a number of rural-specific and food infrastructure-specific SE streams.

Further, LEP LISs, with SE precepts and acknowledging local difference, have been side-lined, and their monitoring abandoned (Hill, 2021). LEPs may become membership organisations working at the behest of larger businesses within their geography that can afford to pay for their 'growth' services. And some rural LEPS fear for their very survival: the Marches LEP (Herefordshire, Shropshire and Telford and Wrekin) had been pencilled in for dissolution for September 2021 (Moore, 2021).

Policy retrenchment: rejection of the Rural Strategy.

The House of Lords call for a Rural Strategy, also was roundly rejected. The government response (Gardiner, 2019) asserted that it wasn't necessary, as measures already in place were adequate, particularly the strength of National Planning Policy in providing affordable rural homes (even though this does not have specific rural affordable housing allocations), the Rural Development Programme for England (even though this is being largely dismantled post-Brexit and is largely agricultural anyway) the Future Telecoms Infrastructure Review (even though this acknowledges the non-commercial nature of providing rural broadband to isolated areas) and the monitoring capabilities of rural proofing (even though it is *ex-post* and there are no consequences for Departments in failing to abide by it).

In a further statement, specifically on the rural economy (Gardiner, 2021) the need to increase firm-level *productivity* (author's italics) (via mechanisms in the Business Productivity Review of 2019) is stressed, particularly in small firms, which are predominant in rural areas. This will "drive *growth*" (author's italics) in rural areas, with support from the Help to Grow initiative announced in the March 2021 Budget. Gardner notes that the UKSPF will replace EU ESIF funds but is '*growth* funding' (author's italics) and none will be ring-fenced for rural areas. The bulk of state subsidy is likely to go into supporting 'private' markets rather than directly into community benefits.

This is despite the Rural Farming Networks'[3] collective representations to the MHLG via Defra that the UKSPF *avoids* using GVA as a measure of success in allocating the UKSPF as this unduly favours more productive (urban) areas. A different set of *quality* outcomes should be used instead. The UKSPF provides, Gardiner says, the opportunity to move away from European models such as LEADER.

7.2 Performance Measures in Situations of Market Failure

7.2.1 the limitations of neoclassical economics in measuring performance.

At the core of measures of rural CFH performance is that their objectives depart from those susceptible to measures of economic efficiency in market growth economies such as GVA productivity and GDP. This section explores why neoclassical economics has limitations in exploring such performance.

[3] The Rural Faming Networks were "set up to identify and feed back local issues and concerns straight to the heart of Government, in order to make policies more rural-friendly and …. to develop better and more targeted policy" (Defra, 2012, paragraphs 2 and 3)

Shortcomings of neoclassical economics

In his seminal work on the symptoms and causes of poverty, Erik Reinert (1994) provides an accessible explanation of some of the shortcomings of neoclassical economics (an economic approach that favors free trade, low taxes, low regulation, and low government spending and intervention) in explaining the human condition. He asserts that neoclassical economics is built around a theoretical edifice of market equilibrium, and disequilibrating factors (such as disadvantage, injustice and unequal resource distribution) are assumed away:

"*Neoclassical theory has progressed along the path of least mathematical resistance, which (due to the core assumptions) also happened to be the path which proved that distributional problems did not exist*." (page 74).

So, he says, it has limitations in dealing with inequalities. But the theory, he says, also is aspatial – failing to accommodate relative inherent disadvantages of some places (for example, remote rural) over others (metropolitan) in terms of access to markets and raw materials. This defines spatial unevenness in wealth and poverty, in the absence of some form of countervailing intervention (by state, community or individual).

It is claimed, too, that neoclassical economics fails to represent the 'real world' adequately, because of its simplifying assumptions, and a penchant for mathematical models to explain the human temperament. Bell (2011), for example, questions the assumption that economic decisions are based on "rational self-interest and utility maximization" (page 638) and demonstrates empirically, a range of other values (such as collective interest and philanthropy) that influence economic decisions.

Again, simplifying assumptions, despite their irrefrangible status, move theory away from what actually happens. Reinert (1994) suggests that (mathematical) economists like to develop imaginary worlds of theory, rather than views of economic behavior, grounded in testable empirical evidence. Turner (1980) asserts that even when evidence is collected (within a structuralist-functionalist frame), it is done so largely (if unwittingly) to reinforce existing theory, rather than to challenge it.

North (2005), from a New Institutional Economics perspective, also has concerns about the ability of neoclassical economics adequately to explain economic change over time. Economic institutions (the 'rules of the game') increase economic inertia over time leading to increasing transactions costs (he estimates that transactions costs were about 50% of GDP in the USA in 2000, compared to 24% in 1870), yet these are not accommodated in the general equilibrium of neoclassical economics (Alchian, 1979). North (1992, p 5)) also considers these transactions costs to be rooted in information asymmetries (across those involved in the transaction) in contrast to the 'perfect information' assumptions in neoclassical economics.

Market failure

Lack of temporality in general equilibrium theory also leads to an under-consideration of the consequences of the dynamic construct of economic growth. Growth economy approaches to local and regional development in particular, have come under increasing criticism for their lack of acknowledgement of a series of significant growth-related market failures (Pike *et al,* (2017). These confer 'externalities' where general equilibrium is not achieved, because the production and consumption of goods impacts on unrelated third parties.

These embrace increasing wealth inequalities (Galbraith, (1958), Wilkinson and Picket, (2010), Thompson *et al* (2017)), damage to the environment and natural capital (Mishan, (1968), Joshua, (2017)) resource depletion (Meadows *et al* (1972), Popkova and Bogoviz (2020)), and climate change (Intergovernmental Panel on Climate Change, 2021). These all have been exacerbated by globalisation (Heimberger, 2020), transformations in the geopolitical order (Hameiri, 2010) and the financial crisis of 2007/8 (van Ark *et al*, 2010).

In this context, measures of growth as an indication of economic progress (Coyle, 2014) and the use of GVA as a measure of performance (Perrons and Dunford, 2013) also are increasingly questioned. Stiglitz *et al* (2020), emphasise GDP/GVA limitations: they are inadequate for measuring physical and mental health, social capital, environmental impacts, education, community participation and the distribution of wealth. They caution against the seductive nature of increasing GDP and GVA: they are still commonly seen as a good thing, even though the resultant national well-being may be negative because of market failures.

And these critiques seem popular with the UK population at large. A YouGov poll in May 2020 found that eight out of 10 people would prefer the Government to prioritise health and well-being over economic growth during the COVID 19 Pandemic, and six in 10 would still want the Government to pursue health and wellbeing ahead of growth after the pandemic has subsided (Guardian 2020).

Marketising the community sector.

But the dominance of neoclassical principles over the last 40 years in most western economies has led to an increasing 'marketisation'[4] of all aspects of economies (Davis, 1997), which some have suggested has served neither

[4] Many different terms are used for such marketisation in these critiques. (see Boas and Gans-Morse, (2009) for a discussion), of which neoliberalisation is perhaps the most common, although this is often used in a n ill-defined way (see Dunn, 2017)

community development in general (Fougere *et al* 2017) or rural CFHs in particular (Deller *et al*, 2017), well.

Brown (2006) asserts that under this regime, community 'problems' become recharacterised as individual problems with market solutions. Fougere *et al* (2017) suggest, too, that 'inclusive economies', where much community action takes place, are now framed in this market discourse: inclusion is achieved through *economic* inclusion (for example, a job): it also becomes entrepreneurial rather than social. And to cement this, the state reifies the community sector emphasizing its success in market language to engender feelings of empowerment and social agency. This further endorses the market approach to community development work (Edward and Wilmot, 2013).

Some have even suggested that community development has become part of this marketisation project itself. Marketisation invades community decisions replacing them with market principles (Yeo, 2017), where non-commodities become commodified and community goods are hidden as they masquerade as market goods (Rochester, 2015). In these circumstances community innovation gives way to economic expediency (Osbourne *et al*, 2008), and competition and economic efficiency make the community sector more "cost effective and productive" (Goodwin and Phillips (2005), page 102).

Fougere *et al*, (2017) further suggest that now, externalities are seen as correctable by markets, albeit social ones, and attempts are made, to internalize them into markets (Unerman *et al*, 2018). But success here can be limited. Von Jacobi *et al* (2017) suggest that marketisation does not sufficiently embrace the active participation of marginalized individuals or address the *causes* of their marginalization: the inability to tackle inequalities prevails.

Instead, marketisation tends to buttress prevailing institutions rather than being transformative in the way that the community sector aspires. In doing so, markets in community development sustain, rather than reduce marginalization, promoting, Yeo (2017) claims, several injustices simultaneously.

Community food: working with market failure

All of this makes the work of CFHs difficult in addressing food market failures, whist they are becoming increasingly articulated in UK policy. In addition to biodiversity externalities addressed by the Agriculture Act 2020 (UK Parliament, 2020), food poverty and food standards (the National Food Strategy Part 1 (Dimbleby, 2020)), diets and obesity (the National Obesity Strategy (Department of Health and Social Care, 2020)), the problems of eating meat, (EAT-Lancet Commission, 2019), food waste (Department of the Environment, Food and Rural Affairs, (2020a), environmental impacts of agriculture (UK Parliament 2021) and general food health (the National Food Strategy Part 2 (Dimbleby, 2021) all have drawn the attention of government.

The most pressing of these at the community level, perhaps, is food poverty. This has been rising year on year in the UK for nearly a decade with nearly 2 million people turning to the UK’s 2,200 or more food banks in 2020 compared to 913,000 in 2013 (House of Lords, 2021). This has been exacerbated greatly by the Covid Pandemic where locally, increases in food bank use of over 1,300% have been reported between May 2019 and May 2020 (Bailgate Independent, 2020).

In addressing these externalities, community food projects invariably work precisely at the intersections of these neoclassical economics shortcomings (Deller *et al*, 2017). They are concerned to address inequalities of all kinds, particularly wealth and health, (Rose,2017) invariably through improving information (Blay-Palmer *et al*, 2013), and they operate at the local level *because* of spatial difference (Stroink and Nelson, 2013). In doing all of this, they build community cohesion (Le Blanc *et al*, 2014) and citizen collaboration (Beckie *et al*, 2012). They also seek to redress all manner of environmental impacts, ((Stroink and Nelson, 2013) particularly at the local level through waste reduction and shorter food miles.

Because of all of these functions, Vorley and Williams (2015), Berti and Mulligan (2016) and Crabtree *et al* (2012) all suggest that it is entirely to ‘miss the point’ to assess such CFHs, and to allocate resource to them (Clark *et al*, 2021), against ‘market’ (growth economy) criteria.

7.2.2 Problems of addressing market failure in a market frame: the case of volunteering in CFHs

One particular aspect of this marketisation, particularly in a neoliberalising frame[5], is that volunteering is encouraged as part of the duties of ‘a good citizen’ – to reduce dependency and improve social conduct (Jayasuriya, 2002). Seen in this way, claim Fougere *et al*, (2017), volunteering is used to legitimate welfare withdrawal: it becomes ‘community entrepreneurship’, conforming to the established norms of market competition (Mirowski 2013). Volunteering is then seen as ‘work’ (Bel and Gradus, 2018):

“*Dominant ideas about volunteering have moved away from community development and campaigning to the "workplace model" that sees volunteers as unpaid workers*”. National Coalition for Independent Action (2015, page 9):

This model reifies productivity at the expense of social purpose (Fredheim, 2018), inevitably exploiting volunteers and devaluing professionals. As noted in section 7.1.3 the Cumbria LEP LIS (2019) even uses volunteering as one of its ‘growth’ anchors.

[5] This is where Foucault (1978) and Lemke (2001) seat their discussion of ‘self-care’ and ‘responsibilisation’ respectively.

Dean (2015), too, suggests that volunteering has become more instrumental (to improve a job market CV) and competitive (volunteering opportunities as part of university marketing) under marketisation. This focuses on the individual and occludes altruism: volunteering itself becomes a consumer good, and subject to audit. Handy *et al* (2010)'s international study confirms student CV improvement as the main motive for volunteering and a minimum of volunteering would take place to achieve this. Musick *et al* (2000) suggest that this minimises intrinsic volunteer benefits and discourages more altruistic volunteering in later life.

Consistent with these shifts, funding from the state to the voluntary and community sector (VCS) is specifically monitored against state (marketised) performance criteria. The state buys VCS loyalty, reducing their powers of advocacy (Independence Panel, 2015, page 25):

"*As the state looks to the sector to deliver public services (under service level agreements), feedback is increasingly unwelcome*" (Singleton 2015).

'Independent' funding increasingly comes into the VCS from the National Lottery, itself known to be distributionally regressive (the 'unjust' market):

Some of the most deprived areas have yet to see the full benefit of Lottery money... [as] the people who most need help from the Charities Board can be those least able to seek it." House of Commons Public Accounts Committee (2000) (paragraph 5i).

And despite increased exhortations to volunteer, its contribution to GDP is missing from annual accounts (Yates, 2002).

Volunteering and community food

In examining this marketisation in relation to volunteering, Rosol (2016) discusses for whom volunteering might or might not constitute marketisation in the context of food production through community gardening. Like Smith and Laurie (2011) she (Rosol, 2012) observes that volunteering can be both empowering for the citizen and, at the same time, be about the state imposition of 'civic engagement' (Milligan, 2007).

Rosol (2016) notes that food community gardening has complex characteristics. It generates individual satisfactions and promotes self-reliance (for example, through social prescribing) whist at the same time providing a public service (amenity space), promoting active citizenship independent of the state, and producing market goods (food produce). Some of it is 'deviant' (guerrilla gardening) and some of it furthers public policy through outsourcing. In this context, communities become involved in the privatisation of the service sector – even though their objectives might be quite different.

But community gardening also portrays strong community cohesion, environmental and health benefits (addressing market failures) with positive gender and ethnic impacts (Buckingham, 2005). Some even characterise food community gardens as antithetic to neoliberal urban development politics and globally controlled food systems (Lebuhn, 2008)

Rosol (2012) finds the local state encourages community garden volunteering explicitly to ameliorate public finance shortages, seeking to replace them with 'civic engagement' and taking 'self-responsibility' for local community spaces. But the motivations of volunteers do not accord with this.

In her studies, 'having fun' and conviviality were, in order, the two most important reasons for volunteering. Neighbourhood environmental improvement was the third, and safe spaces for children, the fourth. Community food, cooperative working and environments for learning, were less common 'impulses'. Only a small number felt a sense of responsibility or obligation in doing the work.

Ultimately, the power of the volunteer is that they are not beholden to anyone, and they can stop at any time. They are not harnessed into an exchange market. In Rosol's (2012) study, volunteers would do only what they wanted to do – if they perceived that they were 'cheap labour' for example, they would stop. But she does note that many of her volunteer participants generally had the "privilege of the middle class" (2012, page 250) and that actions of other groups might not be so self-determined.

In these 'middle class' circumstances, volunteer community food gardening can become a process of 'gentrification' (Porter and Shaw, 2009), but for other groups, volunteering can become a process of conscription. The UK Government's Help to Work scheme from 2014, for example, *requires* the long term unemployed to work unpaid for 30 hours a week as 'volunteers' (Independence Panel, 2015, page 28).

Volunteering and risk shunting

Foucault (2007) suggests that risks in the VCS are high (lack of skills, fragile resources) and exacerbated because the state shunts the majority of risk down to volunteer deliverers, to allow rewards and penalties to be administered. It also allows blame and risk to be shifted away from government: risk as 'blame management', as Taylor and Burt (2005) call it. In the food context, much state exhortation to address food market failures (section 7.2.1), advocates that implementation sit in the VCS, where the risks of failure therefore also lie, and the resource base is the smallest.

Volunteer deliverers are thus 'responsibilised' into accepting risk rather than being shielded from it by the state, and risk shunting does not, in the main, concomitantly shunt power (Steel, 2005). Even within the VCS, larger groups tend to shunt risk onto smaller ones (Hemmings, 2017).

Much of this risk is embodied in marketised VCS structures: the more rules and responsibilities there are, the more likely they will be breached (Alexander, 2010). And such rules (and therefore risks) are often embedded in service level contracts (Shiel and Breidenbach-Roe, 2014) coercing compliance as a risk avoidance strategy (Hemmings, 2017). Risk becomes measured as failure to deliver contract terms, rather than failure to improve human welfare.

This, suggests Rochester (2013), drives much risk-taking 'under the radar'. Larger VC groups might manage risk through rational knowledge-based processes (and shunting), but smaller organisations often rely more on 'folk wisdom' (Zinn, 2008) or even ignore risk liability altogether. Others may hide risk by using 'outsider' organisations covertly, for example, in developing advocacy.

Risk avoidance also can choke off innovation in the VCS:

"*We do need the voluntary sector to innovate …. We need to re-create freedom to fail. We've lost it. Risk management and minimisation dominates commissioning – and this destroys the freedom to fail and the capacity to innovate*". (Osbourne *et al's* (2008) page 29),

Although, of course, 'freedom to fail' is a risk in itself.

Symptoms, not causes

Edward and Wilmot (2013) also suggest that marketisation has pushed VCS organisations into tackling symptoms rather than causes, in part because such projects have no control over policy levers:

"*There comes a point where we need to stop just pulling people out of the river. We need to go upstream and find out why they're falling in*"[6]

The VCS, says Tilly (2005) has become associated with the 'relief of poverty' rather than tackling its underlying causes. This is starkly clear in the case of food poverty, which is *caused* by the general poverty of limited life chances and inadequate income. Food banks tackle the *symptoms* of food poverty (a lack of adequate food) rather than its causes. Thus, the vision of the Trussell Trust Food Banks (2021), the largest food bank organisation in the UK is:

"*A UK without the need for food banks*"

But this can be achieved only by resolving food poverty causes, which the Trussell Trust is impotent to address except through advocacy (Ellis, 2001): a higher-level political involvement that most volunteers would prefer to avoid (Eliasoph, 2013). Further, once advocacy is declared, the role is often seen as adversarial, and the non-

[6] This quote has been attributed to Desmond Tutu, but there is no evidence that he ever used exactly these words. The issue is discussed in McKinlay (2019).

neutrality of the advocate limits the power to take part in addressing causes (Willen, 2006). In this context, food banks began as an effort to end hunger but have evolved into a service to 'help' hungry people. In this capacity, food banks are praised by the state for the work that they do but challenging the state as to the causes of food poverty is seen by the state as threatening:

"*Take food banks. Chris Mould, chair of the Trussell Trust which gave emergency food to 900,000 people in 2013-14, told us last year that when the charity called for action to tackle the causes of food poverty, there were angry conversations with ministerial aides, accompanied by threats of closure*" (Singleton, 2015).

The then Secretary of State for Work and Pensions, Ian Duncan Smith, subsequently accused the Trussell Trust of scaremongering (Independent, 2013) and the ensuing Lobbying Act of 2014 placed new restrictions on the ability of VC groups to campaign. Indeed, in Canada, tackling causes rather than symptoms is no longer considered a charitable purpose:

"*In Canada, the regulatory authority has ruled that Oxfam cannot have prevention of poverty as one of its charitable objectives, as the alleviation of poverty is what charity should be about*." (Independence Panel, 2015, Page 25) (author's underlining)

But there are vested interests on the part of both the state and VCS organisations in tackling only symptoms. Symptoms-tackling promotes the longevity (and success) of VCS organisations (symptoms will persist if causes are not addressed) whereas successfully resolving causes makes them vulnerable. This allows symptoms-tackling to become assimilated as the acceptable norm in the food poverty game. That it eventually becomes valorised, is well illustrated in an advert in a circular email from Sustainable Food Places of 5 October 2021:

"*Brilliant jobs in food poverty in Wandsworth and Thanet*".

Yeo (2017) also suggests that symptoms are easier to address than causes and can commonly be tackled by single agency responses. Causes commonly are structural (and therefore not easily resolved in the short term) and invariably require a multi-agency response. The 'difficulty' of addressing causes pushes the agency response back to tackling symptoms. In turn, this creates dependency (because addressing symptoms does not make the problem go away) (Reinert, 1994), exacerbating the causes or certainly, as Ellis (2001) notes, reducing the urgency of dealing with them.

Ahn and Kalish (2000) also suggest causes are easier to obfuscate. Yeo (2017) notes that a common agency response is to dispute the causes of a problem (particularly where there are several supposed causes and causation is hard to prove), in order to make the means of tackling them less certain, or to dispute the appropriate means of addressing causes – do they require a policy response or a behaviour change:

"*Whether the problem is caused by oversight or by structural problems is fundamental to considering policy implications*" (Yeo, 2017, page 665).

Kim and Keil (2003) suggest that a focus on symptoms rather than causes also can be because of a lack of willingness to undertake the *diagnosis* of symptoms for fear of the consequences of such a diagnosis (either in terms of mitigation costs, or the identification of welfare losses). And finally, Dean (2015) suggests that the pressures of delivering service contracts to the state requires the VCS to depoliticise, forcing:

"*their efforts onto symptoms rather than root causes, and tackling short term and individual issues as opposed to campaigning for underlying change to tackle structural inequalities*" (page 141).

This case study of volunteering in a CFH context illustrates some of the problems of evaluating their performance in a GVA/GDP frame, even at a time when there is pressure from economic development agencies for the VCS to become more commercially oriented (Martin *et al*, 2015). The VCS, according to North (2005) is where complex multi-faceted issues play out and where divergent views have to be reconciled to achieve a community consensus (Hutchins and Hazlehurst, 1992).

This complexity is increased through collective working, a frame for which is considered in section 7.4. A UK county-level survey (Involving Lincs, 2015) found that 70% of county VCS groups worked in partnership (for funding applications, developing good practice and service delivery) – where value systems could be hard to reconcile. But they would often need to compete at the same time (Bock 2016)**.**

Crowding and VC group instability can also add to complexity. The Lincoln Food Strategy (University of Lincoln, 2016) found 94 City VCS groups with an interest in food in 2016. This had dropped to 84 in 2017, but many of these were different organisations than in the earlier survey. Lack of access to finance was the main reason for VCS groups disbanding.

7.3. Ameliorating market failures in a market context

The previous section has noted some of the difficulties of measuring the performance of CFHs in narrow economic efficiency or general market equilibrium terms. This section reviews two elements of CFH behaviour that can provide alternative performance characteristics. The first is social innovation (section 7.3.1) and the second is organisational structures and innovative manipulations of market mechanisms (section 7.3.1)

7.3.1 Performance in relation to externalities: social innovation from the past

In dealing with market failures, CFHs are seen to exhibit high degrees of *social* innovation (Klerkx and Leeuwis, 2009) distinct from technical and economic innovation, more dominant in the market economy (Seyfang and Haxeltine, 2012). Examples are discussed fully in Curry (2022b).

Innovation in general is rarely seen to lean heavily on past practice: it is about the 'new' (Rogers, 2004). Despite this, Shove and Walker (2010) assert that innovation concerns transition: and transition is both temporal and non-linear (Røpke 2009). Adams and Hess (2008), too, note that innovation can be the use of 'old' ideas in new contexts "to stimulate different ways of thinking and acting" (p. 1).

Hargreaves *et al.* (2013) draw a distinction between two specific theoretical approaches to innovation in its temporal context. The first has a focus on *new* innovations as they unfold (Geels and Schot 2007), on niches and novelty (commonly through vertical linkages) and the development of *new* standards and visions for the future (Smith 2012). They consider this approach to be consistent with multilevel perspective theory (MLP) (Rip and Kemp, 1998).

A second theoretical perspective casts innovation more generally in the *now* (and the path dependency of 'now' (Reckwitz, 2002)) rather than the new. In this framework, innovation emerges from normality and the *existing* systems already in place (commonly through horizontal linkages). Here, innovation is actually *done* in an integrated way. Hargreaves *et al* (2013) consider this approach to fall into social practice theory (SPT) (Bourdieu, 1977). Much of their discussion focuses on the relationship and complementarity between these vertical and horizontal approaches.

Postmodern and poststructuralist interpretations of innovation have a little more to say about innovation and the past (Lupton 1996). Callon (2007), for example, suggests that linear models of innovation (both horizontal or vertical) are limited because actually innovation is much more iterative and haphazard than linear; whilst haphazardness inevitably embraces the past, iteration 'plays' with the past. Furthermore, Nyström (2013) sees innovation as the "logical result of pre-existing conditions rather than a creative surprise leading to new experiences" (p. 19).

But none of the 'new' (MLP), the 'now' (SPT) or the 'haphazard' (postmodernism) has a clear focus on the role that *history or heritage* has on spawning social innovation: the area described by Pantzar and Shove (2010) as 'ex-practice' and by Shove (2010) as 'forgotten' practices.

Such a focus is commonly dismissed as mere nostalgia – itself, long the object of systematic criticism for its association with reactionary ideologies and misrepresentations of history (Burstrom, 2020). González-Ruibal (2021) asserts that nostalgia is commonly viewed as the opposite of progress, and therefore, sentimental and melancholic: a yearning for the unattainable. This is hardly a basis for social innovation.

But Pickering and Keightley (2006) contest these views suggesting that they are again based on the assumption of a linear model of social innovation - there is 'no going back'. They suggest, to the contrary, that returning to examine 'the way we used to do things' is an essential part of innovation and a strong "basis for renewal and satisfaction in the future" (page 921). Nostalgia can be seen as "a viable alternative to the acceleration of historical time" (page 923) – a counter to developmental vertigo. To dismiss nostalgia is to deny historical experience, both good and bad. As Pickering and Keightley (2006) conclude, citing Rosaldo (1993):

"We valorise innovation, and then yearn for more stable worlds" (page 933).

In the context of Shove's (2010) 'forgotten' practices and Pickering and Keightley's (2006) 'the way we used to do things', the re- prefix is in the ascendancy in the food innovation lexicon. *Re-generative* agriculture (Giller *et al*, 2021) features in the new UK agricultural policy Environmental Land Management Schemes. Soil *re-storation* will improve biodiversity and soil *re-silience* (Tendall *et al*, 2015) and reduce inputs (Newton *et al*, 2020). Food *re-localisation* (Winter, 2003) is also part of the food agenda.

This 're' turn in food thinking is exemplified by food practices in the COVID pandemic drawing on earlier food 'crises' in the Second World War. Thus, volunteers turned vacant land (Guardian, 2020) and back gardens (Henry (2020) over to food production in the Pandemic in similar ways to the War (Way, (2015), (Chavalier, 2016a)) with a proportion going to food banks (Pandemic) and Wartime 'soup kitchens' (Vorstenbosch *et al,* 2017). Foraging and home food processing grew in both periods, too. Non-monetary exchange also grew in both periods (Henry (2020), Chavalier (2016b)), and dietary improvements also were observed in both (Way (2015), Walljasper and Polansek, 2020)).

Innovating from the past in CFHs

This sub-section reports on an analysis of the three surveys reported in section 6 above and described fully in Curry (2022b). It throws light on the importance of innovating from the past in CFHs. Five CFHs are cited in the analysis, with whom interviews took place

- Dunston Community Garden Group (DCGG) a community food and flower growing project;
- Liquorice Park (LP) a Millennium Green amenity space with herb and fruit growing;
- Mrs Smith's Cottage (MSC), a rural museum with a particular emphasis on food heritage;
- Sustainable Food Cornwall (SFC);
- Brighton and Hive Food Partnership.

In addition, two older people were interviewed about food in the *Grey and Pleasant Land* (GPL) project and their food memories also are recounted. In the studies, contemporary modes of production in CFHs commonly drew on the past:

> "*In the park, nearly all of what we do is retro. We don't use chemicals or fertilisers – we have so many volunteers that we can pick weeds by hand. We also do a lot of composting as this is a good way to use green waste from the park. These are traditional methods but that is why they work*" (LP 10:25).

Often from 'growing' memories:

> "*In developing our community growing, I went back to thinking about how my dad did this stuff and just did it how I remember it. Nobody else in the group knew what do either so we all adopted the same 'how I remember it' approach. So we had no sprays and pesticides, which eventually became part of our philosophy.*" (DCGG 4:56).

And documented past practice:

> "*Despite many changes in 'productive' agriculture Mrs Smith resisted most of them. When chemicals and pesticides were becoming much more popular* (in the 1950s)*, she would still grow comfrey and borage to use as pesticides and fertilisers, you know*". (MSC, 17:04).

Contemporary CHFs made use of community cohesion:

> *"(the BHFP) is a community-based and led initiative rather than a food-based one. In that sense it doesn't really interface with agriculture and its innovations are not really measured against an agriculture yardstick, but rather a community one. The council has made land available for many different community groups but their catalogue of classification is community, rather than food"* (BHFP, Interviewee 12, 7:20).

Which chimes with historic practice:

> "*The village production and allotments were communal, and work and produce both were shared. Particular harvests, for example, apples, would be styled as social events for all to partake. The following month would be taken up with making apple chutney, which also was shared*" (MSC, 13:10).

'Localness' was an important characteristic of contemporary CFHs, too: short food chains, home grown food and food sharing:

> "*The food from the village hall grounds goes on a table with a donations tin and people can then help themselves. People are usually very generous financially,*

contributing to the cause as well as paying for the food (DCGG 10:04). *More recently, people have been bringing surplus from their own gardens to leave on the table too. This has a cumulative impact on food sharing*" (DCGG 15:15).

This was again reflected in the memories of older people, from the 1930s and 1940s:

"*My uncle Alec kept three chickens in the back yard and they would produce at least one egg a day. When there was more than one he would give the extra away to someone local who was ill"* (GPL, M 40:20).

"*Yes, but my father used to give a lot of his vegetables away, usually to the extended family, because he needed the space to grow more vegetables. If you didn't give them away, you just wasted them*" (GPL, F 5:25).

And from museum evidence:

"*Food production didn't require much investment. People would borrow things from each other, and they worked to produce food as a community so that nobody would have to pay for everything*". (MSC, 8:43).

Many of these CFH characteristics were consistent with older people's recollections of food:

"*People did tend to grow food in their back gardens if they had a back garden, but many people did not. We didn't, but my father had an allotment. This was natural for him as he came from a farming family, as many people did at that time. This was all laid out formally for vegetables: a special place for mint, a special place for cabbage. We used to grow everything: celery, beetroot, the whole lot*" (GPL, F, 2:40)

From these surveys, innovating from the past is well summed up by BHFP:

"*Yes, it is interesting. In many ways it is about rekindling our forgotten past. Some of the things that have happened that are about going back to something that we did before, are things that have really sparked huge enthusiasm. For example, the Keep is an archive centre and we managed to get a community orchard planted in the grounds. Local people in that area of Moulsecoomb, a quite deprived council estate, said it reminded them of childhood. One elderly woman recalled, that there was this old apple variety called, um, the Russian White .... and as part of this orchard, we got the Brighton Permaculture Trust to source the tree for this apple and they planted it. That story went into the press release, and it was one of those things that people got really excited and emotional about. The fact of putting back into the ground, you know this heritage variety that had been around Sussex a long time ago.*

> *That excitement, well, what's that about? You know, why are people so lit up by that? You know, it's a kind of nostalgia, but it's also moving forward to something new, but seemingly familiar. That orchard is all about bringing that community together. It gives the community, including the children, a renewed sense of ownership of the land but also its history. It is very inspiring and offers great potential to these food projects. Great social innovation!"* (BHFP, Interviewee 73, 41:05).

This is endorsed by the National Food Strategy for England (Part 2), produced as an independent review, commissioned by HM Government. In the introduction to its recommendations for a long-term shift in food culture, it begins:

> "*We cannot make lasting changes to the food system without innovation in the widest sense. We need to change the way we use our land, reintroducing forgotten farming wisdom while simultaneously developing robots and AI to serve the farms of the future*" Dimbleby (2021), Page 159.

7.3.2 Rural CFHs: Innovating within the market

Current UK government commitments to GDP/GVA measures of rural economic performance, require CFHs to innovate, often socially, particularly if seeking 'growth' regeneration funding (Shared Prosperity, Levelling Up). Melded actions (section 7.1.1) are likely to be required (Matson *et al*, 2014). These might include *cross-subsidisation*, consonant with SE redistributive principles. Stroudco, a Stroud, UK food hub, for example, sells food at premium prices, using the income to cross-subsidise nutrition improvements in low-income communities (Franklin *et al*, 2011).

Partnerships also offer potential for non-market objectives in a growth market climate. The Cornwall (UK) Regenerative Food and Farming CFH, works towards *regional (county-level) groupings* of CFHs in six towns (using on-line technology), to develop economies of scale in purchasing, sales and publicity. This 'smooths' differences in food quantity and range across area (Whitelaw, 2021).

Consumer-producer partnerships also provide workable models. The Seikatsu CFH (Japan) (Poirier, 2007) is managed by producers and consumers jointly: they also consume food together (with the consumers cooking). Similar partnerships in the Farmer Direct Produce CFH in California (Cleveland *et al*, 2014), keep social, environmental and economic objectives comparably on the agenda. Co-managed CFHs, claims Yarnit (2021), tend to provide good consumer prices conterminously with greater producer returns.

Broader-based melded CFHs also embrace *other agents* concerned with food market failures. Sustainable Food Places partnerships include the local state, health authorities, food banks, and growing groups, as well as producers and consumers (Moragues-Faus and Sonnino, 2019). This can provide an entrée int to the resources of such agents (part of cross-subsidisation), and integration with some services (for example social prescribing).

Melding in CFHs includes *buttressing food with non-food activity* (often addressing other market failures) as a survival strategy. The Acts Trust (in Lincolnshire, UK) for example, is a CFH set up to increase life opportunities, providing opportunities for furniture repair, skills and training, young offender employment and advice on benefit claims. Food (they have a food bank, a community café and a membership supermarket) is often a conduit for these (Acts Trust, 2021).

Sustainable Food Cornwall, UK combines food with craft industries (Whitelaw, 2021) and Liquorice Park (2021), UK, combines food growing with public amenity space. Stag Vets in South Georgia (US) combines food growing with health objectives, running the Acute Veterans Crisis Agriculture Centre (Stag Vets, 2021). Even housing can be an element of CHF development – food growing hubs can be made part of new housing schemes (Taylor, 2015).

Campaigns can improve performance, too, often coterminous with product marketing. Sustainable Food Cornwall (2021), UK, promotes regenerative agriculture and Tamar Grow Local Food Hub (UK), runs workshops, events and festivals (Davis, 2021) which also build consumer pressure for food change. Using *volunteers* also is often part of CFH melding (section 7.2.2) , and crowdfunding can help: Sitopia Farm Community Food Hub in Greenwich, UK (Sitopia Farm, 2021) raised over £75,000 in 2021 by this means, for example.

Melded CFHs also can work within growth market mechanisms (Clark *et al*, 2021). Three examples are offered from Lincolnshire, UK. *Using markets to internalize externalities* can be redistributive. The Lincolnshire CFH repurposes 'waste' food from large retailers. Near sell-by-date food, or with damaged packaging, is donated free (avoiding refuse charges), passed on free (food banks) or resold in community cafes at about 10% of restaurant prices. These cafes also run cooking classes as part of reducing information asymmetries. Other organizations take part. The local university grows large quantities of fruit and vegetables as part of its research into agricultural robotics: once robot-picked, they are donated. Community growing projects also chip in.

Converting capital costs into revenue streams also has developed. State regional infrastructure grants support capital projects, but revenue is the biggest problem for CFHs. Partnering with the local community energy company has secured state capital grants for solar panels. Placed on municipal buildings, these generate an income stream for more than 20 years, which (after direct costs) are donated to community food projects on a continuing basis – known as the 'Feeding Tariff' (Lincolnshire Food Partnership (2021).

Experimenting with different mediums of exchange also has been valuable for reducing inequalities. In one local community café (Mint Lane Café, 2021), *price-based monetary exchange* takes place where a café and a thrifty shop sell 'surplus' food at a fraction of its market price. *Volunteering* is a non-monetary exchange as volunteers each have a 'free food' entitlement. In the thrifty shop a *pay as much as you feel* system has operated and when there are gluts of food retail perishable items (such as bread and pastries), these are *given away free*. There are also *donations boxes* for customers who wish to pay above prevailing prices where they exist (for redistributive purposes), and *pay it forward vouchers* for those who wish to buy food for other people (invariably unknown to them). These are all in addition to food *gifting* from all of the sources noted above.

Finally, *sponsorship* offers a seventh medium of exchange. The café has been refurbished by a local kitchen company (a prize in a 'Caring Kitchen of the Year' competition) and is one of 20 UK 'Starbucks Community Cafes': Starbucks provides a range of coffees, teas and biscuits free on a continuing basis.

Ultimately, community development projects of all types are likely to have to embrace markets in similar ways in what Fraser (2020) considers 'neoliberal community development':

"*community development emerges not so much as a social profession rooted in the needs and aspirations of communities, as a technology of government which is deployed by local states to facilitate neoliberalisation, austerity and the marketisation of public services*" (page 437).

Most of these innovations require working in collaboration within the food system. And this brings additional challenges for measuring performance. These are addressed in the final section of the findings through an exploration of social collision theory.

7.4 Social and economic collaboration and social collisions

In the context of alternatives to GVA performance some of which have been exemplified in the previous section, this final part of the report explores the distinctive nature of working collaboratively: a hallmark of CFHs noted in 7.1.1 above. Does collaborative working in systems rather than firm-level working in sectors suggest a need for different ways of thinking about measures of performance?

CFHs form where actors see a benefit of coming together to create something new. This is unlikely to be without friction: compromises will be made as long as the advantages of the 'new' outweigh the disadvantages of creating it (Colasanti *et al*, 2018). Developing CHFs therefore involves 'collisions' between actors to create the new. Here, the notion of *social collision theory* is used to explore the characteristics of these collisions in a social and economic context, drawing analogy from chemical kinetics. This 'creation of something new' often does require uncomfortable disjuncture from the comfortable ways of doing things:

"*We can't solve problems by using the same kind of thinking we used when we created them*."[7]

In translating collision theory into the social and economic domain, use is made of precepts in new intuitional economics (NIE). North (1990) asserts that organisations (e.g. CFHs) have a natural inertia that resists institutional[8] change. There is a common tendency, for example, for organisations to admit people into their community (join the collective hub, become trustees, join boards) who have similar beliefs, values, and ideologies, and who are familiar to them.

This tends towards consensual decision-making and the maintenance of the *status quo*. Common path dependencies minimise collisions as organisations do not wish to depart from 'the norm' which is familiar and in which they have a significant historical investment (North, 1990). But this chokes off institutional change and inhibits the development of 'something new'.

Social and economic progress is more likely to be made through collisions. North (2005) terms these 'departure decisions' where people of different views negotiate together to achieve something new. The friction of negotiation is used to achieve traction and the greater the friction, the greater the departure from the *status quo*. Such departure decisions have parallels in chemical kinetics.

Collision Theory

From a range of descriptions (BBC (2021), Britannica (2021), Lumen (2021)) collision theory in chemical kinetics explains how collisions form new bonds to make something new (a chemical change). Some collisions will create nothing new at all and others will be vigorous: not all collisions will be equally effective (and some may not bring about positive change) and only some things will collide successfully.

There are three necessary (but not sufficient) *conditions* for a successful collision. Firstly, a collision needs to take place. Secondly, there needs to be a minimum amount of (activation) energy to overcome repulsive forces and, thirdly, the things that are reacting need to be facing in the right direction.

[7] Whist this quote has never been sourced, Einstein did write, in a telegram to the New York Times of 25 May 1946 about the dangers of atomic weapons: "a new type of thinking is essential if mankind is to survive and move toward higher levels." And Einstein (1946) is cited in Rowe D.E. and Schulman R. (2007), page 385 as writing: "as long as we rely on (existing) procedure we are attempting to use old methods in a world which has changed forever" (page 385). The quote used in the text above provides a represnetation of these sentiments.

[8] Institutions are considered here in their NIE meaning as the 'rules of the game' (such as laws, guidelines and beliefs) and organisations as 'players of the game' (North, 2005). These terms are used quite differently in other social science writing. Max Weber (1948), for example, uses the term 'institution' in the NIE sense of 'organisation'.

Collisions can be facilitated by four main *interventions*.

- Raising the temperature increases energy and, usually, the vigour of the successful collision.
- Increasing the concentration of the reactants will normally increase successful collisions.
- Raising pressure will normally increase successful collisions.
- Using a catalyst will normally increase successful collisions.

The main inhibiting factor to such collisions are the number of different types of reactants.

In NIE terms, actors come together to form CFHs: they *collide* (condition one) through a departure decision to create something new. They come together because of a willingness to cooperate (to achieve economies of scale, address market failures). This is *activation energy* (condition two). The collision, made possible by activation energy, overcomes the resistance to change (*repulsive forces*). There also needs to be sufficient common purpose for the CHF to be formed (Jablonski *et al*, 2016), as well as differences that will lead to departure decisions – organisations must be *facing in the right direction* (condition three).

Finally, not all CFHs will be successful (some collisions will create nothing new) or be equally effective, and organisations will join and leave hubs over time.

(Overcoming) repulsive forces: institutions and transactions costs

This process is not without frictions, and in NIE terms these are represented by transactions costs – the costs surrounding a social or economic transaction but that are not part of the transaction itself. The main one of these (some would say the only one - see Ferguson and Keen (1996) for a discussion) is felt to be a lack of (or imperfect) information. Through cooperation and common purpose (activation energy and facing the right direction) hubs offer the potential to reduce transitions costs.
In turn, this overcomes the inertia that resits institutional change – the repulsive forces.

North, (1990, 1991) identifies three types of institutions for which inertia needs to be addressed through cooperation (activation energy). *Constraints* relate to 'laws' that might be criminal, civil or contractual (such as property rights), but that invariably specify breach penalties precisely. These constraints perpetuate order and safety but inhibit change.

Restraints may be agreed, coercive or negotiated modes of behaviour, or advice (such as policies, guidelines, sanctions and practices) that steer social and economic collisions but where penalties for beaching them remain implicit, may be only partially understood – or do not exist. Coercive restraints in particular might be imposed on CFHs by third parties (grant awarding bodies, for example – monitoring and evaluation requirements, performance awards).

The third set of institutions are *customs*, which North (2005) discusses extensively in the frame of beliefs and ideologies. These may be more to do with value systems and modes of behaviour and may not be written down. But breaching them can have significant consequences in respect of social and economic collisions as they commonly involve the loss of trust. Codes relating to the breach of customs may remain tacit but understood. Each of these three types of institution can be addressed to improve the collision (reduce transactions costs), through the four interventions of collision theory, noted above.

Interventions to improve social collisions

To examine potential interventions to improve social and economic collisions (in order to create something new) recourse is made to literature in social theory, social psychology, anthropology, organisational behaviour, and neuroscience to tease out human manifestations of the chemical interventions. This is necessarily synoptic but does identify a series of behaviours that might give insights into performance measures in the context of social and economic collaboration rather than just economic efficiency.

Raising the temperature and increasing energy: collective effervescence, vitality, and vigour

In interpreting 'raising the temperature to increase energy' in the social and economic domain, use is made here of Durkheim's (1995) notion of *collective effervescence*, promulgated from a social theory perspective. The term was coined to explain when communities come together and simultaneously communicate comparable thoughts as they participate in the same action[9]. Olaveson (2001) suggests (page 99) that Durkheim used the term interchangeably with the term social "heat". For Durkheim collective effervescence helps to explain how societal change occurs, particularly at times of crisis when social interactions increase, and people look to each other for support.

Such collective effervescence excites individuals and increases bonds. It generates high levels of energy and involves the suspension of social norms. It is essentially non-rational and momentary. It has been applied in a number of different community contexts (Olaveson, 2001).

From a social anthropological perspective, Buehler (2012) characterises collective effervescence as *vitality*. Turner (1980) asserts that it cannot be assigned to an individual. He explains this with the notion of 'communitas' which is concerned with social creativity and change and with spontaneity rather than established social structure, the latter of which ultimately limits individuals. It is experienced by all but

[9] It was originally used in the context of religion where it was associated with delirium and ecstatic states, but these need not necessarily be present, particularly outside of the religious context. Olaveson (2001), stresses the importance of intimacy, intensity, immediacy and the essentially creative nature of collective effervescence.

also exists only in a moment in time as it is essentially transitional (Turner, 1980, page 160).

Thus, increasing energy has parallels with Turner's 'social drama' which has the role of

"*converting particular values and ends, distributed over a range of actors (*organisations*) into a system of shared or consensual meaning*" (Turner, 1980, page 156).

This characterisation of social drama begins with a breach of norms (any of North's (1990) institutions - constraints, restraints, or customs) - intentional or otherwise - leading to conflict (collision). This can cause reaction in order to create something new. Such social drama can be abrasive, agnostic or muted by codes of etiquette to avoid direct confrontation.

In the field of social psychology, Ryan and Frederick (1997) examine 'subjective vitality' as a positive feeling of aliveness and well-being and of personal ('one's own' - page 536) energy, which motivates people and provides them with an increased sense of self-worth or self-esteem. Vitality also is considered to be enhanced by strong positive interpersonal relationships or connectedness to others.

Harwood *et al* (2009), using an ethnolinguistic approach, consider 'group' vitality to be an important part of intergroup communication. The stronger it is, the more likely the group is to develop. This vitality is enhanced by the degree to which the group is 'heard' or acknowledged exogenously and the degree to which the group has control over its own destiny.

Finally, in organisational behaviour studies, Shirom (2007) uses the term *vigour* to describe a positive energy in decision-making. Vigour entails emotional exertion, cognitive liveliness and physical strength. These provide an affective energy reservoir that has a positive impact on the motivation to participate (Custers and Aarts, 2005). Such a positive impact embraces both organisations and individuals. The World Health Organisation (1994), for example, measures vigour as one element of their operational definition of well-being.

Vigour can be increased by high levels of trust and support in work teams (Brief and Weiss, 2002), leaders who energise (Avolio, 1999) and employee participation in decision-making and access to information (Spector, 1986). Whilst Rozanski and Kubzansky (2005), from a clinical psychology perspective, seek to measure vigour, Weber (1965) attests that from a sociological perspective such measurement is impossible.

Increasing the concentration of reactants (distillation): collective intelligence, enthusiasm, and intensity.

"a feast to which many contribute is better than a dinner provided out of a single purse" (Waldron, 1995, p563, citing Aristotle).

Unlike the spontaneity required of collective effervescence, *collective intelligence*, drawn from social theory, is a deliberative process. It is an outcome of collaborating over different pieces of information in order to achieve new decision outcomes (Raymond, 1998).

Leimeister (2010) asserts that the best collective decisions are not made by consensus building and compromise, but through a competition of heterogenous independent opinions. Importantly a collective does not require individuals within it to have the same views or attitudes because each will learn from the best in different circumstances. It offers the potential to provide new insights that are not held by any individual in the collective at all (Raymond, 1998). In this way, it shifts knowledge and power from the individual to the collective and is therefore an important element of democratisation (Jenkins, 2008), - termed *epistemic democracy* by Landemore (2013) - particularly in knowledge-based societies.

Constant feedback loops allow collective intelligence to remain current and, infused with information technology, can move towards 'perfect information' (Raymond, 1998). This, in turn lowers transactions costs: collective behaviour has the potential to move away from *customs* in particular. Digitised information eases the formation of hubs, as long as all believe it to be true (Flew, 2008).

Psychological assessments suggest that collective intelligence is *not* strongly related to the level of individual intelligences in a group (CFH) (Wooley *et al*, 2010) but it is related to the social sensitivity within the CFH, the willingness to listen, and to the equality with which people participate in the CFH. Groups do not have to be socially cohesive for collective intelligence to be effective (Woolley *et al*, 2015). Levels of trust (Scarlat and Maries 2009) and attentiveness (Trianni et al. 2011) also have been found to be positive influences on collective intelligence and as an alternative to market individualism, it is capable of improving economic performance at the same time as the quality of life (Brown and Lauder 2001).

Other characteristics of economic and social 'distillation' can be interpreted from the literature. *Enthusiasm* (from a social science perspective) is considered to counter a deficit in trust (itself related to a lack of information) and reduce risk. A lack of public enthusiasm limits the propensity for people to become involved (Kearns and Wynne, 2007). They found that in developing new innovations, enthusiasm and confidence determined acceptance more strongly than information and knowledge (often too technical to understand by the lay person). Although this can be problematic (Du Gay, 2008).

Enthusiasm, from a business studies perspective, is considered an important element of securing positive outcomes (Freudenberg and Samarkovski, 2014) as it drives people to approach rather than avoid decision points. Passion is considered similar, and can be energising (Carbonneau *et al,* 2008). From a social psychology perspective, Milton (1965) found that in addressing problem-solving, working in groups engendered more enthusiasm than working alone, because of the ability to share ideas. Productivity was found to relate positively to enthusiasm.

In business studies, *intensity* (increasing concentration) also has positive impacts on group decision-making (Saaty and Shang, 2007). They develop an 'intensity of preference' model to accommodate this and find that intensity both builds consensus and improves communication. Jones (1991) developed the term 'moral intensity', in a business management context, as a means of understanding ethical reasoning. Widely applied in business decision-making, amongst its characteristics are the need to achieve social consensus and the concentration of effect – how the consequences of decisions are distributed.

Raising the pressure: urgency, opportunity cost and effort

Urgency is also a characteristic of moral intensity (Jones 1991), and, in addition, can be associated with raising the pressure of decision-making. Ferrucci *et al* (2021), from a biological perspective, chart a 'standard' view of decision-making – to accumulate information about the alternatives, reach a threshold, and make a decision – and explore how urgency modifies this behaviour. This is commonly known as the urgency-gating model of decision-making.

Here, urgent decisions can be triggered by the fact that accumulated information often becomes quickly obsolete and 'current' information requires quick decisions. There is a constant balance to be achieved between caution and urgency. Evans *et al* (2017a), from a social psychology perspective, suggest the most recent evidence is the most important in the decision and the accumulation of evidence has limitations anyway, as people reach a point where they cannot retain any more and the information becomes leaky.

In this context, urgent decision outcomes are improved, the more cohesive the organisations in the CFH are that are making them (Zaccaro *et al*, 1995). Time pressure to make decisions against deadlines invites one of three responses (Payne *et al,* 1996): process information more quickly; process less information; make the decision in a different way. These all manipulate information transactions costs. Urgent decisions also occur where there is a need for closure on an issue (Evans et al, 2017b).

Urgent decisions derive from time stress, but this may be due less to deadlines, than to the *opportunity cost* (the foregone benefit of the option not chosen (Perron and Tinghog, 2020)) of delay (Payne et al, 1996). Here options become closed down as others make competitive decisions more quickly (Eisenhardt, 1993). From a business management point of view, time stress also seems to make people do what they already do (rather than making departure decisions) only faster (Dumaine, 1989).

Trade-off thinking is a prerequisite for accommodating opportunity costs (Frederick *et al*, 2009), but such costs are commonly neglected in practice (Greenberg and Spiller, 2016) because they are not known at the time of decision-making due to a lack of, or selective use of, information (Read *et al*, 2017).

Perron and Tinghog (2020) suggest that opportunity cost neglect is much higher in public policy and community decision-making than in private consumption, because they are less obvious, they are more 'moral' costs than financial ones, and it is harder to determine to whom they fall. Also form an economic perspective, Payne *et al* (1996) suggest that 'delay' in decision-making results in lost opportunities. Waiting for 'perfect' information has an opportunity cost, and the more information that is required, the higher the potential lost opportunities. Perfect information often becomes outdated by rapid changes in technology (Eisenhardt, 1989) and limited by North's (1990) institutions.

Whilst *effort* in decision-making is commonly considered a burden (or 'action cost'), it is also acknowledged that it enhances outcomes (Kurniawan *et al*, 2011) and has been found, from a social psychology perspective, to increase likeability (Aronson, 1961). There is evidence, too, that the more effort that has to be put into challenging tasks in particular, the more positive the outcomes are perceived to be (Duckworth *et al*, 2007).

This brings into question whether effort actually is an action cost – making an effort tends to leave a positive experience with more valued outcomes (Eisenberger *et al*, 1989) and from a sociological perspective, engenders care (Heuts and Mol, 2013). In their study of tomato growers in the Netherlands, Heuts and Mol (2013) found that the value (caring for and caring about) of tomatoes increased, the more sustained and respectful effort was put into improving them.

In a public administration context, Irvin and Stansbury (2004) consider that making the effort to become involved in public and collective decision-making is empowering and allows influence to be asserted, but a lack of information associated with such effort can lead to the wrong decisions.

Using a catalyst: inclusiveness, social alignment and appreciative enquiry.

Catalysts in decision-making for social innovation that lead to 'something new' are considered by (Sarkki *et al* 2019), to fall into three domains – *doing* (taking part), *dwelling* (being in a community) and *respecting* (empowerment, stewardship, fulfilment and power sharing). Such catalysts can be both internal (such as self-confidence) and external (opportunity, encouragement) (Kaye, 1986). For decision-making they are many and varied, and three are considered here: inclusiveness, alignment and appreciative enquiry.

Inclusiveness in decision-making (having a voice rather than just being present – Young, 2002) is particularly important in the community context (Bell and Reed, 2021). Bell (2011) considers that inclusiveness can enhance economic decisions because in practice, they commonly extend beyond self-interest, where utility maximisation can be for groups (CFHs) rather than just individuals.

This can make such decisions more ethical than maximising self-interest, because the consequences for others are considered. Collective utility may well exceed the sum of individual utilities (Sen, 1994). Specifically in CFHs this collective utility is seen to improve terms of trade (Reardon *et al*, 2019) and marketing, leading to improved livelihoods (Markelova *et al* (2009), where it actually can be achieved (Mwambi and Bijman, 2020). More generally, Bell and Reed's (2021) survey of inclusive community decision-making showed a strong positive relationship between inclusiveness and what was considered to be a successful decision.

Inclusiveness is not without cost. (Bozicnik and Matjaz, 2009) suggest that collective utilities need to be identifiable and should include 'sentiments' (values, ethics and morals) as well as pecuniary interest. These will be different according to those involved and will change over time. Information also needs to be available to all, equally (Ocloo and Matthews, 2016). Invariably, not all members of the collective CFH will benefit equally and inclusiveness always holds a tension with competitiveness, economically (Blanc and Kledal, 2012).

Inclusiveness also can increase the transactions costs of coordination, but the more marginalised commonly do not perceive such transactions costs as such, because they improve social contacts, and participation in decision-making (Blanc and Kledal, 2012). As with most attempts at inclusiveness, any who are left out tend to be the most marginalised.

Social alignment from a social psychology (and neuroscience) perspective (Pickering and Garrod, 2004) is a catalyst that brings organisations or individuals together with some shared intentionality (Tollefesen and Dale, 2012). This doesn't necessitate having a shared goal (these are often absent in departure decisions (North, 2005)) and can begin as competitive or even antagonistic, but social alignment does lead to joint new action (Sebanez *et al*, 2006).

A hallmark of such alignment again, is that organisations or individuals share information about each other (Galloti *et al*, 2017). This can be stated or unstated (for example bodily postures and movements can be part of this sharing of information (Galloti *et al*, 2017)).

Social alignment can bring economic and social benefits (Geyskens *et al*, 1999). (Payan *et al*, 2019) suggest that the economic component is generated through coordination and social satisfaction through collaboration, both of which concern cooperation (a spirit and willingness to work together). Cooperation is considered to engender respect and willingness to exchange ideas as well as enhance conflict resolution (Geyskens *et al*, 1999) and lead to feelings of fulfilment and gratification ((Chen *et al* 2011). Cooperation (as well as a decision not to cooperate) may well be therefore an outcome of social alignment following information exchange that has led to mutual adaptation.

Finally, *appreciative inquiry* (Elliot, 1999) asserts that energy for change comes from the heart (feelings) as well as the head (understandings). Feelings create a "positive present" (page v) that acts as a catalyst for future action. In approach, appreciative inquiry focuses on the achievements of the CFH rather than its problems, in order to provide inspiration. Focusing on positive achievement allows positive planning of new structures and processes built on this success. It also allows the control of emotions such as anger, shame and fear (Johnson 2013).

Appreciative inquiry involves being inclusive (of a wide range of different views) and transparent and requires the dissemination of power as widely as possible. It should embrace the non-quantifiable and non-financial aspects of change.

Conclusion

From this initial exploration of social collision theory as an explanation of the characteristics of working collectively, then, a broader range of measures of performance might merit closer consideration. Collective effervescence, vitality and vigour might increase the energy in a collaboration. Collective intelligence, enthusiasm and intensity can distil collaborations. Urgency, effort and the presence of opportunity costs provide pressures that can improve performance, and inclusiveness, social alignment and appreciative enquiry all provide examples of catalysts that can improve performance.

8 Key conclusions and implications

This study has explored a range of characteristics of CFHs to examine reasons why conventional market (growth) measures of economic performance such as GVA and GDP might be inappropriate as means of understanding their performance. Central to this is that all hubs, but CFHs in particular address a range of market failures (enhancing community values, supporting the disadvantaged, ameliorating negative environmental and sustainability impacts, delocalising food) that are not accommodated in economic efficiency measures of performance. This can underestimate the worth of 'softer' measures such as social innovation and volunteering, despite the fact that CFHs do innovate within market mechanisms.

An alternative approach to measuring performance is outlined because of the distinctive nature of the need for *collaboration* in CFHs. Social Collision Theory posits that a number of interventions can be seen to improve the performance of CFHs through more effective 'departure decisions'. These interventions fall into four categories, with parallels in chemical kinetics. *Increasing energy* can be enhanced through the constructs of 'collective effervescence', 'subjective vitality', 'social drama' and 'vigor'. *Increasing reactant concentration* can be improved through 'collective intelligence', 'enthusiasm' 'moral intensity'. *Raising the pressure* is explored with the constructs of 'urgency' (related to information asymmetries – considered the most significant of the transactions costs) and 'effort'. *Using a catalyst* focuses on 'inclusiveness', 'social alignment' and 'appreciative inquiry'.

Further research to develop ideas in this report is underway. This entaisl a survey of a range of different CFHs internationally to explore three main themes:

- How do groups self-identifying as CHFs characterise the meaning of a hub?
- How do groups self-identifying as CHFs characterise and measure their own performance?
- What are the main advantages and disadvantages in operating collectively? (to test the characteristics of social collision interventions).

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