(In)Compatibility of the Market with Sufficiency

Applying a Systemic Lens on Markets

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Abstract *This chapter considers sufficiency as a call for reductions in consumption and production. Markets are addressed as a site for knowledge and intervention that present incompatibilities with sufficiency – by embedding social life into economic activity. A move beyond markets toward extensive social transformations could change what businesses are and do.*

1. Introduction

This chapter builds on the relationship between sufficiency and market roles, looking at their compatibility in light of The Great Acceleration (cf. Steffen et al. 2015) – of production, consumption and environmental degradation.

The core idea of sufficiency is reducing production and consumption to defined levels (cf. Alcott 2008) – for example, aimed at decent living (Millward-Hopkins et al. 2020). Those sufficiency levels require aligning human activity – its impacts – to the safe space of Earth's carrying capacity (cf. Li et al. 2021). It may be challenging to operationalize sufficiency – as Jungell-Michelsson and Heikkurinen's (2022) review of the concept shows. The challenges increase due to concerns that link the reductions of matter-energy throughput to human-need satisfaction that considers social and distributive justice. As Steinberger and Roberts have suggested, "… with thoughtful restructuring, highly developed countries could use a fraction of their current energy without any measurable loss in human development" (2010: 432).

The review by Jungell-Michelsson and Heikkurinen (2022) addresses the challenges for the objective definition of sufficiency, considering consumption and production as sites for intervention or empirical sources, where missing an objective definition of sufficiency is seen as a research gap. As sites of intervention for sustainability research, the positions about production and consumption are also intrinsically related to markets – as a third site.

Geels et al. (2015) discuss three positions to understand the relations between production, consumption and markets: the reformist puts markets as mediators of consumption and production, the revolutionary puts markets as the system that drives consumption and production, and the reconfiguration puts markets as a result of the practical and infrastructural entanglement of production and consumption. How markets are put in relation to consumption and production might be essential to introducing and enacting sufficiency.

Influence on consumption is central in market interventions that introduce sufficiency as a principle for business innovation (cf. Bocken/Short 2016). According to Bocken and Short (2016), business model innovation is compatible with, and possible by, introducing the most desirable options in the waste hierarchy as part of how businesses work –limiting overconsumption and unnecessary resource use. However, the compatibility proposed by Bocken and Short (2016) relies on changing some of the fundamental aspects that animate the existence of business by turning towards education and consumer engagement for sustainable consumption but not mentioning the essential factor that most companies are profit-oriented as a result of their embeddedness in a market logic. Moreover, Bocken and Short's (2016) perspective is positioned in businesses as mediators of consumption.

This chapter revises sufficiency in the relation between production and consumption by looking at markets from the revolutionary and reconfiguration perspectives offered by Geels et al. (2015). Thus, the market is discussed here as the system that drives – over – consumption and – over – production and as a set of infrastructures that support a social structuration. The central assumption is that the overlapping of these two positions provides a necessary framing to understand how markets' functions drive overconsumption and may not be compatible with sufficiency.

The crises of environmental degradation that motivate the introduction of sufficiency are linked to the process known as The Great Acceleration (cf. Figueiredo et al. 2020; Head et al. 2022). The Great Acceleration concept describes the increase in resource use – material and energy – since the Second World War, mobilizing changes worldwide and affecting how humans relate to and understand each other and their consumption patterns (cf. Shoshitaishvili 2021).

The liberalization of markets can also explain The Great Acceleration. The institutional changes through the liberalization of markets can be explained from a political perspective as a form of distribution of power in an economic system, from landowners that centralized the distribution of wealth to an open system of wealth distribution through free market participants – for example, in the case of Britain (cf. Mokyr/Nye 2007). Social relations also became embedded in market activity as markets rose to be the central institution that structures social life. Polanyi (2001) put forward this argument about the rise to power by markets in his book "The Great Transformation":

> Ultimately, that is why the control of the economic system by the market is of overwhelming consequence to the whole organization of society: it means no less than the running of society as an adjunct to the market. Instead of economy being embedded in social relations, social relations are embedded in the economic system. (Polanyi 2001: 60).

The inclusion of sufficiency may quarrel with the basic institutional setup of markets, as it would – normatively – require re-embedding economic activity to socio-ecological reasons beyond the market's institutional setup – and the agencies it enables.

2. The market as site

This section works on the market as a third site – complementing production and consumption. Market activity can be modelled by measuring and aggregating discrete value transactions – what Callon (2021) calls the interface model of markets. The interface model of markets is the most commonly used by economists and distinguishes between supply and demand categories. Still, it is only one way to understand markets. Although market activity is based on transactions of something for another thing, markets' social role means more than discrete transactions as markets function as infrastructure that animates social life. For instance, markets accomplish a distributive role, which means that people who participate in the market are motivated by access to resources beyond their means of production.

Callon (2021) also points out a flaw in understanding markets as an interface of supply and demand. In this understanding, there is a lack of acknowledgement of markets as social sites, which means that markets are also a result of social relations. Callon (2021) offers the agentic model to understand markets as social relations. In the agentic model, the focus is given to agencies in markets. For Callon (2021), the agencies of markets are primarily related to increasing transactions by attracting possible buyers and incentivizing the desire to buy. In this model, markets produce the conditions for sales, which drive up demand and supply. Instead of an interface of supply and demand, in the agentic model, markets are understood as the grounding reason for acts of acquisition and sales. In other words, as long as there is agency in the markets, it will require the production and reproduction of agencies of transaction – in acts of sale and buying.

The two models presented (Callon 2021) reflect two understandings of the relationship between production, consumption and market. These two models also position transactions in two ways: as the point of encounter between supply and demand and as the agencies that sustain markets as social institutions. These two models formulate markets as a site of transactions. However, the agentic model better explains how markets structure social life. Transactions in the agentic model are the primary social reason to participate in markets. Thus, to extrapolate it to Polanyi's (2001) concept of embeddedness, transactions take the central role of structuring society by disembedding economic activity from other social reasons and embedding society in the market.

The embedding of society in the market – through specific agencies for transactions– does not answer to demand or supply for the satisfaction of needs. Instead, it responds to the double movement argued by Polanyi (2001), where more supply and demand are required in answer to transactions. In contradiction to the agencies of the market, sufficiency intends to serve as the principle that limits production and consumption, which necessarily means focusing on agencies different to the ones of transactions – and may not be found through market interventions.

For example, mobility between places, which could be free by moving one's body – walking, running, rolling with a wheelchair, among others – is subsumed to the capacity of individuals to pay for their right to be transported, whether by the purchase of passes for collective means or through the direct purchase of transport means (e.g., cars, bicycles, among others). In the hyper-commodification of everyday life, through embedding society in markets, even mobility and location data become a product to be transacted (cf. Thatcher 2017).

The embeddedness of social relations in economic activity through market mechanisms cannot go unacknowledged by anyone proposing sufficiency or the reduction of consumption and production as a principle for sustainability. In particular, sufficiency would require re-embedding economic activity to other socio-ecological reasons not mediated by transactions – or at least to some socially defined sets of limits to how material resources can be used. Such limits signal a return to a political economy or, in other terms, economic models that do not formulate social life under commercial considerations (cf. Robinson 2017).

3. Market-embedded insufficiency

Using Polanyi's (2001) concept of market embeddedness, one must assume that sufficiency implies embedding economic activity into specific socio-ecological reasons – this is probably the reason why Jungell-Michelsson and Heikkurinen (2022) could not identify an objective definition of sufficiency. In Polanyi's (2001) perspective, economic activity can be embedded in social relations, and social relations can also be embedded into economic activity – an opposite movement that Polanyi (2001) calls market disembeddedness. Under this perspective, most current societies are arranged under economistic principles, particularly market liberalization, which means that market activities drive social relations.

As Polanyi (2001) argued, economic activity can be embedded in social relations, which means that social relations and cultural aspects are the main reasons people participate in the economy – the transactions and gatherings to circulate resources for particular needs. However, economic activity can also be disembedded from social relations and become the reason for production and consumption – usually mediated by markets – and without limits from social relations or contexts (cf. Stones 2012). The main point here is that economic activity can be enacted for the sake of socio-ecological reasons or economic activity itself.

Sufficiency supposes limits to the use of resources in economic activity – reduction of materials and energy sources for production and consumption (cf. Bocken/Short 2016). However, weaknesses of sufficiency may come from what becomes embedded. On the one hand, economic activity could be embedded through some socio-ecological reasons, such as addressing well-being (cf. Hayden/Dasilva 2022). On the other hand, socio-ecological reasons could be embedded in economic activity – a priority given to economic outputs, such as economic growth or private profit-making (cf. Hayden/Dasilva 2022)

In a liberal market economy, the rate and pace of replacing material resources (in the form of products and services that use energy) would be defined by market self-regulation through consumption – the consumer sovereignty exposed by Princen et al. (2002). However, as argued by Bocken and Short (2016), the consumer can be aided by businesses following sufficiency as their primary goal (other than profits). Yet, the socio-ecological groundings of some other business goals for sufficiency are weak if the solutions remain embedded in the agencies enabled through markets.

4. Embedding economic activity in socio-ecological reasons

This section conveys a counterpoint to the market agencies by grounding ways to re-embed economic activity into socio-ecological reasons. This counterpoint focuses on the possibility of bounding economic activity to socio-ecological reasons – for example, through the definition of sufficiency by people in collective rule-making (e.g. Princen et al. 2002). The arguments for a counterpoint are constructed in opposition to the embeddedness of society in market agencies.

In embedding economic activity (Polanyi 2001) to socio-ecological reasons fitting sufficiency, one must assume that these social reasons will not expand overproduction and overconsumption. The fulfilment of this assumption could require grounding these reasons in an ecological understanding that properly integrates human activity with that of the rest of the natural world (cf. Enzensburger 1976). Furthermore, sufficiency as a means to embed economic activity may require facing a contradiction to the dominant social paradigm – for example, in dealing with individuality and the notions of having (Gorge et al. 2015).

There is an empirical question about the definition of the socio-ecological reasons that would be effective in re-embedding economic activity – and if this is a question about an objective definition, as Jungell-Michelsson and Heikkurinen (2022) discuss. Elsewhere, the study of Gorge et al. (2015) positions sufficiency and its definition from the position of individuals –in isolation or groups – with arguments for sufficiency as a concertation of collective action that reconciles human needs and environmental protection – favoring being over having.

The reconciliation of economic activity and socio-ecological limits is present in The Doughnut Economy by Raworth (2017). The Doughnut Economy is an example of an economic model that embeds economic activity to thresholds defined through environmental and social limits. In this model, the distribution and redistribution of value rely on public and collective infrastructure – known as the commons.

The Doughnut Economy model represents an understanding of economic activity that takes sufficiency as a principle to ground economic activity. In Raworth's (2018: 233–236) perspective, sufficiency comes in opposition to the aspiration to grow –in possessions as in consumerism and in the flux of market transactions as required by economic growth. To Raworth (2018: 235), a lack of sufficiency connects to "… neglected relationships with each other and the living world." These neglected relationships can be interpreted as the socio-ecological reasons that should embed economic activity.

Furthermore, the basics of this model are echoed in the work of Bärnthaler and Gough (2023), which proposes that some of the production for commodities should be limited by and transferred to public and communal ownership, creating a corridor for provision that operates between a threshold of sufficiency – a ceiling limit before excess production and a floor limit above deprivation. In these two examples, exchanges through market means are not dismissed but adapted within the established thresholds.

This grounding of sufficiency as a principle that embeds economic activity into socio-ecological reasons will require specific processes of decision for policy-making and policy-enacting based on democratic processes for the definition of what is necessary production and consumption but also about the mechanisms to allow or disallow the enaction of production and consumption as processes mediated by provision processes – a function commonly addressed by market mechanisms (Bärnthaler/Gough 2023). These mechanisms are impossible to establish today because of the existing infrastructures, meanings and values that focus on market liberalization as a proxy for general freedom – as Robinson (2017) and Raworth (2018) have argued.

A question here is whether the possibility of sufficiency limits is to be decided by groups in specific productive sectors – the reformists identified by Geels et al. (2015) – or if the limits to productive sectors should be determined in collective by the general population – as argued by Princen (2005) as a function of democracy.

Furthermore, the position that productive sectors can decide when to produce and when not to in the best interests of people and the environment presents us with the typical formulation of sustainability as a matter of prioritizations and assessments of three dimensions – people, planet, profit (cf. Hammer/Pivo 2017). However, embedding these dimensions into market mechanisms – that enable agencies through transactions – presents the risk of favoring a unilateral decision based on the success of particular business sectors – creating an offer that may not be ruled by sufficiency but sustained through the promotion and creation of demand.

In contrast, policies with specific political mandates that seek to restrict production or create new infrastructures for sharing and commoning resources could better impact the grounding of a sufficiency model that would still require markets but not to the same scale and geographical coverage of today's markets – for example, sufficiency put as requiring a cultural shift to support political change (Alexander/Gleeson 2022). However, most claims about sufficiency are hypothetical and require testing about what roles markets would play, for example, in promoting cooperation across different countries and populations – and also about the value chains that can be localized against those that cannot.

Furthermore, these questions extend to the possibility of local and regional markets that use and share resources already available within geographical limits – as circulation networks – and that resort to markets as a means to replenish resources that are not locally available. A research program that investigates collective sufficiencies with worldwide impacts that consider the role of markets should consider exchanges between regions as a mechanism for cooperation – even more the ending of extractivist relations that sustain inequalities in production and consumption – for example, in the context of the circular economy (e.g., Barrie et al. 2022; Jaeger-Erben et al. 2021).

5. Sufficiency and the market dilemma

The contingencies for sufficiency – as a means – to embed economic activity into socio-ecological reasons – instead of the market agencies – present a problem to businesses as their room for action or social reason is conventionally based on market agencies.

Although there are proposals to focus on use-value as access to products and services – for example, in suggestions of a service or access economy as part of a circular economy (cf. Stahel 2016) – most of these still focus on exchange-value, which means a centralization of market mechanisms for distribution and redistribution – without decentering the agencies that put accumulation and competence as the primary purposes and goals of economic activity. These two aspects, accumulation and competence, are not intrinsic traits of markets but result from capitalism as a system without coercions (cf. Sternberg 2015). Moreover, markets within capitalist models have usually been shaped around these two objectives – some of the evils pointed out by Polanyi (2001).

Focusing on sufficiency would mean establishing some coercion – at least coercion from a capitalist perspective on market regulations (cf. Sternberg 2015). This coercion contradicts capitalistic notions of freedom – invoked in liberal economic theory. Another understanding that would benefit the application of sufficiency through market interventions is in the organizational and institutional aspects that reveal the market as a social structure – with agencies (Callon 2021) and organizational challenges in value, competition and cooperation (Beckert 2009). The roles of markets are not limited to the production of sales points or profit maximization. Markets also have the social role of facilitating the distribution of existing value and its movement from those with that value to others who may need it. And it also grounds a set of challenges for sufficiency-oriented research and practices. So the question is whether markets can be the main institutional setup for societies with material sufficiency.

In extension, market agencies as individual choices are also incompatible with sufficiency –similarly pointed out by Bocken and Short (2016) as the argument to include sufficiency as a principle for business intervention, which would require some self-imposed regulations by businesses. Whether the regulations are cultural, government or supply-side driven, they represent the kind of interventions that market-embedded societies would, in principle, reject. The central dilemma is the misalignment between conventional market roles – as a means for freedom in provision – and sufficiency. The push for material sufficiency through businesses could be considered a case of moralizing production and consumption.

A focus on collective needs as a means to guide responsibility – concerning socio-ecological reasons – may also be beyond the function of businesses. Companies can be rethought through sufficiency as part of the infrastructures and practices that support social life (cf. Rinkinen/Shove 2023). However, the social construction of what a business is and does is also weakened without the centrality of the market. In a way, embedding economic activity in socio-ecological reasons may reveal a double movement in transforming businesses and societies, where companies alone cannot change unless collective needs change.

In addition to market, consumption and production, the definition of sufficiency must be elucidated from other sources – as both epistemic and intervention sites. My central claim is that embedding economic activity to socio-ecological reasons would require looking beyond businesses and focusing on shared understandings of what it means to be part of society and what society should allow for each of its members. In this sense, there must be a more extensive societal transformation before calling for companies' unilateral definitions of production and consumption thresholds. Otherwise, any business that implements sufficiency without looking to be transformative is at risk of failing.

Furthermore, aligning economic activity and sufficiency requires a complete rethinking of the roles of markets, particularly as a social site and infrastructure – with physical spaces and means – that sustain the distribution and circulation of materials and products. Embeddedness of economic activity into social relations – and reasons – leading to sound ecological limits can be promoted by support to practices that do not take the market as its site of intervention. Thus, policymakers or other actors interested in promoting sufficiency should start by looking at possibilities outside the market and how to enable them through value distribution. However, there is always a risk that looking beyond markets could result in pulling solutions towards market agencies – for example, by offering public services that drive up consumption and production through a convenience gained by facilitating transactions.

6. Conclusion

The grounding of sufficiency requires acknowledging the market as a social site – a source of knowledge and interventions. Markets can be understood socially in the production of particular agencies (Callon 2021); in this understanding, a market exists in the interactions that lead to fulfilling transactions involving selling and buying. Markets are, therefore, a force driving up consumption and production.

This chapter elucidates the question of whether markets are compatible with material sufficiency. Markets are considered a site of intervention by those proposing material sufficiency – reduction of production and consumption – through business innovation. However, Polany"s (2001) concept of embeddedness is invoked in this chapter to support the claim that sufficiency for businesses cannot look only at market interventions as it requires the socio-ecological reasons for sufficiency to be grounded in a more extensive social transformation – which in turn would transform businesses.

Grounding the socio-ecological reasons for sufficiency in a more extensive social transformation does not mean businesses should not aim for change and be drivers of social shifts. This question and move beyond markets could result in restructurations – and even revolutions – that challenge the centrality of markets in social life. In extension, a business contribution to sufficiency could also require disembedding their activity from market institutions and agencies – to which one could question what a business outside market agencies is.

The question here is not if markets will still be necessary or if the market agencies can be replaced, but instead, if markets as an institution can aid in fulfilling the functions of other social institutions without increasing production and consumption. On the one hand, if the answer is positive, then the task remains to reduce the role of markets and their pervasiveness in all aspects of life. On the other hand, if the answer is negative, the task is to find the mechanisms and proper institutions that allow the distribution of goods and social functions –as value – to those who need them, for example, in exploring the commons.

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