TIMING PRACTICES AND MATERIAL MARKERS IN COORDINATING COLLECTIVE MARKET PATTERNS

PAULA JARZABKOWSKI
Cass Business School, City University London
106 Bunhill Row, London EC1Y 8TZ

REBECCA BEDNAREK
Birkbeck, University of London

LAURE CABANTOUS
Cass Business School, City University London

INTRODUCTION AND THEORETICAL FRAMING

Coordination of distributed action in market settings is a central topic for sociologists and organizational scholars (e.g. Abolafia & Kilduff, 1989; Asper, 2009; Fligstein & Dauter, 2007; Huault & Rainelli-Weiss, 2011). Such coordination generates collective patterns of action that are highly consequential within financial markets, including trends in market pricing (e.g. Beunza & Stark, 2012; MacKenzie, 2006), fluctuations in the buying and selling of financial products (e.g. Baker, 1984; Beunza & Stark, 2004), and even market crises (Abolafia and Kilduff, 1998). The literature generally depicts two key mechanisms of coordination arising from market's agent social "embeddedness"; social networks (Granovetter 1985; Uzzi, 1997), and culture, broadly defined to include both formal and informal social structures (Abolafia 1996; Fligstein 1990).

Social Studies of Finance (SSF) scholars differ from this view, adopting a practice-theoretical perspective on financial market coordination as distributed across market participants and the technologies over which they interact (Fourcade, 2007; Fligstein & Dauter, 2007; Preda 2009). SSF scholars' theorizing of technology is especially relevant in modern financial markets given the shift from trading floors in which traders interact face-to-face (e.g., Zaloom, 2006), to global markets, in which globally distributed market participants interact socially through electronic trading technologies (Beunza & Stark, 2012; Knorr Cetina & Bruegger, 2002; Pitluck, 2011; Preda, 2006). SSF work has moved beyond the social structuring approaches to coordination encompassed in studies of social norms and relational networks by adopting a practice-theoretical approach, which allows a close examination of those sociomaterial practices in which distributed market participants' actions are brought together in collective patterns. Such as practice approach is particularly apt given the dominance of online trading platforms (e.g., Knorr Cetina & Bruegger, 2002; Preda, 2009) and common pricing tools (e.g., Beunza & Stark, 2012; Millo & MacKenzie, 2009) that predispose continuous trading and wide pricing transparency in many financial markets (Madhavan, 2000). However, existing research has neglected a wider set of financial markets, where common tools and technologies are not present, and different trading protocols demand different means of coordination (Beckert, 2009). As a result, scholars call for further studies into the social practices that may arise in coordinating different types of financial markets, and that may also be pertinent to these technologically-dominated markets. In this paper, we therefore explore the social practices of coordination in those financial markets where a common market device, such as a trading platform or calculative tool, cannot be assumed.

We adopt a practice theory approach (Feldman & Orlikowksi, 2011; Schatzki, 2002) to study the practices of coordination in the reinsurance market, which is the financial market that provides

capital to insurance companies (Borscheid et al, 2013). The reinsurance market setting is particularly salient in addressing our research question. Unlike the financial markets studied thus far, reinsurance is a syndicated market, meaning that market participants take shares in a traded product at a common price. Syndication occurs through a blind auction mechanism: each reinsurer releases a quote to the insurance company without knowing what other reinsurers on the deal are quoting. After all the quotes have been received, the buyer (insurer) announces one of these as the single market price (Salamat & Burton, 2008), whereupon those reinsurers who still wish to participate take shares. In blind auction markets lack of transparent information about competitors' pricing is likely to generate specific types of strategic interaction, as actors anticipate what others will bid, or what the seller will take.

Another salient feature of the reinsurance market is that reinsurance deals are negotiated annually during a specific period of time, called the renewal. The market dynamic is thus "periodic" rather than "continuous" (Madhavan, 2000), similar to, for example, the trading of IPOs and other large periodic financial transactions. This "periodic" dynamic is complemented by a highly cyclical pricing pattern linked to the occurrence of catastrophic events (Meier & Outreville, 2010; Niehaus & Terry, 1993). No single actor or single deal can generate this overarching cyclical pattern: it demands the coordination of globally distributed actors trading on thousands of deals. While many markets show cyclical patterns, understanding of how the distributed actions that produce cycles are coordinated is relatively sparse, and focused on market crises and their aftermath (e.g. Abolafia & Kilduff, 1988).

Empirically, we conducted an ethnographic study of reinsurers' practices in key trading hubs around the world during the main 2011 renewal period, tracing how they came together within the collective pattern of the pricing cycle. Our findings identify timing practices of delaying, readying, rushing and settling. These timing practices are strategic in producing the material artifacts of actor's calculative work, such as quotes on specific deals. We term these artifacts material markers that serve as proxies for distributed actors' actions (Beunza & Stark, 2012; Hutchins, 1995). The interplay between timing practices and material markers is highly strategic in positioning individual reinsurers competitively within the pricing pattern that is unfolding, whilst also endeavoring, collectively to drive that pattern up.

METHODS

Empirically, we conducted an ethnographic study of reinsurers' practices in key trading hubs around the world during the main 2011 renewal period, tracing how they came together within the collective pattern of the pricing cycle. This enabled us to observe the market response to a particular make event - the Thailand floods - as it unfolded in real time. The main renewal date on which multiple deals all close is 1st of January. During this renewal period some deals will close early while others might still be being traded on the 31st December. As this deadline is fixed, if a loss-generating disaster occurs close to a renewal deadline deals are renewed before the extent of loss is known, requiring reinsurers to anticipate future loss in their current pricing. This occurred in the 2011 renewal period we studied leading up to the renewal deadline of 1st January 2012. During this time a surprise flood event occurred in the Asia-Pacific, a typical event in this market, occurred, with accurate assessments of loss being impossible prior to the renewal deadline. Reinsurers thus anticipated any price increases that might occur, as they traded on thousands of deals for the renewal deadline. In doing so, they enacted the particular cyclical pricing pattern that we now briefly describe.

We followed the renewal period with 11 key firms, purposively selected because they were reputable players operating in multiple jurisdictions covering the key global markets for reinsurance and all offered us good access across their multiple subsidiaries. Given our in-depth immersion in the practice of the market globally across multiple organizations we characterize this as a multi-sited ethnography that focused on a global phenomenon (Marcus, 1995), in our case coordination of the collective pricing cycle pattern. We collected data from a number of different sources, with all authors in the field simultaneously. First, in seven firms, we conducted non-participant, audio-recorded observation of internal meetings, client (insurer) meetings, shadowing reinsurers at key industry conferences, and sitting alongside traders doing their everyday work (Czarniawska, 2007), resulting in 253 fieldnotes of separate observations, each with time markers that enabled us to go back and listen to particular incidents of the accompanying audio-recordings during analysis. Second, we took part in 42 social interactions with participants, including lunches, dinners and Christmas parties, which were written up retrospectively as reflective notes. Third, we conducted 222 in-depth conversational-style interviews with traders, managers and senior executives in reinsurance and brokerage firms, covering the entire renewal period and its aftermath, so tracing both the real-time unfolding of the pricing cycle, and some reflective discussion after the renewal. These interviews aimed to gain insight into how participants understood the pricing cycle and rates, and the role of their own organizational practices within that cycle. As it became apparent that the Thai floods were an important event, we incorporated this into our interviewing. Fourth, we collected documentary data on the event, such as analyst reports, broker event updates, and 220 relevant media articles reporting on the losses of specific firms and estimated industry-wide losses. These multiple data sources enabled us to triangulate, enhancing data trustworthiness (Lincoln & Guba, 1985; Yin, 2009). They were all imported into the qualitative data analysis software NVIVO 9.2 to support coding and analysis.

FINDINGS

Unfolding Material Markers

The material markers, such as loss estimate or quotes, within which actors constructed their actions were central to the unfolding pattern of the pricing cycle. While reinsurers could not directly observe competitors, these various materials, produced by distributed actors around the market, were proximate indicators of those competitors' actions. Other participants reflected on these indicators and incorporated them into their own actions, particularly in regard to how such actions might shape the pricing cycle. As each loss estimate or quote is released it adds to the construction of the market, both in its individual effects and in the way it shapes the evolving interrelations between market participants. As actions and interactions become material, through the evolving markers, they shape the emerging pricing pattern.

Over the renewal period, the material markers became more specific and increased in density. Initially there were few material markers and the first material markers post-flooding were highly uncertain reports on potential overall losses from the event. Such markers provided little information about whether the event would turn the market. However, during late November and early December reinsurers slowly began to release tentative flood loss estimates for their individual firms, positioning statements in the media about the event, and some initial quotes to "test the market" (fieldnote) about how far they could push rates. In the final weeks the material markers intensified with a plethora of quotes released. As deals finalized at different times, reinsurers gained partial knowledge about those deals already settled and were able to reflect this in their

quotes on later deals. Material markers thus became more specific and, progressively, began to materialize the actual pricing cycle as reinsurers reflected others' actions in relating their own actions to the pricing cycle that was emerging. Participants thus strategically related their own construction of material markers to those of others, in the process shaping the collective pricing cycle.

Timing Practices within the Collectively Emerging Pattern

The actual pricing cycle that emerges is shaped by the timing of these material markers. While all deals must be renewed by January 1st, reinsurers have some leeway about when to act, as the timing of actions on any specific deal is not fixed. As such, reinsurers can choose to delay their loss estimate or quote for a particular deal or rush to engage in this activity. Reinsurers engaged in four timing practices: delaying (withholding or halting the release of material markers), readying (being poised to act), rushing (moving quickly to release material markers), and settling (making last minute adjustments to align with the collective pattern at a particular moment in time). These timing practices were central to an often tension-laden duality between efforts to push prices up (collective interest) and to position individually relative to competitors (individual interest). Individual actors seek to enact the market cycle in ways that benefit the collective, for example by waiting, which withholds their capital and helps to push rates up. However, they also individually position themselves strategically by rushing to snap up opportunities. Therefore, the question of when to act - as encapsulated in the timing practices surrounding the production of material markers - is highly strategic.

Delaying Practices. Even into December, reinsurers were withholding the release of loss reports on their individual firms and stalling on quoting: "Losses like the Thai floods don't happen and say 'hello, I'm a five billion loss!' The whole place has been pulled to pieces – you've got no telephones, no faxes, no computers. From there you've got to try and figure out company by company what the damage is" (fieldnote). Reinsurers delayed because there was little information about the emerging market pattern, the possible actions of competitors, or how to best position their own firm strategically. When they could not get information, reinsurers often would simply halt the quotation process. Such delaying was also strategic. If client losses were high, paying for those losses was going to hurt competitors, which meant individual reinsurers could afford to put prices up. Thus, around the market reinsurers delayed, hoping for an opportunity to push rates up. Such delaying stalled the release of capital, since deals were not being quoted, which also helped to push a message of capital scarcity and thus price increases. Such widespread delaying provided little clarity over how the pricing cycle would emerge.

Readying Practices. For reinsurers if they move too early this might mean they do not help push rates up even higher. If they move too late they risk missing out on current opportunities if competitors move first. All around the market, actors began similarly readying themselves to act as they juggled this tension: ensuring they were ready to use their capital to move quickly on well-priced deals when the time is right. An early loss estimate or quote allows them to lead the market with decisive statements (to push rates up in the collective interest) and/or capitalize on deals before their competitors (individual interest). However, an early quote has few reference points from which to gauge competitor's positions (individual interest), and risks lessening the cycle effect of the event by providing capacity rather than continuing to withhold it to increase prices (collective interest). Reinsurers thus teetered in a state of readiness during late November and early December, putting out a few test quotes and keeping alert for any materials showing agreed prices,

or details of losses. These readying practices keep traders poised for early cues about the emerging pattern this year, even as the initial tentative releases also shape that emergence.

Rushing Practices. Rushing started in different markets at different times and increased during December. For instance, deals began to close earlier in Europe than in Asia as different market actors like Sally judged the best time to provide a client with a quote. However, generally, as the material markers became increasingly specific more actors rushed to act in an effort to increase the upturn in the pricing cycle (collective interest), for example through high quotes, and also positioning themselves to capture a share of any rate increases (individual interest) by confirming their capital availability to clients. For instance, looking at a reported loss, a manager urged his team to release their quotes, and push for higher rates: 'you should get rape and pillage prices on deals: try for some significant improvements [in rates]' (fieldnote). As quotes were rushed through around the market, individual reinsurers had to make decisions that combined their individual strategic interests with their perceptions of the potential for collective increases. As prices on some deals emerged, these rapidly shaped the still-outstanding quotes, so beginning to materialize the collective pattern of the pricing cycle this year.

Settling Practices. During the final days of December, actors across the market are being told the prices of those deals on which they have quoted. They are each able to build, from these material markers on deals that they know about, a composite picture of the pricing pattern being instantiated in this particular cycle both in specific areas (e.g., Malaysia), as well as the extent of pricing ripples in the global market (e.g., in Thailand and parts of Asia with similar flood characteristics). If they want to take part in deals that are rapidly closing, they need to make last minute adjustments to align with that pattern. Actors settled deals at whatever prices they were able to achieve in these last moments before the renewal deadline.

The pricing cycle thus crystallized, in the rapid accumulation of rushing and settling practices of distributed actors. Responding to the collective pattern in their own release of material markers (e.g., quotes and acceptance of closing prices on deals) was thus central to their individual interest in winning business which in turn helped further materialize the collective response of a local, not global, increase in the pricing cycle in this particular trading period. In settling at the last moment, in order to capture business, firms reacted to and increased the density and specificity of material markets within which the pricing cycle was being materialized and in doing so collectively enacted that particular pattern.

Strategically Expanding and Contracting Time

We suggest that these timing practices are strategic, as distributed actors attempt to achieve the duality of collective and individual interests by strategically manipulating time. We conceptualize the association between these timing practices and the material markers as expanding time by withholding the production of material markers and contracting it by intensifying the activity associated with their production. For example, during delaying there are fewer material markers released, whilst rushing and settling generate many, and increasingly specific, material markers. Our findings show that the strategic timing of when to act is critical to how market actors balance their strategic priorities of both pushing rates up (collective interest) whilst also ensuring their own strategic position in the market that is unfolding (individual interest). Importantly, these dynamics are happening on each of thousands of deals around the market, with no actor knowing what others are quoting and, even when prices are settled, only knowing prices on those deals on which they quote. Hence, the recursive loop between the timing practices and the material markers is critical to coordination of these distributed actions within a specific pricing cycle pattern. That is,

while delays produce few markers, more actors delay, waiting for markers to inform action. As readying leads to a small trickle of actions on some deals, markers are produced that motivate others to act on those deals and test a few others. As more markers are produced, more actors have information, from which to rush through even more markers on more deals, that then provide the basis for settling as the pattern becomes widely apparent and the remaining deals are adjusted to the pricing cycle. In this recursive loop of timing practices and material markers, the actions and interests of distributed actors both shape and are shaped by the collective pattern that emerges.

CONCLUSION

This paper examines the practices of coordination within financial markets that do not have an online technological platform or common model enabling continuous and transparent trading. Our study is guided by a practice perspective, in which markets are understood as collective patterns of action instantiated within the practices of distributed individuals (Feldman and Orlikowski, 2011; Schatzki, 2002). Our findings on the recursive relationship between distributed actor's timing practices and the material markers they produce reveal an interesting tension between individual and collective interests that is at the heart of coordinating this collective pattern in the reinsurance market.

Our framework advances theory on the collective work of financial markets to encompass a wider range of market microstructures and their practices of coordination. We move beyond the dominant theorizations of coordination in financial markets (Apsers, 2009; Beckert, 2009; Knorr Cetina & Bruegger, 2002) to contribute understanding about coordination where real-time connectivity is not possible between distributed market actors in those understudied financial markets that share similar characteristics to the reinsurance market. We also provide deeper layers of understanding about the temporal and strategic nature of coordination in any financial market.

First, we shift the discussion of coordination in financial markets beyond a dominant focus on calculative practices (Asper, 2009; Beckert, 2009; Callon 1998; Callon & Muniesa, 2005; Muniesa, Millo & Callon, 2007) to examining the strategic timing of such practices (Ahrne et al., 2015). We show how this timing shapes both individual strategic interests and collective market interests, so embedding existing work on calculative practices in the context of strategic interactions between market participants. Second, we extend concepts of materiality within financial markets beyond the technological affordances (Zammuto et al, 2007; Leonardi & Barley, 2010) of common trading platforms and pricing tools. We show how actors both shape the collective work of the market through a range of material markers, and how their actions are also shaped by the temporal unfolding of these markers. Third, our findings advance theory on the collective work of financial markets (Knorr Cetina & Brugger, 2002) to encompass a wider range of market microstructures and their practices of coordination. In doing so, we open up the potential for theorizing about both existing studies, which have largely focused on continuous trading, double auction markets, and also other types of financial markets which may operate on a periodic and/or blind auction basis.

REFERENCES AVAILABLE FROM THE AUTHOR