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Tracking the numbers: Across accounting and finance, organizations and markets*

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Abstract: This introductory essay reviews recent advances in the emergent field of social studies of finance (SSF) and, subsequently, sets out to illustrate how a closer engagement with SSF might benefit research interests in accounting and vice versa. Finally, it provides a sketch of how mutual engagements across the fields might be intensified in what is identified as an emerging accounting and finance track in the discourse of social science. The prospects of a broader field of research exploring the use of financial numbers across social settings, markets, organizations and cultures are projected, and the possibility of articulating a strong sociological programme of research are considered.

Keywords: Social studies of finance and accounting; science and technology studies; sociology of markets; calculative practices and calculative devices

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Over the last three decades, *Accounting, Organizations and Society* has been offering a broad platform for interdisciplinary, accounting-related scholarship. Regularly, this journal has been welcoming scholars from neighbouring fields to get involved in extending the perspectives of accounting research towards a wider and comparative understanding of how various forms of calculative practices affect, and interrelate with, the social settings in which they operate. One interesting new field of study which has taken shape outside accounting research is the field of social studies of finance (henceforth **SSF**). This field, now emerging at intersections of economic sociology, science and technology studies, cultural anthropology, and cultural geography, has much to offer to researchers interested in the practices, agencies, programmes and technologies of calculation. This introductory essay to the special AOS section will provide a preliminary tour of SSF, explore its intersections with accounting research and test some common ground on which research interests shared across SSF and accounting might be brought to co-operate.

What unifies social studies of finance and those of accounting as "social and institutional practice" (Hopwood & Miller, 1994) is their engagement with social settings characterised by a high frequency of circulating numbers. A remarkable number of researchers has by now become involved in investigating how the use of numbers and a range of different social settings co-develop, change or persist. Yet, SSF and sociologically oriented accounting research have developed as distinct fields with relatively little interchange. Probably the most palpable difference between SSF and interdisciplinary research in accounting is that the latter has largely focussed on aspects of calculative practices subject to formal organization. Accounting studies have been extending traditional preoccupations with business enterprises towards the employment of numbers in programmes and technologies of government (Miller & Rose, 1990), and the respective roles of accounting professionals (for an overview see e.g. Cooper & Robson, 2006) across the sectors and topologies of a "shifting sphere of the economic" (Hopwood 1992), moved, moulded and put in place by embedding calculative practices in different kinds of organizations. SSF have, on the other hand, mainly been exploring the construction of markets and market cultures (Abolafia, 1996, 1998; Knorr Cetina & Brügger, 2002) and the roles of calculative models and technologies ("market devices") in the framing of social and socio-technical interaction in market settings (Callon, Millo & Muniesa, 2007a; Callon, 1998a; MacKenzie & Millo, 2003; Muniesa, 2003; Preda, 2006).

On an institutional level, accounting research has, even in its most socially theorized forms, been developing mainly within the boundaries of the accounting discipline and its academic establishments. Researchers involved in SSF appear to be mostly associated with sociology and anthropology units of universities. One might hypothesize that such differences in institutional environments, in line with contrasting professional affiliations, may have been constituting major reasons why correspondence across SSF and interdisciplinary accounting research has remained quite limited. The review elements of this introductory essay would like to indicate why this presents an unfortunate and at least unnecessary state of comparative neglect. Without claiming to be comprehensive either in reviewing or in diagnosing symptomatic shortcomings of an unevenly distributed academic attention, we would

above all like to demonstrate the potential of a shared field of research concerned with the circulation of financial numbers across the diverse settings of social life, and we would like to suggest that there is indeed strong potential in a common academic track which social studies of finance *and* accounting might collectively explore.

Finding a particularly appropriate label for a field opening up for researchers from different scientific disciplines is not easy. Speaking of interdisciplinary finance and accounting studies would perhaps appropriately mirror the self-designation of that particular research tradition – science and technology studies - from which both SSF and social research in accounting have been gaining major theoretical inspirations. Yet opening up interdisciplinarily might not only bring together unaccustomed cohabitants, it might also make it difficult to institutionalize an effective research agenda. In order to articulate itself as a specialized track of scientific discourse, a prospective field of accounting and finance studies might then perhaps need an impulse similar to the one science and technology studies received from David Bloor's formulation of the strong programme in the sociology of knowledge in the 1970s (Bloor 1992 [originally 1976]). In closing this introductory essay, we would like to put the question to the readers of this special section what a strong programme of research in finance and accounting studies might look like, encouraging the elaboration of research agendas seeking to transcend boundaries in and between the two fields.

Financial cognition, calculative agency, performativity, and sets of participants: A brief tour of SSF

Perhaps one of the best starting points for introducing SSF is the concept of information. Taking information as a starting point is justified by the centrality of this notion not only to the practices of participants in financial markets, but also to the theoretical apparatus of financial economics. Market participants are characterized by a constant search for relevant information, a search which shapes their decisions and is reflected in the dynamics of transactions and securities prices. Financial economics sees prices as incorporating all the information available to market participants (e.g. Stigler, 1961), while the incorporation mechanisms are publicly available. Information appears as crucial not only with respect to how participants perceive, order, and justify their activities and decisions, but also with respect to price behaviour. Consequently, SSF, which - broadly put - investigate the knowledge processes underlying financial transactions, assign this notion a prominent place in their research programmes.

The way in which SSF approach information, however, differs in some significant respects from the presentation and discussion of this concept in financial economics, as well as in social structural varieties of economic sociology. In financial economics, information is understood as signals, akin to the electric impulses circulating through the wires of a telephone switchboard. This specific notion fuses together a view of markets as distributors of information (and therefore of resources), formulated in the

1930s by Friedrich von Hayek (within the debates about the economic failures of communism), with a methodological approach developed in operations research during WWII and oriented towards the detection of meaningful patterns underlying apparently random signals (Mirowski, 2002, pp. 37, 60; Klein, 2001). In this perspective, signals are additive: they trigger a reaction in the receiver, while being independent of the cognitive properties of the latter. An understanding of information as signals separates information from cognition, and makes possible a distinction between meaningful signals and noise, with the latter being understood as a lack of determined patterns.

Social structural approaches in economic sociology operate with a notion of information very similar to the above. Information is understood as signals circulating through networks of social relationships, with the latter, in their turn, acting both as information channels and as signals (e.g. Podolny, 2001, 2005; White, 2002, pp. 100-101). Networks of social relationships circulate information, but, from the perspective of a third party, they appear as information too, about the (non)existence of social ties, their duration, etc., information which is used in business decisions. In this perspective, networks are analogous with electric circuits, and the absence or presence of ties is taken to indicate the limits and possibilities for the distribution of signals. The distinction between cognition and information thus is affirmed, although it is acknowledged that, within networks, information is processed according to frames of interpretation shared by members. Frames of interpretation, in their turn, can be provided by common assumptions, but also by what Harrison White (2000) calls discourses, understood as common activities, i.e., institutionalized occasions for conversations and contact maintenance. In a nutshell, frames of interpretation are provided by shared activities and occasions within a network, activities and occasions which stabilize signals, making them accountable and transferable across situations.

Such shared occasions and activities hint at the fact that (financial) information might after all not be entirely independent of the cognitive properties and practices of potential and actual receivers, and that recipients of information cannot be seen as passive with respect to how signals are processed. Neither can such aspects of cognition be seen as independent from, nor as unaffected by the interactions of market participants. What becomes necessary, then, is a specification of (a) the interaction mechanisms which constitute information, and (b) how such interaction mechanisms underlie cognitive processes, understood not as neural operations, but as cooperative, practical achievements of participants. In the face of such contingencies, an excessive emphasis put on networks of social relationships might not only run the risk of suggesting a natural tendency of networks towards closure but also that there will tend to be just as many frames of interpretation as there are networks, with dominant frames, once set in place, contributing to network closure. This ends up leaving little room for explaining conflicting dynamics and change, both across and within networks.

SSF, in turn, tend to depart from an understanding of information as signals circulating on a circuit board, and re-orient the investigative focus towards *financial*

cognition, understood as a practical, interaction-based achievement of market participants. The notion of "financial cognition" draws attention to processes of interactive knowledge production and the roles that cognitive schemas – in combination with technical instruments, financial models, specific room layouts, group interactions etc. – play in the formation and execution of investment and trading strategies (e.g. Beunza & Stark, 2005; De Bondt, 2005). Broadly speaking, two directions within SSF might be distinguished: one of them is represented by close up, microsociological studies of financial cognition, and the other by performativity studies exploring conditions and consequences of financial models and finance theory at an aggregate level.

Field studies of cognitive practices re-focus the attention from information-as-signals to interaction-based cognitive processes, seen as determining what market participants will accept as information, how they will process and store it, and how they will use it in their activities. Such cognitive processes include, among others, observation, classification, calculation, and memorization, understood as practical, accountable activities taking place within and depending on webs of social interactions (e.g. Lynch, 2006; Maynard, 2006). Drawing, inter alia, on ethnomethodology and phenomenology, one of the methodological implications of this approach is the direct, longitudinal, in situ observation of cognitive activities, as they are performed by market participants in their everyday actions and in interaction with other human participants, as well as with artefacts. This view, then, stresses the fact that (financial) cognition is a distributed, cooperative activity (Hutchins, 1995), irreducible to a fixed set of universal rules.

The shift from signals to cognitive practices also triggers a series of consequences for how core market activities, such as trading, are subsequently conceived. For instance, numerical data (such as price and volume) are acknowledged as crucial with respect to the trading process. While structural and institutional approaches in economic sociology (e.g. Carruthers & Stinchcombe, 2001; Smith 1989; Uzzi & Lancaster, 2004) see numerical data as endowed with meaning and trust by the authoritative nature of the channels through which they circulate, by formal rules, and by framing procedures (e.g. attaching rationalizations and justifying narratives to numbers), field studies of financial cognition see the reception, selection, and uses of such data as depending on practical cognitive activities such as observation, classification, and calculation (see e.g. Kalthoff, 2005).

This becomes even more relevant in electronic, anonymous trading, where traders rely less on widespread social networks and direct exchanges with known partners, and where activities such as screen observation become crucial. These differences have prompted some observers to argue that global electronic markets embody principles different from those of exchanges based on personal interactions. While the latter can be conceived as networked systems, the former might more adequately be regarded as scopic systems (e.g. Knorr Cetina & Bruegger, 2002; Knorr Cetina, 2007; Knorr Cetina & Preda, 2007). In contexts such as that of online trading, numerical data do not appear to carry self-evident properties (Zaloom, 2006), or to work as signals which the trader decodes. Rather, what happens from the traders'

perspective is that highly unstable flickers on the screen are subjected to an interaction-based observation process involving definitional, stabilizing, and integrative procedures. Out of this process emerge numerical data endowed with relevant properties, which are attached to rationalization devices (such as narratives) and used as a tool and a resource for further action. Thus, traders are not confronted from the start with numbers as meaningful signals which can be decoded at a glance. The very situation of electronic trading, where multiple, unstable screen displays shift all the time, makes this impossible. Financial data appears as the outcome of a series of practical, interaction-based cognitive activities, which include both human participants and technological systems.

While highly technologized transaction environments highlight the role of cognitive activities, they also shed light on the role played by formal models (such as those for calculating theoretical prices for derivatives) in transactions. Formal models, which are easy to integrate into an electronic trading environment with high computing capacities, are developed within financial economics. SSF have been addressing these formal models in asking whether they bear *performative* functions - that is if, instead of representing an external reality, such models directly intervene in the production of the reality they claim to represent (e.g. MacKenzie, Muniesa and Siu, 2007; but see also Hacking, 1983). Suspicions of *performativity* have been amplified by the ever growing role played by intermediary groups, such as financial experts and analysts, in contemporary global markets. However, tracing performativity effects beyond the use of formal models, other expert and status-group specific forms of analyses might take over not so much representational as performative functions in being adopted by market participants as tools of intervention in transactions.

The concept of performativity, introduced to SSF by Michel Callon (1998a) and subsequently specified by Donald MacKenzie (2006; MacKenzie & Millo, 2003; Didier, 2007) addresses the blurred distinction between representational and interventionist uses of economic models by financial practitioners. It highlights the role of group interests and/or conflicts in the implementation of formal models, as well as the capacity of the latter to transform transaction forms, rules, and objects. While Donald MacKenzie stresses that performativity can also have negative effects (e.g. when use of models is imitated, to the effect of unravelling transactions), Michel Callon focuses more on the basic assumptions underlying the use of formal models. Initially, Callon wanted to distance himself from the sociological debates about the (in)existence of the homo oeconomicus by arguing that the latter should be understood as a set of behavioural scripts enacted in practice. Such scripts require sets of artefacts, including formal models. Therefore, in a further step of the argument, the question was raised whether such artefacts - essential in changing transaction rules - are endowed with agential features, called *calculative agency* (Callon, 2004, p. 123; Barry & Slater, 2002).

Calculative agency is characterized by (a) framing, (b) disentanglement, and (c) performativity. Framing represents the distinctions used by participants in order to establish what is calculable and what is not. Disentanglement means drawing boundaries between relevant and irrelevant elements with respect to calculability,

while performativity indicates the use of technologies (including abstract models) in market transactions. Therefore, framing and disentanglement appear as prerequisites for performativity; the question, however, is what exactly is meant by calculability. Obviously, this latter must mean something else than applying sets of mathematical rules to the processing of numerical data. Michel Callon and his collaborator Fabian Muniesa (2005, pp. 1229, 1231; Muniesa & Callon, 2007; but see also Callon, Millo & Muniesa, 2007a) see calculability as intrinsic to the character of markets not only as allocation mechanisms, but mainly as collective devices for assigning value. They follow here an argument coming from the French school of conventions (e.g. Boltanski & Thévenot, 2007), according to which societies set in place various valuation mechanisms, market exchanges being just one of them. Calculability therefore designates the (collaborative) processes which make possible the assignment of numbers (such as prices) to entities (be they financial securities or consumable goods), an assignment which, in its turn, endows these entities with relative stability and makes possible their circulation throughout society.

In this perspective, calculability would include commensurability and standardization, features which stress that classification is a cognitive operation. One of the questions almost automatically raised here is that of the various *groups of participants* involved in making entities commensurable and in standardizing them. Financial experts are such a group and, indeed, we encounter the argument according to which financial analysts, for instance, perform precisely the function of making securities commensurable (Beunza & Garud, 2007) and of classifying them within certain categories (e.g. Zuckerman, 1999, 2004). If we move away from a functionalist approach to the activities of such groups, however, we can see that, at least in some situations, formal models are used to justify decisions which serve specific interests. Based on their analysis of the airwave spectrum auctions, Philip Mirowski and Edward Nik-Kah (2007) warn that performativity should not be understood as attributing to economists socio-political powers they do not actually possess. The material interests of entrenched economic groups play a considerable role in the shaping of markets (perhaps even more so in the case of one-off events like an airwave auction), with formal models serving (at least sometimes) a legitimating function.

The debates around the performativity of economic models and interest groups (see also Yonay & Breslau, 2006) raise the issue of the link between calculation (and numerical data), on the one hand, and group differences, stratification and inequality, on the other hand (cf. Preda, 2006). This debate is relevant with respect to microsociological field studies of financial cognition too: for instance, the assumption of cognitive distinctions between institutional and non-institutional traders, so often encountered in financial modelling, would require a field-based comparison between the two: do non-institutional traders indeed use numbers in a different way from institutional ones? Do they utilize different calculative practices or technologies?

While some financial models (e.g. Shleifer, 2000, pp. 13, 33) work with the assumption of a distinction between informed and less informed, rational and less rational investors and traders, corresponding to one between institutional and non-

institutional market participants, SSF do not take such a distinction as given or natural. Since technological systems have widened access to online trading and to financial information, it cannot be assumed that institutional investors and traders (who have more financial resources) automatically have access to better information or that they behave rationally, while non-institutional participants do not. From the SSF perspective, the main question is to see how such differences are constituted in practical actions (if at all) by specific participants, and to what effects. The approach is to regard these differences not only as discursive devices, legitimating the positions of specific participants and groups, but also to see whether and how they are created in the practical actions of trading, for instance (e.g. Smith 2006; Zaloom, 2006). If distinctions are generated in action, then the next step would be to investigate their cognitive role with respect to the production of information. For instance, are distinctions between informed/uninformed traders produced within the process of trading and, if yes, are they co-constitutive of this process? Do they influence the observation, memorization, and calculation processes through which traders generate information?

A programme of field research focussing on cognitive practices does not mean ignoring issues like emotions in trading activities. Recent developments in the sociology of emotions have opened the way for treating these not as opposed to, but within a cognitive framework (e.g., Berezin, 2005; Collins, 2004). From the perspective of SSF, this increases the appeal of an interaction- *and* cognition-oriented theoretical frame as a replacement for old dichotomies (cf. Abolafia, 1998, pp. 72-76).

But this and the abovementioned themes are still awaiting sustained research. Differences among social groups with respect to investment holdings have long been noticed (e.g., Swedberg, 2005; Keister, 2000), and differences in financial power between institutional and non-institutional investors/ traders are obvious. Yet, we still lack a thorough comparison of these participants, one which should focus on practical trading actions. Methodologically, SSF seem well equipped to tackle such issues – the field is host to microanalytical studies (e.g. Muniesa, 2003; Lépinay, 2007; Knorr Cetina & Bruegger, 2002), anchored primarily in participant observation, discourse and conversation analysis, as well as more macroanalytical ones studying finance and financial markets at a more aggregate level (studies of performativity, e.g., have a decidedly macroanalytical orientation, see MacKenzie, 2006; Muniesa & Callon, 2007; MacKenzie, Beunza & Hardie, 2006; MacKenzie & Hardie, 2007), historical (e.g., Preda, 2006) as well as contemporary research. The methodological variety is accompanied by the attention paid to empirical studies (the case study occupying here a prominent role) as a source of theoretical innovation (Stake, 2000). Yet comparative issues like differences between groups and types of participants do, so far, not appear to have profited much from this variety.

A second empirical issue, connected to the above, is that of the relationships among various kinds of financial expertise and expert groups. Expert academic knowledge (as embodied in formal models of price behaviour, for instance) is not the only kind of expertise available to market participants. Alongside it, various types of expertise co-exist, in relationships which, while not always easy, have proven durable. An

example in this respect is provided by forms of "technical analysis" or "chartism", a body of expert knowledge which, contested by academic economics since at least the 1930s, has become institutionalized and is widely used by market participants. Moreover, from a perspective looking at trading as practical action, the distinctions between expert and lay knowledge do not appear as clear cut anymore: (financial) expertise itself requires practical knowledge and is moored in the day-to-day routines of its practitioners. As studies of scientific expertise show (e.g., Collins & Evans, 2002; Lynch, Cole, McNally & Jordan, 2008), expert and lay knowledge cannot be taken as completely separated from each other. The use of (formal) pricing models in trading actions intertwines with the practical knowledge of market practitioners, who may ignore or use them in ways which are not prescribed by experts. To give an example, non-institutional online traders, while having pricing models embedded in their trading software, choose not to use them. The questions then become: How do users of pricing models matter (e.g. Oudshoorn & Pinch, 2003)? How are models put to practical uses in the process of trading and to what effects?

Social structural approaches to (financial) markets have emphasized their network character, as well as the role of group hierarchies (e.g., Podolny, 2005); neo-institutionalist approaches have primarily stressed (formal) rules, routines, and politics in the constitution of markets (e.g. Fligstein, 1996; Carruthers, 1996; Dobbin, 1994). Until now, SSF have been rather cautious in formulating a general definition of (financial) markets, as well as in adopting a reifying emphasis on "culture." This does not mean, however, a lack of theoretical perspective. While studies of the interaction order of market transactions have emphasized social control through temporal coordination, studies of performativity have seen markets as "sociotechnical agencements" (Callon, 2007, pp. 323-326) - that is, as a nexus of human participants and technologies which, while generating a specific body of knowledge, generates behavioural scripts as well. This non-functionalist view highlights the fact that markets consist of patterns of knowledge and behaviour which go beyond allocation mechanisms. All in all, one could venture that, theoretically, SSF see markets as knowledge-based, hybrid arrangements (i.e., including human participants and artefacts) of social control.

To finish this brief tour with a projection of future research directions inherent in SSF, these will have to include the continuation of the investigation of financial markets, as well as the branching out into the analysis of domains subjected to what is called "marketization" (e.g., health care, carbon markets). Since technological innovation in financial markets occurs at rapid pace, SSF is confronted with a very dynamic domain of investigation. The increased participation of non-institutional traders in financial transactions, the advance of anonymous electronic trading and the increasing integration of trading platforms at trans-continental level pose many challenges to the field investigation of, amongst other things, screen-related cognitive activities (with calculation occupying a prominent role) and their embedding in institutional and non-institutional contexts. The incorporation of heterogeneous entities into the area of financial transactions (e.g., housing) and the transformations that such entities subsequently underwent (necessary in order to make them tradeable) provide an additional object of investigation for SSF, one in which

calculability also plays a prominent role. At the same time, the expansion of principles such as cost-effectiveness, profit-making, and the application of market mechanisms as regulatory instruments into domains of activity, such as health care or environmental protection (which have been such prominent issues in accounting research), perpetuates questions about the performativity of economic, finance and accounting models. Consequently, SSF will be drawn to expanding inquiries beyond the boundaries of financial markets into other aspects of the "shifting sphere of the economic" (Hopwood, 1992) – to meet with accounting?

Accounting intersections

Social and institutional studies of accounting share many commonalities with SSF. Both fields are interested in similar research objects: models, instruments and practices of calculation. To a certain extent, they also share similar research questions. Both, for example, are concerned with the study of the ways in which calculative practices shape, and are shaped by, the social, organizational and institutional settings in which they operate. Both draw attention to the complex interrelations that exist between technologies of calculation, organizational structures, social and socio-technical interactions, cultures and institutions. Further, both research strands place particular emphasis on the constituting, rather than mirroring, roles of numbers and calculative devices. Both assume that calculative practices actively create, rather than merely reflect, economic realities. Both regard the functionality of calculative systems, agencies and regimes as something which needs to be explained rather than assumed.

In addition, social and institutional studies of finance and accounting have common, intersecting theoretical reference points. In both fields, researchers for instance make use of, and contribute to the further development of, concepts and approaches that, initially, had been developed in the contexts of science and technology studies (e.g. Callon, 1986; Latour, 1987; Law, 1986; Hacking, 1983; Knorr Cetina, 1999; MacKenzie 1990; Porter, 1995). Both social studies of accounting and SSF, amongst other things, are interested in untangling the relationships between science and practices of economic calculation.

In the field of accounting research, Miller and O'Leary, for instance, analyzed the factory Caterpillar as a "laboratory" (Miller & O'Leary, 1996) and, in a recently published article, studied investment appraisals at Intel with reference to Wise's (1988) concept of "mediating machines" (Miller & O'Leary, 2007). Robson (1992; 1994) looked at accounting numbers as "inscriptions" and utilized Latour's (1987) notion of "action at a distance" in his study of the rise of inflation accounting in the UK. Power (1995) wrote about "Auditing, Expertise and the Sociology of Technique" and edited a book exploring the relations between calculation, accounting and science (Power, 1994a). Chua (1995) made reference to actor-network theory in her study of the fabrication of accounting images in three public hospitals. Dechow and Mouritsen (2005) drew on actor-network theory in their study of the workings of Enterprise

Resource Planning systems. And Young (2006) used Hacking (1986) for her study of the construction of financial statement users in US-American accounting standard setting.

SSF have even closer connections to the field of science and technology studies, as many of the current SSF scholars started out as science and technology students (e.g. Michel Callon, Karin Knorr, Donald MacKenzie, Fabian Muniesa, Alex Preda). SSF scholars seek to establish the 'science and technology framework' as an alternative to the more conventional, social structural approaches to the study of markets in economic sociology. They focus on the "machineries of knowing" (Knorr Cetina, 1999, p. 5, cited in MacKenzie, 2006, p. 12), the epistemic cultures, models, instruments and socio-technical interactions that shape and make up financial markets. As was illustrated above, this focus helps SSF researchers to unpack notions common to both economics and more traditional approaches in economic sociology (like financial information, economic agencies, representations, markets etc.).

Amongst other things, SSF have utilized the notion of market device (dispositif) to study "the material and discursive assemblages that intervene in the construction of markets" (Muniesa, Millo & Callon, 2007b: 2). Likewise, one finds many references to Foucault-inspired concepts of assemblage, constellation and dispositif in social studies of accounting (e.g. Burchell, Clubb & Hopwood, 1985; Miller, 2008; Miller & O'Leary, 1996). In accounting, notions of assemblage and constellation have, for example, been used to draw attention to the fact that accounting and other calculative practices and instruments are deeply entwined in issues and events that are of wider social, economic and political concern. The concepts of assemblage and constellation are used to unpack the dynamic and constitutive role of accounting practices and instruments (Miller, 2008: 57). Similar to SSF, also accounting scholars have emphasised the need to study calculative practices "as a relatively discrete, yet temporarily stabilised assemblage of devices for intervening with multiple conditions of emergence" (Miller, 2008: 53).

Finally, SSF and accounting share similar methodological frameworks. Both fields employ a range of different, but mainly qualitative, methods of investigation, such as discourse analysis, participant observation, document analysis, conversation analysis and qualitative interviewing. The case study approach occupies not only a central role in SSF, but also in social and institutional studies of accounting.

Yet, there also exist important differences between SSF and accounting research, e.g. with respect to institutional location, disciplinary divisions of academic labour, the respective empirical fields of investigation and theoretical orientations, each of which have shaped the fields in different ways, thereby reducing possibilities for exchange and interaction amongst the two groups. SSF have focussed mainly on the study of financial markets, the roles of economics and finance theory in constructing those markets, the relevance of networks of social and socio-technical interaction in them, their cognitive and cultural underpinnings and the effects of financial markets on the workings of corporations (see e.g. Abolafia, 1996; Knorr Cetina and Preda, 2005; MacKenzie, 2006; MacKenzie and Millo, 2003; MacKenzie, Muniesa & Siu, 2007). Yet,

as Miller (2008) has pointed out, SSF have studied calculative practices without much reference to broader programmes and ideas of social order, modalities of power and their effects on the self and notions of "actorhood" (Meyer & Jepperson, 2000). Further, questions concerning the relevance of calculative devices for processes and forms of organization have somewhat been neglected. In contrast, social and institutional studies of accounting have been mainly concerned with the investigation of *organized* calculative practice: histories, practices, social and organizational effects of bookkeeping, cost accounting, inflation accounting, performance measurement, auditing, corporate financial reporting, budgeting, investment appraisals, etc., and their intertwining with different modes of governing at the level of the economy, organizations and the conduct of persons. But, hitherto, accounting researcher have been awarding little attention to the roles of calculative practices in the construction of markets. Researchers have largely been focussing on the contribution of accounting ideas and techniques to the inner workings of private and public sector organizations (e.g. Ahrens, 1997; Covaleski & Dirsmith, 1988; Preston, Cooper & Coombs, 1992), processes of macroeconomic management and change (e.g. Neu & Graham, 2006; Suzuki, 2003), and dynamics of accounting professionalization (e.g. Anderson-Gough, Grey & Robson, 1998; Boland, 1982; Caramanis, 2002; Cooper & Robson, 2006).

Further, it should be noted that social studies of accounting do not represent a coherent, clearly identifiable strand of research. They have been built on a multiplicity of different, at times conflicting theories and approaches. Besides science and technology studies, approaches rooted in sociological New Institutionalism, Foucauldian studies of governmentality, critical theory, political economy approaches, ethnomethodology and symbolic interactionism have been used as theoretical reference points (cf. Mennicken, 2005). Many studies have been concerned with investigating the implication of accounting in processes of organizational control, government and regulation (for an overview see Miller, 2008). Questions have been addressed, such as: How does accounting get implicated in the creation of particular organizational and economic conceptions? How does accounting achieve and maintain the position of organizational significance? How is it involved in processes of economic, social and organizational change? How is it implicated in the "governmentalisation" (Foucault, 1991), disciplining, liberalisation and calculation, of society? How has accounting been involved in processes of subjectification – the formation and government of "calculable spaces and calculable selves" (Miller, 1992)?

In pursuing such questions, social and institutional studies of accounting have enhanced our understanding of social and behavioural aspects of accounting, its constructed nature, politicizations and performative effects. But the primary occupation with accounting in organized settings, at least to a certain extent, has also contributed to the production of blind spots. It has furthered the creation of a situation in which linkages and interplays between accounting *and* finance, and accounting and markets, particularly financial markets, at least from a broader social science viewpoint have largely remained overlooked and under-researched. Not much is known about the social and cultural roles that accounting numbers play in

the construction of financial markets. There is no empirically well-grounded understanding of the relationships that exist (or do not exist) between accounting, capital market structures and investment cultures. Accounting research has not produced much insight into the calculative practices of financial analysts and investors, and their uses of accounting concepts and figures in the production of corporate valuations. Nor has it come up with sustained investigations exploring in depth the junctions, disparities, commonalities and interrelations between theories and models of accounting and finance, the enactment of those relations, and their formation and reformation, in diverse settings and cultures of calculation.

At least to some extent, the production of such blind spots has been furthered by the preoccupation of sociologically oriented accounting research with contexts and practices of organizational control and management. But what triggered this preoccupation? In part, it may be seen as an (unintended) outcome of processes of inner-disciplinary specialization and differentiation. Over the years, in accounting research and practice, a division of labour has taken shape between management accounting scholars, concerned with the roles of accounting in the management of organizations, on the one hand, and financial accounting scholars, concerned with markets, particularly stock market oriented financial reporting, analysis and valuation, on the other. Most sociologically oriented accounting research has been carried out in the field of management accounting. Financial accounting research and investigations of the roles of accounting in financial markets, with a few notable exceptions (see e.g. Macintosh, Shearer, Thornton & Welker, 2000; Roberts, Sanderson, Barker & Hendry, 2006; Young, 2006), have mainly been the terrain of financial accounting specialists and economics-based scholarship. In addition, accounting and finance represent two historically much related, but institutionally increasingly segregated academic fields of investigation, with separate academic associations, research centres and publication outlets. In recent years, accounting and finance scholars have been seemingly busier with the development and partitioning of their own research fields and identities, than with seeking collaboration across the fields. Of course, exceptions exist, especially in financial accounting research, but generally researchers have been careful not to infringe too much upon each others' territory.

The papers presented in this special section may offer starting points for altering this situation by illustrating opportunities to explore intersections and points of connection between SSF and accounting research. But in what ways exactly can a dialogue with SSF enrich interdisciplinary accounting research? Where can it contribute to the further development of its research agendas, analytical frameworks and methodological tools? And what, in turn, can SSF learn from social studies of accounting? Where and how can the two strands of research fruitfully complement and enrich each other?

Collaboration between the two fields could prove to be fruitful and beneficial in at least three different respects. *(1.)* A closer engagement with SSF could contribute to the transcending of current divisions of labour existing between accounting and finance, management accounting and financial accounting research. It could

encourage sociologically oriented accounting scholars to explore more the relevance of accounting in and for finance, and it could motivate them to take a closer look at actual practices of financial accounting, an area which, as already mentioned above, so far, has largely remained neglected by social and institutional accounting research (see e.g. Hopwood, 2000). SSF view calculation and the construction of calculability as a cooperative, practical achievement. They study the day-to-day production of financial knowledge in processes of observation, classification, computation and cooperation. Calculative practice is seen as a socially and technically embedded activity. As was mentioned earlier, a research framework is employed that places emphasis on close up, in situ observations. Such a framework offers to both accountants and finance specialists a useful platform for self-reflection. As Hopwood has put it, SSF offer "the possibility that finance, like most other knowledges, can be confronted by analyses of itself" (Hopwood 2007, THE Supplement, 22.06.07). They make us focus on the intricate socio-technical mechanisms and processes by which financial knowledge is produced. And they show that similar research frameworks can be used for both the study of accounting and the study of finance.

In this context, a closer engagement with SSF could also have the effect that more attention will be given to processes of calculative "hybridisation" (Miller, Kurunmäki & O'Leary, 2007) and the connections, commonalities and variations existing between different forms of calculative expertise. More collaboration between SSF and accounting can sensitize both fields for the embedding of calculative practices in competing or intersecting institutional and professional realms of expertise with different groups of participants. It can help both fields to develop a more differentiated understanding of the motivations and mechanisms underlying the academic "disciplining" of calculative expertise, as well as the reproduction of professional status groups. It can contribute to the further investigation of the entanglement of calculative activities in different, but at times hybridising knowledges and their respective carrier groups (e.g. in economics and finance, accounting and medicine, accounting and engineering).

(2.) Increased exposure to SSF is likely to induce accounting research to move the study of accounting beyond the context of organizations and pay, instead, closer attention to how accounting becomes incorporated into knowledges and infrastructures of markets. In return, a closer engagement with accounting research could enhance SSF's understanding of the relevance of processes of organization for market creation and involved modes of power and governing styles. Mutually, awareness can be raised for the interrelations and dynamics existing *between* processes of "financialization", the capture of business by finance and financial markets (e.g. Fligstein, 1990; Vollmer, 2003, p. 366), on the one hand, and processes of "accountingization", the proliferation of accounting, audit, risk and performance measurement into private and public sector organizations (e.g. Kurunmäki, Lapsley & Melia, 2003; Power, 1999, 2007), on the other. More space for joint research programmes could be opened up looking into both the organization of markets and the marketization of organizations. Important first steps in this direction have, for example, already been undertaken by Miller and O'Leary (2007) in their paper on "Mediating Instruments", which looks at investment as an inter-firm and inter-

agency process. Miller and O'Leary examine how certain instruments, like technology roadmaps and graphical presentations of statistical predictions, act on capital budgeting decisions, thereby, mediating between organizations and markets. Zorn, Dobbin, Dierkes and Kwok (2005) and Davis and Robbins (2005) have explored the social processes through which financial markets affect the structure and organizing principles of corporations. Such research agendas are only emerging. In order to gain a fuller picture about interrelations between processes of financial intermediation, organizing and market making, more investigations are called for.

(3.) More collaboration and intellectual exchange between SSF and accounting can help refine our interdisciplinary understanding of calculative practices and cultures. It can help establish research agendas focussing in more generic terms on conditions and consequences of economic calculation and financial numbers – across accounting and finance, organizations, markets and cultures, models and realities. It can stimulate the establishment of common analytical ground and, thereby, help advance our understanding of general patterns of the use of numbers in social situations. More dialogue between the two fields is likely to further the conduct of more systematic analyses and comparative research into the various ways and mechanisms by which financial models, accounting numbers and practices of computation and calculation become involved in the creation, preservation or subversion of social order across different settings.

Such dialogue might then motivate researchers to more persistently address the specificity of different types of calculation. In his recent appeal "not to treat practices of economic calculation in a somewhat undifferentiated manner", Miller (2008: 52-53), for example, calls for a more refined understanding of such relatively vague and universalistic notions as "calculative device" or "calculative practice". More exchange between SSF and social studies of accounting could stimulate the articulation of research agendas that would devote more attention to exploring different taxonomies of calculation, comparing and contrasting specific properties of different calculative instruments, like financial models, profit computations, performance ratios, budgets etc., or, as Power (2004) has suggested, distinguish between different classes of activities, e.g. counting, control and calculation, when analyzing attempts aimed at "governing by numbers" (Rose & Miller, 1992). The pool of comparative material may be widened (see e.g. Mennicken & Vollmer, 2007) to include not only different forms of economic calculation, but also forms of statistical reasoning (e.g. Desrosières, 2002; Hacking, 1984; Porter, 1986; MacKenzie 1978), mathematical (Heintz, 2003; MacKenzie, 1999) and everyday (Lave 1988) calculative practices. On the basis of a comparative and differentiated understanding of calculative practices, researchers in social studies of finance and accounting may readdress their common concern with what is special about calculating financially after all.

Fielding research in financial numbers: Towards social studies of finance *and* accounting?

We would like to conclude this introductory essay with some speculation about what a common field for research in financial numbers – across accounting and SSF - might look like, what might constitute its unifying empirical and theoretical themes and how its academic discourse could be more fully developed. Just like the preceding sections, this will reflect the individual orientations of the contributing authors, and should be taken as an invitation to consider opportunities for locating research activities in a somewhat broadened field of interdisciplinary research, not as a summary of a finite or clearly defined set of directions for future research. The following considerations thus try to stretch rather than hold back the imagination of readers interested in crossing the boundaries on a more sustained basis.

Beyond some apparent differences, our brief tour has identified distinctive analytical assets SSF and social research in accounting might place in research projects across their present boundaries. As far as SSF are concerned, a good deal of such assets derives from deconstructing and reconstructing the concept of financial information, its embedding in webs of mundane cognitive activities, in set-ups of participants, technologies, models and discourses lumping together interest groups, calculative practices, technologies, formal and informal framing devices. The extraordinary scope in mobilizing resources from different scientific disciplines that have come to be associated with accounting professionally or academically is perhaps the biggest asset accounting research has been producing. Comparatively, its mobilization of approaches from organizational research might somewhat stand out, and it might supplement respective weaknesses in SSF.[1]

Besides mutual and complementary analytical interests and theoretical inspirations (science and technology studies, actor-network theory etc.), a couple of more specific analytical equivalences could be identified across the fields: take, for example, the notion of an accounting assemblage (Miller & O'Leary, 1996, pp. 125-126) which might adequately (substituting finance for accounting) characterize the heterogeneous infrastructural supports and networks of financial cognition; or take studies of performativity in SSF which might shed some light on earlier debates about reality construction (e.g. Neu, 1991; Hines, 1991), or more recently, about hyperreality (Macintosh, Shearer, Thornton & Welker, 2000) in accounting. Extending such correspondences, one might imagine a series of exemplary mutual engagements, of empirical and theoretical issues particularly serviceable for coalescing prior research agendas across SSF and accounting. These exemplary engagements might range from dynamics of organization and marketization within financial cultures, accumulative microstudies of different calculative practices, to

[1] For studies in the broader SSF ancestry, the works of Fligstein (1987, 1990) are an evident exception, but preceding the emergence of SSF as a distinct field of research they do not correspond easily with SSF's more distinctive concerns with financial cognition, performativity, or most generally: financial markets. Knorr Cetina and Preda (2005, pp. 3-5) set up the latter as historically struggling to articulate itself against the pre-eminence of organizational issues in traditional economic sociology. Still, it should be noted that many empirical studies within SSF (e.g. Abolafia, 2005; Kalthoff, 2005) explore social settings that are formally organized, though without investigating much the formal organization of calculative practice.

analyzing the pervasive significance of status groups and, finally, towards exploring the financialization of social life in more general terms.

Exploring how financial cultures are subject to processes of organizing and marketizing might produce opportunities for combining various SSF topics with accounting scholars' expertise in the organization of calculative practices, and, reciprocally, of making accounting scholarship correspond with SSF research in exploring the construction of markets. As performativity studies have been closing in on links between calculative practices (rules, models, formulas, technical agencies etc.) and group differences (status groups, stratification), organizations and markets might be seen as settings in with such links are forged or separated: institutionalized by organizing access (to information, insider knowledge, expertise, technology) to participants with membership status and denying it to others, marketized by putting groups of participants into competing, structurally equivalent, or tradeable network positions. Formal structures provide shielded spaces, cubicles or ceremonial covers for more informal calculative practices within and across organizations. Market structures appear formally more accessible, but, alongside the workings of price mechanisms, they also erect technological and cognitive boundaries of their own making and allow status groups to establish and gradually expand lateral control over strips of market activity.

Most generally, organizations and markets may be seen as supplementary mechanisms for the collective assignment of value. If valuations are arrived at by organizational decision-making or by reiterating transactions on markets, neither need the respective processes preclude one another, nor need they draw on fundamentally different institutional or technical supports. Accounting systems institutionalized within organizations, and market participants adopting economic models may both be seen as endowing formal models (accounting equations, pricing formulas etc.) with performative qualities – both across markets and within formal organizations. Considering the similarities of the respective accounting and finance assemblages embroiling participants, discourses, institutions and technologies, the association of formal organization with just those parts of organized social settings that are explicitly claimed to be subject to organizing (standard-setting, governance structures etc.) might then be just as inadequate as seeing markets as perennial antagonists of bureaucratization. Analyzing the production and transformation of financial cultures, one might instead more generally want to ask to what extent organizing *and* marketizing processes, which are both always piecemeal and vulnerable to partisan exploitation, transform the ways in which participants handle and circulate financial numbers (prices, costs, indicators etc.) within and across settings. Tracking this circulation with an analytical attitude sensitive to the construction of both markets and organizations within organizations and markets should put social studies of accounting and finance in a unique position for observing how social life is ordered and transformed through the use of financial numbers.

Tackling such questions will require sustained engagements with the microstructures of calculative practice. In both SSF and accounting, considerable de-purifications

have occurred in how calculation and the use of numbers tend to be understood. In SSF, basic scepticism towards the trust invested in numbers has been inherited from science and technology studies backgrounds, in accounting research it has been part and parcel of locating and analyzing accounting in its social context of operation. The impression of experts in control of circulating inscriptions, "acting at a distance" (Latour, 1987) on some subject matter, is as persuasive when thinking about scientists and engineers as when observing managers and politicians trying to implement their respective programmes of government, but perhaps the latter has made more apparent than the former the pervasive experience of failure at the heart of governing by numbers (Rose & Miller, 1992, pp. 190-191). Somewhat surprisingly, macro-diagnoses of governing by numbers being propelled into ever more elaborate attempts by virtue of perpetually misfiring have yet to be systematically correlated with microstudies of how numbers are produced for circulation (e.g. Pentland, 1993). Has the effective combination of science and technology studies (e.g. actor-network theory) with the Foucauldian framework in understanding how social life is brought under the spell of constant measurements, inspections and evaluations gradually discouraged investigations into the ways in which situated micropractices undermine or redirect efforts at acting at a distance?[2] In fact, the traditional (Mertonian) examples of performativity have tended to highlight destructive effects of micropractices (Guala, 2007, p. 136), and stock market crashes may point to potential counterperformativities of calculation (MacKenzie, 2007, p. 76). Thus, there is a lot to go wrong with producing order through disseminating calculative practices, and if participants in markets and organizations tend to know about this – will they not try to exploit the openings?

Even governance structures with a surface effectiveness may be host to processes of creative compliance in which the circulation of numbers, its very standardization, inspection and "transparency" equips participants with effective means of playing at the interests of regulators or co-inmates (Vollmer, 2007, pp. 589-592). If the sociology of finance attempts to be a sociology of valuation (Beunza & Stark, 2005, pp. 98-99), it will need to microstudy both "actual calculative practices of actors at work" (Beunza & Stark, 2005, p. 99), and how participants try to second-guess, outperform, hoodwink or abet one another in putting financial numbers on display. Whether calculative practices in this broader sense conform more to a notion of homo oeconomicus or to one of homo ludens (Huizinga, 1949), is perhaps a question of secondary significance. One way or the other, studying the full spectrum of how financial numbers are used in social life may help to microtranslate (in the sense of Collins, 1981) research issues that have traditionally been articulated on a more aggregated or macrostructural scale. As questions of government (policy cycles, governance structures, etc.) are being translated into microstudies of regulation,

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[2] Of course, this is not to unilaterally blame the Foucauldian associates within this discursive alliance. The criticism of actor-network theory by Mirowski and Nik-Khah (2007), for example, criticizes it for smuggling in mechanistic assumptions, neglecting basic contingencies in the production of social order, and too hastily subscribing to the fiction of homo oeconomicus (albeit on the basis of social constructivism).

investigations of price-movements may be re-directed towards microstudies of valuation, studies of audit systems towards studies of auditing struggles, as studies of market behaviour have been transformed into studies of aggregating microeffects of calculative practices spread across market participants (MacKenzie & Millo, 2003).

Studying the situated use of financial numbers has already gained considerable momentum towards microtranslating research questions regarding information systems, management control, the construction of markets and market participants. Apart from producing more field research, accounting and finance studies may pick up this pace by making more effective use of available microdata, supplementing (revising, substituting, ratifying or dismissing specified) appeals to actor-network theory and science and technology approaches by experimenting with other sociological, psychological, behavioural, or, dare we say, economic approaches in microstudying the use of financial numbers. If there is one prevailing weakness across both accounting research and SSF, this may be that effective aggregation of qualitative microdata continues to be scarce. There is a great wealth of case studies and most of them attempt to generalize their cases towards theoretical issues – yet these issues tend to be situated on superordinate structural or epistemological levels. Generalized observations about calculative practice as a microphenomenon tend to be derived from theory, with case studies serving as illustrations. The recent volume on performativity (MacKenzie, Muniesa & Siu, 2007) is a rare exception, but such discussions have yet to open up to issues and approaches beyond those traditionally cultivated in science and technology studies environments. What about microsociology and its recent wave of theorizing (e.g. Turner, 2002; Collins, 2004; Scheff, 1990)? What about the challenge posed by sociological microanalyses epistemologically close to economic paradigms (Coleman, 1990) and, for example, their understanding of social mechanisms (Hedström & Swedberg 1998)? Where is the line between the systematic study of micropatterns and becoming too "mechanistic" about them?

One way to programmatically link microanalyses of calculative practices to macro-explorations of calculative regimes may be the observation of organizing and marketizing processes, another may be the investigation of framing (Callon, 1998b; Abolafia, 2005; Vollmer 2007), or the study of linkages between calculative practices and political rationalities (Miller & Rose, 1990; Miller, 2008). Yet another may be to look more closely at trajectories of participants across situations. SSF with its extended understanding of calculative agency clearly suggest adopting a wide notion of participation in understanding calculative practices. Here, human participants interact not just with other human participants but with formulas, models and technological artefacts. The role of status groups, apparent on financial markets as much as in the professional jurisdictions of accounting and auditing though clearly might be worth exploring further and more methodically, and this, in the first place, might involve tracing the trajectories of well-seasoned human expert participants.

The use of numbers appears to generate and reproduce inequality not just among individuals, but very dramatically among different groups of participants. How groups of financial experts claim jurisdiction on producing, interpreting, delivering

and receiving numbers and how they are able to uphold their claims in the face of competing expertise, state interventions or "layman" resistance, are questions intrinsically linked to the ability of these status groups to invade new areas of social life. Reproducing status group jurisdictions will often mean keeping control over the circulation of financial numbers, and keeping control over circulation will often mean reproducing status groups – in the sense of maintaining and policing their boundaries, but also in the sense of generating a stable flow of adequately trained participants able to occupy the respective status positions (Anderson-Gough, Grey & Robson, 1998; Young, 2006). Producing and sustaining status distinctions, is a question of distributing cognitive activities and abilities unequally across a population of participants, of maintaining an unequal distribution of access and knowledge, and lashing the circulation of financial numbers in ways that attract participants to particular status groups leading them to invest in training, careers and identities, committing them to specific jurisdictions, and rewarding retention.

The financialization of social life goes along with the mobilization of accounting expertise, and the accountingization of organizations, markets and cultures is similarly associated with the ascendancy of finance in business and in everyday life, the rise of financial markets, financial expertise and its status groups. Clearly, the slogans of financialization and accountingization are handy denominators for net effects of financial numbers invading and circulating across different settings of interaction. A comprehensive understanding of these net effects might be the ultimate long-term objective of social studies of accounting and finance. What remains particular about the use of numbers in social situations, and this might account for the apparent appeal of actor-network theory in both accounting and SSF, is the unique ability of financial numbers to embed individual situations, which pass by all by themselves, in larger social settings, structures, networks and organizations, giving situated behaviour a significance symptomatically outliving its happening.

Similar embedding effects can be observed with other, non-financial kinds of numbers (e.g. school grades), but having numbers refer to money does appear to be particularly effective in bringing situations in line with trans-situational flows of resources, programmes, discourses, projects, and status-group participants. When contrasting different forms of introducing universals into social situations (other potential claimants being norms or knowledge), is it a coincidence that "a form of financialism looks set to replace scientism" (Power, 1994b, p. 3) at a time when globalization processes have exponentially gained latitude? How does the circulation of financial numbers then mediate and translate between the global and local? And how is financialization reflected in everyday life, in its organized and less organized, work and leisure settings?

The kind of research field in which engagements like these could coalesce might be identified as a distinct, interdisciplinary *accounting and finance track* in the academic discourse of social science, a strip of discursive engagements constituting a privileged attention space for research exploring the role of financial numbers in social life. The existence of this accounting and finance track constitutes a somewhat ironic discursive counterpoint to the increasingly institutionally codified segregation

of accounting and finance specializations in the organization of academic life. Acknowledging such barriers, a good strategy to transcend the respective partitioning of intellectual attention space (cf. Collins, 1998, pp. 37-40) may be to formulate more ambitious and, if you will, aggressive research programmes claiming academic jurisdiction across accounting and finance issues. Such programmes may be a prime lever for regenerating attention and discursive engagements across institutional barriers.

Tracking financial numbers – imagining a strong programme

Projecting the potential of this accounting and finance track, we would therefore like to conclude with a more strategic note posing the question of field formation. In science and technology studies, the "strong programme" in the sociology of scientific knowledge put forward by David Bloor in 1976 provided something of a founding document (cf. Bloor 1992, pp. 3-23). The strong programme claimed jurisdiction on explaining scientific knowledge for the emergent post-Mertonian field that was soon to align itself with studies of technology. Bloor's "strong programme" provided this field with an initial statement of ambition and attracted discursive engagement across established scientific disciplines. The affirmative continuations and sharp criticisms it attracted, the subsequent qualifications and modifications it incurred within science and technology studies all attest to its major impetus and its continuing role as a point of reference (cf. Lynch, 1993, pp. 71-102) - even actor-network theory as one of the most exacting criticisms of the strong programme from within science and technology studies has presented itself as a qualified response to it (e.g. Latour 1993, pp. 94-96). In transposing this sociological programme towards an interdisciplinary field of accounting and finance studies, paraphrasing Bloor (1992, p. 7) as closely as possible, a strong programme would read something like this (italics indicating deviations from Bloor's original formulation):

1. It would be causal, that is concerned with the conditions which bring about *calculative practices and their effects*. Naturally, there will be other types of causes apart from social ones *(...)*.

2. It would be impartial with respect to the truth or falsity, rationality or irrationality, success or failures of *calculative performances and outcomes, valuations, networks of circulation, accounting regimes, or programmes of governing by number*s. Both sides of such dichotomies will require explanation.

3. It would be symmetrical in its style of explanation. The same types of cause would explain, say, true and false *numbers, calculative practices, effective or defective accounting systems, calculative agencies or regimes*.

4. It would be reflexive. In principle its patterns of explanation would have to be applicable to its own *use and understanding of numbers and calculative practices*. *(...)* Like the requirement of symmetry this is a response to the need to seek for general

explanations. It is an obvious requirement of principle because otherwise *accounting and finance studies* would be a standing refutation of *their* own theories.[3]

Are causal explanations of calculative practices and their effects (ad 1), explaining both successes and failures (ad 2), doing so symmetrically (ad 3), and being reflexive about this (ad 4) goals accounting and finance studies should aspire to? What further modulations of the strong programme are called for to bring it in tune with current accounting and finance studies' concerns? Is there potential for an even stronger programme? Can a truly strong programme really be an interdisciplinary programme or do more ambitious research goals require a disciplinary footing? Are there disciplines more amenable to or, for that matter, of superior qualification for implementing a strong programme in social accounting and finance studies? And supposing that respective research will continue to be carried out in accounting and finance departments, with researchers educating future accounting and finance professionals, will the strong programme's reflexivity postulate not need to be somewhat radicalized? To what extent will accounting and finance studies want to become performative? And would this force its researchers to recast themselves more deliberately as a status group?

These are questions that cannot be answered here. They concern political as well as academic economies, relate to academic network-building, questions of scientific jurisdiction, and, too a great extent, as Bloor's last proposition has it, to scientific reflexivity. As guest editors of this special section, one essential motivation for posing questions like the above is to invite the readers of this journal to reflect not only on the underlying theoretical and empirical issues, but also on their own positions and engagements in the emerging accounting and finance track. How would strong programmes in social studies of finance and accounting relate to research projects across the fields? To what extent would research need to refine and flesh out the substance of such programmes? To what extent will discursive and institutional boundaries thus be reaffirmed or redrawn? The contributions to this special section constitute suggestions for intensifying discursive engagements across the fields in one or the other direction. They demonstrate more substantially what this introductory essay could merely sketchily illustrate: that the emerging accounting and finance track in academic discourse is based on a tangible convergence of quite fundamental research interests across the fields of accounting and SSF.

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[3] Cf. the full original formulation by David Bloor: "1. It would be causal, that is, concerned with the conditions which bring about belief or states of knowledge. Naturally there will be other types or causes apart from social ones which will cooperate in bringing about belief. 2. It would be impartial with respect to truth and falsity, rationality or irrationality, success or failure. Both sides of these dichotomies will require explanation. 3. It would be symmetrical in its style of explanation. The same types of cause would explain, say, true or false beliefs. 4. It would be reflexive. In principle its pattern of explanation would have to be applicable to sociology itself. Like the requirement of symmetry this is a response to the need to seek for general explanations. It is an obvious requirement of principle because otherwise sociology would be a standing refutation of its own theories." (Bloor, 1992, p. 7)

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