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(Re)Conceptualising the space of markets: The case of the 2007–9 global financial crisis

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ABSTRACT

The 2007–9 period saw an unprecedented crisis emerge in global financial markets with the collapse of several large western financial institutions, and the nearest moment of systemic crisis yet witnessed in the globalised financial system. The crisis has thus provoked a significant questioning of market theories, and in particular understandings of market within orthodox neoclassical economics. Within the social sciences, a significant element of this response has built on a growing heterodox socioeconomic literature which is heavily critical of hegemonic conceptions of the market within economics. However, whilst a small body of work in economic geography has begun to engage with this literature, geographical thinking has not directly sought to conceptualise the nature and significance of market spatiality. Utilising a cultural economy approach, this paper therefore argues that economic geographical theories need to foreground the concept of market rather than treat markets as a 'component' of wider processes. It further contends that the concept of the 'market' needs to be reconceptualised in a way that captures the spatialities of markets and the difference that space makes to market behaviours and outcomes. Drawing on the growing heterodox socioeconomic literature on markets, it thus proposes a practice-oriented 'socio-spatial approach' for framing conceptions of market spatiality, arguing that such a spatial epistemology opens up a range of theoretical possibilities for further contesting hegemonic neoclassical theories of the market beyond current socioeconomic critiques. It seeks to illustrate the utility of such a framework through a case study analysis of the limitations inherent in existing policy practices surrounding the early phase of the recent global financial crisis.

1. Introduction

In the last couple of years, the concept of the 'market' has once again come to the fore in both policy and social scientific debates. The financial crisis that gripped the global financial system in the latter half of 2007 has prompted had significant and far-reaching re-evaluation of orthodox market theories and their associated neoliberal policy prescriptions (Cooper, 2008; Kay, 2009; Norfield, 2010), and this has persisted – if not deepened – with the sovereign debt crisis in the EU since 2010 (Lane, 2010; Mody and Sandri,2012). In both social scientific and policy discussion, the unprecedented scale of the crisis has even led to a significant questioning of the value of hegemonic economic theories concerning market behaviours and the capacity of economic models to accurately replicate or predict the nature of markets (FT, 2008; Allington et al., 2011). Both policy commentators and social scientists have widely argued that significant aspects of the financial crisis can be attributed to various forms of 'market failure' (Washington Post, 2008; Aysen Doyran, 2011; Akinbami, 2011; Greenspan, 2008). Consequently, a key element of mainstream policy responses to the financial crisis and the subsequent global recession have been framed in terms of a discussion about how to rectify markets 'not working properly' or preventing actors undertaking malpractices that produce 'market failure' (Krugman, 2008; Bagella and Ciciretti, 2009; FT, 2010). In such a narrative (c.f. McDowell, 2011), these failures are multiple and are manifest in the actions of 'greedy bankers', irrational exuberance and speculative' lending activity (c.f. Greenspan, 2008; Tett, 2009; Wolf, 2009; Cable, 2010).

Naturally enough, in economic geography as elsewhere in the social sciences, the recent crisis has reinvigorated critiques of the hegemonic view of markets created by orthodox economics and it neoclassical approach (Martin, 2010; Allen, 2010; Engelen et al., 2010). The 'heterodox economics' literature has long pointed to the problematic nature of neoclassical conception of what a market 'is' (Callon, 1998; Slater, 2002; Mackenzie et al., 2007; Mackenzie, 2009a; Overdevest, 2011). A small but growing literature within economic geography has taken up this perspective using a cultural economic (c.f. du Gay and Pryke, 2002; Amin and Thrift, 2004) or economic sociological approach (Hall, 2007; Thrift and Leyshon, 2007; Brenner et al., 2010). In this view, the epistemological starting point is a recognition that markets 'do not simply fall out of thin air' (Berndt and Boeckler, 2007, 2009) but rather are

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phenomenon that are 'continually produced and constructed socially with the help of actors who are interlinked in dense and extensive webs of social relations' (Berndt and Boeckler, 2007: 536). Yet the purpose of this paper is to argue that there is a crucial gap is this nascent economic geography of markets: their spatiality. For economic geographers, it is possible to go so far as to say that this issue is increasingly pressing because it is not how debate about the nature of markets has been framed. To date, economic geographical thinking about markets in the heterodox tradition has either framed analysis of markets through the lens of political economic understanding neoliberal capitalism (Peck, 2010), or tended to focus on specific aspects of market spatiality: the geographies of production (Bathelt, 2006), circulation (Berndt and Boeckler, 2007, 2009) knowledge exchange and market creation (Hall, 2006, 2007; Bathelt and Gluckler, 2011).

This absence of a direct theoretical engagement with the spatiality of markets is also remarkable given that popular, policy and social scientific accounts are replete with spatialised descriptions and, more problematically, *prescriptions* concerning markets. The 'common sense' spatalised attributes of markets are also clearly linked to economic action and outcomes in the global economy. The examples are numerous. Perhaps foremost is the idea that 'globalised' financial markets now exist and are responsible for creating financial instability (Cable, 2010; Wolf, 2009; Harvey, 2007 [1982], 2010). However, social scientists also now see the fate of national economic space as bound to the development of 'global marketplaces' for goods and services (Ikeda, 2002; Bhagwati, 2007; Friedman, 2007). Likewisemarkets are both geographically constituted (Kozel, 2005) and have geographical consequences (Meric and Meric, 2001; Stiglitz, 2010). In the case of the former, the market differentiations that transnational retail or service firms grapple with in operating across many nations bear witness to this (Wrigley et al., 2005; Faulconbridge, 2008). Equally, the complex geographies of labour market space are increasingly clear in the ongoing 'offshoring' of jobs from Europe to Asia respectively (Jensen et al., 2009; Crino, 2009).

The key issue is that neither the heterodox social science literature concerned with markets, nor its more recent economic geographical variant, have directly engaged with how markets *exist* in space, and the *difference that this makes* to economic practice or outcome. The 'market' in much of the economic geographical literature is set in the background rather than the foreground, with the issue of what space, place or context that markets occupy rarely addressed, and often only implicitly. Conceptualising the difference that the spatiality of markets – as well as their geographies – make to economic outcomes is thus an important challenge that geographical thinking needs to engage with. Such a contention echoes Mackenzie's (2007) argument that there is a need for the socio-technical literature on markets to not only address 'the question of spatiality' but produce 'nuanced answers' (Mackenzie, 2007: 372).

The entry point for this paper is thus to make a critical and geographically-informed intervention into social scientific debates about what markets 'are' (and what they are not), and how they can better conceptualised. Its key contention is that economic geographical theories need to foreground the concept of market rather than treat markets as a component of wider processes (e.g. capitalism, neoliberalism). Furthermore, it also argues that an economic geographic approach that theorises the spatiality of markets represents a powerful tool for understanding market relations in the contemporary (and increasingly globalised) world economy. The concept of the market needs to be reconceptualised in a way that captures the spatialities of markets and the difference that space makes to market behaviours and outcomes. Such a contention clearly draws on the heterodox literature on markets in the social sciences that argues they need to be reframed as socially-constituted and constructed phenomenon and not as abstracted processes that somehow exist outside of socio-technical spaces or concrete places. It thus proposes a practice-oriented (c.f. Jones and Murphy, 2011) socio-spatial framework for framing conceptions of market spatiality, arguing that such a spatial epistemology opens up a range of theoretical possibilities for further contesting hegemonic neoclassical theories of the market that go beyond the insights developed from the existing heterodox economics and social science literature.

These arguments are developed in a series of stages. The next part of the paper begins by examining existing economic geographical understanding with the concept of the market, arguing that geographical approaches have an important and powerful (but as yet not fully realised) contribution to make to the wider heterodox economics literature that has developed in social science. The third section then moves on to outline what a socio-spatial epistemological approach might be constructed, as well as proposing a series of conceptual tools for understanding different forms of market space. This approach is then elaborated in the subsequent section by applying it to the case of the recent crisis in the global financial system. The case study draws on secondary data sources to consider how a spatialised understanding of market activity provides significant theoretical traction on the limitations of the policy practices that sought to (often unsuccessfully) address the crisis. The paper ends by drawing together some conclusions about how a practice-oriented socio-spatial approach towards theorising markets can provide the basis for developing a more sophisticated critique of hegemonic orthodox theories of the market and a more powerful basis for understanding the complexity of market developing in the globalising world economy.

2. Geographical thinking about markets

Economic geography has had a longstanding interest in the market that stems back to at least the 1960s with work on topics such as industrial location and labour markets (c.f. Lloyd and Dicken, 1977; Sheppard et al., 2004). In an earlier period economic geographers sought to spatialise analysis of markets around orthodox neoclassical conceptions, and of course this branch of the subdiscipline has continued to develop within economics as the 'new economic geography' (Krugman, 1991, 1998; Fujita et al., 1999; Fujita and Thisse, 2008). However, in the last couple of decades, amongst economic geographers within the discipline of geography a range of heterodox approaches to theorising markets have become widely adopted that draw on sociological, cultural and behavioural social scientific theories (Glückler, 2006; Majury, 2007; Hall, 2007). In particular, as Berndt and Boeckler (2009) point out, 'socioeconomic' work on markets has 'cast a strong shadow' over the subdiscipline as economic geographers have shared the dissatisfaction of other social scientists outside of economics with neoclassical conceptions of the market. This wider 'heterodox' economics literature has long 'dissented' from the central 'sleight of hand' whereby neoclassical economics has inscribed 'a distinction between economy and culture/society' in order to create a conceptual separation between 'an abstract 'perfect' *Market* and concrete imperfect *markets*' (Berndt and Boeckler, 2009: 537). The focus of economic geography has thus also shifted insofar as a shift from developing spatial analysis from abstract neoclassical market models to 'socioeconomic approaches [that] lay stress on actually existing markets and their social and cultural contexts' (Berndt and Boeckler, 2009: 536). In this respect, several interlinked strands to recent economic geographical thinking about markets have drawn upon a range of wider social science literatures (Berndt and Boeckler, 2009). Yet, and developing these insights, I want to argue that geographical thinking about markets has thus far provided only a partial conception of market spatiality, and that it has not yet explicitly sought to conceptualise how the spatial form of markets plays an important role in shaping economic outcomes. Explicit engagements with the nature of market spatiality within heterodox economic approaches both within and beyond economic geography are rare – especially when compared to the epistemological centrality of space to understandings of markets in the 'new economic geography' (c.f. Krugman, 1998, 2008). However, before developing my argument for foregrounding the concept of *market space* as a theoretical tool, it is first necessary to examine how market spatiality has been engaged with in the heterodox economic geographical literature concerned with markets. In this respect, at least three strands of the economic geographical literature have engaged (albeit more indirectly than directly) with the spatiality of markets.

2.1. Markets as spatialised networks

Economic geographical thinking about markets utilises the concept of the network in a number of diverse ways. Berndt and Boeckler (2009) point to the sizeable literature within socioeconomics that focuses on a 'market-as-network' approach which conceptualises action through relational ties between actors, manifest in the substantial literature concerned with embeddedness (after Granovetter). Since the early 1990s, this approach has permeated economic geography with key contributions include work on firm and regional performance in an increasingly globalised economy (Coe et al., 2004; Hess and Coe, 2006; Hughes, 2007) and critiques of the communities of practice literature (Gertler, 2008; Amin and Roberts, 2008). Yet as Grabher (2006) argues, the concept of the network has a long and complex lineage and in that sense, it represents potentially problematic one for those deploying it to understand the spatiality of markets. I want to make three propositions in this respect.

First, the economic sociological literature that has permeated economic geography ignores the issues of spatiality, or at least leaves it as a background context that is assumed to be benign and not significant in shaping outcomes. Within the post-Granovetter (c.f. Grabher, 2006) institutional literature on embedded networks, the focus is on the nature of 'relational ties' between actors who are conceived as nodes in the network (Hess, 2004). However, the economic geographical literature has fruitfully developed this sociological and institutional concept of the network by mapping it onto a physical, territorial space. As Grabher argues, much of this work has focused since the 1990s on a 'network governance approach' applied to regional economies (cf. Amin and Thrift, 1992; Yeung, 1994; Saxenian, 2000). Markets are clearly present in this analysis, conceptualised as phenomenon constituted through embedded networks of (transacting) actors, with geographical thinking developing the social embeddedness of market action into a territorially embedded form (c.f. Hess, 2004; Jones, 2008). Firms transact through an institutional context of (Marshallian) industrial districts that are territorially contiguous. Market space is thus conceived (implicitly) as a territorialised network space where actors in the market exist in across a network primarily conceived at the regional scale (the firm being the nodal unit).

Second, and following on, another strand of economic geographical literature has developed a relational approach to market networks that conceptualises relationality in arguably more sophisticated and explicitly spatial terms. Notable here is the literature that has sought to theorise global production networks (GPNs) by deploying a multi-scalar concept of intra and inter-firm market networks that perforate the regional economic scale (c.f. Coe et al., 2004; Hess and Coe, 2006; Yeung, 2008). The concept of the GPN draws on array of conceptual and theoretical sources and is defined as 'a nexus of interconnected functions, operations and transactions through which a specific product or service is produced, distributed or consumed' (Coe et al., 2008: 274). In their review, Berndt and Boeckler (2009) point out that both 'intermediate' and 'final' markets are captured by this approach, with the emphasis on the circulation and exchange of goods and services, the market itself received something of a 'cavalier' treatment and is often subsumed within social relations more generally. Thus whilst this approach creates the scope to understand the market explicitly as a dynamic network process occupying the space of flows (c.f. Castells, 2009), this has remained unexplored in the literature. Most importantly in relation to the concern of this paper, however, the GPN approach forms the basis to conceptualise markets as both local and trans-local relational networks simultaneously, thus moving beyond the local (or as I would term 'micro-') conception of the economic sociological perspective. Thus, if the GPN approach 'gets a good empirical grip on the multi-scalar nature' of the processes at work (Berndt and Boeckler, 2009: 538) in global economic activity, then it provides further (if as yet undeveloped) scope for conceptualising the multiscalar nature of markets.

Third, another (overlapping) strand of economic geographical thinking has developed a conception of the market-as-network informed by actor–network theory (Murdoch, 1998; Callon, 1998) and which has deployed a rhizomatic concept of the network (c.f. Grabher, 2006: 166; and Hess, 2004). The rhizome metaphor is based on poststructuralist thinking (c.f. Deleuze and Guattari, 1982) that reconfigures the concept of a network to 'a multiplex, heterogenous and robust web of relations', and it is a primary influence in the development of the concept of the network used by actor–network theorists (Law and Hassard, 1999; Latour, 2005). ANT reconfigures the market into a socio-material concept constituted through potentially infinite networks of association (in both time and space) because it destabilises Euclidean spatial epistemology (e.g. local, regional, global scales) on at least three fronts: it introduces 'a genuine relational perception of space as topological stratifications' (Murdoch, 1998) where 'time–space consists of multiple pleats of relations stitched together' (Latham, 2002: 131); it breaks down established demarcations between human/non-humans (c.f. Latour, 1993); and it brings under scrutiny the qualities and nature of both the constitution and dynamism of relational associations in every part of a network (Latour, 2005). Thus, as Grabher points out, an understanding of the spatiality of markets framed by the social network and governance approach is called into question by ANT. Economic geographers have thus begun to develop the key contribution by Michel Callon in applying the insight of ANT to the economic realm. Callon uses ANT's epistemological approach to map the multiple socio-technical and material spaces that the practices that constitute market action inhabit (Callon, 1998; Callon et al., 2007). I will further discuss ANT's importance for conceptualising market spatiality shortly, but with regard to the notion of 'market-as-network' it develops is important for enabling geographical thinking to develop a multi-dimensional conception of market space that moves beyond the notion of markets being composed of actors distributed in a purely physical–territorial space.

2.2. Markets as spatial process in uneven capitalism

A second strand of the geographical literature has engaged indirectly with market spatiality from a political economic perspective. Much of this literature predates that which conceptualises the market-as-network, but it has also persisted in economic geography as a concurrent mode of implicitly addresses the spatiality of markets. Here I want to identify three ways in which these political economic approaches also have made a contribution to a distinctive geographical understanding of market spatiality.

The first is the basis that Marxist economic geography provides for theorising the market as a *spatial process* within capitalism, and which is thus empirically evident in uneven geographical development and variations in capitalist form (Harvey, 2006; Peck and Theodore, 2007; Berndt, 2009). Political economic thinking 'imbue[s] the market with far-reaching power and tend to represent the market mechanism as destructive' and shares with orthodox economist an 'all-powerful and all-encompassing force' (Berndt and Boeckler, 2009: 539). The space occupied by markets is thus expansive and increasingly ubiquitous – although uneven – because Marxian political economic analysis sees material life in capitalist market societies as organised around commodities', with the market influencing 'all areas of social life' (Berndt and Boeckler, 2009) and (importantly), permitting 'the separation of individual from the wider economic system' (c.f. Wallerstein, 2004). The market is thus conceived as a kind of spatial process linking the micro (individual) with the bigger system, and the spatial reach of markets can thus be mapped through their destructive consequences. Importantly, Marxian economic geography thus provides an understanding of how market action is a heterogeneous process that has equally heterogeneous and uneven consequences in territorial space. Furthermore, Marxian economic geography provides the scope to understand the ideological or discursive nature of market space insofar it seeks to understand the processes by which market exchange in capitalist society is legitimised and the values which underpin it are naturalised (cf. Harvey, 2005; also Peck, 2008).

Second, political economic thinking within geography has sought to problematise *scalar conceptions* of market spaces. In this respect, a significant body of work within economic geography concerned with global financial markets, their operation and regulation. Clark et al. (2006), for example, have examined how economic outcomes in the global financial system are shaped by different regulatory spaces that interact with market activity (see also Clark and Wójcik, 2007). Such an approach reveals the difficulties in understanding how markets are constituted through regulatory spaces that are differentially demarcated and policed at national (or in some case supranational) scales. Similarly, geographical engagement with the varieties of capitalism (VoC) approach (Gertler, 2001; Peck and Theodore, 2007) differentiates between forms of market economies in different (normally nationally-conceived) economic spaces. The VoC approach thus provides the basis for engaging at the meso-level (i.e. in the case of economic systems) with spatially-constituted differences in the nature of market practices, again creating the scope to understand how the operation of markets deviates differently according to geographical context. Beyond geography, this literature again deploys a primarily territorially-defined conception of market space. However, geographical work has developed a more nuanced set of arguments (and critiques) concerning the coherence and 'methodological nationalism' (c.f. Berndt and Boeckler, 2009), arguing that capitalist varieties cannot be reduced to national models. In engaging with this line of critique, geographical thinkers have argued, for example, for a more multi-scalar conception of neoliberal market spaces where macro-scale (global) scale neoliberalist market activity becomes 'entangled and domesticated in everyday life' (e.g. Smith and Rochovska, 2007). Such an argument opens up a series of conceptual questions about where the space of a market begins and ends, particularly given the hegemony of discourses framing markets at the national scale.

Third, and to some extent following on, diverse economies approach (Leyshon et al., 2005; Lee et al., 2008; Gibson-Graham, 2008; Smith and Stenning, 2006) 'seek to destabilise the asymmetric binary between *market and non-market*' (Berndt and Boeckler, 2009: 542). This approach echoes in some respects the spatial argument that emerges from actor network engagements that market relations 'inhabit spaces' that exceed the conventional prescribed containers of economic activity used by orthodox economics – firms, regions, nations. In developing further arguments that markets need to be understood as socially, culturally and politically constructed, 'diverse economies' reframes the question of what kinds of space market relations occupy. If markets exceed the purely economic realm of rational, monetarily expressed transactions, then they equally escape the institutional, ideological and material contexts that orthodox economics approaches assumes they are contained by. Given that diverse economies approaches rests on the argument that apparently 'non-market' spaces are important in understanding economic outcomes, then the implication would appear to be that these same spaces are equally important in the constitution of markets themselves.

2.3. Markets as geographical performance

Following on from this latter point in relation to the diverse economies approach, economic geographical thinking has engaged with the issue of market spatiality through cultural economic work. Cultural economic approaches to the market have again drawn heavily on actor–network ideas and specifically, Callon's 'anthropology of (the) econom (y)ics' ands arguments concerning the market (c.f. Callon, 1998; Callon et al., 2007). Callon's key argument that '*homo economicus* is not simply a pure fantasy of neoclassical modelling but actually exists in *economic spaces*' [my emphasis] that are 'a relational effect of collective calculative devices' (Callon, 1998; Callon et al., 2007; and see Berndt and Boeckler, 2009). The singular social actor as 'agent' here dissolved into a web of (spatialised) associations between humans and non-humans that transgress the human/nonhuman and e become instead understood as a compound form of distributed agency recast in the concept of *agencement* (c.f. Munieza, 2007). This is the nub of issue with respect to the significance of this ANT perspective both for identifying the utility of conceptualising market spatiality and for providing conceptual tools to trace or map out the spatial configuration of agency and actors in markets. Three aspects of this performative ANT approach to markets are important to the arguments of this paper.

The first of these is the arguments that Callon (1998) and others make that, contra to the epistemology of neoclassical economics, that market are both 'real under specific conditions' and constantly (re)produced by (rationally calculating) sociotechnical agents. In this respect, Callon argues that for markets to exist they have to be framed in at least three decisive ways: the conversion of goods into commodities, the formatting of calculative agencies and the identification of the formative setting through which between goods and agencies are organised' (Callon, 1998). These framings are accomplished in performance as 'models realise themselves as practical enactments of economists' models' (Callon, 1998). This performative approach to markets has been developed in growing social science literature but has only recently begun to receive attention in geographical thinking (c.f. Hall, 2007; Thrift and Leyshon, 2007). Important here is the way in which geographers and others have begun to examine how calculative devices do not exist as a spaceless phenomenon, but rather have distinctive geographies and spatial configurations. Of particular relevance here is Knorr Cetina's 'postsocial' work on the geographies of financial practices which creates the theoretical capacity to conceptualise market spaces in relational terms by simultaneously seeing them as the outcome of actors' physical co-presence with 'technologically-mediated response-presence and their specific geographies'. (Knorr Cetina and Bruegger, 2002; Knorr Cetina and Preda, 2007).

Following on, a second element of geographical thinking in this performativity literature concerns the role that spatiality plays in the constitution of agency and sociotechnical actors in economic practices. Whilst Callon's ANT perspective introduces the technical, cognitive and material spaces that constitute 'agents' within markets, geographical engagements with the social studies of finance literature have started to explore the differences that space makes to the nature of the agency that *homo economicus* achieves. Central to this is a the development of an understanding of how market actors have capacities to operate across multiple spaces (Mackenzie et al., 2007: 1–8) but are also constituted through specific places and borders (Sheppard, 2005; and also Mitchell, 2008).

Third, and finally, is the development of conceptual arguments for thinking about the boundaries of market space and their relationship to both actors and agency. Within economic geographical thinking Berndt and Boeckler have argued that 'the global movements of capital, goods, people and ideas always involve an ambivalent double play of de-bordering (overflowing) *and* bordering (framing) processes' (Mitchell, 2008: 12). In terms of thinking about the nature of market space, the important proposition here concerns how the mobilities (or flows) embodied in a market describe and define the space it occupies. Berndt and Boeckler's more radical is contention is that 'ambivalent border regimes' represent 'a necessary condition for the construction of global markets'. However, they also argue that for these markets to function, these ambivalences have 'to remain hidden' (Mitchell, 2008).

3. Towards a socio-spatial view of 'market space'

Economic geographical thinking and theorising has not made an explicit engagement with the spatial nature of markets, or what that might mean for economic outcomes. The consequence is that – a recent nascent literature notwithstanding (Zook, 2001; Lee, 2006; Hall, 2007; Pryke and DuGay, 2007; Berndt and Boeckler, 2009) – a distinctive geographical understanding of the market sits in the background rather than the foreground of existing work. This represents a significant limitation in the capacity of economic geographical work to contribute to understandings of how markets exist in space, how that spatiality is constituted through wider institutional contexts and systemic phenomenon and how their spatiality has a direct impact on economic outcomes in the contemporary global economy. The proposition of this paper is that economicgeographical thinking can make a potentially powerful contribution to the existing heterodox social scientific literature on markets by developing a more explicit epistemological framework for understanding the way in which market spatiality matters (i.e. how it affects the nature of economic outcomes). To achieve this, there is a need to develop an explicitly spatial epistemological framework that provides scope to better theorise the spatial constitution of markets and the practices that (re)produce them. The aim is to generate socio-spatial theories of markets that better capture the way in which market processes are constituted through and shaped by distinctive spatialities. Such an approach can be seen as complementary rather than a competing epistemological framework to others within economic geography that are seeking to understand the nature of the economy through a variety of lens (e.g. political economic analysis or institutional theory). The goal is to supplement a furtherdistinctly geographical cut at existing socioeconomic conceptions of markets, that can also permit engagement with wider debates in economic geography that would benefit with a more developed heterodox conceptualisation of markets – for example, the growing body of work on financialization (French et al., 2011; Hall and Leyshon, 2013). I therefore propose that at least two epistemological dimensions need to be differentiated in order to develop a holistic socio-spatial theorisation of market space.

On the one hand, there is what I term the *form* of market space. The concept of form provides the epistemological scope to engage with the multiple spatial metaphors that are potentially useful in theorising how markets exist in space but which remain inconsistently deployed. Two current concepts of spatial form dominate theories of markets. First, the idea of *contiguous space* is frequently used to equate the space of markets to territorial spaces such as national or regional market spaces (e.g. UK housing market, the European single market). Second, and as discussed above, market form is widely conceptualised as *network*. Of the several competing concepts of market-as-network, my proposition is that the more recent ANT-based understandings of markets being constituted through nonhumans represents a more powerful tool for conceptualising the complexity of market spatiality than earlier more simplistic network metaphors. However, in addition to these two dominant conceptions of market spatial form, I want to add others. The next concept of market form is therefore that of a *flow*. This creates the scope to understand the dynamism and fluidity of the form in which market relations coalesce. Such a concept has loosely been applied to global financial markets, for example, but has much wider relevance for capturing the spatio-temporal constitution of markets more generally in the global economy. Fourth, I add to this the concept of a *fold*[1] to capture how market form of markets is interwoven across different kinds of spaces in more complex ways than either contiguous space or the node/relation metaphor of the network concept have the capacity to appreciate. Global interconnectedness is producing complex markets which do not exist uniformly in contiguous space – and do not also occupy nodes in network space – but which exist in overlapping auto-referential spaces. In short, this means that the form of a market cannot be understood without reference both to itself and to other markets that in part constitute it. Such a concept is absent from existing concepts of the market (let alone its spatial form) since markets are generally conceived of as isolated phenomenon with discreet boundaries. The concept of a market having folded (spatial) form presents the scope to transcend this epistemological limitation.

In parallel to this, and on the other hand, I also propose that it important to differentiate – in epistemological terms – the *sociality* of market space. Clearly questions of the sociality of markets lie at the heart of much of the existing socioeconomics or cultural economy literatures already discussed. However, my proposition is that this literature has not developed in spatialised terms by on markets. In this respect, I want to argue that the sociality of market space needs to be conceptualised around at least two constituent dimensions. The first is the need for a theoretical focus on the spatiality of *practices and actors* that constitute markets (c.f. Jones and Murphy, 2011). The existing socioeconomics literature deploys spatial metaphors (such as the network) that assume relationality as a static property of (abstracted) social networks. What is needed is an approach that seeks to understand how the dynamics of geographically variable practices not only produce the spaces markets occupy and also affect both the operation of and outcomes generated by market activity. To some extent, a cultural economy approach based around performativity in markets addresses this by foregrounding practices. However, it leaves the question of space relatively unexplored (and indeed ambiguous) in relation either to how practices are enacted through space, or how the constitution of actors–network is mediated through different spaces. I therefore am proposing that a reconfigured ANT-based approach which foregrounds the spatiality of the multiple socio-material associations in market actor–networks can provide important insight into the practices that constitute markets. Furthermore, reframing practices and actors in this way will enable theoretical understanding of how that complex spatiality shapes the operation

[1] This draws on the Deleuzian concept of the 'fold' which is developed from the philosophy of Leibniz. Deleuze deploys the concept to capture how spaces overlap, or are 'pleated', in non-contiguous manner in what represents a way in essence of thinking through complex spatial interweaving (c.f. Deleuze, 1993)

of markets in a way not captured by simplistic theories of relationality within markets-as-networks.

This leads to another and closely interrelated dimension to the sociality of market space: the nature of *agency and power*. This is essentially the other side of the practice/actor coin. The performativity approach has made an important set of arguments around the nature of actors themselves, utilising the concepts of 'market devices' and *agencement.* Yet whilst the performativity approach has provided a significant body of work that in many ways demonstrates the spatial constituted of agency in markets, the proposition here is that the numerous ramifications for understanding the complex spatiality of markets remain largely unaddressed. *Agencement* suggests that socio-material agency is both quantitatively (the capacity to act) and qualitatively (the nature of that capacity) affected by spatiality of the associations that it is constituted through. *Agencement* is bound into multiple issues of proximity, and the relationship that distance plays in the strength and durability of associations. However, these are largely unexplored in the market performativity literature, In fact, whilst creating scope to conceptualise the extensive and/or distanciated associational networks that constitutes market *agencement*, the cultural economy approaches tends almost exclusively to focus on micro contiguous material spaces (e.g. the trading floor) (c.f. Knorr Cetina and Bruegger, 2002; Knorr Cetina, 2003). A reconceptualisation of agency (and thus power) that sees *agencement* as an explicitly spatalised phenomenon, permits a more effective and complete theorisation of market devices that does not, in essence, abstract them from space.

Overall, these two epistemological dimensions represent a basis for developing an explicitly socio-spatial theoretical approach to understanding markets through economic practices. Some of the arguments outlined thus far have been implicitly explored within various strands of the socioeconomic (and particularly the performativity) literature, but the problem is the lack of explicit engagement with market spatiality and how that is constituted through practice. In the rest of this paper, I elaborate this argument by considering the utility of a socio-spatial approach in re-evaluating the limitations of policy interventions during the earlier financial crisis period of 2007–2009.

4. Mismanaging market spaces: the case of the 2007–9 global financial crisis

The global financial crisis that began in 2007 has not surprisingly been of considerable interest to the heterodox economics literature within and beyond economic geography (Mackenzie, 2009b; Ghosh, 2010; Sigurjonsson, 2010). Social scientists have evaluated the strengths and weaknesses of policy interventions aimed at mitigating the effects of, and responding to the consequences of the crisis (e.g. Lui, 2012; Mody and Sandri, 2012). Much of this analysis within heterodox economics, socioeconomics and political science has sought to strengthen critiques of neoclassical economies and free market theories that are increasingly seen as responsible for the an apparently weak regulatory environment which led to the emergence of bubbles and consequential collapse and crisis (e.g. Sonmez Atesoglu, 2011; Kiel and Kiel-Chisholm, 2011). However, I want now argue that the economic geographical approach developed in this paper thus far provides scope both to better understand why policy practices were often unsuccessful in mitigating against crisis and also how more effective policy interventions might be developed in future.

In order to do this I adopt a case study perspective that uses a practice-oriented approach (c.f. Jones and Murphy, 2011). It focuses on the (meso-level) economic governance practices of market regulators and policy practitioners that sought to intervene to mitigate the effects of the financial crisis. The practices that are the subject of this analysis fall into two broad groups in the history of the late 2000s crisis: the wider regulatory actor policy response aimed at stabilizing national financial systems, and more specific practices aimed at addressing the failure of key financial institutions. Each can be seen as a distinctive group of practices associated with a certain set of financial market circumstances in the global economy. Methodologically, in order to demarcate these practices (Jones and Murphy, 2011), the focus of the analysis is on the institutional practices that are more readily identifiable in the documented actions by government and other regulatory institutions. This is supplemented by policy commentary on some of these specific interventions from specialist commentators and the financial media. These provide further insight into the discursive practices that framed the context for national and supranational policy interventions. Clearly, given the large number of policy interventions by many institutional actors during this period, only a limited number of specific policy practices can be considered. However, the paper aims to show the wider utility of a socio-spatial approach through those considered.

4.1. Misaligned practices of spatial 'containment'

> *Most American policymakers assumed that the western banking system was extraordinarily strong. Thus while US mortgage defaults were rising, western officials were convinced that such losses would be easily "contained".* (Financial Times, 3 August 2008)

Within the policy practices of governments and regulators, a stated key aim in the early stage of the financial crisis in 2007 was to 'contain' the problem geographically. As the extract above illustrates, the concept of containment is pervasive in policy discourse about the crisis, and it was thus a primary stated goal of policy in practice during the earlier stages of the crisis (Geithner, 2009). It captures the notion that the problems of financial systems could be restricted to the institutions within nation states and thus is inherently geographical in nature: the idea that national economies still largely corresponded with national banking systems associated with the territories and political jurisdictions of nation states. Yet during the first year of the crisis, this stated goal of geographical containment largely failed (Geithner, 2009) in preventingthe crisis affecting multiple countries around the globe. The crisis was understood to have spread geographically from the US economy to Europe, and the worldwide (although some financial markets were less affected such as those in Asia) (Aalbers, 2009). Financial markets across the globe thus experienced geographically-conceptualised 'contagion' as the problems of local or national markets (such as the US property markets) and spread into different national economic spaces. There is much historical conceptualisation that frames global financial crises in this manner, and many past policy interventions at both the national and supranational levels aimed at preventing contagion (Brown, 2011). In this section, however, I problematise and challenge the nature of these inherently geographical understandings of financial market globalisation. Specifically, I make three propositionsabout why the concept of geographical containment is misconceived in relation to global financial markets and why policy practices in response were consequently inadequate.

First, consider the concept of containment itself. The concept rests on that the global financial system is composed of national financial systems on the one hand (the UK or Spain's banking system), and an increasingly globally integrated set of financial markets that exists across these national financial spaces. Financial globalisation represents the integration of financial markets and the transnationalisation of market actors (e.g. banks or hedge funds), whilst national economies retain national financial systems and governance capacity.

Containment as a policy objective seeks to restrict the negative impacts of financial crisis to as few geographical financial systems as possible (usually understood in terms of nation-states). Fig. 1 provides a summary the key national level policy interventions between September 2008 and March 2009 in these categories as identified by the IMF. It is evident from this list that policy intervention came in two main categories within national (or very occasionally) supranational territorial jurisdictions: fiscal measures and institution-level interventions (including wholesale nationalisation) by regulatory actors aimed at averting collapse. The objective was to prevent at least three dimensions to crisis manifest in ongoing excessive asset deflation, institutional failure (through bankruptcy of illiquidity) and lack of credit money supply (cf. Bernanke, 2009; Tirole, 2011).

Yet with respect to each of these objectives, policy practice experience at best modest success and often failed to a considerable extent. In both the US and UK, for example, initial policy practice in 2008 aimed at preventing institutional failure of Lehman Brothers (US), Northern Rock (UK) or Merrill Lynch (US) utilised both main categories of policy intervention. The crisis was precipitated by the exposure of these institutions to mortgage-backed securities and other financial products that had been derived from both national economic spaces (the Irish or Spanish property markets) and from secondary 'integrated' global market spaces where securities had been bought and sold by institutions commercially present in national economic jurisdictions. The crisis created by markets around specific institutions (e.g. Northern Rock in the UK, Citigroup in the US or Glitnir and Landsbanki in Iceland) was thus a product of market activity in multiple spatialities, some aligned with national jurisdictional space and some not. The failure of policy practice to contain the crisis manifest as threats to financial institutions within a national economic space can be argued to be in part the product of a lack of effective understanding of the multi-layered spatial existence of the markets as agents producing crisis, and hence a lack of policy attuned to containing that agency within certain spaces. I will return to the question of market agency in the next section, but the key point is that geographical containment practices failed to a considerable extent because they aimed to contain the crisis within a market space that the actors creating it already exceeded. It is important to appreciate this is not the same as simply arguing national policymakers do not have sufficient 'global' jurisdiction (although this is contributory), but that rather policy practice is not aligned to the complex spatiality involved in the relationship between financial institutions that exist in national jurisdictional space and also are governed by market activities that exceed those geographical spaces.

A good example of this from the 2007–9 period were policy attempts to contain the crisis through restricting 'short-selling'. Referring back to Fig. 1, amongst others Ireland, France and Italy all imposed restrictions to prevent market action leading to the collapse of financial institutions during September and October 2008. Short selling restrictions led to both spatial and/or temporal displacement of crisis-inducing practices as trading communities found new methods to maximise their profits or minimise their losses (Grunewald et al., 2010). These market practices are not effectively governed within national economic space. Rather market spatiality framed as practice questions the underpinning idea that the crisis never existed within discrete contiguous territorial or jurisdictional spaces and was transmitted in that manner.

This leads to a second proposition: the spatial form of the recent financial crisis is therefore not well understood to be geographically contagious – like a disease epidemic, beginning in one geographical location and national financial market jurisdiction and *spreading*. In many ways the crisis erupted a specific moment as specific actors (who did exist in specific locations) reacted to knowledge and undertake action in response. The crisis existed in multiple geographical locations simultaneously since as soon as the US housing bubble burst, financial institutions embedded in that market were implicated. It was never possible to contain this crisis geographically because it never existed discreetly in one geographical jurisdiction in the first place. The point here is that policy practices aimed at geographical containment could never succeed in that objective and that in framing their goals in this manner, blunted the capacity to mitigate the crisis in other ways. That does not mean the regulatory practices at national level could not have been more effective, but the nature of the interventions was insufficient to deal with socio-spatiality that the financial markets corresponded to. Containment in geographical–territorial mode would not have been possible, but containment (or mitigation) in terms of the scope for negative impacts across space economies may have been possible by focusing policy intervention on networked or folded market spatialities that reflected specific actor–networks in the market. Understanding how the space of markets at best only partially aligns with territorial or political regulatory space is important – along with the uneven geography of those market spaces – can provide both explanation for the limited effectiveness of policy intervention and regulation, as well as insight into how more effective regulatory practice might be developed.

	Bank Liability Guarantee	Rescue / Liquidity Interventions	Other Market Interventions
Sept	**UK** *Liquidity facilities to Northern Rock* **Germany** *Hypo Real Estate receives EUR 35 million guarantee*	**UK** *Bradford & Bingley nationalized* **France** *Banks contribute EUR 3 billion to Dexia recapitalization*	**Ireland** *Short sales prohibited indefinitely* **Canada** *Short sales prohibited temporarily*
Oct	**Sweden** *Deposit insurance extended to all types of deposits* **Italy** *Government states no banks will fail*	**France** *EUR 40 billion fund to recapitalize financial firms* **Germany** *EUR70 billion recapitalization fund announce*	**Japan** *Daily disclosure of short positions required* **Switzerland** *Central bank issues debt to absorb liquidity*
Nov	**Switzerland** *Deposit insurance increased to CHF 100000* **Canada** *Canadian lenders assurance facility lowers guarantee fee*	**Sweden** *Carnegie seized buy government as collateral on liquidity facility that cannot be repaid* **Germany** *Soffin gives EUR 8.2 billion of loans to Commerzbank AG*	**Canada** *Government announces additional 50 billion in insured mortgage pool purchases*
Dec	**Germany** *Soffin provides Bayern LB with EUR15 billion guarantees*	**Ireland** *Anglo Irish Bank nationalized*	**Italy** *Short sale prohibition extended for stocks*
Jan	**Germany** *Soffin provides Hypo Real Estate with additional EUR 12 billion guarantees*	**France** *Second round of recapitalization with another EUR 10.5 billion of debt*	**Italy** *Further short sale prohibition extension for stocks*
Feb		**Sweden** *SEK 50 billion recapitalization programme announced*	**Switzerland** Central bank now also issue debt in USD
Mar	**Germany** Soffin provides HSH Nordbank with EUR30 billion of guarantees	**Japan** Bank of Japan announces subordinated loan programme of JPY 1 trillion	**Switzerland** *Central bank will purchase foreign currency against Franc to halt appreciation*

Source: IMF (2011); author research

Fig. 1. Examples of national-based market intervention practices, September 2008 to March 2009.

Finally, a third related proposition with regard to the goal of *geographical* containment is that its lack of success was not because policies were too weak or unable to prevent overspill across national borders, but because global financial markets already existed across multiple economies as economic phenomenon and occupied a space that already perforated (c.f. Amin, 2002) national financial systems. 'Global financial integration' is in this sense a dangerous misconception, because financial markets already now always exist in uneven but connected and non-topographic systemic 'globalised' space. However, and importantly, that does not necessarily mean a financial crisis cannot be contained (and indeed contained in some kind of topological market space). Rather, the implication is that if potential containment spaces exist (and they may), then they are not concurrent with national jurisdictional spaces, and the policy interventions made were thus too blunt and unfocused in their terms of containment to be very effective. Financial crises manifest in the collapse of banking institutions as a consequence of their weak positionality in relation to globalised financial markets might be contained within certain market spaces that exist as uneven topologies of market actors. In order for policy interventions to be more effective, an approach that seeks to understand how markets exist in topological communities of practice rather than in/across national territorial financial systems is necessary. Such a form of policy intervention may well be possible by existing regulatory actors (whether governments or supranational institutions), but the nature of the intervention needs to capture new kinds of market spatiality. An example might be containing the practice of short-selling in global financial markets by targeted simultaneous interventions in a number of specific jurisdictions that form part of the topology of governance spaces where a certain community of traders practice particular forms of 'detrimental' market activity.

4.2. Mismanaging 'agencement' in financial market space

"*How could problems with subprime mortgages, being such a small sector of global financial markets, provoke such dislocation?*"

(Commentary article, Bank for International Settlements 2008)

A dominant explanation for the power of global financial markets that has persisted since the financial crisis is that their size and scale through global integration endows them with much greater power governments and policy actors. This power derives from the market maker's access to greater volumes of money than nation states or other actors (Held and McGrew, 2002; Soros and Volcker, 2003). Financial markets are primarily powerful actors because geographical integration makes them much 'bigger' than central banks, and such an understanding has been offered in analyses of the incapacity of states or supranational regulators to tackle the 2007–9 crisis (Cooper, 2008; Davies, 2010). However, drawing upon the theoretical approach outlined thus far, this section challenges the spatial conception to this basis for global financial market power,and argues that a more sophisticated understanding of the spatiality of financial markets produces a different and more useful account of global financial market power. In considering two specific impacts of the crisis – the policy interventions that occurred around the collapse of Bear Stearns and the disappearance of the global market for 'distressed debt' since 2008 – it makes three interrelated propositions that use this approach to better understand the nature of *agencement* in global financial markets and the limitations of policy practices in managing the negative impacts of that agency. It thus argues that the apparent inadequacy of regulatory practices to tackle the crisis reflects an incapacity to adequately target interventions that addresses the spatial constitution of market power, rather than intrinsically to the absolute and 'irresistible' power of financial markets derived from their 'globalised' nature (Allen, 2010).

The first proposition is that conventional notions of scale as applied to global financial markets produce simplistic basis for policy practice that fails to appreciate the difference between power, size, and geographical interconnectedness (in other words the role of spatiality). The widely attributed power of global financial markets normally elides and/or ignores the three, when in fact they are interrelated in complex and specific ways that are not generalizable to all contexts. Financial market power exists only in specific temporalities and as a consequence of particular configuration of market actors. The power to induce crisis in the form of institutional collapse is thus contingent on specific configurations of empowered actor–networks. Importantly, without an understanding of the nature of these configurations of actor networks, it is not possible to effectively counteract or manage market *agencement*.

And this is the case in assessing the policy practices that surrounded attempts to prevent the crisis and subsequent demise of the US investment bank Bear Stearns in March 2008. There is no space here to recount this and detailed accounts are available elsewhere (c.f. Greenberg and Singer, 2010; Cohan, 2010). Fig. 2 does however show a time-line of key events, market 'action' and accompanying policy interventions. Rather, the focus is on the role

	Event	Market Action	Policy Response
22 June	Bear Stearns pledges US$ 3.2 loan to its High Grade Structured Credit Fund (composed of *collateralized debt obligations*); Merrill Lynch takes US$ 850 million	Merrill unable to auction off more than $100 million of collateral Market value of other sub-prime funds fall	Regulator concern about contagion in CDO markets
16 July	Bear Stearns discloses two sub-prime hedge funds have virtually no value	Ongoing rapid decline in sub-prime mortgage market; Bear Stearns stock further falls.	
1 August	Two lawsuits filed against Bear Stearns with National Association of Securities Dealers	Further decline in Bear Stearns stock	Regulators consider wider ramifications of Bear Stearns position for other financial institutions; possible mitigation action considered
15 November	Disclosure of US$ 1.2 billion write-down by Bear Stearns; Standard & Poors' downgrades from AA to A	Stock declines further, still trading above US $90	
Late February March	Rumours increase about level of exposure of Bear Stearns to sub-prime markets; accusations of non-disclosure.	Market increasingly unwilling to lend to Bear Stearns amongst speculation; bank faces growing borrowing costs. Falling stock	Discussion with regulators including Federal Reserve Bank of New York about liquidity assistance
13 / 14 March	Bear Stearns faces liquidity crisis	Short selling of Bear Stearns stock positions in market by traders. Market will not provide liquidity to BS, with available liquidity falling from US$ 12 to 2 billion in 2 days.	Federal Reserve Bank of New York agrees $25 billion bail-out to provide 28 days liquidity
16 March	Bear Stearns merged with JP Morgan Chase at $2 per stock (down from high of $192)		Loan terms changed to $30 billion loan JP Morgan Chase to acquire Bear Stearns Ben Bernanke defends bail-out as Bear Stearns 'too big to fail'

Sources: New York Times (2007-2008); Greenberg & Singer 2010; Cohan 2010)

Fig. 2. Timeline of Bear Stearns collapse including market action and policy response, June 2007 to March 2008.

of financial markets and regulatory practices. Bear Stearns collapsed while it was making money and had a sound balance sheet, and commentators at the time in part blamed financial markets. This centres on the fact the bank was forced out of business through an insolvency crisis (lack of liquid assets to meet immediate debts and transaction requirements), as opposed to classic bankruptcy (fewer assets than liabilities). Bear Stearns' available liquid funds fell from $12.4 billion to $2 billion, as customers pulled out money, and other financial institutions refused to provide short-term loans (Greenberg and Singer, 2010; Cohan, 2010). The insolvency was produced by at least three distinct forms of adverse market practices whose capacity (power) to precipitate the bank's ultimate downfall was the consequence of a particular configuration of market practices with distinctive spatialities. Regulatory practice at the time was misaligned in its spatial focus and did not redress this crisis-inducing capacity. Let us consider each of these market actions and their spatialities in turn.

Firstly, investors withdrew assets from the bank itself, reducing the liquid capital available. This withdrawal through the market of particular deposits and investments was an action primarily mediated through 'local' actors on Wall Street within specific practice communities in New York. The geographical centre of gravity of agencement here was therefore the national financial context. Second, the crisis in confidence meant other lenders refused to lend to Bear Stearns: this reflected a more diffuse and distributed capacity to produce the banks collapse. Institutional lenders centred on Wall Street again may have been key agents, but the wider capacity of markets to produce the liquidity crisis for Bear Stearns required this practice to be transmitted through transnational market spaces. Once this happened, institutional crisis ensued as Bear Stearns was unable to raise liquidity from global financial market space. Third, management complained at the time and subsequently that 'hostile' market practices short-selling hedge funds spread false rumour (Huffington Post, 2010), and whilst there is some evidence to refute this as an ultimate cause of the bank's collapse, market power certainly heavily influenced the timing of the New York Federal Reserve's intervention, the options in terms of managing the impact of the collapse, and its impact on the wider global financial system.

It is not sufficient to account for this power either through simply the size of globalised financial markets (the amount of money yielding capacity to act) or the strategies of key individuals social actors. These are necessary but not sufficient pre-requisites. Rather the institutional crisis for Bear Stearns occurred because of more specific *agencement* in certain financial market spaces (e.g. mortgage-backed securities, other derivatives) that constituted the banks' vulnerability. The social actors at the heart of the actor–networks responsible for exercising this power – the legality of their actions notwithstanding – were not thus evenly distributed in geographic, organizational or network spaces but occupied a specific set of market spaces that produced the economic outcome of corporate collapse. Had those multiple actor–networks not occupied quite the same market spaces, or had policy practitioners targeted interventions on particular market geographies or practice communities, Bear Stearns may not have suffered the fate it did. This is not to suggest that the collapse could have been prevented by this kind of analysis – there is far more to the context of the collapse than just the role played by certain market spatialities. Rather the argument is that this form of analysis represents a first step in developing a more sophisticated understanding of how market spatialities shaped this economic outcome and poses important challenge for future policy interventions in such circumstances in being sensitive of how market spatialities shape the agency of key actors.

Second, the power of 'globalised' financial markets in fact reflects different geographies of specific actor–networks that vary between market segment (e.g. currency as opposed to equity derivatives), and which need to be mapped in order to develop effective policy intervention. The limitations of policy interventions that did not have that degree of spatial resolution are evident in response to Bear Stearns by US regulators. Regulators complained that national policy practices were powerless to combat the power of markets to force Bear Stearns into liquidation (Bamber and Spencer, 2008). Yet this power was not in fact general or global, but subsequent evidence suggests concentrated in specific (and largely Wall Street dominated) geographical configurations. A more effective policy approach might have been based on a topographical conception of market practices and their spatiality, mapping how certain actor networks were far more influential than the majority in orchestrating adverse market action against Bear Stearns. Such an approach reflects the earlier theoretical concern for understanding how financial markets are not uniform singular network spaces where all nodes are equal – or even involved – and thus unpacks the interior of market spaces themselves. The point is that the specific markets for individual financial products that precipitated the downfall of Bear Stearns (e.g. short selling of equity or securities) demonstrate *specific nodal geographies* of power which need to be the object of theorisation if economic outcomes are to be better understood. Policy interventions that characterised the response to the crisis such as that by the New York Federal Reserve – the provision of cheap loan facilities – take little account of the specificity and location of this market power. Again, this is not to argue that such insight *per* se could have prevented the banks' demise or the wider crisis itself, but the scope for policy intervention to mitigate some aspects of the crisis would have been improved through policy practices that were more sensitive to the uneven network form of specific financial market spaces – that is, which 'nodes' are more significant and why. Such an approach opens up the possibility for policy to more effectively counter the locus of power in financial markets at specific moments. Such specific moments were of course instrumental in precipitating this and other bank's collapse throughout the crisis.

The third proposition is that the agency of globalised financial markets is not only a spatially distributed effect, but also a capacity constituted through folded spaces of interwoven financial markets. The *agencement* expressed around a given actor–network in global financial markets need therefore to be understood as a complex relational effect that is emergent from a large number of associations between individuals, organizations and non-market actors. And furthermore, these multiple associations have a particular spatial configuration or geography to them. Here we move from the case of Bear Stearns' collapse to the fate of a global financial market that was well-established prior to the 2007–9 crisis: the global market for distressed debt. Prior to the financial crisis, 'distressed debt' represented a growing and new global financial market enrolling an increasing number of actors in leading financial centres (London, New York, Frankfurt, Hong Kong) (c.f. Miller, 2009). Yet the capacity of individual traders or banks (i.e. 'agents') to act in this market was constituted through a wider set of organizational, institutional non-market and regulatory spaces that facilitated the growing space that this new financial market occupied. With the onset of the financial crisis, the facilitating set of associations that empowered traders to act in the distressed debt market were transformed and weakened the capacity of a given distressed debt trader to act. Eventually, in this case, many of these actors ceased to have any capacity for agency in this market space at all as banks withdrew from this activity (FT, 2010)[2]

[2] Since 2010 this situation has reversed and newly empowered actors have been able to construct new transnational market spaces for 'distressed debt' in a later phase of the ongoing crisis.

The key point is that the wider circumstances that some – but not all – market actors (banks and other financial institutions) found themselves in led to diminishing capacity for any agent to act in this market, even when a significant fraction of participants (i.e. the distressed debt trading desks within banks) continued to want to do so. In relation to understanding agency in market spaces, the power of actors to act in many given financial product is thus not a particular property individual social actors (i.e. a trader) 'holds', but rather is constituted through overlapping actor–networks that have particular spatial configurations. The theoretical implication is that in order to better understand exactly how agency (understood as *agencement*) impacts on economic outcomes in financial markets, there is a need to trace or map the geographies of strong and weak associations that generate the power to act within financial markets. In the case of the diminishing agency of traders in the 'global' distressed debt markets, this would be mean seeking to understand how the loss of capacity to act was the consequence of weakening associations between certain specific financial institutions, trading desks and non-market actors that existed in a particular geographies across various financial centres or national economic spaces. Such a proposition is again only a first step to a more sophisticated understanding of how groups of market actors gain or lose power in market spaces, but the point is that pursuing such an approach opens up the scope to begin to specify the landscape of power that exist in many markets. Understanding that landscape provides scope of course to develop more effective policy or regulatory environments.

5. Conclusion: taking the spatiality of markets seriously

The developing socioeconomic literature is providing an increasingly powerful set of insights into the nature of market behaviour and the reasons why markets operate the way they do. However this paper has argued that to date socioeconomic approaches have yet to engage effectively with important questions surrounding the spatiality of markets. It has therefore sought to develop an argument for a more explicitly spatial approach to understanding the nature of markets, in particular proposing a practice-oriented socio-spatial theorisation of market spaces that aims to make a distinctly economic geographical contribution to this debate. Its key argument is that spatiality is intrinsic to the nature of markets, market actors and consequently, therefore, for market outcomes. Classical approaches to theorising markets within economics abstract the market as an entity or process to a 'spaceless' conception, where spatiality and geographical difference along with is (implicitly) assumed to have little or no significant impact on the operation of markets. And whilst the heterodox socioeconomic literature – and the cultural economy approach in particular – have in recent years developed an increasingly powerful critique of neoclassical 'orthodox' market theories, economic geographers have not utilised these insights to develop a distinctly geographical socioeconomic understanding of markets.

Such an intervention also represents a challenge to economic geographical thinking foreground the concept of the market as an explanatory tool in theories of global economic development. Rather than conceptualising markets as a component 'mechanism' or 'process' that contributes to 'bigger' processes shaping the global economy, markets themselves need to be more explicitly analysed as the spaces from which key economic outcomes emerge. This will enable economic geographers and other social scientists to move beyond black box propositions about the 'power' of markets or their role in fostering growth or precipitating crisis. In seeking to apply the socio-spatial framework outlined in this paper to the first phase of the recent global financial crisis, the aim has been to illustrate how a geographical approach to market spatiality might offer new and productive insights for policy practice and market regulation. The framework developed here has drawn upon a growing literature within socioeconomics, and work loosely within an actor–network approach but it is neither narrowly situated within a specific epistemological tradition nor necessarily requires the use of the kinds of ANT concepts deployed here. Many aspects of the practice-oriented focus to the approach draw on wider theoretical traditions that span institutional theories, critical realism and political economic conceptions of power. In that respect, the conceptual toolbox proposed aims to provide a complementary further theoretical lens through which economic geographers can analysis how uneven economic processes produce uneven economic outcomes.

In seeking to reconceptualise market spaces around a range of concepts of space – network, folded and combining that with an appreciation of the uneven spatial constitution of power within those market geographers, the opportunity is created to develop more effective and spatially – atuned forms of market regulation. Hopefully the recasting analysis of global financial markets around network topologies of differently empowered practice communities illustrative one way in which more sophisticated theories of globalised financial markets could be developed, and in so doing creates tools that will contribute to debates about how to develop better transnational and trans-jurisdictional forms of regulation. Clearly the framework developed in this paper, ands its application to a limited historical case, represent only a very modest step in this direction. However, the aim is that further economic geographical work can be built from this first contribution which moves socioeconomic analyses of markets into a fertile and distinctly geographical area of future analysis and research.

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