Understanding the 'market for information' through field research and theoretical development

John Holland, University of Glasgow, The Adam Smith Business School, University of Glasgow, Main Building, Glasgow, G12 8QQ, Scotland

Abstract

The 'market for information' (MFI) is a hidden but substantial mechanism in the world of accounting and finance connecting information about companies to the stock market via intermediaries. This paper seeks to extend understanding of the 'market for information' (MFI) through field research and theoretical development.

Field studies are used to develop an 'empirical narrative' for the MFI. The MFI involves economic, knowledge and social processes in production, exchange, and use of information. Knowledge and social contexts are central to MFI economic processes, in MFI firms and in their individual agents and decision teams. The latter include, inter alia, company top management, fund managers and analysts. A MFI 'change spiral' involves interactions within and between economic, knowledge and social change processes. This involves mutual and reciprocal changes in these elements. Theory has to match the empirical narrative and phenomena to offer a more comprehensive explanation of the MFI. Conventional finance theory provides a traditional way to interpret economic aspects of empirical findings. However major failures in this market and in understanding the MFI during the financial crisis have been attributed in part to this framework. The field studies have begun to recognise the theoretical and operational problems *but in a piecemeal way*. As a result this paper seeks to develop the conceptual framework to analyse these issues in a more comprehensive manner.

The paper develops a new conceptual framework or 'theoretical narrative' to extend understanding of the MFI. This uses Stones's (2005) 'strong structuration' theory to interpret MFI empirical findings. It is also used as a comprehensive theoretical 'umbrella' for connecting literature relevant to interpretation of empirical findings. Stones (2005) and related literature are employed to interpret **ongoing** MFI processes and structures. Stones (2005) and Merton's (1995) 'financial innovation spiral' are used to explore **longer term** structural change and evolutionary processes in the MFI. Both sources are jointly used to interpret mutual and reciprocal changes in economic systems, knowledge creation and social structures. This reveals the opportunities for further theoretical development to both Stones (2005) 'strong structuration' theory and Merton's (1995) 'financial innovation spiral'. It shows the combined relevance of these theoretical sources to the study of accounting and finance phenomena and places finance theory in a wider explanatory context. The paper demonstrates that a coherent combination of new empirical narrative and theoretical narrative is essential to develop policy prescriptions to deal with problems and change in the MFI.

1. Introduction

Golden-Biddle and Locke, (2007) distinguish between what they call 'field based stories' and 'theoretical stories'. In this paper 'field based stories' refers to the empirical findings about the changing information activities and intermediation processes in the wider MFI. The 'theoretical story' is based on existing theoretical conversations in a field and it identifies the area of studies 'to which researcher's grounded theorizing can make a contribution' (p122, Locke, 2001).This refers to a range of conventional literature and theory in finance, management, behaviour, sociology of finance, and institutional setting. This paper aims to develop both the empirical narrative and theoretical narrative concerning the MFI, its agents and their parent firms.

Section 2 of the paper seeks to understand the 'market for information' (MFI) through a range of field research studies. Section 2 reviews these qualitative studies and summarises the main empirical constructs derived from this research in an empirical model of the MFI. The field studies reveal major areas of empirical constructs in MFI agents, parent firms and the MFI including ideas of domains, elements, interactions, time, change, and specialist aims and purpose. In section 3 these empirical constructs are connected in an 'empirical narrative' or dynamic model of the MFI.

The MFI empirical constructs are the basis for theoretical interpretation in sections 4, 5, and 6. Section 4 discusses how conventional finance theory provides a traditional way to interpret economic aspects of the empirical findings. However, there are major limitations to this conventional theoretical approach and these contribute to problems in MFI functioning. In addition, major failures in this market and in understanding the MFI during the financial crisis have been attributed in part to this conventional framework. The field studies have recognised the theoretical and operational problems concerning the MFI *but in a piecemeal way*. As a result this paper seeks to develop the conceptual framework to incorporate these issues in a more responsive manner.

Novel approaches are developed in sections 5 and 6 to extend the theoretical framework, theoretical narrative, and empirical interpretation. These explore how knowledge, social and behavioural factors play a role in enhancing company management, analyst, FM, and wider MFI economic processes. In particular, Stones's (2005) 'strong structuration' theory is used in two complementary ways. It is used to interpret empirical findings on the MFI and its 'local' 'finance and investment society'. Stones (2005) is also used as a comprehensive theoretical 'umbrella' for connecting and exploiting a wide range of literature relevant to interpretation of the empirical findings. In addition in section 6, Merton's 'financial innovation spiral' (1995) is used to interpret the economic change process in 'information firms' and their agents in the MFI. *This idea of a change spiral is extended to include changes in knowledge and social structure*. Stones (2005) 'strong structuration theory' and Merton (1995) are jointly used to interpret mutual and reciprocal changes in economic systems, knowledge creation and social structures. This reveals the opportunities for further theoretical development to both Stones (2005) 'strong structuration' theory and Merton's (1995) 'financial innovation spiral'. This paper can be seen as theoretical contribution to both Stones (2005) 'strong structuration' theory and Merton's (1995) 'financial innovation spiral'. It shows the combined relevance of these theoretical sources to the study of accounting and finance phenomena. Section 7 notes how ongoing problems with knowledge and social factors played a role in weakening, impeding and eventually destabilising economic processes in the MFI, agents and their parent firms. These were important factors in creating problems in agents and the MFI, during the crisis of 2007-09. In section 7 it is argued that knowledge and social factors are also part of a solution. These include improved, transparent knowledge of business models of companies, analysts, and other agents. These provide part of the *building blocks to model the larger MFI*. They also include active use of social forces and knowledge to create critical and reflexive performativity conditions in analysts, FMs, other agents and the MFI. The paper demonstrates that a coherent combination of field research (as a new empirical narrative) and new theoretical narrative is essential to develop policy prescriptions to deal with problems, crises, and change in the MFI.

2. Field studies in the market for information

Section 2 of the paper seeks to understand the ‘market for information’ (MFI) through a range of field research studies. Figure 1 illustrates a simple form of the MFI and three core information market firms and their agents involved in the field studies. These include companies and their senior executives and corporate communications staff. They include fund managers, and analysts as firms, teams, and individuals. Interaction involve MFI structures and states influencing MFI agent actions. The actions of MFI agents and their parents during ongoing information production, exchange, disclosure and decisions alter individual agent and firm states, overall MFI states and stock market states. They also alter ‘civil society’ states. Over time ongoing activities play a role in changing MFI structures.

Given the scope of the MFI it is difficult to conceive of a single comprehensive field study to explore the nature of the MFI. However, many researchers such as Gibbins, Holland, Marston, Roberts, Barker, Chen, Danbolt, Doran, Mayorga, Haig, Rees, Maisne, have conducted field studies into aspects of the ‘market for information’ in the near twenty five years between 1990 and 2014. The sources are summarised in Table 1. Appendix 1 contains details of the field studies used. These field studies provide many insights into the workings of the MFI as seen from the perspective of specialised actors in the MFI. The combination of these field studies can be interpreted as a connected and coherent grounded theory research programme to investigate these specific areas and the wider MFI. The studies involved research, inter alia on;

- Company business models, the role of intangibles and intellectual capital in corporate value creation and the disclosure of this information, in private and in public to a range of MFI actors such as sell side analysts and fund managers.
- FM use of public and private information about companies derived from companies and analysts.
- Analyst’s use and exchange of public and private information about companies derived from companies and other sources.
- FM and analysts business models, the role of their intangibles and intellectual capital in information intermediation and value creation and the disclosure of this information, in private and in public to a range of MFI actors such as company top management.

These field studies share many common features such as

- Focussing on the same research setting in the form of the ‘market for information’
- Investigating how specialist MFI actors produce, use and exchange information
- and how they operate in the MFI.
- These specialist actors include corporate financial communications, FMs and analysts.
- Their activities and the research topics area are closely linked to each other.
- Their collection & processing of similar qualitative data on MFI agents and activities.
- They have used similar data types and qualitative research methods

The many common factors in the field studies all provide a means of comparison and integration of the research studies.

3. What do the field studies tell us about the market for information?

The field studies revealed many areas of empirical constructs in the MFI including ideas of domains, structures, processes, elements and actors. Table 2 summarises the constructs discussed in section 2. They included structures, interactions (processes), within and between firms and markets. Domains included Economic, Knowledge/Learning, and Social contexts. Purposeful processes involved Economic/Information, Knowledge/Learning, and Social processes. Structure included formal and informal structures in MFI information firms (hierarchy, social) and in markets (networks/relations*).* Actors or agents included Company top management, FMs, analysts, financial media and others. The constructs involved specialist functions, business models, aims and purpose of expert MFI firms or actors. They included specialist information activities in economic and information domains, and knowledge and social domains (or contexts). Short term, medium and long term time dimensions were central to the MFI. More specifically they involved current time progression, change, and ongoing outcome states in markets. Longer term change, knowledge creation, and longer term evolutionary outcomes in firms and markets were important themes for the MFI.

An empirical narrative about the MFI

The review of prior field studies, each focussing on parts of the same empirical phenomena, illustrates how many connected insights into the wider MFI phenomena can be gleaned. In this section, the major areas of empirical constructs are connected in a dynamic model of the MFI. The field studies reveal how the 'market for information' (MFI) is a hidden but substantial mechanism in the world of finance connecting (information about) real companies (and their competitors and product/factor markets) to financial markets such as the stock market (and vice versa). The 'market for information' is an intermediary mechanism to process, create and exchange information and knowledge (about companies and their transactions) for various purposes such as corporate valuation, assurance, and accountability.

The field studies have focussed on core actors such corporate executives and financial communications staff, analysts and fund managers. Table 2 highlights the central role of their distinct and specialist functions and aims in the MFI. They show their specialist information roles and business models, and their central role in both economic and social processes. Their information production, exchange, disclosure and decisions actions within the MFI network altered economic, information knowledge, and social states in individual agents and their parent firms, and in the overall MFI. These in turn played a role in changes i*n price, volume, volatility, and liquidity* in the stock market. They also interacted with (influenced by, changed) 'civil society' states such as legitimacy of MFI agents and their parent firms and the demand for regulation. The MFI was made up of companies (and their competitors) disclosing information to specialist information production firms and their individual agents, and to financial markets, who in turn produced information for others. The MFI was made up of an informal **structure** of 'relations' and networks of specialist information production and use firms and their agents or **actors.** The agents included corporate executives and financial communications staff, analysts, fund managers, investment consultants, auditors, rating agencies, investment banks, financial database firms, financial journalists and news media firms, regulators and others. The MFI included MFI **states** (within existing MFI structures) such as states of established knowledge, consensus and reputation states (concerning companies and agents). The state outcomes included start, transient, and ending states of understanding, confidence, consensus etc. Over time they involved maintenance of social and knowledge structures and of changes in them. **Interactions (ongoing, current)** between agents included economic transactions, knowledge exchanges, and social interactions. They also included ongoing interactions between agents and their parent firm social structures and MFI social structures. The structural elements provided the relatively stable organising order to allow much informal and formal production and exchange of information to take place between these market participants and for economic transactions to take place. Power's comment about financial auditing operating as 'part of a wider network of mutual assurance and co-dependency, indicates that the 'market for information' was a key part of a 'web of assurance that contributed to financial stability' (Power 2009). The MFI involved economic, knowledge and social processes. Economic processes involved the production of information and knowledge for value or wealth reasons in companies, analysts, journalists FMs and other information market firms and their agents. The MFI processes also included the impact of social and knowledge forces on the economic processes. The economic and social processes occurred together in a complex system of dynamic interactions.

Economic processes - producing information, knowledge, judgements, decisions, outcomes

In conventional finance theory terms, the economic processes of MF agents, their firms and the MFI existed to overcome information problems between suppliers and users of risk capital. They existed to overcome information problems between various suppliers and users of information in capital markets. Economic processes such as ongoing information production, disclosures, decision actions and behaviours of company executives, analysts and FMs were also much influenced by events and by social and knowledge contextual factors. The studies revealed how information market firms (and their key teams and individual agents such as company top management, analysts and FMs) faced similar public and private disclosure choices in the market for information. The MFI agents and firms also applied an explicit economic logic to their information production, exchange and disclosure activities. Each Agent publicly disclosed structured information according to reporting and stock exchange requirements. Agent private disclosure content, to clients and other MFI information counterparties, also incorporated a structure based on corporate value creation structure and narrative structure. This was critical in making "invisible" intangibles in company value creation visible to other MFI actors. Both 'soft' intangibles information and 'hard' financial information about companies were produced, changed and combined in individual agent information production and intermediation processes, and in wider MFI exchange processes. Subjective sources of information on company intangibles were used in numeric estimation and valuation models. Behavioural issues of bias and optimism were evident in individual agents operating in the MFI.

More specifically, each of the information market firms, their agents, and other MFI participants produced and exchanged information about company tangibles, company intangibles as intellectual capital (IC) assets, value creation processes and value, and how they changed with changing events and circumstances (threats and opportunities). Through many interactions they inferred invisible aspects of company business models such as the role of intellectual capital (IC) in value creation and company value, as well as in company information production and disclosure. This created MFI agent capabilities to check and test company value creation, actions and disclosure, and to produce their own information about such areas. External observers of companies, such as analysts or FMs, differed from company management in their views on the nature of the corporate business model, the value creation process and financial implications. This reflected their different perspectives, tasks, prior knowledge and information sources. Similar processes existed between other agents such as analysts and FMs, as they probed each others' tangibles, intangibles, invisible value creation processes, and reporting processes and the implications for the credibility of the information they produced and decisions made. Such evaluation processes were important to MFI agent counterparties. However much of the external social structure and knowledge about it, was normally 'taken for granted'. Agents expended less time and effort on this compared to their focus on similar issues in real companies and their own parent firms.

The MFI agents produced their own specialised judgements (valuation, audit, rating etc) about companies and related economic events and market changes, and added their own MFI based reputation to their judgements to provide assurance. MFI agent disclosure of this new company information ('news', advice provided, forecasts, valuations, ratings, assurance provided) created expectations about companies for economic actors, and influenced and changed the behaviour of actors (eg FM investment actions). The actions of each MFI agent provided information for other MFI agent decisions and the means to legitimate such decisions. These processes constituted value creation processes in MFI agents and their parent firms when using their own IC, with this being partially visible and invisible to other market players.

Knowledge and other resources - and their impact on actions and economic processes:

Understanding of knowledge intensive intangibles and their dynamic interactions in company business models and value creation was important to MFI agents such as analysts and FMs in their information production, disclosure and decision making activities. Understanding of their own knowledge intensive intangibles and dynamic interactions in intermediation models (information, financial) was also central to their own value creation activities. As a result, learning and knowledge creation by MFI agents over time about; companies, the agent themselves, other agents, and the MFI, was an ongoing (often implicit) activity. Over many periods knowledge was formed in MFI agents and shared in MFI social and economic contexts.

MFI agent knowledge was dominated by expert knowledge or knowledge based on experience. There was some use of academic theories of the firm and concepts of knowledge. There was some formal use of neo classical finance theory amongst MFI agents and their parent firms but this was a low priority relative to own expert knowledge. Finance theory was limited because of perceived problems of its usefulness. Many other resources were important to MFI agents and their firms. The above studies revealed how information market firms (and their agents such as company management, analysts and FMs) were organisations that supported their key teams and individuals to achieve firm aims. The information market firms employed organisational processes to mobilise resources (financial, tangible as well as knowledge) within their firm hierarchy to enhance individual agent and team decision conditions, to reduce decision costs, and to focus information production processes in the information firm. Relations 'resources' between information firms (and between their agents) such as trust and confidence, and MFI based company resources such as 'reputation' could also enhance individual and team decision conditions.

Social context and social forces:

The field work also revealed that four levels of social context influenced the behaviour of individuals and teams in companies, analysts, FM and others. They included individual and team contexts, organisational parent context, 'relations' contexts with others, and the wider MFI social and economic context. These social contexts were the means by which social forces influenced the behaviour of individual agents and teams. For example, the MFI was a market between many sophisticated and long established information firms, as well as a market between individual agents and between teams. It was a social context which had norms of behaviour and expectations for information exchanges. Similar comments can be made about the MFI firm internal organisation context and the external 'relations' context. This view is a sharp contrast to neo classical or behavioural views of financial markets as made up 'rational man' or as 'psychologically biased man'. Such social contexts, at times, played a role in controlling (eg agent's parent organisation) or exacerbating (eg via MFI and relations) *biases* in individual agent behaviour.

Influencing and being influenced by their knowledge and social contexts in the MFI networks was important to information market firms, and their teams and individuals, during economic processes and when pursuing their economic aims. The MFI social context (as 'relations' and networks) and various meetings and interactions (expected, actual) shaped the subjectivity of individual agents and teams in their parent firms and 'disciplined' their behaviour to conform to wider MFI social norms. At the wider market level the MFI market mechanisms and associated social networks (and relations) were means to exchange and diffuse information, knowledge, and confidence between many market participants *and for this to form into equivalent aggregate market and social network states*. Market transactions, decision actions, and social interactions and influences were the means and focus for exchange and diffusion. This in turn affected security market prices, liquidity, volume trades, and volatility.

Dynamic change processes over time:

Economic processes in the MFI such as ongoing information production, decision actions and behaviours of companies, analysts and FMs were much influenced by events. Sections 2 and 3 have briefly indicated how the MFI and individual agents and their parent firms also evolved together over time. Longer term economic processes in the MFI involved a variant of Merton's 'financial innovation spiral' (1995) whereby key elements such as: the forms of information intermediation; their information products; information users and their needs; and the wider market for information; evolved together over time. This economic change process was part of a larger MFI 'change spiral' which involved interactions between economic, knowledge and social change processes over time. Economic processes, both ongoing and longer term, were also much influenced by events and by social and knowledge contextual factors. These economic processes in turn influence expert knowledge creation and social construction in the MFI. Thus mutual and reciprocal interactions occurred both short and long term between economic, social and knowledge factors in the MFI.

4. Finance theory and literature use in explaining the MFI - A conventional theory narrative

Section 4 discusses how conventional finance theory provides a traditional way to interpret the empirical narrative. However, there are major limitations to this theoretical approach and these contribute to problems in MFI functioning. Historical finance literature on the MFI does provide interesting insights into the MFI. Gonedes (1976) remarks on the significance of the 'market for information' for understanding theoretical concepts of 'market efficiency' and 'asset pricing'. Keane (1983) notes that the underlying empirical structure of the market was highly significant for an efficient security market and

'*Perhaps the most outstanding feature of the securities market, and the one that more especially sets it apart from others is the highly organised and elaborate information machinery which services it'*.

Barker (1995) provides some initial empirical insights into the nature of the MFI and notes that; '*The evidence suggests a two-part theory (of the market for information). First, it is argued that 'raw' data flowing directly from companies is of considerably greater importance to fund managers than 'processed' data generated by analysts. Second, analysts are nevertheless argued to play an important role in the market for information, as both mechanisms of information efficiency and as providers of benchmarks for consensus valuation. This theory implies that the research literature has paid insufficient attention to the role of accounting information in direct communication between companies and fund managers and, related to this, that the role of analysts in share price determination has been overstated and only superficially understood'*.

A finance theory explanation for the MFI and its agents and firms involves the following arguments**.** The economic processes of MFI agents and their parent firms exist to overcome information problems between suppliers and users of risk capital. They exist to overcome information problems between various suppliers and users of information in capital markets. MFI individual agents, teams and their parent firms make extensive use of expert knowledge to reduce transaction costs. This expert knowledge is the means to reduce Information asymmetry (IAS), Adverse Selection (AS), Moral Hazard (MH) and hence transaction costs for key services (production of information and assurance) provided by MFI agents (such as company top management, analysts, financial journalists, FMs etc) in the MFI. This also creates opportunities for economies of specialization in production of information services, scale economies in information acquisition and production, and for reduction in search costs when conducting information based transactions. In turn, this makes the production of new types of service possible eg specialist ratings, analysts forecast, and journalists 'news'. It makes information intermediation possible between companies and financial markets. This makes information intermediation within and amongst information market firms possible and in superior ways to less well informed competition. These conventional finance theory view-points provide the means to understand, *in part*, information conditions under which surplus risk capital can be efficiently allocated to those in need of capital. The above makes explicit information conditions and intermediation means by which public information is efficiently impounded into stock prices. The same arguments can be used to explain why the larger 'organisation' or network in the form of the 'market for information' exists. The many specialised firms and agents operating in the 'market for information' network, are the collective means to overcome information imperfections and transaction cost imperfections, and allow transactions to occur in the wider financial markets. Thus specialist information firms and their agents operating in their own specialist market, when combined in the larger MFI network are the collective means to reduce IAS, AS, MH for each company, sector, and the whole economy. They are the collective means to improve confidence and assurance in financial markets. The networks connecting them reflect Power's (2009) ideas of a 'web of assurance' or confidence across the market.

However, despite appearing plausible, conventional finance theory for financial markets and intermediation (Scholtens and Wensveen, 2003), and the established literature on specialist information firms and agents have insufficient explanatory power concerning their role in the MFI. This literature does not capture the wealth seeking and wealth creation activities of these actors (Scholtens and Wensveen, 2003), and the impact of ongoing change (Merton, 1995). Conventional corporate disclosure literature focuses on the stock market impact of disclosure and provides limited insight into corporate financial communication processes (Holland, 2005). The conventional sell side analyst literature has a strong emphasis on analyst quantitative outputs (Bradshaw, 2011; Lo, 2012) but provides few insights on the actual role of analysts. Conventional fund management (FM) literature focuses on investment decisions and provides limited insight into FM information production and use processes (Holland, 2006, 2014).This paper seeks to extend the existing theoretical approaches to understanding in the MFI and its agents and firms.

Finance theory focuses on economic processes and ignores many of the related empirical insights concerning MFI social and knowledge factors outlined in the empirical narrative in sections 2 and 3. Thus a major problem lies in the lack of relevant conceptual framework to interpret empirical findings about corporate financial communications, analysts, journalists, FMs and others in their wider market and social setting. Finance theory is too narrowly focused and static to explain the complex, changing empirical phenomena revealed by the field studies (Holland, 2010, 2104 and Coleman, 2014). In particular the field studies reveal that many connected knowledge, information and social problems arise in the market for information (MFI) and affect economic functions of specialist information agents and the MFI. These issues arose over time and only become evident during events such as the 2007-09 banking and financial crisis.

The field studies discussed in previous sections have recognised problems with conventional theory and begun to develop the theoretical means to understand the MFI and its agents and firms. The theoretical aim of the paper is to expand the conceptual frame to create a more comprehensive and structured means to explain the role of MFI agents and firms in the MFI and their activities in these contexts. As a result, in the next section 5, the paper uses a range of relevant literature and theory to develop a comprehensive theory base and explanatory setting to interpret and criticise the empirical findings on MFIs as information intermediaries and their roles in the market for information.

5. Theoretical development in the MFI using a broadly based conceptual frame
- A new theory narrative

Section 5 of the paper seeks to extend the understanding of the 'market for information' (MFI) through theoretical development. The field studies indicate that economic processes in the MFI such as *ongoing* information production, and decision actions by agents in companies, analyst's research functions, and FMs were much influenced by social forces, knowledge contexts and by ongoing events. Longer term processes of knowledge creation played a role in changing economic activities and supporting social structures.

In this paper Stones's (2005) 'strong structuration' theory (SST) is used in two complementary ways. It is used to interpret empirical findings on the MFI and its 'local' 'finance and investment society'. It is also used as a more comprehensive theoretical 'umbrella' to connect a wider range of literature relevant to interpretation of the empirical findings**.** This is consistent with Stones (2005) view that: *'Structuration theory needs other theories and perspectives to provide such frames, just as other theoretical approaches would often do well to call on the resources of structuration. [Stones, 2005: 6]*

In Section 5 the additional literature is used to enhance understanding of ongoing operational and economic processes in social and knowledge contexts in the MFI, and in Section 6 it is used to explore longer term structural change and evolutionary processes in the MFI. Major barriers to change and problems leading to failure are also discussed. The scope of the analysis is limited to the MFI and its agents and firms. The MFI forms a large scale social and economic system with its own unique functions, agents, networks, technologies, regulatory structures and behavioural norms and practices. For the benefit of simplicity and abstraction it is assumed to operate (for long periods) in a stable and semi-autonomous manner relative to the larger social system and economy of which it is part and depends on for legitimacy and economic function. The interactions and interface between the MFI sub-system and the larger social system become more evident in periods of change and crisis and this is noted in section 6.

Social and knowledge forces and their impact on economic processes in the MFI.

In practice, individuals and teams and their decision processes are situated in larger parent firm contexts as well as MFI wide knowledge, social and economic contexts. 'Micro' processes in individual agents and teams in their parent firms are much influenced by the 'meso 'setting in their parent firm and the 'macro' setting in the MFI. A broadly based conceptual frame is required to explain specialist information production, intermediation and use processes by agents and their connections within social setting in the parent firm and the 'market for information' (MFI).

Jack and Kholeif (2007) have provided many arguments for the relevance of Stones (2005) and for SST to be used to explain empirical insights in accounting (and by implication finance). The SST provides a novel conceptual framework to interpret the MFI empirical narrative. The empirical findings on the MFI resemble many aspects of Stones (2005) 'Strong structuration theory', especially his four part elements of external structures, internal structures, active agency and outcomes. Stones (2005) argues that duality of agency (by market actors) and social structures (such as the MFI) is best understood via analysis of a quadripartite framework of these four interrelated components. A limitation of the paper is that the field research was focussed on exploring sections of MFI activity and was not initially designed with SST in mind. Given the need to explain many empirical insights on MFI structure, agency and change, SST is used as an appropriate and concrete means to explain (Stones, 2005) the MFI using concepts of structuration derived from Giddens (1984). SST is used as means to interpret the broad scope of these studies and to infer duality in the MFI. The views of other closely related theorists such as Bordieu (1977, 1990) are used with Stones (2005) to interpret social structures in which agents operate (in their parent firms and the MFI) and to explain how they contribute to MFI structures. This reflects the duality of structure and agency whereby MFI agents and MFI structures mutually perform social systems, and social systems become part of that duality.

As Jack et al (2014) argue, Stones (2005) ….'encourages researchers to explore empirical case studies of particular agents and structures, where individual agents are situated in a web of position-practice relations. Whilst the duality of structure remains its defining construct, Stones asserts that the duality is best understood through analysis of a quadripartite framework of interrelated components, comprising external structures, internal structures, active agency and outcomes'.

Within the Stones (2005) 'umbrella' theoretical literature provides more specific interpretations of MFI elements. Sources such as Bordieu (1990) and Mackenzie (2006), are used to develop further theoretical insights into MFI structures, processes, and states and the specialist role of company financial communication experts, analysts, journalists, FMs and others. The focus is on the tripartite links between company management, analysts and fund managers, but other actors such as auditors, credit rating agencies, financial media and others are recognised as equally important to the MFI. Bordieu's (1977, 1990) ideas of habitus, field or domain, cultural capital and tacit knowledge, provide further insights into **the structure** of these MFI social systems and their social capital and logic. These ideas can be applied to company management, analysts, financial journalists, and FMs and their understanding of the market for information and related financial phenomena. Mackenzie (2006), Meusberger (2009), Henningsson (2009), and Knorr Cetina & Bruegger (2002), are used to interpret the role of knowledge and social forces in the MFI and 'relations' and their impact on actors such as company top management, analysts and FMs. Literature on intellectual capital (IC) as in Meritum (2001) and literature on the firm (Barney 1991,) are used to interpret the nature of knowledge and its use in the roles of these actors in markets, 'relations' and the parent firm.

The MFI theoretical analysis starts with the empirical narrative based on 25years of field based studies. The MFI based field studies show many examples of where researchers have framed questions to draw out from agents such as company managers, analysts and funds, their knowledge of themselves, of their actions and interactions, of their specialised communities and of their larger MFI context. Elements similar to the quadripartite frame (Stones, 2005) such as specialist MFI agent knowledge, external structures, and specialist agent actions have already been identified in the field studies. Each major category in the quadripartite nature of structuration is used as the framework for analysis of relevant material within this empirical narrative. As suggested by Stones (2005) the section begins by focusing on the external structures facing individual agents. These include the agent parent firm context and the larger MFI context and its 'local' 'finance and investment society'. Three levels of analysis are adopted at macro (MFI), meso (agent parent firm) and micro (agent) levels. The section also focuses on the internalising and understanding of the external world by agents, and the impact of these on agent actions and behaviours in these social contexts.The aim is to explore how combinations of Stones's four elements and other literature sources can be used to interpret and explain the empirical field research on the MFI and its primary agents.

5.1. External Structure for agents –Market social structure, processes and states

In Stones (2005) terms, external structures form the conditions of action, which may be either enabling or constraining. They can also be conceived as networked ‘position-practices’

In the MFI the external structures for individual agents include their own parent firm, other information production firms and their agents, and the social and economic connections between them. They include markets for exchange of securities and many specialist financial firms. They include financial regulators and other representatives of civil society and the state.

Specialised elements of the **MFI social structure include, inter alia, t**he company financial communication function, the analyst information intermediation function, the FM investment function, and other specialist information firms such as auditors, financial media and rating agencies. These structured ‘information engine’ firms contribute to market structure, processes and states and are influenced by them.

The network and market structure of the MFI and its information production and knowledge use processes provide the larger **external** organised context in which the purposeful agents operate. The MFI is the institutional means to connect corporate information supply activities to security market information demand activities (Keane 1983, Barker 1995, Holland and Johanson 2003). The MFI is also a ‘community of practice’ (Lave and Wenger 1991) and a ‘market for knowledge’ (Meusberger 2009) or of intellectual capital (Holland, et al 2102), whereby knowledge of companies, of economies, of markets and of market agents, is created, used, exchanged and shared. Knowledge creation and use processes and knowledge based capabilities lie at the heart of information production, analysis and reporting/disclosure in the market for information and of information use in security markets (Holland et al, 2012). Information production, exchange and use by company management, analysts, journalists, FMs and others, are part of a larger MFI process. Individually and collectively many connected market actors create information and assurance about information. This creates supportive conditions for accountability.

Henningsson (2009) argues that people such as company management, fund managers, analysts and other MFI agents are a part of many different social systems and are therefore influenced by different social logics. Fogarty and Rogers (2005) argue that the social and institutional context surrounding financial analysts affects how they make their recommendations. In this paper, it is argued that MFI agents such as company management, analysts, fund managers and others operate in the structured contexts of their parent firm and work teams, and their networked relationships in the market for information. These social structures constrain and influence individual choices and actions as well as creating capabilities and opportunities for purposeful action. Both Giddens (1984) and Stones (205) argue that external structures exist irrespective of MFI agents and are relatively autonomous from the MFI agents they affect. These external structures are the source of social norms, control the distribution of resources and apply sanctions for unacceptable behaviours. These structures, norms, resources and the distribution of power in the structures enable or constrain the flow of information in the MFI.

In the MFI, Stones (2005) idea of external structures as conditions of action can be expanded to include structures and **structural states** in the MFI. These are structures and **states** that are;

- Completely autonomous of the agent –such as existing networks, specialist information roles, and means of information and knowledge exchange. States within these structures included market wide prices, and market overall confidence in economy
- Irresistible external influences - Market bubbles that agents know are wrong but cannot defy.
-Partially autonomous of the agent – Such as company stock price, market confidence in company
-Facing actions by agents to change state conditions (not structures) for other agents – This includes fund managers and analysts trying to change states (price, information, understanding, confidence) for individual companies or sectors.

A key part of the external structure for Stones (205) concerns **'position practices'** or webs of interdependencies that an agent is in and which connect structure and agency. Company management, analyst, FMs, journalists and others occupy these 'position practices' in the MFI and take action in and 'perform' these structures. In terms of a key MFI agent, Jack and Kholeif note (2008, p34) "to speak .. of a Chief Financial Officer, is not only to refer to a positional identity, but also to a set of structured practices which position -incumbents can and do perform –whether the incumbent chooses to act as expected or to do otherwise". Position-practices existed as social position and associated identity and practice for MFI agents in the structures of their own firms, and in the network of social relations in the MFI. They acted to mediate the influence of external structures in the MFI on individual agents.

Bourdieu uses the concept of 'fields' where a field is a network, structure or set of relationships. In the MFI this refers to the social contexts in which company managers, analysts, fund managers, and other agents act and reproduce their behaviours, and compete for information advantage and power through human, relational and reputational 'capitals'. This paper recognises two major levels of network relations, one 'meso' level inside each agent's parent firm, and the other 'macro' level in the MFI. Agents' internal relations with others in their parent firm and their joint activities contribute to organisational structure, processes and states, and are influenced by them.

Agents' external relations with others in the MFI and their joint activities contribute to market structure, processes and states, and are influenced by them. For example, analyst external 'relations' with companies (Fogarty et al. 2005), with fund manager clients (Holland 2006) and with other information producers and users are subsets of larger networks and form a core part of the MFI field or social structure. Trust and confidence in (high quality) networked relations are essential for the existence of routine reproduction of social structure in agent parent firms and the MFI. Network relations structures form important social contexts for mediating agent information processes (research, analysis, reporting, disclosure etc). For example, the quality of analyst external relations (or 'relationship capital', as in Meritum 2002) have an impact on the quality of information flows during external acquisition from companies and external reporting to clients. These social contexts create supportive conditions for the exchange of both 'soft' information and 'hard' information within the analyst parent firm (or bank as in Stein (2001) or mutual fund as in Chen et al (2004)) and between MFI actors.

The network and market structure of the 'market for information' (MFI) and its information production and knowledge use processes, provide the larger organised context in which companies, analysts, journalists and FMs operate. Actor-network theory (Latour, 1987, 1993) can aid understanding of the market for information. This can be used to interpret the circulation of knowledge and information about companies in social and economic relations in the world of finance, as flows and exchanges in a dynamically evolving structure of network relations. The market and networks consists of alliances of actors (people and firms such as company managers, analysts and fund managers) who are involved in the invention, construction, distribution, performance and usage of knowledge and information about companies. They are also involved in feeding back market information to companies.

Various means are present to connect the people and elements in the market (Technology, trusting relations in networks, markets, and regulations). Major social interactions or inter relations arise between people and other elements such as in information production and exchange processes, and regular transactions between parties. These form value creation processes for MFI participants. A key question is; How stable or transient are the above elements and processes? Stable contextual elements such as shared or established knowledge, stable relations in networks, and stable company narratives etc are the basis for stability in behaviour, actions and outcomes. Rapidly changing circumstance and events encourage transience in states in the network and its processes. Persistence in such change processes play a role in eventually changing structures.

Power is an essential ingredient when discussing these external structures. Bordieu's ideas (1990) suggest that power in information production firms in the MFI and their agents is likely to arise from factors such as their size and control over resources such as knowledge, information, financial capital, and their specialist information related skills. As a result of successful actions these can contribute to and enhance additional MFI based resources such as firm and agent reputation and relationships in the MFI. Combinations of these resources determine relative bargaining power of MFI agents over the supply of, and exchange of information, and their ability to impose sanctions. For example company top management have 'information supply' power over buy and sell side analysts. Fund managers and their buy side analysts have economic power (based on fees and trading commissions) over which sell side analysts to choose from as sources of information. Fund managers have 'governance' and 'ownership' power over companies when demanding information. Sell side analysts have 'technical' power arising from their specialised knowledge of companies in sectors. Sell side analysts have 'parent' power arising from the prestige of their parent investment bank. Such relative distributions of power in the MFI structure effects the capabilities and actions of individual agents such as sell side analysts. For example, bank sell side analysts found it difficult to explore bank business models in the period before the great financial crisis of 2007-2008. Bank top management were not prepared to discuss the radical changes here and buy side analysts showed little interest in the issue (Holland, 2010, Chen et al 2014). Company top management, fund manager and buy side analyst power to control information resources and to set information agenda and exchange behaviour norms and to activate sanctions against 'non co-operative' sell side analysts remains an important feature of the MFI.

External structure for agents – Parent firm organisation and team structures

The internal social context of the agent's parent firm is an important source of the social forces influencing individual agents. We use literature on the agent internal organisational context (Schein 1989, Stein 2001) to interpret how organisational factors such as culture, reputation and power, hierarchy and inter team connections, incentives, special firm knowledge and conflicts of interest *influence* agent capabilities and information production processes. Holland (2014) and Chen et al (2104) also reveal insights into the impact of parent firms factors (in banks, and fund managers) on teams, individuals and their information production and use processes in financial markets.

The agent's information intermediation function and the task routines and knowledge associated with it, are conducted in the agent's parent firm and the MFI network of relationships. Agent understanding of these structures and of related intermediation processes (such as information acquisition, production, reporting and use) form important parts of agents' capabilities.

For example, Holland (2014) has demonstrated the importance of fund management firm factors on buy side analysts. Similar forces are at work with sell side analysts in their parent investment bank firms (Royal and Rowley 2012). Analysts parent firm structures and processes are intended to enhance analysts' individual capabilities (formal and informal), specialist knowledge, purposeful actions and track record as well as those of their teams, in the wider MFI social context. They are intended to improve analyst interactions, information production and information search and provision in the analyst parent firm. They are designed to improve analyst interactions, information production and information search and provision in 'relations' and the wider MFI network. They are intended to boost the development of analyst market reputation in the MFI, and to enhance analyst external credibility in the MFI concerning soft and hard information. Together these provide the means to create economic benefits for the analyst parent firm such as trading income, fees, investment opportunities, and information for transactions.

5.2. Internalise external structure?

Stones (2005) ideas suggest that individual MFI agents are socialized to accept the logic of the power hierarchies in the MFI network fields and parent firm organisation and to behave in an acceptable way for the position they hold within the MFI and parent firm social structure. MFI agents, such as analysts or fund managers, internalised practical ways of working from their previous learning experiences in the MFI field. They internalised their understanding of external structures and acted within their 'habitus' of socialised norms or tendencies (Bordieu (1977, 1990). 'Communities of practice' (Lave and Wenger 1991) in the MFI can be interpreted as sites ('Ba' as in Nonaka and Toyama, 2005 and Holland et al 2012) for the development of the habitus. Habitus refers to states of readiness (dispositions), habits, ways of doing, thinking and perceiving the world that MFI agents acquired as individuals or teams as they experience their working lives in the MFI. Habitus formed understanding structures that became internalised and were performed by MFI agents.

Making sense of the MFI world and actions by MFI agents was therefore based in part on these 'common sense' or taken-for-granted priors. Experienced MFI agents used 'habitus' in framing their external MFI world and internal parent firm world to make sense of what they were doing. This provided the basis for their initial thoughts and guided their everyday thinking, actions, and behaviour as events arose and circumstances changed. MFI agents operated purposefully within their ('comfort zone' or) familiar 'habitus' of known relations, networks, MFI based reputation, and well understood 'dynamic rules of the game' in this external environment. They also operated within a familiar parent firm and team setting, and within their own well understood agent task, skills and capabilities.

The existence of agent 'habitus' in 'communities of practice' meant MFI agents such as company management, analyst and fund managers were predisposed to structure relationships, networks, and states of trust and confidence. This in turn created conditions for financial communications and other information flows between market agents. This contributed to the field or social context in the 'market for information' in which knowledge construction and transfer, information exchanges and transactions took place between company management, sell side analysts and fund manager clients, financial journalists, investment banks and others. Other social factors and 'forces' in the MFI, such as norms of behaviour and a culture of secrecy in the MFI, modified these processes and outcomes. The outcomes included understanding and consensus states, and reputation and confidence states amongst agents (in position-practices) in networks in MFI social structures.

Key MFI based factors also included the perceived reputation, track record and credibility of company management and of sell side analysts as information sources and of fund managers as information users. Bourdieu's concept of 'capital' or social, cultural or symbolic capital is relevant here. In Bordieu's (1977, 1990) terms the reputation of individual analysts, FMs, financial journalists, their qualities and skills, and of their teams, senior management and parent firms were forms of prestigious cultural capital and knowledge. Corporate top management, their financial communications staff, and their reputation and skills also formed cultural capital and knowledge for firms in markets. Combinations of Bordieu's 'capitals' and financial capital were major sources of power for information market firms and their agents, and influenced their ability to acquire, exchange and use information. In this context Bourdieu's concept of 'capitals' is interpreted as the various knowledge based capitals or intellectual capital (Mertitum, 2001) used in the MFI such as human capital (analysts skills and capabilities), relationship capital, and reputational capital. This refers to internalised knowledge concerning MFI structures, information channels and processes which are shared and jointly created by MFI actors such as analysts.

Using Stones (2005) the paper argues that individual MFI agents general understanding of the external world of 'Finance and Investment Society' and of the MFI, as well as knowledge of their local information and decision situation were the mediums by which individuals interacted in a practical way in MFI external structures and took information related actions. At one level this was knowledge and capabilities that the MFI agent drew on without thinking, and at another level it concerned knowledge and capabilities specific to their specialised information role and decisions.

This included more general knowledge (general dispositional) and world views (Stones, 2005) about 'Finance and Investment Society' and the MFI world, its social structures and culture, and the roles of agents within it. It incorporated relatively unquestioned, taken for granted (and at times subconscious) ideas about the nature and role of financial capitalism, of money, wealth and power in the world economy. It included broad understanding of the roles of: key financial information technologies such as the internet, data bases, and accounting; of financial market exchange mechanisms; financial institutions; major financial centres; and their central roles in the narrative of capitalism. It included patterns of behaviour and habits of speech expected in real locations like the City of London and in virtual locations such the equity trading market and associated technology based information exchange mechanisms. These ideas are related to Bordieu's idea of 'habitus'.

This also included more specific knowledge about decisions and situations (conjuncturally specific) (Stones, 2005) for agents. Agents had to understand how others in their parent firm and MFI network acted, behaved and exercised power and how they legitimised the positions and actions of others. They had to understand how to conduct their own information related tasks, take action and influence others relative to behavioural norms in their immediate 'community of practice' and wider MFI networks. For example this would involve the positions and interactions between company management, analyst and fund managers. They had to understand how key parts of their MFI world changed over time and hence changed specific knowledge.

Specific knowledge about MFI agents and security markets was central to agents' decisions. MFI agents such as company management, analysts and fund managers exercised their powers of agency by exploiting their knowledge. Such knowledge existed in individuals, teams and firms and was embodied in structure, processes and behaviour (Meritum, 2001). Key knowledge for MFI agents involved academic theories of how the company business model functioned (such as in the RBV, Barney 1991 and IIRC, 2011, 2013) in competitive markets (Porter 1985). It contained knowledge of company valuation models and of security market pricing mechanisms. It involved intellectual capital (IC) about companies, analysts, fund managers and market processes (as in Meritum, 2001) and how these IC elements interacted in the MFI. Knowledge included collective stories and shared knowledge about the above, both tacit and explicit, within work teams and parent firms. It included understanding of how other external MFI agents understood the world, what their expectations of behaviour were and what power they could wield over agents especially over knowledge and information. This specific knowledge was at the heart of competitive advantage for MFI agents and their parent firms (Barney, 1991). It was the source of value creation for agents and their parent firm. It's specific and often tacit nature meant that it was restricted to MFI agents.

In practice both types of general and specific knowledge functioned together as 'knowledge for guiding action' and were not separable. They are discussed separately to illustrate their differing influences both unconscious and formal on agent practices and roles in MFI networks. The line between them could also change with learning. MFI individuals and teams such as analysts, fund managers or finance directors learnt in their professional 'community of practice' (Lave and Wenger 1991) and in the wider MFI community what the 'dynamic rules of the game' were concerning information actions and how they had to conform to them and how they might change over time. The latter indicates that imagination and learning relaxed some of the constraints of unconscious 'habitus' for these agents. This could change aspects of 'habitus' and of more specific knowledge over time. The financial crisis of 2007-09 showed how company management, analysts, fund managers and other MFI agents faced rapid change (Holland. 2010) and how this has (marginally) altered fundamental views of their world as well as more specific theories of company value creation and market pricing.

Stones (2005) notes this possibility when he argues *'One's taken-for-granted mode of being can be subverted and unsettled, making one suddenly conscious of that which previously was pre-reflective' (p.88).*

Knowledge problems concerned collective 'social blindness' (Henningsson 2009) in the form of conservative and dogmatic views of knowledge and how to use knowledge. Performativity pressures (Mackenzie 2006a,b, Chen et al. 2014) or pressures to only think and operate within 'established knowledge' also existed in the MFI and for specialists such as analysts and fund managers. This refers to situations where, the practical use of finance theory made finance processes resemble what they were described to be by theory. Thus 'knowledge' states of MFI agents included lack of understanding about economic processes, social processes, the distributions and configurations of power, meaning and norms within the field of action as noted by Giddens (1984).

5.3. Active agency, decisions and information production, and intermediation

Stones(2005) refers to active agency in which agents draw, routinely or strategically, on their internal structures or 'habitus' to guide action. MFI agents drew on their prior knowledge (general and specific) of external MF structures, and their socialisation within these structures, to frame and direct their actions within the MFI structures.

In this paper action refers to the active information research, production, disclosures and uses by MFI agents. These included, inter alia, company management disclosures, information intermediation processes by analysts and other actors, and information use by actors such as fund managers. The agent's information function or role and the task routines and knowledge associated with it, were conducted in the agent's parent firm and through network relationships spanning the MFI. Agent understanding of these more specific decision structures and processes and how to use them as events arose and circumstances changed, and as new information was required, was central to action. As a result, individual agents were purposeful actors in their information related activities set in the structured context of their parent firm, MFI relationships and networks, and security markets. These social structures constrained and influenced individual choices and actions. In Stones's (2005) 'strong structuration' approach, individual MFI agents such as company managers, sell side analysts or fund managers, creatively interpreted their current circumstances of actions as they ‘performed’ the existing social structures of their own firm, and the social structures of network relations with others in the MFI. Individual capabilities and unique behavioural characteristics enabled them to exercise some degree of personal choice in these contexts and played a role in their information activities.

Relative power was a key factor in choice and action. The scale and special combination of MFI agent and parent firm resources such as skills, relationship and reputational ‘capitals’ and financial capital affected agent information power relative to others and encouraged or constrained action by MFI agents. For example, inexperienced sell analysts operating in medium sized investment banks had limited access to management in large companies. In the same way the internalisation of structures made some behaviour socially unacceptable in the MFI. Public criticism of company top management and boards by sell side analysts was limited in this way. As a result purposeful action by MFI agents was not solely the exercise of free will in an economic context or determined solely by social forces. Interactions such as these are the basis to infer from the empirical studies that action by MFI agents reflected the duality of agency and structure in structuration (Stones, 2005).

Agent problems also arose because of social factors. For example, agents such as sell side or buy side analyst were subject to a range of fields especially their parent firm, MFI and analyst profession fields. These created tensions between roles expected in each field and was a source of major conflicts of interests for agents such as sell side analysts. These tensions and conflicts can distort analysts’ actions, behaviour and bias their research reports. Sell side analysts in investment banks have faced such problems in the recent past (SEC, 2001). Stones(2005) argues that individual agents can resist social forces (in part) if they have adequate knowledge, high personal capability, power, and opportunities for reflection. However, Holland (2010) points out that these factors were in short supply for MFI agents during the financial crisis.

Agent actions can take place in a stable or unstable MFI context, such as during the 2001-2007 pre crisis period and then during the crisis. These external conditions have a major impact on internal structure, habitus and agent action**.** A stable MFI habitus for agents, and many other knowledge and social based elements in the MFI acted as historic priors influencing current information exchanges and actions. A stable and well understood MFI created conditions for high quality information exchanges and other actions and behaviours to take place between agents such as company management, analysts and fund managers in the field and market context. The combination of agent skills, relationships, and reputation created conditions of trust and confidence for exchange of information. These elements enhanced agent credibility concerning the provision of soft and hard information in public channels or privately via relations.

This was especially true for exchange of subjective impressionistic information, and for creating confidence in the exchange of estimates of numerical information. In contrast to formal reporting, accounting, and public disclosure, they allowed impressionistic and subjective information to be created and exchanged (Holland et al 2012), and for additional private information (in excess of public information) to be exchanged by MFI parties (Holland, 2005). Changes in the external structure, habitus and action are discussed in section 6.

Ongoing Action as the core MFI economic process - and as a means for reproduction of existing structures at agent, parent firm, and MFI levels

Ongoing information production, decision actions and behaviours by MFI agents occurred within wider MFI knowledge and social contexts. Narrative and other information about company economic processes and other economic matters were produced and exchanged between the MFI agents in a ‘market for stories’. These activities formed the core economic processes in the MFI. In turn they played a central role in the reproduction of existing social structures at MFI and agent parent firm levels. Mutual knowledge (shared habitus) amongst MFI agents in a ’community of practice’ was one basis for the reproduction of MFI social structures. Trust and confidence in networked relations, and credible ongoing actions were essential for the existence of routine reproduction of social structure in the MFI. The repetition of the acts of individual MFI agents using shared knowledge played a central role in reproducing MFI social structures such as networked relationships. Thus the cognitive and emotional capabilities of purposeful individual MFI agents were key dynamic elements in the MFI social group’s ability to reproduce their social structures through expert knowledge based social interactions. The sharing and social construction of stories about company value creation, and social agreements about the dominant narrative about company business models, were the basis for reproduction of information structures in the MFI social structures. These stable structures created conditions for rapid decision making in fast moving markets.

More specifically, as events occurred, information intermediaries and users such as sell side analysts and FMs, used their existing knowledge (general and specific about companies and markets) and their professional skills, to develop a narrative about the events and their impact on companies and markets. This was the basis for developing new information and meaning about the events. Agents disclosed and exchanged information in the public domain and in the private social networks of the MFI. Analysts disclosed parts of their informed narrative, as well as numerical analysis and advice (Holland et al 2014). Journalists sought to interpret complex issues for their readers and explain then in comprehensible forms (as stories), as well as report new ‘facts’ or ‘news’ about companies (Maise, 2104). Fund managers made decisions based on their own information (narrative and numbers) and similar information from other actors such as sell side analysts (Holland 2015) and journalists (Maise, 2104). These actions and behaviours of analysts, journalists and FMs were much influenced by existing social and knowledge factors in parent firms, in MFI relations and networks, and in the wider MFI social setting.

The content of the narrative normally included ideas about events, economic circumstances, company value creation and value, role of company management and other intangibles in value creation, and stock market conditions. As Holland (2009) noted narrative was connected in predictable ways.

Narrative about listed companies had structure based on the structure of corporate value creation processes, and was based on structure to narrative such as sequences, events, consequences, and roles. It was based on common response qualities of the narrative to events as well as persistence in telling the core value creation story. The narrative consisted of subjective (and eventually social) constructions about the role of intangibles in corporate value creation processes and their value outcomes in current circumstances. A credible narrative was the means for MFI agents to develop belief in the more concrete numerical 'facts' such as reported earnings, auditors opinions and stock prices. Narrative was a means to develop confidence in more future looking numerical outputs such estimated earnings and expected fair value. Agents exchanged narrative or stories at various levels, such as in internal communications (in company, in analyst, media and FM firms), in relations between these parties, and in wider MFI social network contexts. The MFI was a market for the demand and supply of stories. Thus MFI agents such as company executive, analysts and journalists all had their own local or internal version of the company narrative. They co-operated and competed in its wider social construction and sharing in 'relations' and the MFI. Each MFI agent sought to influence and frame the dominant narrative and consensus sense making in the MFI social structures and stock market (Masie, 2014). Maise (2104) showed how the combination of company disclosures, analyst reports, and journalist 'news' and stories all contributed to a social consensus about the company 'story' in the MFI and financial markets. Relative power factors such as the reputation, credibility and legitimacy of specialist types of individual MFI agents and their parent firms as well the quality of the information they provided, affected the relative influence of actors in the social framing processes in the wider MFI for narrative and numerical information.

The forming of social consensus in the MFI concerning information and narrative was based, in part, on stability in MFI structures and its processes and states (knowledge, confidence etc) over long periods. Network participants came together in predictable and structured ways when exchanging information about companies. The external social network in the MFI and wider 'Investment society' could, over long periods, share the same relatively stable, explicit, knowledge about company business models. For example this could be knowledge of how top management skills, employee skills, customer satisfaction and brand strength interacted in competitive markets to create corporate financial performance. This knowledge led to stable company value creation narratives by companies, and by analysts and fund managers (Holland, 2005). Stability about such matters allowed for rapid decision making in the MFI and fast moving financial markets. Such narratives played a fundamental role in legitimisation of the economic functions of MFI agents, their parent firms, and the MFI in wider society

Thus MFI agents such as company executives, their financial communications experts, analysts, and journalists normally functioned within relatively stable MFI social and economic structures and processes. With this structure they competed and co-operated with each other in the framing of dominant narratives about companies in financial markets. More specifically, financial journalism provided information to many MFI participants and received information from them. It also focused (in part) more on investigating matters of concern to wider society (such as corporate fraud, market abuse, regulatory failure) and making these public. It was more involved than other agents with issues of democratic accountability and legitimacy of the finance system (Maise (2012.) Company executives, analysts and FMs were more involved in private disclosures and wealth issues. However these activities overlapped and contributed to consensus narratives, outlier narratives and confidence in the MFI and stock markets

Section 6 explores how crisis or rapid change has created major uncertainty to these established market contexts, economy and company level contexts and hence to ‘habitus’ and every day sense making processes in MFI individual agents and teams about companies and markets. This has exposed how such narrative about companies and markets has (in part) existed as untested myths (Holland, 2005, 2009, 2010).

5.4. Outcomes

Stones(2005) also discussed outcomes. In this paper this refers to more immediate and longer term outcomes in agents and the MFI. The immediate MFI information related outcomes includes desirable changes in states of ‘communities of

practice’ of say company management, analysts and FMs (Holland, 2005). These involved changes in their states of confidence and knowledge which in turn influenced wider market states in the MFI (information set, confidence etc) and the stock market (prices, volatility, liquidity and volume trades etc). The immediate information related economic processes and outcomes were much influenced by existing structure both external and internal to agents. They played a role in reproducing structures on a continuing basis. Over time they contributed to more strategic outcomes in which both external and internal structures were either reproduced or changed. Section 6 focuses on long term structural change and outcomes, whereas this section focuses on ongoing change and outcomes.

A stable and shared understanding of MFI habitus acted to create a positive ‘atmosphere’ of trust and confidence (Holland, 2005) between connected parties (management, analysts, fund managers) in the MFI field context of networks and relations. They contributed to agent consensus and understanding states in the wider market for information concerning agent information on companies, earnings estimates and their value creation models and processes (Holland, 2005). Thus over time, various states arose in ‘relations’ (‘atmosphere of trust, confidence) (Holland, 2005, 2006) and in the wider MFI networks (knowledge, reputation, confidence, consensus) (Holland, 2005). These elements enhanced agent credibility concerning the provision and exchange of soft and hard information in public channels or privately via relations. As a result, individually and collectively, many connected market agents created information, assurance about information and means for accountability. Other changes also arose. If MFI agents acted contrary to social expectations in ‘Finance and Investment society’, they faced sanctions from powerful agents in external structures. Analysts publicly criticising company top management and boards in ‘inappropriate’ ways (eg too much emphasis on executive pay) were likely to lose access to company information sources. Dominant power holders and elite structures did not change but the specifics of networks and occupants of position-practice roles did change.

6. Structural change and evolution in the MFI - and new theoretical narrative for the MFI

Longer term economic change, and changes in MFI agent knowledge and external social structure occurred together in an interactive process of mutual and reciprocal development. Purposeful actions by individual MFI agents (and their teams and parent firm) were at the heart of these dynamic change processes. The long term changes processes are discussed in the following pages, beginning with economic change, followed by knowledge change and changes in social structures. The changes are discussed separately for simplicity of analysis, but their mutual and reciprocal interactions are highlighted. As a result some overlap occurs in the discussions. Merton's (1995) 'financial innovation spiral' (economic change) and Stones (2005 'Strong structuration theory' (social structure change) are used to interpret these reciprocal change processes.

6.1. Economic change in the MFI – and Merton's (1995) 'financial innovation spiral'

The field studies indicated that a MFI 'change spiral' existed and this involved interactions in economic processes between MFI agents, their parent firms, their information services, their customer needs, and the MFI. **Economic processes** in the MFI such as ongoing information production, decision actions and behaviours of companies, analysts and FMs were much influenced by events and current circumstances. Longer term structural changes in MFI agents, their parent firms and the MFI were driven, in part, by economic changes such as growth of knowledge based intangibles in company business models, technology change and other changes such as 'financialisation', 'securitisation' and globalisation. These changed user information needs in the MFI and drove innovation in financial information products, MFI agent specialisms, intermediary roles and market structures.

Longer term economic processes in the MFI involved an information variant of Merton's 'financial innovation spiral' (1995) whereby key elements such as: the forms of information intermediation; their information products; information users and their needs; and the wider market for information; evolved together over time. For example, this included change in: the world of corporate financial communication; in analysts and the market for equity research (as a sub set of the MFI); and in the world of investing and FMs. Merton's focus is on economic change and his 'spiral' has little to say about reciprocal change in agent knowledge and social structure with economic change. Paraphrasing Merton (Merton 1995; Merton and Bodie, 2005), we argue that the evolution of the MFI as a central part of the financial system can be interpreted as an 'innovation spiral'. The core dynamic involves organized information markets and information intermediaries competing with each other in a static sense and complementing each other in a dynamic sense. The ongoing improvements in information and communication technology and a decline in transactions costs for exchange of information has added to the intensity of that competition as both intermediaries and markets seeks to satisfy users information needs.. The histories of innovative financial information products indicate a pattern whereby information products initially offered privately by information intermediaries, becomes standardised and commodified as they move into the public domain part of the market for information. This in turn creates new incentives for information intermediaries to innovate with new information technology, new products and highly informed agents to satisfy changing user information needs

6.2. Knowledge change and diffusion in the MFI

Reflexivity by MFI actors during ongoing interactions led to the construction of agent expert knowledge or intellectual capital (IC) (Holland, et al 2012) about companies, markets, intermediaries, agents and the impact of events on them and on company value. This is interpreted as changing more specific knowledge about decisions and situations (conjuncturally specific) (Stones, 2005) for agents. It is interpreted as changing the internal (knowledge) structures (Stones, 2005) of many MFI agents in communities of practice (Lave and Wenger, 1991). For example, expert knowledge (or IC) concerned the firm and its business model and value creation process in competitive markets. It included the professional skills of corporate management in financial management, accounting, risk management and in financial communications. It concerned the professional skills of sell side analysts in research and analysis (Holland et al 2014), of FMs in investment (Holland 2014), and others such as financial journalists in reporting and interpreting 'news'. These were amongst the forms of expert knowledge or intellectual capital (IC) required for MFI actors to interpret events to create informed narrative, news, and numbers for decisions in the MFI. Knowledge included collective stories and shared knowledge both tacit and explicit. Knowledge also concerned academic theories of company value creation, of accounting and financial (valuation) methods, and of security market efficiency and asset pricing.

Expert knowledge construction and learning arose at individual and team level and the knowledge was distributed within their parent firm (of companies, analysts, FMs, news media etc) by internal sharing mechanisms such as joint decision making activities (learning by doing), knowledge management, training and staff movement (Holland, et al, 2012). It was transferred to and 'absorbed' by individuals by material or tangible factors such as technology and office layout. This led to internal social structural change in these agent roles and capabilities, and parent firm processes such as in information production routines. Expert knowledge was constructed during many transactions and exchanges between many MFI actors. It was distributed externally across the MFI by observation of (or listening to, or inferring) knowledge use in successful transactions (information and financial) (Holland et al 2012). It was distributed by text publishing activities of MFI actors (formal reports) as well as by informal 'conversations' and formal spoken communications between market actors ('speech acts' in Maisie , 2014). It was distributed in the MFI by labour market movements such as financial communications experts, analysts, FMs, and journalists swapping firms or switching careers. It was standardised (conventionalized) and diffused by external mechanisms such as examining and training for professional qualifications *(for say analysts, or corporate communications).*It was diffused by the active role of consultants *(for financial communications, analysis, and investment decision making)* in parent firms and agents. This led to change in external social structures such as changed networks, reputation, roles, and information exchange mechanisms.

Technology in the form of standard software for: spreadsheets; databases; connected information systems (internal, external); and internet applications; was an important tool in the market wide sharing of assumptions and knowledge. This technology was part of the material structure of the MFI. It allowed the major digitised and virtual dimensions of the MFI to exist and it supported many new information focussed economic and social processes (Knorr-Cetina & Bruegger (2002). Technology was also the repository of much formalised and explicit knowledge about the MFI and agent decisions. Technology as material or tangible artefacts, were the means to mediate shared assumptions (in expert knowledge) about, inter alia, financial analysis, corporate strategic analysis and market prices. Shared technology between agents in a firm and with external MFI agents encouraged shared use of similar expert knowledge into everyday behaviour in the MFI. This was part of the process by which shared expert knowledge (non academic) became established knowledge. Related processes of academic knowledge construction (concerning finance theory and management theory) and its dissemination in the MFI by agents and their parent firms also contributed to established knowledge (McKenzie, 2006).

6.3. Change in MFI social structures and MFI agents (habitus).

Social and economic structures in the MFI (such as information exchange networks between members of firm or between 'relationship' parties in the MF network) were reproduced by human agents in the MFI when they used expert knowledge and technology for meaningful social and economic actions (Stones, 2005). Social and economic structures in the MFI were changed by agent knowledge changes and by technology changes especially in communities of practice. Thus the social structure of the MFI, in the form of a network of roles or position-practices, and MFI agent reputations and relations, was influenced over time by historical economic, knowledge and social forces and processes (Stones, 2005) in the MFI over time. As Coad and Glyptis (2014) note such social

'*learning and change arise out of a resolution of the difference between what is experienced by an agent* (in the MFI) *and their existing knowledge of how to go on in social relations'*

Three examples are discussed below to show how MFI agents and their parent firms, have in Bordieu's (1990) terms, marginally changed their 'habitus', field or domain, cultural capital and tacit knowledge, and position-practice in the MFI social structure. This interpretation is consistent with Stones (2005) view that knowledgeable and capable agents have limited power that they can only exert in the context of their 'habitus' and their 'situated practices' of everyday life. Thus a more restricted version of Gidden's (1984) idea of the duality of structure and agency is seen as more realistic and plausible and makes these ideas more useful to researchers.

Technology changes have changed MFI social structures when previous inter personal and 'face to face' interactions, and information services, were replaced by new communication systems, new decision support systems, and new automated systems for information production. MFI agents have had to change their information products to more intensive research products as some information services have become commodified and automated. This was behind the growth in of a globalised MFI connecting agents, parent firms and security markets in major world financial centres as well as in smaller centres.

For example Bloombergs and Thomson Financial have exploited technology and merger opportunities to emerge as major financial information suppliers to world financial markets. They have developed their products (such as information supply to analysts and fund managers) and their reputations, and changed information supply and use structures across world financial markets. **In another example**, analyst's reputation and relations are created by **learning** by many MFI actors over time during many information exchanges and actions between them and analysts. The learning can arise from many experiences by MFI actors including success and failure of analysts. Agents' individual qualities, capabilities or skills (formal and informal), knowledge, and track record of actions and behaviour, as well as those of their teams, senior management and parent firms, are over time, recognised by other MFI participants as reputation (Holland, 2005, Holland et al 2012) or forms of prestigious cultural capital (Bordieu, 1990). The development of agent's reputation over time enhances relations between agents and other MFI participants and reduces barriers to information exchanges between agents such as company management, analysts and fund managers (Holland, 2005, 2006). This led to relatively stable ranking structures for analysts across the MFI, whereby individual analyst ranks may change but not the structure. As a result, there are strong economic incentives to invest in relations (Fogarty et al. 2005) and wider MFI networks and states (Holland, 2005, 2006), and to use these to exchange knowledge and information. The above indicates that Stones (2005) external and internal structures as well as decision actions may be maintained or, alternatively, changed through learning processes, and these provide the starting point for future action. **In a third example**, the arrival of new 'boutique' sell side analysts (Haig, 2014) has occurred in the post financial crisis period and played a role in changing MFI social and economic structures. Their emergence may be explained in part by the failure of conventional analysts during the financial crisis. They may also be explained by FM and user demands for more information about company business models and relatively less information on numeric estimates. These new specialist agents have exploited their own unique capabilities, network links and some of the larger economic change processes to create marginal changes in the MFI structures. Sell side analysts in investment banks may have assumed that their 'relations' with companies and fund managers were stable but have found that new competition in the MFI in the form of 'boutique' analysts, providing more intensive and focussed research services, has shaken up their world. Changes made by sell side analysts means they have marginally changed external MFI structures and their sell side 'habitus' and knowledge of external MFI structures.

The examples reveal that new expert knowledge and technology have shaped and formed the social structure of the MFI and the wider world of finance. Knowledge creation and sharing occurred with changes in the social and economic contexts. Cabantous and Gond (2010) argue that three mechanisms – conventionalization, engineering, and commodification – can sustain the creation of 'performative practice', that is a set of activities that contribute to turn a theory (or in this case expert knowledge) into being. In the above discussion, expert knowledge has been turned into conventions, by being diffused through internal parent firm and MFI wide processes and making it available to many actors across the agent parent firm and MFI. Expert knowledge and its assumptions have been made available to decision makers within firms through tangibles such as technology and by intangibles such as corporate culture. Joint firm and market mechanisms and their interdependences and competition (innovation spiral) have made expert knowledge and associated technology available in firms and in markets.

Expert knowledge was the basis for a 'performation' process (MacKenzie & Millo 2003) whereby expert knowledge (and some finance theory) was turned in routines and influenced actors behaviours and beliefs in the wider MFI. Expert knowledge shaped an economic technology and was implanted into economic processes and associated social structures and processes. This created 'performativity' in that the expertise of company management, analysts, FMs and others was used to change and shape the world they described (MacKenzie, 2006; Preda, 2007). Performativity referred to situations where the use of expert knowledge (and finance theory) made finance processes resembled what they were described to be by the expert knowledge (and finance theory). The expert knowledge framed many practices, analytic means, language and norms in the MFI. It became part of the routines, exchanges (information and knowledge as narrative) and everyday behaviour and actions of company management, analysts, journalists, FMs and others. The cycle then repeated itself over time. As events occurred, information intermediaries and users such as sell side analysts and FMs used new and existing knowledge *(expert knowledge and academic theory)* and new and existing social contexts to create new information and meaning about the events.

6.4. Joint economic, knowledge and social structure changes – a larger change spiral

Section 6.1 of the paper has discussed how *longer term* **economic** processes in the MFI involved an information variant of Merton's 'financial innovation spiral' (1995). The field studies and the theoretical analysis above indicated that a larger MFI 'change spiral' existed relative to the economic change process suggested by Merton (1995) and this involved mutual and reciprocal interactions between economic, knowledge and social change processes. The extended 'spiral' included changing events, changing production and use of knowledge and information, new decision making and outcomes, reflexivity over time, an 'innovation spiral' in the MFI, 'performativity' in the MFI, and changes in various MFI economic, knowledge and social states.

MFI agent expert knowledge and academic knowledge (as 'management' and finance theory) played a central role in the innovation spiral and in changing economic and social processes and social structures in agents, their parent firms., the MFI and in the larger finance system. Merton's extended spiral can be seen as an expression of the economic forces that aided the incorporation of much expert knowledge across many MFI social structures, processes and actors and played a role in forming these social structures. Thus we can note that positive economic, knowledge and social factors can combine forces (Holland, 2010) with supportive events and create a positive innovation spiral leading to success in connected economic processes in the MFI. In contrast, in 2007-09, negative economic, knowledge and social factors combined forces (Holland, 2010) with adverse events and created a negative and destructive spiral leading to failure in connected economic processes in the MFI. Thus MFI economic processes and change in the Merton 'spiral', both ongoing and longer term, positive and negative, have been much influenced by events and by social (power) and knowledge contextual factors. These economic processes in turn influenced (agent) expert knowledge creation, and social construction in the MFI. For example, Marston (2008), Holland et al (2102), Haig (2014), Chen et al (2014) illustrate how experience of change has stimulated learning and knowledge creation amongst MFI actors such as corporate executives and their financial communication experts, analysts, journalists, and FMs and led to the development of new knowledge about new forms of information production and disclosure, and the development of new information products, suppliers, connections, channels, interactions and processes in the MFI. Thus economic processes in turn influenced expert knowledge creation and social construction in the MFI.

6.5. Theoretical development to reflect reciprocal economic, knowledge & social structure changes

The paper reveals the opportunities for further theoretical development as theoretical contributions to both Stones (2005) 'strong structuration' theory and Merton's (1995) 'financial innovation spiral'. It shows the combined relevance of these theoretical sources to the study of accounting and finance phenomena. For example, the MFI example and the empirical insights into the three types of change in the MFI and their interactive and reciprocal nature with each other and with agency provide an example of how relevant Stones (2005 'Strong structuration theory' is to the study of core accounting and finance phenomena. The MFI example also provides insights into the limits of Stones (2005 'Strong structuration theory' which is strong on social changes, but has less to say about economic change. The latter does not explicitly deal with economic change and the knowledge creation associated with it. However, the paper provides opportunities to *explicitly highlight or emphasis economic change as part of Stones (2005) theory.* Stones (2005) and Merton (1995) can be combined to further develop understanding of the mutual and reciprocal nature of social structure, knowledge, economic process and agency, and of changes in these. This can be seen as theoretical extension to Stones (2005) 'Strong structuration theory' whereby changes in economic systems and knowledge creation by MFI agents play a central role in forming social structures both as external and internal (knowledge) structures. In the same way changes in agent's knowledge and their social structures create conditions for agent directed change in economic systems. This is consistent with Stones (2005) view that:

'Structuration theory needs other theories and perspectives to provide such frames, just as other theoretical approaches would often do well to call on the resources of structuration. [Stones, 2005: 6]

These mutual interactive and reciprocal interactions can be expressed within an adapted version of Stones's (2005) *quadripartite cycle which reflects the* combined effects of economic change, agent learning and knowledge creation, and social change. Thus:

* *External structures* now include economic and social conditions of action; Short term and long term economic (Merton, 1995) conditions for action were major features of MFI external structures. Stones (2005) idea of external structures can also be expanded to include structures and structural states in the MFI. These are completely autonomous of the agent, irresistible external influences, partially autonomous of the agent, and facing actions by agents to change state conditions (not structures) for other agents.
* *Internal structures* within the agent now include knowledge of social and economic structure and processes (expert knowledge);
* *Active agency*, now include agent drawing on economic (expert knowledge) (Merton, 1995) and social knowledge when producing practical action.

Action included short term economic action concerned ongoing information related activities as well as associated social interactions. It included agent actions to change economic and social states in social structures. It included long term economic action (Merton, 1995) concerned knowledge creation and the development of new economic and social structures.
 * *Outcomes – now include economic outcomes* (Merton, 1995)*, and knowledge and social structure outcomes*

Such developments in theoretical understanding of the MFI are required to develop a coherent basis for the critical analysis of MFI functioning, successes and failures.

7. Responses to problems in the MFI.

Section 7 notes how ongoing problems with knowledge and social factors played a role in weakening, impeding and eventually destabilising economic processes in the MFI, agents and their parent firms. These were important factors in creating knowledge, social and information problems in agents and the MFI, during the crisis of 2007-09. In section 7 it is argued that knowledge and social factors are also part of a solution to the problems. The solutions include improved, transparent knowledge of business models of companies, analysts, and other agent. These provide part of the *building blocks to model the larger MFI*. They also include active use of social forces and knowledge to create critical and reflexive performativity conditions in analysts, FMs, other agents and the MFI.

Problems in the MFI:

Major **ongoing** knowledge and information **problems** also occur in MFI agents, their parent firms and the wider MFI. These can inhibit change and create vulnerable exposures to dramatic change. Social problems for companies, analysts, journalists and FMs, and the wider MFI, include privileged access to information as well as conflicts of interest (COI) in MFI social networks of relations. Knowledge problems in the MFI include the idiosyncratic nature of intangibles (Catasus, 2007) and conservative, dogmatic and unchallenged views of knowledge (expert and theoretical) (Holland 2010). Henningsson (2009) argues factors such as these can combine and create 'social blindness' in the financial system. This can be interpreted as a form of 'convenient and blind' 'performativity' (Mackenzie 2006) whereby theory shapes and structures finance processes in very risky and private ways for the benefit of an elite. Pressures exist to only think and operate within 'established knowledge' in the MFI

These issues of conservatism, dogmatism, elite power and 'social blindness' played a role inhibiting learning, knowledge change and change in social and economic structures in the MFI, agents and parent firms in the period before the crisis of 2007-09 (Holland, 2010). They inhibited change and created vulnerable exposures to dramatic change during the crisis. This reveals special conditions under which (MFI) social structure or external context *'is not fixed or permanent, and can be changed under unexpected situations or over a long historical period'* (Navarro 2006: 16): Sudden unexpected change in banks and financial markets had a knock on effect for the MFI. It disrupted the cosy interactions and states in a previously stable MFI field context and agent habitus. It changed MFI actors understanding of these social and economic fields, their 'habitus' and the social structures of the MFI. Various economic and social factors combined forces and intensified existing problems in the MFI and created a negative and destructive spiral. They distorted the shared exchange and use of available knowledge and information between transmitters and receivers and contributed to underperformance and failure of the MFI (Holland, 2010).

Potential solutions to problems?

This paper argues that shared and explicit public knowledge of company business models, of analyst business models, of other agent business models, and of the wider MFI, is part of the solution to the above problems. A more theoretically grounded understanding of the MFI is required to develop a critical stance on ongoing MFI operations and change. These are means to control some of the misbehaviour, misreporting, and fraud problems observed in companies, analysts, FMs, rating agencies and others in the MFI. This are means to improve the quality of disclosure by these actors.

They are also important means to improve transparency as desired by users of company supplied information. 'Barlev and Haddad (2010)….argue that *'Transparency means that the reported financial information allows users to 'see through' the figures, that is to gain insight into the motives behind business activities, and to assess whether business activities are compatible with the firms' stated goals'.* Transparency requires the ability to observe and to develop deep insight into the company business model (IIRC, 2011) or; *'An organization's business model is its system of transforming inputs, through its business activities, into outputs and outcomes that aims to fulfil the organization's strategic purposes and create value over the short, medium and long term'.*

Shared knowledge amongst users in the MFI can improve their ability to 'see through' financial reports, other corporate disclosures, and other information production to underlying economic processes in companies, analysts, FMs and other agents. Thus a related response to the above problems is to develop enhanced public and academic understanding of expert knowledge developed and used by MFI agents and their parent firms. This concerns, inter alia, expert knowledge of company business models, and of various information intermediation models (agents in parent firms), and of the MFI. This would requires publication of empirically grounded research on the role of intangibles in the business models and intermediation processes of all major types of specialist information market firms and their agent.

The possibility of much greater control over misbehaviour, misreporting, and fraud problems and the possibility of improving transparency suggest that regulators and policy makers should exercise control over the 'financial innovation spiral (Merton and Bodie, 2005), the 'performation' process (MacKenzie & Millo 2003) and 'performativity' (MacKenzie, 2006; Preda, 2007) in the MFI. A direction for **reform and change** lies in influencing knowledge, social and economic and factors to create transparency and 'intelligent accountability' conditions (O'Neill, 2002) for MFI agents and the wider public. The theoretical discussion of MFI problems and related agent and parent firm problems also suggests that a more critical, sceptical and reflexive stance, is required for reform and change. This may best be secured by a wider understanding of the social systems through, inter alia, Bordieu (1990), and ideas of 'performativity' (Mackenzie, 2006) and their application to the empirical phenomena discussed here. The use of Stones (2005) 'strong structuration theory' with his emphasis on agency, structure, knowledge and action, can help develop this critical stance. If it is combined with Merton's idea of a financial innovation spiral (positive and negative), then a new combined means to critically appraise ongoing MFI operations and change can be developed.

7. Conclusions

This paper has sought to understand the market for information (MFI) through field research and theoretical development. Conventional finance theory provides a traditional way to interpret the empirical findings. However, major limitations were identified in this theoretical approach. The paper has developed a new conceptual framework to overcome these problems in understanding of the MFI. Stones (2005) 'Strong structuration theory' (SST) and related literature on finance, management and sociology of finance were employed to interpret ongoing MFI processes and structures. Merton's (1995) 'financial innovation spiral' was used to explore longer term structural change and evolutionary processes in the MFI economic activities. Stones (2005) and Merton's (1995) 'financial innovation spiral' were combined to interpret longer term changes, both mutual and reciprocal, to economic systems, knowledge creation and social structures.

The SST provides a novel conceptual framework to interpreting the MFI empirical narrative. The paper used SST to investigate case studies of MFI agents, structures and economic processes, where individual MFI agents were located in a network of position-practice relations. The central role of MFI economic processes in exploiting and reproducing MFI social structure and knowledge, and the mutual and reciprocal nature of change in economic, social and knowledge structures in the MFI, were both highlighted in the paper. The MFI empirical narrative and field studies do not provide direct evidence of the duality of structure and agency and hence does not directly test structuration theory (Stones, 2005, Giddens, 1984). However the author argues that the duality of agency and structure can be inferred by the many interactions observed in the MFI field studies. The MFI empirical narrative provides opportunities to apply SST in a new and significant field as suggested by Stones (2005), to explore SST limitations and its worth in such a context, and to investigate how SST can be further developed. It provides an opportunity to illustrate the empirical and theoretical value of the many qualitative field based studies in the MFI over a 25 year period.

The above reveals opportunities for further theoretical development and contribution to both Stones (2005) 'strong structuration' theory and Merton's (1995) 'financial innovation spiral'. It shows the combined relevance of these theoretical sources to the study of accounting and finance phenomena. This is consistent with Ahrens and Chapman (2006) argument that researchers should view qualitative field study as a theoretical activity (Jack and Kholeif, 2007). This paper has demonstrated how this perspective is relevant to empirical work and theory development in the MFI. The paper straddles accounting and finance disciplines as well as management theory and sociology, and creates new opportunities for an interdisciplinary dialogue in the MFI area of study.

For example, from finance theory perspective they add the required theoretical frame to explain structure and change that are central to economic processes. They provide explanations of how knowledge and social structure factors can play a role in reducing or exacerbating information asymmetry (IAS), Adverse Selection (AS), Moral Hazard (MH) problems and hence in altering transaction costs for producing and exchanging key information services. They provide explanations of why combined failure in knowledge, social and economic factors can occur and why a combined response is required. This places finance theory into a wider explanatory context and highlights its unique strengths in explaining economic activity as part of this larger context.

The risk with the approach adopted in this paper is that a new empirical and theoretical narrative could combine with similar crisis events and factors as in 2000-2007 and create new conditions of unthinking or convenient ‘performativity’ at some point in the future. However, the theoretical discussion of MFI problems and related agent and parent firm problems also suggests that a more critical, sceptical and reflexive stance, is possible for reform and change. This may best be secured by a wider understanding of the social systems through, inter alia, Bordieu (1990), and ideas of ‘performativity’ (Mackenzie, 2006) and their application to the empirical phenomena discussed here. The use of Stones (2005) ‘strong structuration theory’ with his emphasis on agency, structure, knowledge and action, can help develop this critical stance. If it is combined with Merton’s idea of a financial innovation spiral, then a new combined means to critically appraise ongoing MFI operations and change can be developed. The above extensions to the theoretical narrative are intended to create a more critical and reflexive ‘performativity’. The new conceptual framework and the change process makes explicit the social and knowledge factors impinging on individual agents, their parent firms, and the MFI. This provides an explicit and coherent means to observe debate, analyse and influence combined economic, knowledge and social problems in MFI agents and their parent firms and the wider MFI. This is a superior approach to a world where these invisible factors are allowed to have hidden, negative and unchallenged effects potentially leading to failure.

The combination of empirical and theoretical narrative was also used to develop policy prescriptions to deal with problems and with change in the MFI, in particular during the financial crisis of 2007-09. This paper has argued that three simultaneous solutions are required to respond to such problems arising in the world of finance. They involve improved understanding of MFI agent processes and parent firm business models, and the wider MFI. They include improvements in the theoretical narrative about these models and roles in the market for information. The paper also argues that the enhanced empirical and theoretical narrative creates the means for a more critical and sceptical stance relative to ongoing activity and change in the MFI. These three proposals provide a new change agenda for researchers, policy makers and regulators. These could create improved social and economic conditions for ‘intelligent accountability’ for the benefits of the wider public (O’Neill, 2002).

References

Field study sources:

Gibbins M. A Richardson. J Waterhouse. (1990). ' The Management of Corporate financial disclosures: Opportunism. ritualism. policies and processes'. *Journal of Accounting Research*. Vol 28. No 1,Spring 1990, pp121-143.

Barker, R. G. (1998) 'The market for information – evidence from finance directors, analysts and fund managers', *Accounting and Business Research*, 29 (Winter):3–20.

Haig A, Rees W (2014), 'Independent Thinking: On the Demand for Alternatives to Sell-Side Investment Research', paper presented at BAFA Conference, LSE, April 2014

Economist, Sep 21st 2013, 'The old model of stock market research is changing'.

FT, Jan 19, 2014, 'Pricey brokers face extinction as fund groups skip the middle men'.
Johnson T (2014), 'Redefining research', Institutional investor, April, p60-61

Holland J B, (1998a), 'Private Disclosure and Financial Reporting', Accounting and Business Research, Vol 28, No 4, pp 255-269, Autumn 1998.

Holland, J B, (1998b) 'Private corporate disclosure, financial intermediation, and market efficiency', Journal of Business Finance and Accounting, V25, Nos 1&2, Jan-March April 1998, pp29-68

Holland, J B, & Doran, P.(1998), ' Financial Institutions, private acquisition of corporate information, and fund management', European Journal of Finance, Vol 4, pp 129-155.

Holland, J B (1998c), 'Influence and intervention by Financial Institutions in their investee companies', in 'Corporate Governance', Vol 6, Number 4, pp249-264, October 1998.

Holland, J B (1999), 'Financial Reporting, Private disclosure, and the Corporate Governance role of Financial Institutions', The Journal of Management and Governance, issue 3, pp161-187, 1999

Holland J B, (2001) 'Financial Institutions, Intangibles, and Corporate Governance' , Accounting, Auditing, and Accountability Journal, vol 14, no 4, 2001

Holland J B, (2002), 'A dynamic model of fund manager corporate governance', CIMA Research report, March

Holland J B, (2003), 'Intellectual capital and the capital market – organisation and competence', Accounting, Auditing, and Accountability Journal, vol 16, no 1, pp39-48, 2003

Holland J, Johanson U, (2003), 'Value relevant information on corporate intangibles - creation, use, and barriers in capital markets' - 'between a rock and a hard place' Special issue, Journal of Intellectual Capital, vol, 4 no, 4 , June .

Holland J, 'IC, Intangibles and Private Disclosure', p43-64, The Journal of Intellectual Capital Knowledge Management, December 2004

Holland J B (2004) 'Corporate intangibles, value relevance, and disclosure content', ICAS Research report, May 2004

Holland, J B, (2005), 'A grounded theory of corporate disclosure', Accounting and Business Research, Vol 35, No3, pp249-267, 2005,

Holland J B, (2006), 'A model of Corporate financial communications', ICAS Research report, 220 pages,

Roberts, J., Sanderson, P., Barker, R. and Hendry, J. (2006) *In the mirror of the market: the disciplinary effects of company/fund manager meetings.* Accounting, Organizations and Society, 31 (3). pp. 277-294.

Holland J (2006), 'Fund management, intellectual capital, intangibles and private disclosure', Managerial Finance, Vol 32 Number 3, March/April.

Holland J, (2009), 'Looking behind the veil' - Invisible Corporate Intangibles, Stories, Structure and the Contextual Information Content Of Disclosure. Qualitative research in financial markets Volume: 1 Issue: 3 Page: 152 – 187 Published Oct 2009

Holland J, (2010), "Banks, Knowledge and Crisis - a case of knowledge and learning failure" Vol 18, Issue 2 of the Journal of Financial Regulation and Compliance. May 2010

Holland, J (2011), 'A conceptual framework for changes in Fund Management and Accountability relative to ESG

Issues, Journal of Sustainable Finance & Investment, Volume 1, Number 2, April 2011 , pp.159 177

Holland J , Henningsson J, Johanson U, Koga C, Sakakibara **S.** , (2012) "Use of IC information in Japanese financial firms", Journal of Intellectual Capital, Vol. 13 Iss: 4, pp.562 – 581

Guo Y, Holland J, Kreander N (2013), Establishing bank – corporate relationships and building competitive advantages, Journal of Financial Services Marketing

Guo Y, Holland J, Kreander N (2013), An exploration of value creation process in bank-corporate communications, *Journal of Communication Management - 2013*

Holland J, Danbolt J, Chen L, (2014), 'Analyst information intermediation and the role of knowledge and social forces in economic processes in the 'market for information''. University of Glasgow, ASBS WP

Holland J, (2014), 'A behavioural theory of the fund management firm', The European Journal of Finance

Holland J B (2004) 'Corporate intangibles, value relevance, and disclosure content', ICAS Research report.

Barker, R., Hendry, J., Roberts, J. and Sanderson, P. (2012) *Can company-fund manager meetings convey informational benefits? Exploring the rationalisation of equity investment decision making by UK fund managers.* Accounting, Organizations and Society, 37 (4). pp. 207-222.

Chen L, Danbolt J, Holland J (2014), Rethinking bank business models: the role of intangibles Accounting, Auditing, and Accountability Journal - Vol 27, Number 3, 2014 pp563-589

Coleman L (2014, Why finance theory fails to survive contact with the real world: A fund manager perspective, *Critical Perspectives on Accounting*, 25 (3) : pp.226 – 236

Holland J (2014**),** A behavioural theory of the fund management firm, Forthcoming European Journal of Finance, Vol ?, pp ?

Mayorga D, (2013) "Managing continuous disclosure: Australian evidence", Accounting, Auditing & Accountability Journal, Vol. 26 Iss: 7, pp.1135 – 1169

Marston C (2008), **I**nvestor relations meetings: Evidence from the top 500 UK companies, Accounting and Business Research Volume 38, Issue 1, 2008

Masie D R (2014), 'Mediating markets: The effects of news media in financial markets', PhD, University of Edinburgh, May 2014

Theoretical frame sources - Finance theory sources relevant to the MFI

Allen B (1986), The Demand for (Differentiated) Information, *The Review of Economic Studies* Vol. 53, No. 3 (Jul., 1986), pp. 311-323

Allen F (1990), The Market for information and the Origin of Financial Intermediation
Journal of Economic Literature Classification Numbers: 020, 310, 520. D 1990 Academic press. IX.

Gene D'Avolio, Efi Gildor, and Andrei Shleifer (2001), Techn Discussion Paper September 2001, Harvard Institute for Economic Research

Autore D, Billingsley R, and Schneller M (2009, 'Information uncertainty and auditor reputation', Journal of Banking and Finance, 33(2). P 183-92

Barlev, B., & Haddad, J.R. (2010). "Information asymmetry, transparency and the conceptual framework." *International Journal of Economics and Accounting*, 1(1/2), pp. 32-45.

Leland, H. and D. H. Pyle, 1997, Informational Asymmetries, Financial Structure, and Financial Intermediation, The Journal of Finance, , Vol. 32, No. 2.

Patrick Bolton, Xavier Freixas, Joel Shapiro,2007. Conflicts of interest, information provision, andcompetition in the financial services industry, *Journal of Financial Economics*,85(2): 297-330

Cabantous L, Gond J-P, (2010), 'The dynamics of performativity: a process perspective on the academic-practitioners gap', 2nd International Symposium on Process Organization Studies 2010

Campbell T & Krakaw W, (1980) Information Production, Market Signalling and the Theory of. Financial Intermediation, 35 J. Finance. 863, 865-70 (1980);

Chen , Zhaohui and Wilhelm, William J., The Industrial Organization of Financial Market Information Production (October 2005). CEPR Discussion Paper No. 5314.

Gonedes Nicholas J., The capital market, the market for information, and external accounting**,** The Journal of Finance, Volume 31, Issue 2, pages 611–630, May 1976

Keane, S. (1983). Stock Market Efficiency- Theory, Evidence, Implications, 1st edition. Oxford: Philip Allan Publisher Ltd.

Leyens, P.C. (2011). Intermediary independence: auditors, financial analysts and rating agencies. *Journal of Corporate Law Studies*. 11: 33-66.

Merton R, Bodie Z, 2005, Design of financial systems: towards a synthesis of function and structure, Journal of Investment Management, Vol. 3, No. 1, (2005), pp. 1–23

SEC, 2001. Analyzing analyst recommendations. Available from: http://www.sec.gov/investor/pubs/analysts.htm [Accessed 12 January 2014].

Scholtens, B. & Wensveen, D.V. (2003). *The theory of financial intermediation: an essay on what it does (not) explain*. The European Money and Finance Forum.

Schmidt R H and Marcel Tyrell 2004, Information theory and the role of intermediaries in corporate governance

Chester S. Spatt (2010) Markets for Financial Information, Tepper School of Business, Carnegie Mellon University, National Bureau of Economic Research, Presented at the Federal Reserve Bank of Atlanta, 2010 Financial Markets Conference

Laura L. Veldkamp (2005), Media Frenzies in Markets for Financial Information, New York University, Stern School of Business June 8, 2005

Wijnhoven F (2001), Informing Science Volume 4 No 3, 2001, Models of Information Markets: Analysis of Markets, Identification of Services, and Design Models

Alternative theory sources for social and knowledge issues in the MFI

Ahrens, T. and Chapman, C. (2006), “Doing qualitative field research in management accounting: positioning data to contribute to theory”, Accounting, Organizations and Society, Vol. 31 No. 8, pp. 819-41.

Barlev, B., & Haddad, J.R. (2010). “Information asymmetry, transparency and the conceptual framework.” *International Journal of Economics and Accounting,* 1(1/2), pp. 32-45.

Coad, A.F., & Herbert, I.P., (2009). Back to the future: new potential for structuration theory in management accounting research? Management Accounting Research 20: 177–192.

Coad, A.F., & Glyptis, L.G., (2014). Structuration: a position-practice perspective and an illustrative study. Critical Perspectives on Accounting 25: 142-161.

Coad, A.F., Jack, L., & Kholeif, A., (2014), Strong Structuration Theory in Accounting Research - Themed issue call for papers from Accounting, Auditing and Accountability Journal http://www.aslib.co.uk/products/journals/call_for_papers.htm?id=5830

Jack, L., & Kholeif, A., (2007). Introducing Strong Structuration Theory for Informing Qualitative Case Studies in Organization, Management and Accounting Research. Qualitative Research in Organizations and Management: An International Journal 2: 208- 225.

Jack, L., & Kholeif, A., (2008). Enterprise resource planning and a contest to limit the role of management accountants: a strong structuration perspective. Accounting Forum 32: 30-45.

Giddens, A. (1984), The Constitution of Society, Polity Press, Cambridge.

Stones, R. (2005), Structuration Theory, Palgrave, London.

Knorr Cetina, Karin D. and Urs Bruegger 2002 "Global Microstructures: The Virtual Societies of Financial Markets, American Journal of Sociology 107(4), January: 905-950

Greenhalgh T, Swinglehurst D and Rob Stones (2014), ‘Rethinking resistance to ‘big IT’: a sociological study of why and when healthcare staff do not use nationally mandated information and communication technologies’, Health Services and Delivery Research 2014, vol. 2 no. 39

IIRC (2011), International integrated reporting initiative, Discussion paper, The International Integrated Reporting Committee, 12th September.

MacKenzie, D., and Y. Millo. 2003. "Constructing a Market, Performing Theory: The Historical Sociology of a Financial Derivatives Exchange." American Journal of Sociology109:107-145.

MacKenzie, D. 2006. An engine, not a camera: How financial models shape markets. Cambridge, MA: MIT Press.

Preda, A. 2007. ‘Where do Analysts come from? The Case of Financial Chartism’. in Callon, M., Millo, Y., Muniesa, F., (Eds.), Market Devices. Blackwell: Oxford.

Burton B, (2007) "Qualitative research in finance – pedigree and renaissance", *Studies in Economics and Finance,* Vol. 24 Iss: 1, pp.5 – 12

Chen Joseph, Harrison Hong Ming Huang, and Jeffrey D. Kubik; (2004), ‘Does fund size erode mutual fund performance? The role of liquidity and organization, *American Economic Review* December 2004 pp1276-1303

Golden-Biddle K, Locke K (2007), Composing Qualitative Research, SAGE, 2007

Latour, B. (1987). *Science in Action: How to Follow Scientists and Engineers Through Society.*Milton Keynes: Open University Press.

Latour, B., 1993. We have never been modern (translated by C. Porter). London: Harvester Wheatsheaf.

Laughlin, R. (1995), Empirical Research in Accounting: Alternative Approaches and a Case for "Middle-Range" Thinking, *Accounting, Auditing and Accountability Journal*, 8/1, pp. 63-87.

Locke K D (2001). '*Grounded Theory in Management Research'*. SAGE series in Management Research. Thousand Oaks. CA: Sage.

MacKenzie, D. (2006) Is economics performative? Option theory and the construction of derivatives markets. *Journal of the History of Economic Thought* 28(1): 29–55.

Merton R C (1995), 'A Functional Perspective of Financial Intermediation', *Financial Management,* Vol. 24, No. 2, Silver Anniversary Commemoration (Summer,1995), pp. 23-41

MERITUM, (2001). Guidelines for managing and reporting on intangibles (Intellectual Capital Report).

Navarro, Z. (2006) 'In Search of Cultural Intepretation of Power', IDS Bulletin 37(6): 11-22.

Nonaka, I. and Toyama, R. (2005) The theory of the knowledge-creating firm: subjectivity, objectivity and synthesis. *Industrial and Corporate Change*, vol 14, number 3, pp. 419-436.

Schein, E. H. (1989). Organizational culture and leadership. San Francisco, Jossey, Bass.

Stein, Jeremy C."Information Production and Capital Allocation: Decentralized versus Hierarchical Firms." *Journal of Finance,* 2002, 57(5), pp. 1891–921

Stoner G N. J B Holland. (2004). 'Using Case studies in finance'. Chapter 4 in '*Qualitative Research. 'A 'real-life' guide to accounting research'.* edited by C.Humphreys. W Lee. Manchester University. June.

Tuckett D (2009), 'Addressing the Psychology of Financial Markets' , *Economics*, Vol. 3, 2009-40 | November 20, 2009 – e journal | http://www.economics-ejournal.org/economics/journalarticles/2009-40

Table 1 Field studies in the market for information

Field studies on corporate disclosure in the market for information.

- Gibbins et al (1990) -Holland (1998a) -Holland (1998b-
- Holland (2005) , Holland (2009). Mayorga, (2013), Chen, Danbolt, and Holland (2014)

Field studies on fund manager research and role in the market for information.

- Holland and Doran (1998), Holland (2006), Roberts et al (2006)
- Barker et al (2012) , Holland (et al 2012) ,Coleman (2014) Holland (2014)

Field studies on sell side analyst research and disclosure in the market for information

- Barker 1998), Marston (2008), Holland et al (2014) -
- Haig et al (2014), Maise (2014)

Figure 1 A simple form of the MFI

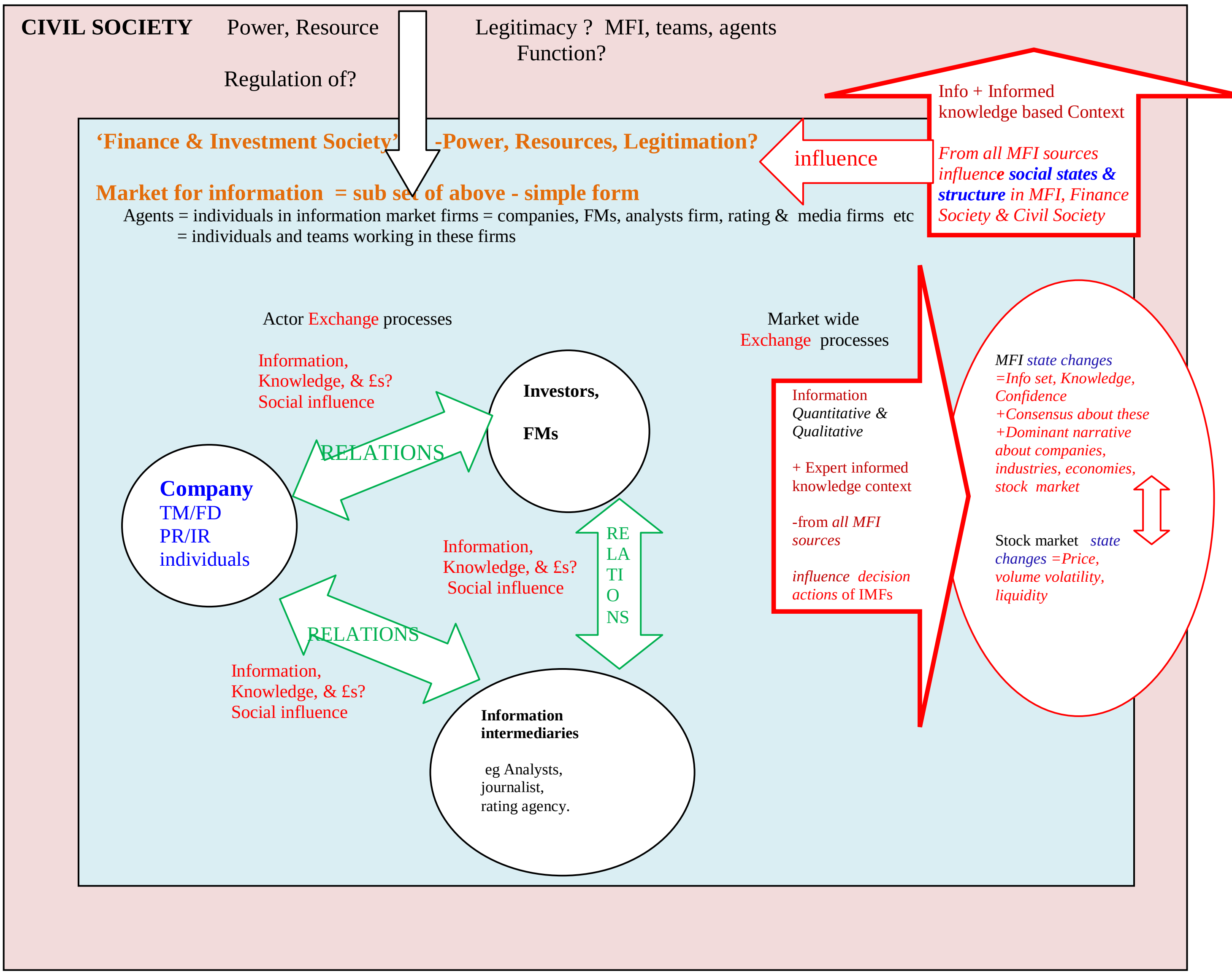

Table 2 – Empirical constructs for the MFI derived from the field studies

Special aims, purpose and function of information market firms (IMFs) – and their special business models
'Real' companies – create value in product / factor markets and communicate this to investors and stock markets
FMs –invest in real companies –acquire private information & knowledge – high quality stock/portfolio investment decisions for clients
Analysts - analyse companies – provide valuations, forecast, advice – create value for own parent firm

Eg FM Business model – mobilise hierarchy and resources – to reduce decision costs in FM teams and individuals
Exploit soft (intangibles) information plus hard (numerical) information in decisions FM as example of how to do in many IMFs in MFI

***Structure** =key resource =formal and informal – hierarchy in IMFs and networks/relations in markets- in MFI and security markets*
***Actors –** Company top management, FMs, analyst, financial media etc*
***Domains or contexts =** Economic, Knowledge/Learning, Social*
Time – short term – ongoing processes – Longer term processes

***Purposeful processes and Interactions** = Economic, Information, Knowledge/Learning, Social*
Economic = choices = change states in other key IMFs - and market states - for own IMF benefit

***Information Processes** = disclosure, research, intermediation, exchange = economic processes*
= timing and interpretation, narrative and story-telling about value creation (mainly in companies)
= public and private, behaviour and actions
= formal and informal
= dynamic integrated process or systems in IMFs
Information content = numerical - and qualitative about intangibles

***Social and Influence processes** – two way and multilateral between companies, FMs, analysts and others in MFI*
Involve processes of subjection and internalisation of other party's aims and values – especially shareholders

Outcomes of **ongoing processes**

- *=change **Market states** or = change in MFI states, & Stock market states*
- ***=** Above current – economic-social activity ➔ Reproduce existing MFI social structures & processes*

***Market states** or outcomes* of **ongoing processes** *= change in MFI states, and in Stock/security market states*
MFI *state changes =Information set, Knowledge, Confidence, +Consensus about these +Dominant narrative*
(about companies, industries, economies, stock market)
Stock market *state changes =Price, volume, volatility, liquidity*
Eg Analysts provide benchmarks for consensus valuation, forecasts, and advice in the MFI
Eg FMs under and over weighting of stocks provide benchmarks for FM consensus views relative to small investors
Eg Company top management provide consensus ratings for top/weak analysts and FMs. Latter do same for company management

***Knowledge / Learning processes** & issues in IMFs and the MFI*
= Each IMF learn and create expert knowledge (about companies, about self, other IMFs, MFI and security markets)
= Exchange of knowledge about company value creation processes and about other IMF's value creation=share in social contexts
= Each IMF exploits knowledge about companies, about each other, and about markets for information & stock markets
=Shared IMF and MFI knowledge as key social context guiding actions and behaviour in firms and markets
=Major limits of existing finance theory to understands and exploit soft intangibles information in IMF decisions – hence limited use

Outcomes of Longer term processes

- ***Change** – Accelerate process of change in IMFs & MFI structure during crisis/ failures*
- ***Change and** Evolutionary processes – novel forms arise in IMFs, their structures and processes
- Knowledge about the above

Outcomes of Longer term processes
***Change** – Accelerate process (eg learning, evolution of IMFs & MFI) during crisis/ failures in MFIs, financial markets & financial firms*
Change and Evolutionary processes – novel forms arise in IMFs, their structures and processes.
eg Evolution of Company financial communications, FM roles and types, analyst roles and types, financial media role
Change and Evolutionary processes – learning critical – change arise in MFI – eg changing increasing significance of
-shareholder wealth maximising agenda and concerning related user information needs
-private company meetings and direct information from companies rather than intermediated information
- 'soft' information – alone & with 'hard' information – in company business models/ role of intangibles in value creation and valuation

***Appendix 1		Field studies in the MFI***

1.1 Field studies on corporate disclosure in the market for information.

Using a grounded theory approach Gibbins et al (1990) developed a framework for corporate disclosure. Firms developed a stable two dimension internal preference for managing disclosure to analysts, investors, consultants, auditors, regulators and other external parties. The first dimension was based on an apparently uncritical acceptance of rules and norms for disclosure in this external world. The second involved a firm propensity to seek firm specific advantage in how disclosures are made and interpreted. This preference developed as a result of external market factors as well as internal firm factors. The attributes of disclosure that were managed included the information itself, and its timing and interpretation. Structure in the firm and in the external world and its information demands, had an important influence on disclosure outputs, as did external mediators and consultants, as well as opportunities and norms in the current situation.

Holland (1998a) described how large UK companies communicated with their institutional shareholders, and investigated how this private disclosure process relates to financial reporting. The article drew from case studies based on field research interviews with senior executives in 33 UK companies during 1993-94. Four insights into corporate disclosure arose from this case data. Firstly, a private disclosure process to institutional shareholders was outlined. This concerned comment on public quantitative disclosure and new qualitative disclosure about corporate intangibles in value creation. Secondly, the private disclosure activity was recognised as a significant part of a larger corporate decision concerning public versus private voluntary disclosure in the ‘market for information’. Thirdly, a range of factors were identified as encouraging private disclosure. These include the perceived limitations of financial reports (annual reports and interims), both as a disclosure mechanism in their own right and by comparison with private disclosure channels. Finally, despite these limitations, financial reports were recognised as a central component of a larger corporate disclosure system. The article therefore provided a novel insight in the role of financial reports in the larger corporate disclosure process, and the wider information system.

Holland (1998b) using the same data as above revealed that *in economic terms* company management sought to balance public and private voluntary disclosure (numerical and intangibles) so they could gain the perceived market and public domain benefits of public disclosure without threatening the perceived exchange benefits of private disclosure. Company management sought to publicly disclose towards the point where the perceived reduction in the agency costs of equity capital equalled the increased costs of public disclosure to markets and the public domain. However there was some scepticism in the company cases concerning cost of capital and liquidity benefits in the stock market arising from financial communications in the MFI.

In *social terms* company management sought an optimum mix of disclosure (content, behaviour, public and private), to maintain the corporate reputation for disclosure amongst core agents (FMs, analysts, and journalists) and the wider MFI. Desirable changes in their core FMs and in their states of confidence and knowledge were perceived as a longer term intermediate means to influence wider market states in the MFI (information set, confidence etc) and the stock market (prices, volatility, liquidity and volume trades etc). Corporate management expected to gain reciprocal benefits from supportive MFI actors during transactions such as takeover bids. Exchanging private information with a network of FMs in the MFI was a means to build up reputational capital in the market for senior executives.

Holland (2005, 2009) extended the above research work by conducting further field research in large UK companies during 2000-2004. Holland (2005) outlined a grounded theory of corporate disclosure comprising, disclosure of the corporate story of value creation and intangibles, managerial optimism and opportunism, and of continuous corporate interactions the ‘market for information’ and the stock market. The disclosure activity led to cumulative corporate learning about perceived ‘market for information’ outcomes and stock market outcomes and their ‘fragility’. Corporate learning was reinforced by private and public interactions with fund managers and analysts. This fed back into cumulative corporate understandings and experiences (priors) of their disclosure behaviour which then became drivers of subsequent disclosure. These interactions and the corporate responses revealed the dynamic element to corporate disclosure behaviour.

Holland (2009) used the same case data as Holland (2005) above to explore empirical patterns concerning the structure of corporate disclosure content to MFI actors (such as sell side analysts and fund managers). This paper revealed that corporate private disclosure content has structure and this is critical in making “invisible” intangibles in corporate value creation visible to MFI actors and other capital market participants. Structure to corporate disclosure content was based on three common and connected value creation processes in the corporate business model (IIRC, 2011). These involved hierarchical, operational, and relational value creation processes. Structure to content was based on the use of similar categories of corporate intangibles in corporate disclosure about value creation. It was based on common underlying structure to corporate narrative structures such as sequences, events, consequences, roles etc. It was based on these combined narrative and value creation structures. It was also based on common change or response qualities of the value creation story as well as persistence in telling the core value creation story. The structure of disclosure content was a source of information per se for MFI actors, as well as specific disclosure content revealing the more specialised narrative about a company business model and value creation. Disclosure content structure created an informed context for MFI actors and other capital market participants to interpret the meaning of new events in a more informed way.

Chen, Danbolt, and Holland (2014) extended the above research work by conducting further field research in banks and bank analyst in 2007-2009. This research was required because of changes in banking over the previous two decades and because the 2007-2009 financial crisis added to concerns about existing bank business models. Using qualitative data collected from interviews with bank managers and analysts in the UK, this paper developed a grounded theory of bank intangibles. The model revealed how intangibles and tangible/financial resources interacted in the bank value creation process, and how they actively responded to environmental changes. It showed how this model was the basis for corporate disclosure of ‘soft’ information to bank analysts and other MFI actors. It illustrated how bank intangibles were understood by external MFI observers such as analysts, and how bankers and analysts differed in their views.

Mayorga, (2013) further developed Gibbins et al (1990) model of corporate disclosure through semi-structured interviews with 22 experienced senior managers from diverse companies. These were identified as those managers (company secretaries) likely to have best knowledge about the structures used to manage continuous disclosure and the problematic areas their companies face in managing compliance. Corporate disclosure experience of key managers, formal and informal structures and guidance, established disclosure practice, and relationships with analysts, auditors and legal counsel, formed the set of corporate knowledge based intangibles used to manage disclosure. Large companies primarily use structured disclosure processes and responsive communication networks whereas small to medium companies rely on informal processes and interpersonal communications. There was a consensus amongst the companies that their primary disclosure concern was to satisfy the information needs of shareholders and keep the market informed. Managers were also concerned about being responsive to analyst expectations, and sought to improve their reputation, and maintain (large companies) or build (small and medium sized companies) their analyst following.

1.2 Field studies on fund manager research and role in the market for information.

Holland and Doran (1998) describe how UK fund managers (FMs) sought to acquire an information and influence advantage from the relationships they enjoyed with their investee companies. The FMs invested much time and effort cultivating these private links and contacts with companies set in a wider 'market for information' context. They sought private information on the intangible factors driving company value, and they sought to confirm and discuss public information about the companies. Their aim was to produce added value in stock selection and asset allocation decisions.

Holland (2006) explored how FMs dealt with major problems of ignorance and uncertainty in stock selection and in asset allocation decisions. The FM case data revealed the nature of their private information agenda with companies, as well as with analysts and other actors in the MFI. This concerned corporate intellectual capital or intangibles and the dynamic connections between these variables in the corporate value creation process or business model. Private information was combined with public sources to create a knowledge advantage within fund management teams. The FM expert knowledge was used to construct a FM 'mosiac' concerning corporate value creation, valuation, and risk. Subjective sources of information on company intangibles were used in numeric estimation and valuation models. These sources were central to stock selection, portfolio decisions and risk management. The latter focussed on downside risks. The case data provided insight into how the corporate book value and market value gap arose and the special role of information on intangibles and intellectual capital in valuing the company.

Roberts et al (2006) revealed many insights into the impact of the MFI social context ('relations') and their disciplinary effects during company management private meeting with institutional investors such as FMs. The authors used Foucault's analysis of power/knowledge to explore how the meetings shaped executive subjectivity. The meetings created conditions for processes of executive subjection to institutional investor or FM power. These include the anticipatory self-discipline of executive's extensive rehearsals for the meetings, and secondly in the rituals of face-to-face scrutiny of the meetings themselves. Company management subjection to investors allowed management to speak on behalf of the investor within the business and take strategic actions in the name of shareholder value.

Barker et al (2012) used field research to explore why FM private meeting with investee company management were considered to be FMs most important sources of investment information. Their core explanations based on their evidence is that *'the characterisation of information in conventional economic theory is too restricted, that fund managers fail to act with the rationality that conventional economic theory assumes, and/or that the primary value of the meetings for fund managers is not related to their investment decision making but to the claims of superior knowledge made to clients in marketing their active fund management expertise'*. This raised questions about existing economic theory and tests of information usefulness. They argued for further research into the role of tacit knowledge in equity investment decision-making, and also into the effects of the principal–agent relationship between fund managers and their clients.

Holland (et al 2012) explored how fund managers acquired and used company intellectual capital (IC) information in their routine equity investment decisions. On-going investment activity contributed to knowledge creation in the FMs, and investee company knowledge creation was affected by the FMs. FM knowledge was an important component of the key interacting and informed contexts surrounding FMs activities. The findings provided insights into how FM knowledge creating patterns could limit or progress a common language of communication between companies and markets on the subject of IC. This could impact on the quality of corporate disclosure and on FM research and accountability processes.

Coleman (2014) interviewed fund managers to examine their use of finance theory. The evidence indicated that conventional finance theory was too impractical to use due to weak foundations, non-availability of data and omission of intuitively important material. Weaknesses arose because the theoretical decision paradigms was not validated with practice. Coleman argued for a better descriptive theory to translate research-practitioner knowledge.

Holland (2014) outlined a behavioural theory of the fund management (FM) firm comprising, investment decisions (at stock and portfolio levels) by teams and individuals. It demonstrated how FM organisational processes mobilised resources within hierarchy to enhance investment team decision conditions, decision costs and processes. These were expected to improve the chances of FM success via new information production (internally and in the MFI) and better quality decisions. The dynamic elements to FM firms was interpreted as tentative organisational means to deal with major problems of behaviour, uncertainty and information asymmetry at the heart of the valuation, investment, and performance problems facing FMs in the 'market for information' and stock markets.. It was argued that this approach provides an example of how to conduct research on a range of other MFI actors and firms such as sell side analysts, journalists and rating agencies.

1.3 Field studies on sell side analyst research and disclosure in the market for information

Barker 1998) developed a grounded theory of the market for information derived from field interviews with finance directors, analysts and fund managers with respect to stock market information flows. The evidence suggested that 'raw' data flowing directly from companies is of considerably greater importance to fund managers than 'processed' data generated by analysts. However, analysts play an important role in the market for information, as both mechanisms of information efficiency and as providers of benchmarks for consensus valuation. Barker argues that this suggest that that the research literature has not paid sufficient attention to the role of accounting information in direct communication between companies and fund managers. This has meant that the role of analysts in share price determination has been overstated and only superficially understood.

Marston (2008) investigated how company meetings with analysts and investors have changed over the period 1991 to 2002 due to company- or market-side change drivers. Companies and their investor relations professionals ranked one-to-one meetings as the most important communication channel with analysts and investors both in 2002 and 1991. Companies were positive about their relationship with analysts and investors with similar perceptions to those held in 1991. Issues of shareholder value and company strategy were increasingly the most important topics discussed in private meetings with analysts. The number of one-to-one meetings and audience size had increased over the period. The number of meetings held by companies increased with a higher number of institutional investors, greater analyst following, foreign listings, extreme market-to-book values (high intangibles) and recently issued share capital. Audience size was driven by company size and sell side analyst following. The existence of foreign listings was the most important explanatory variable for the size of the audience of buy-side analysts and fund managers.

Holland et al (2014) develop a model of the information intermediation role of analysts in the 'market for information' (MFI). The paper illustrates how the same type of 'soft' intangibles information changes as it progresses through analyst information intermediation processes. The latter concern: company disclosure; analyst acquisition and analysis of company information; and analyst reporting and disclosure processes. The common information concerns 'soft' or qualitative information about the company intellectual capital (IC) or intangibles in the company business model. This information is the basis for detailed business analysis of a company as precursor to the production of financial analysis, forecasts and investment advice. The business analysis information is normally disclosed via private means and has increasingly becoming a core part of the analysts information product (Haig, 2014). Soft information serves as a 'litmus test' to explore analyst information intermediation because it is sensitive to the influence of social, knowledge and behavioural factors in the MFI. Banks and bank analysts are used as examples.

Haig et al (2014) discusses how independent investment research has developed since the recent global financial crisis. Field research, documents and event participation were used to investigate the reasons for the change in the equity research market. Independent equity researchers differ from the sell-side analysts based in investment banks and their brokerage operations. Independent researchers are less prone to the conflicts of interest in conventional sell side analysts. Both deliver investment analysis to fund managers and their buy side analysts. Independent researchers vary as group with some producing the same type of information as sell side analysts but others producing more specialist reports. A key environmental change has involved new regulation on "commission unbundling" and the redirection of some research commission payments away from the sell side to the independent analysts. Commission unbundling was introduced in 2003 (in the UK) and 2006 (US). This has led to changes in the flows of information in the MFI and in structures of the MFI. FMs as research users are seeking to manage research costs in more explicit ways and are using independent analysts to diversify their information sources and put downward pressure on research costs.

The above longer term change process in the MFI indicated that key elements such as: the forms of information intermediation; their information products; information users and their needs; and the wider market for information; evolve together over time. Intermediaries initially invent new information products and charge high margins for them. Markets, customers and intermediaries eventually commodify these products creating further incentives to innovate. In Sections 3 and 5 these changes in the economic process in the MFI are explained as examples of Merton's 'financial innovation spiral' (1998).

Environmental change such as the failure of analysts during the dot.com boom in 1997-2000, and the financial crisis 2007-09, contributed to the major regulatory change involving the unbundling of research commissions from equity trading commissions. This has coincided with the increasing role of knowledge based intangibles in corporate value creation processes and value (Chen et al 2014). At the same time conventional sell side analysts information processing has become increasingly routinised and automated, and has produced lower commissions for sell side analysts. Traditional analyst products (as forecasts, valuations etc) have become commodified in active information markets (Economist Sep 21st 2013). It has become difficult for FMs and other information users to differentiate between these standardised products and to identify new pieces of information. These environmental changes have combined and stimulated supply side and demand changes in the MFI. FM customers or clients have responded to the changes by demanding more sophisticated 'soft' information products from both research sources.

As Haig et al (2014) notes equity research specialists have learnt about change and responded by developing new types of equity research in the form of the independent or boutique analyst researchers. These actors are less prone to the conflicts of interest in conventional sell side analysts. There have also been adaptations to 'traditional' sell side analyst information products. In both cases they have sought to develop and exploit their knowledge based advantages in information production and products and hence boost or protect research fees. Chen et al 2104 provide examples of bank analysts doing this. FMs as consumers of research are demanding deeper insights into business analysis concerning business models and the role intangibles, in company value creation in competitive markets. These add context to more conventional information products such as financial analysis and forecasts. Haig (et al 2014) argue that users are seeing the business analysis as the most important part of the new information products. It is more useful in investment decisions to be able to identify the most likely change in direction and scale of value rather than relying on the spurious and suspect accuracy of a forecast or valuation in an uncertain world. Specialist equity researchers argue they can develop sophisticated business analyses for FMs clients (Haig et al 2014), and also enhance FMs ability to develop these analyses.

Change has also occurred to the financial journalism function in the MFI in the same period since 2000. Journalists provide information to many MFI participants and receive information from them. The high quality financial media (FT, WSJ, Bloombergs, BBC) focuses (in part more) on investigating matters of concern to wider society (such as corporate fraud, market abuse, regulatory failure) and making these public. Many of these are commercial businesses and financial journalists are subject to economic constraints. However, they are also more involved with issues of democratic accountability and the legitimacy of the finance system, than other MFI actors. Company executives, analysts and FMs are more focused on public and private disclosures and wealth issues. However these activities overlap and contribute to consensus narratives, outlier narratives and confidence in the MFI and stock markets. Maise (2014) notes the declining resources available to financial journalists. Sell side analysts have also seen a decline in resources allocated to their activities, but both they and independent equity researchers command many more resources for the private production of information about companies. As a result, the investigative role of journalists has been partially replaced by equity research specialists (Maise, 2014). This part privatisation of what was previously a core journalist activity has meant that companies and MFIs are less accountable to democratic processes in wider society.

The above reveals that experience of change has stimulated learning amongst MFI actors such as analysts, journalists, and FMs and led to the development of new knowledge about equity research and the development of new information products, suppliers, connections, channels, interactions and processes in the MFI. In Sections 3 and 5 these changes in the economic process in the MFI are explained as examples of Merton's 'financial innovation spiral' (1998). For example, Merton (1998) predicts that these new high margin information products will be simplified as markets respond and commodify them.