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Pluralistic Ignorance, Risk Perception, and the Governance of the Dark Side in Peer-to-Peer Transactions: Evidence from the Indian Banking Industry

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Abstract

This paper investigates the role of pluralistic ignorance as a credible governance mechanism mitigating the emergence of the dark side in peer-to-peer transactions. Using the empirical context of the Indian banking industry, this paper identifies three underlying dimensions of pluralistic ignorance arising from firm, relationship, and institutional factors and links them to peer-to-peer transaction preferences, especially under conditions of uncertainty. By focusing on a particular type of interorganizational relationship that is recurrent but devoid of specific asset investment, this paper provides an alternative governance mechanism that complements the formal and relational contract-based approaches to mitigating the dark side in interorganizational transactions prevalent in the existing literature.

Keywords: *Pluralistic Ignorance, Dark-Side Governance Mechanisms, Contagious Risk Perception, Peer-to-Peer Transaction, Nonperforming Assets, Indian Banks.*

1.   Introduction

The existing literature predominantly focuses on contracts as governance mechanisms to mitigate the dark side in interorganizational transactions. Contracts can either be drawn formally or understood informally and psychologically. Informal or psychological contracts often are reciprocal and obligatory, are based on trust and relational norms, and take time to build (Kingshott, 2006; Kingshott & Pecotich, 2007; Rousseau, 1990; Rousseau & Tijoriwala, 1998). While trust-based relationships strengthen over time, they are also prone to inertia, boredom and complacency that augur the dark side (Friend & Johnson, 2017), which in turn violates the foundations of such contracts, leading to relationship severance (Kingshott, 2006). Formal contracts govern via contractual explicitness and expectations of continuity (Villena, Choi, & Revilla, 2020), predicated on mutual forbearance arising from relationship-specific asset investments. However, expectations of continuity in such relationships (e.g., in a supply chain) (Mooi & Frambach, 2012) are prone to unilateral dependence (Anderson & Jap, 2005; Yang, Sheng, Wu, & Zhou, 2018), and asymmetric dependence potentially leads to behavioral opportunism (Williamson, 1973, 1985). A relationship riddled by opportunism is temporarily sustained on the forbearance of the disadvantaged party. Such exchange relationships, despite explicit contracts, are prone to the dark side. Consequently, the emergence of substitutes or new entrants (Porter, 2008) either reset the bargaining power or sever the exchange altogether.

Despite the above limitations, the literature remains fixated on long-term relationships and contracts as possible governance mechanisms to mitigate the potential dark side. However, it has inadequately examined the corresponding governance dynamics in an emerging and increasingly important exchange relationship, namely, peer-to-peer transactions (P2PT). P2PT

may not have underlying power dynamics, and they are recurrent in nature but lack relational characteristics. How is the potential dark side governed in such exchange relationships?

This paper focuses on P2PT relationships that are embedded in the institutional context of the commercial banking industry (Aulakh & Basu, 2018) and identifies mechanisms through which the dark side is governed in such relationships. In particular, we propose that pluralistic ignorance (PI), derived from *cognitive dissonance theory,* serves as an effective governance mechanism in such relationships. The theory describes a phenomenon where a group of individuals privately believe in a proposition but mistakenly perceive that other members of the group do not believe in that proposition (or believe in a counterproposition), and hence align themselves with or prefer the mistaken perception (O'Gorman & Garry, 1976; O'Gorman, 1975).

We join the conversation on the dark side by considering endemic risks in P2PT from the behavioral perspective of loss (March & Shapiro, 1987). These risks have contagious characteristics that cascade (Davis & Lo, 2001) across the channels of peer transactions (Jorion & Zhang, 2009), potentially threatening all peers within a network of exchange (Caccioli, et. al, 2015; Kraft & Steffensen, 2007). This cascade triggers a reaction of self-isolation (Cifuentes, Ferrucci, & Shin, 2005) in a bid to restrict the spread of contagion (Furfine, 2003) and results in potential (or actual) severance of relationships, thus auguring the dark side in P2PT. Further, information asymmetry, including misinformation on the nature of risk, exacerbates trust deficits among peers (Todd & Metlay, 1996), thereby strengthening the dark side. If P2PT is guided by *a priori* considerations guiding the rules of exchange, then such considerations can act as governance mechanisms that mitigate the dark side from the perception of contagion risk. Thus, there may exist cognitive dissonance between private risk perception triggering a dark-side desire to sever exchanges and extant considerations that govern and sustain P2PT relationship.

In this study, we define the *dark side* in P2PT as problems, challenges, difficulties, or *threats at large* that potentially or actually disrupt, terminate, or decrease P2PT preference. Thus, in the presence of a threat, the dark side emerges if P2PT preference decreases. Our definition is consistent with definitions used in the literature (Abosag, Yen, & Barnes, 2016; Abosag, Yen, & Tynan, 2015). We define *pluralistic ignorance* in terms of an existing *a priori* group activity or preference (P_1), which is subjected to an external stimulus that is likely to alter cognitive risk perception *against* an activity (potentially leading to ~P_1) but dissonantly increases the collective preference to continue that activity due to underlying rational considerations. In the context of our study, P2PT constitutes the group activity or preference, while information on enhanced levels of contagious risks constitutes the external stimulus. Our definition is consistent with definitions used in the literature, including the aspects of rational consideration (Bjerring, Hansen, & Pedersen, 2014). We define *risk perception* from the cognitive perspective of counterparty risk with contagion characteristics that distress immediate creditors (Jorion & Zhang, 2009) in P2PT while triggering a cascade of distress to other creditors linked with one another (Caccioli, et. al, 2015; Kraft & Steffensen, 2007) along the channels of a transaction (Jorion & Zhang, 2009). Enhanced risk perception increases the likelihood of the dark side by decreasing P2PT preferences.

Empirically, we choose the context of the interbank lending market of the Indian commercial banking industry, focusing on a specific *external stimulus* by the regulator, namely, the Asset Quality Review (AQR) and the subsequent restrictions under the Prompt Corrective Actions (PCA) framework on banks. Here, interbank lending/deposit constitutes P2PT. The regulator-initiated AQR unearthed high nonperforming loans/assets (NPA) in banks. A relative increase in NPA after the AQR event implies potential increases in liquidity cum default risks

with contagion characteristics and increased risk perception in interbank lending. An unchanged (or increasing) volume of interbank lending post-AQR implies sustained P2PT preferences, while a reduction suggests dark side-related disruption. Sustained P2PT despite high contagion risk, controlling for exogenous inducers such as returns, suggests the presence of PI as the governance mechanism mitigating the emergence of the dark side in P2PT.

This paper aims to contribute in three distinct ways. First, we propose PI as an alternate governance mechanism in controlling the emergence of the dark side in interorganizational relationships. By highlighting the rational considerations underlying sustained preferences in relation to a dissonant perception, we contribute to the governance mechanism stream of the dark-side literature. Second, we provide an alternative paradigm to the literature on risk perception and transaction preference by using the concept of PI, especially when risk perceptions and transaction preferences appear cognitively dissonant. Third, we contribute to the objective construction of PI by providing *three* process-level measures that help explain the switch from private discordant perception to a collective explicit and concordant preference. We therefore establish a rational grounding for seemingly irrational behavior. On a less contextual note, we also contribute to the peer-to-peer literature by highlighting the effects of contingencies that affect such transactions.

2.   Theory and Hypotheses

The literature largely portrays PI as an *outward manifestation* of cognitive dissonance of a decision maker (Halbesleben & Buckley, 2004). Its genesis lies in the illusion of universality of an opinion, i.e., an individual's inaccurate perception of the pervasiveness of an opinion among other members of a group (Allport, 1924). Formally coined by Katz & Allport (1931), PI highlights the difference between the *self-reported individual perception* to an external stimulus

and the *non-self-reported* observable preferences of an individual as part of a group (O'Gorman, 1986). Subsequent research referencing rational choices clarifies that in response to a stimulus, an individual within a group exercises a preference P_1, similar to that of other group members. However, when asked to justify the rationale behind her preference P_1, she betrays (via self-reporting) a perception that would logically lead to a different preference P_2 or even an anti-P_1 ($\sim P_1$) (O'Gorman & Garry, 1976; O'Gorman, 1975; Westphal & Bednar, 2005). This dissonance between perception and preference has led some scholars to consider PI as an individual-level cognitive error that is irrationally applicable to all members of a group (Halbesleben & Buckley, 2004; Krech & Crutchfield, 1948; Prentice & Miller, 1993; Bjerring, Hansen, & Pedersen, 2014).

Scholars have investigated and identified four antecedent factors of PI (Bjerring et al., 2014): (a) the differential interpretation hypothesis (Prentice & Miller, 1993); (b) the differential encoding hypothesis; (c) minority influence (Halbesleben, Wheeler, & Buckley, 2007); and (d) the desire to maintain social identity. Differential interpretation involves a decision maker mistakenly interpreting that others prefer an external stimulus that she personally does not like, while in reality, others may also not like the stimulus. Differential encoding implies that the outward action of a decision maker appears to endorse an external stimulus, while she may privately oppose the stimulus. Under minority influence, each member of a group mistakenly considers the minority perception within the group to be the (majority) representative preference of the group. The desire to maintain social identity implies that members of a group believe that group affiliation leads to higher payoffs/benefits derived from endorsing the group preference than from opposing the group preference by playing on individual perceptions.

In its present stage of development, PI has two fundamental limitations. First, the four antecedent factors do not help explain the nature of processes or activities that help sustain the

preference within the black box of PI. Second, PI compares observed group preferences with notional/self-reported perceptions of an external stimulus that deviates from the observed preferences. This approach has reliability issues derived from self-reporting bias. What if each individual misreported her private perception under the influence of an external stimulus? What if the threshold of perception leading to $\sim P_1$ was never breached, leading to consonance between perception and preference in reality? The literature on PI has only superficially addressed these questions by referring to estimation errors. We believe that this limitation lends scope for further scholarly investigation. We address the literature gap by illustrating an example of an external stimulus with an unambiguous perception, potentially leading to logical outcomes/preferences $\sim P_1$ for an individual decision maker. However, an *a priori* combination of rational considerations results in exhibiting preference P_1 (instead of $\sim P_1$) at the collective level. This means that the perception of contagious risks in P2PT potentially triggers the dark side, leading to relationship termination preferences ($\sim P_1$). However, *a priori* rational considerations induce PI, acting as an effective governance mechanism to mitigate the dark side and sustain P2PT (P_1).

Further, in theorizing the association between PI and the dark side in P2PT, we rely on an *underemphasized* but important aspect of PI. We observe that *preference P_1 has a continued existence* before the application of an external stimulus. The stimulus only causes the self-reported perception to *notionally* show a possible preference for $\sim P_1$. This observation is important, as it provides a basis to *build on the (rational) considerations* perpetuating *preference (P_1) as a process activity*. Fundamentally, in an exchange relationship, such rational considerations can exist at the level of (a) the firm, (b) the environment and (c) the transaction between the firm and environment. We systematically investigate these three considerations and their effects in mitigating the dark side.

2.1 Firm-Specific Inertial Routines and Dark-Side Governance Mechanism

We make the following assumptions for simplicity and without any major loss of generality. First, peers are embedded in an institutional environment and are under some form of regulatory supervision regarding transactions. Second, peers are rational entities, and hence, they do not resort to reckless risk taking. Third, because peers are rational and embedded in an institutional environment, they are not afflicted with the *ostrich effect,* i.e., paying selective attention to some issues while ignoring the rest (Karlsson, Loewenstein, & Seppi, 2009).

Since peers are under regulatory oversight, they likely have evolved routines that enable them to comply with mandatory rules and regulations that form a dominant aspect of the regulatory environment (Dess & Beard, 1984; Drake, Hall, & Simper, 2006). These routines are configurational outcomes enabling firms to overcome environmental uncertainties (Khandwalla, 1973), and the choice of the structural configuration is contingent upon the decision maker (Child, 1972) and her ability to make sense of the environmental contingencies (Weick, Sutcliffe, & Obstfeld, 2005). Sense making from an environmental stimulus is an iterative process (Porac & Rosa, 1996). Dominant environmental stimuli, such as existing institutional/regulatory mandates or rules defining the modus operandi or P2PT, are likely to dominate managerial attention, as they are associated with a cost for noncompliance. Resources are diverted towards the interpretation, implications, and implementation of these mandates. Consequently, managers divert their sensemaking process towards those dominant stimuli (Weber & Glynn, 2006). Once managerial focus is directed and resources are committed, firms build rationally justifiable and operationally reliable structures and processes (Hannan & Freeman, 1984) and continue iterating them for enhanced efficiencies. Resource commitment calls for accountable, reliable and stable

structures with formalized and standardized processes that can normatively continue replicating the intended set of activities over and over again (Nelson & Winter, 1973, 1982).

The process of institutionalization, formalization and standardization leads to the emergence of structural inertia in a bid to maintain the status quo with respect to deliverables (Hannan & Freeman, 1984) given the existing set of environmental stimuli as interpreted by managers. In the context of P2PT, this implies developing elaborate and standardized operating procedures or operating routines and capabilities to transact with one another, resulting in a complex network of interdependent transactional relationships (Xu, He, & Li, 2016). Rupturing one link in the complex network ruptures the routines, with a domino effect on the entire network of transactions (Little, 2002). In addition, staying interconnected by continued transactions fosters a feeling of *too interconnected to fail*, a sense of strength in numbers (Markose et. al, 2012). Further, the effort to maintain the status quo in the complex network of transactional relationships and the benefits of sustaining routines and standardized procedures lead to further inertia, which prevents the cognition of transient events (Barr & Huff, 1997; Hodgkinson & Wright, 2002). Consequently, any other external and transient stimulus, despite increasing individuals' perception of contagious risks, is unlikely to *overcome inertial routines* towards the sustenance of transaction preference (P_1). Furthermore, transient environmental changes do not lead to permanent organizational change (Kelly & Amburgey, 1991) *if* organizational routines are robust enough to absorb or adapt to such change. The literature also suggests that the ability to adapt or absorb transient changes strengthens and evolves existing routines (Lengnick-Hall & Beck, 2005), thereby fostering the status quo, which in the present study implies normative inertia towards transaction preferences. Hence, we propose the following:

Hypothesis H1: Firm-specific inertial routines act as a normative governance mechanism that mitigates the emergence of the dark side in P2PT preferences.[1]

2.2 Tenure-Specific Transactions and Dark-Side Governance Mechanism

While inertial routines tend to sustain P2PT preferences, the tenure/duration of exposure to transactions also affects P2PT preferences. By tenure, we mean the time involved from the initiation to the completion or closure of a formal or informal contract. For example, in a peer-to-peer lending context, tenure would mean the time involved between borrowing and repayment. Relatively speaking, the longer the tenure, including a higher number of transactions between and across transacting peers, the higher the risk for transacting peers (Shleifer & Vishny, 1990). Consequently, there is a higher probability that the dark side emerges in the exchange relationship. This is corroborated by Friend & Johnson (2017), who highlight the problems of inertia and complacency that are endemic to long-term relationships and develop into the dark-side phenomenon. In contrast, P2PTs are generally short-tenure exchanges but repetitive in nature with existing peers, while long-tenure exchanges are fostered with other (non-peer) institutional entities (Lucchetta, 2007). This is the case especially when peers are simultaneously exchange cooperators and incumbent competitors within the same industry (Heidari, Yazdani, Saghafi, & Jalilvand, 2018; Petrou, Pantziou, Dimara, & Skuras, 2007).

In addition, short-term transactions such as emergency borrowing/lending are mutually beneficial and endemic to industry. Peers who identify with such groups/industries and mutually benefit from emergency lending/borrowing tend to remain silent on or ignore (O'Gorman, 1975;

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[1] We tested the moderation effect of enhanced risk on the linkages between the dependent variable and the respective rational considerations via subgroup level analysis. That is, we tested the effect of risk and the rational considerations in mitigating the dark side in P2PT in general (considering all time periods) and specifically after an external stimulus by a regulator, which enhanced contagious risk. However, for the purpose of simplicity in framing the hypotheses (except H4b), we do not mention the moderation effect.

Tajfel & Turner, 1986) endemic and contagious risks, as the long-term benefits outweigh the transient nature of the risks. Here, we distinguish between long-term benefits and long-tenure/-duration exchange relations. For example, the former means a large amount of short-tenure lending by multiple peers over a very long time period, while the latter means that the duration of the borrowing/lending is longer and is independent of the number of transactions or the antiquated origin of practice. We believe that peers cognitively discern the risks associated with tenure-specific transactions and have more faith in shorter tenure, as they have very clear perceptions of *duration, size, regulatory implications and contractual safeguards* (Hilary and Hsu, 2011). Hence, they are unlikely to be perturbed by risks that are endogenous to the institution (Karlsson et al., 2009). Finally, if P2PT, especially short-term transactions, are mandated by regulators for overall stability in a particular industry (e.g., interbank *overnight* lending market), it is likely that in the event of contagious risk, institutional regulators will intervene to stabilize the industry. This will instill confidence among peers to continue with their P2PT preferences, despite risk perceptions. Hence, we propose the following:

Hypothesis H2: Tenure-specific transactions act as cognitive governance mechanisms that reduce the emergence of the dark side in P2PT preferences. That is, the shorter the tenure of a transaction is, the higher the mitigation of the dark side phenomenon.

2.3 Environment-Specific Regulatory Mandate and Dark-Side Governance Mechanism

Complementing inertial routines, regulatory mandates generally affect P2PT and, by extension, the emergence of the dark side in such transactions. For example, peers cannot invoke regulatory mandates in the interest of opportunism, such as terminating transactional relationships if doing so suits their individual purposes. Regulators are unlikely to distinguish between peers based on peers' perception of risks in P2PT. Regulators are also likely to penalize

peers who tend to deviate from and/or disrupt established and *a priori* stipulated regulatory

mandates defining the terms of exchange within the industry. On the other hand, if regulators

perceive a risk in a transaction, they are likely to intervene, which affects all peers similarly. The

absence of differential costs for adhering to an established regulatory mandate incentivizes

isomorphic preferences (towards P_1), as maintaining the *status quo* in social identity within the

group (Halbesleben, Wheeler, & Buckley, 2005; Halbesleben et al., 2007) is a rational choice.

Further, such social identity legitimizes managerial preference vis-à-vis industry peers, which is

also seen as adherence to industry norms (Deephouse, 1996) under regulatory oversight.

Therefore, despite their individual perceptions of risk, peers exhibit a strong preference to sustain

P2PT. Hence, we propose the following:

Hypothesis H3: Specific regulatory mandates act as a regulatory governance mechanism that

mitigates the emergence of the dark side in P2PT preferences.

2.4   Pluralistic Ignorance External Risk Stimulus and Dark-Side Governance

Mechanism

While the three considerations (i.e., inertial routines, tenure-specific transactions and

regulatory mandates) individually mitigate the dark side, their collective effect as a governance

mechanism in P2PT requires investigation, especially from a group behavioral and

sociopsychological perspective. Peers transact in mutually fungible commodities under a

regulated context. Consequently, they are likely to have more information on the entire spectrum

of risks associated with such fungible commodities in P2PT. The fungibility of commodities and

their repeated exchanges mean that any risk embedded in such commodities continues *shuffling*

among peers, thereby distributing the threat *uniformly* within the group. This prevents risk

clustering and unique peer identification and may lead to two possible outcomes. First, with the

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shuffling in place, peers may generally perceive risks as normal business-related industry-specific affairs that can be managed within their established *organizational routines*. Additionally, with exchanges of a higher frequency but a shorter tenure, the shuffling and redistribution of risk increases, and there is a higher transient perception of risk that will continue appearing and disappearing at regular intervals. This perception is reinforced in the presence of an impartial regulator. Hence, risks become either inconspicuous and *collectively ignored* or seen favorably from a return perspective. Additionally, some peers may believe to have exclusive routine-based capabilities embedded in their organizational routines (Winter, 2003) to mitigate such risks, thereby triggering *exclusivity bias* (Monin & Norton, 2003). That belief enables them to sustain P2PT relationships. Concurrently, other peers with perceived capabilities similar to those afflicted with exclusivity bias may mimic this subgroup for *legitimacy* (Deephouse, 1996) and *social identity* (Tajfel, & Turner, 1986) within the peer group. Consequently, despite their private perception of risk, the threshold leading to the ($\sim P_1$) dark-side outcome is never attained. Hence, peers prefer the *status quo ante* with transactions, collectively or pluralistically ignoring the risk, which mitigates the emergence of the dark-side phenomenon. Therefore, we propose:

Hypothesis H4a: PI governs and mitigates the emergence of the dark side in P2PT preferences.

Second, contrary to the above position, peers may perceive some of the risks to be above normal and contagious if information about the risks is highlighted by an external entity of repute. In such a situation, some peers may consider severing P2PT (i.e., $\sim P_1$) to escape the consequences, triggering the dark side in P2PT. *However*, severance augurs additional problems. First, the decision to terminate an established practice/norm needs to be brought under regulatory oversight. This means that the details of transactions and the nature of risk are exposed under a regulatory lens. This would make seemingly unaffected peers subject to the regulatory dragnet

and interventions. Such regulatory activity may induce *group polarization* (Moscovici &

Zavalloni, 1969) around the risk perception as an increasing number of peers start perceiving the

true nature of the risk, enabling regulators to impose stricter control. Stricter regulatory control,

however, nullifies any relative benefit/advantage that might have accrued to the original

relationship-terminating peer, leaving all peers worse off. To preempt such a scenario, peers may

prefer to remain silent, exhibiting the *silence of majority or spiral of silence* (Taylor, 1982)

knowingly or under the mistaken perception that they are the only ones perceiving the risk. The

greater the perceived divergence, the higher the probability that an individual peer will remain

silent or migrate towards the (erroneously) perceived majority/group perception (Miller &

Morrison, 2009) of risk and sustained transaction. This results in PI and mitigates the dark side.

Additionally, even if a peer takes cognizance of the external stimulus (risk) and considers [~P_1],

the cost of *exposure vulnerability* to her peers, by being the first and often the only one to "cry

wolf" (Vorauer & Ratner, 1996), will be prohibitively costly for her and may include formal or

informal ex-communication. Thus, maintaining the status quo, with or without a concomitant

reduction in risk perception, becomes the norm under collective faith regarding the robustness of

firm-specific routines. Further, the benefits of severance by overcoming firm-specific inertial

routines are far less than the benefits of sustaining a collective transaction preference, which

mitigates the emergence of the dark-side phenomenon. Passivity grows in the face of risk, as an

increasing number of peers become afflicted by the *bystander effect* (whereby an individual is

unlikely to help in a critical situation when passive bystanders are present) (Bibb & John, 1968;

Darley & Latane, 1968; Fischer et al., 2006; Garcia, Weaver, Darley, & Spence, 2009; Garcia,

Weaver, Moskowitz, & Darley, 2002), which strengthens the status quo and mitigates the dark

side. Hence, we propose the following:

Hypothesis H4b: An external stimulus on risk positively moderates the association between *PI and its ability to mitigate the emergence of the dark side in P2PT preferences.*

3. Methodology

3.1 Nonperforming Assets and P2PT in the Indian Commercial Banking Context

We contextualize our investigation in the uncollateralized interbank lending market of Indian commercial banks, where, despite differing ages and sizes, banks transact as peers and are not hierarchically structured. Transactions are of two broad types: (i) short-term lending or borrowing, ranging from overnight call money to notice money (if tenure exceeds one day but is less than a fortnight) and (ii) long-term deposits (in excess of two weeks). Banks must statutorily maintain a certain percentage of their deposits (*fractional deposit system*) in liquid form (Calvo, 2012; Markose, 2014), which can be easily monetized to meet on-demand redemption pressures from lenders and depositors. Banks may supplement liquidity by borrowing in the interbank lending market or from the central bank cum regulator, the Reserve Bank of India (RBI), through repo or marginal standing facility against collaterals. Conversely, banks deposit or lend their excess cash to peers or to RBI (reverse repo). RBI monitors these bank activities, changes policy rates and penalizes banks with liquidity shortfalls, thus ensuring liquidity in the banking system. Hence, P2PTs in the interbank lending market help avoid deficit-related penalties in addition to enabling interest income on excess liquidity. Since P2PTs are uncollateralized, banks maintain long-term deposits with each other as mutual assurances, though it is not mandatory.

Banks face credit cum liquidity risks when borrowers fail to repay their loans. If a loan account defaults for 3 consecutive months, then it must be declared a nonperforming loan/asset (NPA). NPA declaration requires provisioning, which affects a bank's profitability. NPA signals systemic problems in assessing risk in lending (Rochet & Tirole, 1996), resulting in a chronic

shortage of cash. With moderate levels of NPA, banks borrow from peers to cover the liquidity shortfall. However, if a bank unethically suppresses information on high levels of cumulative NPA and continues to borrow from peers, then it exposes the lender to counterparty liquidity risks (Rochet & Tirole, 1996). The risk develops contagion characteristics as first-level lenders, facing shortfalls themselves, borrow from second-level lenders, and so on, triggering cascading instability (Bruche & Suarez, 2010; Freixas & Jorge, 2010). The uncollateralized nature of interbank lending exacerbates the problem. Typically, regulators respond quickly by isolating and freezing the operations of the ailing bank(s). Since 1969, there has not been an instance of bank failure, primarily due to RBI oversight. Concurrently, the nationalization of major private sector banks into state ownership in 1969 and 1980 created a perception of a *sovereign guarantee* against bank failure.

Against this backdrop, in July 2015, RBI *itself* initiated a one-time AQR to uncover NPA in banks. Consequently, NPA for state-owned banks increased from 6.01% (March 2015) to 10.93% (March 2016), while for private sector banks it increased from 2.44% to 3.23% over the same period. RBI informed the public that state-owned banks had dangerously underreported their NPA. Further, RBI advised state-owned banks to provision against loans to other state-owned enterprises (Basu & Moovendhan, 2017), citing irregularities in the latter's operations[2]. Additionally, RBI took punitive actions, including curtailing some of the routine activities of 12 banks, of which 11 were state owned. These 11 banks, collectively owning 18.5% and 20.8% of the lending and deposits, respectively,[3] witnessed a surge in NPA from 6% (March 2015) to 20.56% (March 2018). This information on high levels of risk in a sizeable group of banks would

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[2] Source: https://economictimes.indiatimes.com/news/economy/agriculture/grain-vanishes-from-punjab-godowns-may-burn-rs-12000-crore-hole-in-bank-books/articleshow/51833750.cms?from=mdr, accessed on May 18, 2020.

[3] Source: https://www.rbi.org.in/Scripts/BS_SpeechesView.aspx?Id=1065, accessed on July 04, 2019.

ideally trigger a perception of dark side in P2PT to contain the contagion risk. Counterintuitively, we observe an enhanced preference for P2PT, which necessitates this investigation.

3.2   Data Collection

All commercial banks must provide various micro- and macro-level macrolevel data to RBI, and RBI clusters these data according to groups of banks. In our dataset derived from RBI, we cluster 202 banks into 5 groups as per RBI's latest categorization (21+6 public sector banks, including 19 nationalized banks, the State Bank of India (SBI), 5 associate banks of the SBI, 22 Indian private sector banks, 45 MNC subsidiaries, 54 regional rural banks and 54 urban cooperative banks) spanning 169 months from March 2005 to March 2019. These 5 peer groups are engaged in 2 types of transactions: overnight call money/notice money (short tenure) and long-term deposits (long tenure). Consequently, we have 1690 points of borrowing/deposit data , representing 34,138 bank-months. We supplement RBI data with National Stock Exchange (NSE) data for Government Security (G-Sec-10 years) yield rates. We also use the Economic Policy Uncertainty Index (for India) developed by the research consortium of Baker (Northwestern University), Bloom (Stanford University) and Davis (University of Chicago) for the period of study. Our dataset is consistent with datasets used in the literature (Pennathur, Subrahmanyam, & Vishwasrao, 2012).

3.3   Measurement of Variables

3.3.1.   Dependent Variable

Dark Side in Peer-to-Peer Transaction Preference (DSP2PT$_{i,l,t}$) – In this study, the dark side is conceptualized in the context of P2PT preferences. A negative (or reduced) association of P2PT preference with an antecedent factor signifies the emergence of the dark-side effect, while an increase in the P2PT preference signifies mitigation of this effect. We measure P2PT preference

as either long-term deposits or overnight/short-term borrowing/lending *received* by the focal

group from any of the 5 groups of banks: (i) public sector banks, (ii) Indian private sector banks,

(iii) foreign banks (MNC subsidiaries), (iv) urban cooperative banks and (v) regional rural banks.

Public sector banks comprise nationalized banks and the SBI. Regional rural banks are primarily

owned by a public sector bank or provincial/state governments. Thus, public sector banks and

regional rural banks collectively constitute state-owned banks. Suffix i, denotes the 5 bank groups

receiving the deposits. Suffix l denotes the tenure of deposits received. Suffix t denotes the time

period of observation, which is 169 months, from March 2005 to March 2019.

3.3.2 Independent Variables

Pluralistic Ignorance – In the literature, PI is measured reflectively along a perceptual scale

(O'Gorman, 1975; Prentice & Miller, 1993). Consistent with our definition and line of

investigation, we conceptualize PI as a latent variable, measuring it *reflectively* with principal

component *factor* analysis (Dinno, 2009). We use three rational considerations, (i) inertial

routines, (ii) tenure-specific transactions and (iii) regulatory mandates, loading to a single factor

(Roscoe et. al, 1982). All data are standardized to control for distortion of weights.

Inertial Routines – These are a set of routinized activities that are repetitive, recurring and

resistant to change over time. We use two methods to operationalize inertial routines. First, we

lag the dependent variable by one time period (Anderson, 1942; Durbin, 1970; Getmansky, Lo,

& Makarov, 2004; Godfrey, 1978). If the transaction preference from the previous period is

serially correlated to the preferences in subsequent periods, then we assume that the routines

influencing P2PT preference in the previous period still apply to those of subsequent periods

(Getmansky et al., 2004). In other words, there is inertia in the routines and P2PT preference,

which is not qualitatively altered by risk perceptions. Second, we use the GARCH (1,1) process

to independently measure routinized inertia in a robustness check. This measure constitutes the rational consideration of peers at the firm level.

Tenure-Specific Transactions – In the present context, we consider two types of uncollateralized lending/deposits. Short-term lending implies overnight call money or notice money, which has a tenure of up to 14 days and is reported as *borrowing from banks*. Overnight call/notice money serves to cover the liquidity shortfall for the receiving/borrowing bank. Long-term deposits with a maturity of over 14 days serve as a source of liquidity (residual liquidity) and are reported as demand and time liabilities. The interbank lending market primarily deals with short-term lending and is under the supervision of regulators, which monitor it for stresses in the financial system. We dichotomize short-term lending as (1,0) and other lending as (0,1). This measure constitutes the rational consideration of peers at the intervening level between the firm and the environment.

Regulatory Mandate – Regulatory mandates are the rules that guide P2PT by ensuring sufficient liquidity in the system. The banking regulator ensures liquidity by altering the cash reserve ratio (CRR), statutory liquidity ratio (SLR), repo rate, reverse repo rate and bank rate. Changing these ratios and rates ensures that banking peers have higher/lower liquidity available to them for financial stability, including inflation. We create a single composite index by performing *principal component factor analysis* with varimax rotation on the 5 ratios/rates listed above. This measure constitutes the rational consideration of peers at the environmental level.

3.3.3   Moderator Variable

Risk Perception – In this paper, risk perception is measured as increasing gross nonperforming assets (GNPA) in the overall credit portfolio of the borrowing/deposit receiving bank. Increasing GNPA is universally associated with financial instability (Berger & Bouwman, 2009; Acharya,

Shin, & Yorulmazer, 2011), liquidity and profitability risks (Ghosh, 2015), and contagion risk to all banks (Barseghyan, 2010). Banks incur NPA when businesses receiving bank credits default due to market downturns on account of economic uncertainties. We discount willful defalcation. As GNPAs increase, banks find it increasingly difficult to service peer and non-peer deposits. This dissuades peers from preferring such banks due to high risk perception.

3.3.4 Control Variables

Age – Age has been used in the literature as a proxy for stability, experience and domain knowledge. Investors are likely to prefer financial stability, domain knowledge and experience when making investments. For each bank group, we ascertain the difference between the year of establishment (Ey) and the last month of the sample period (March 2019) (Pm) for each individual bank in the group. We aggregate the age of the banks and take its natural logarithm $Ln[\Sigma(Pm - Ey_{i,t})]$ to arrive at the group age. For MNC-affiliated private banks (FBs), the year of registration of the affiliate/subsidiary is considered Ey.

Existing Liabilities – In addition to deposits, banks have other liabilities, such as unpaid interests to depositors/lenders and unpaid dividends. These liabilities reduce bank liquidity. We measure liquidity as *other demands and time liabilities (ODTL)*, as reported by RBI.

Insured Deposits – The Deposit Insurance and Credit Guarantee Corporation of India is a wholly owned subsidiary of RBI, which insures liability deposits on banks. The higher the percentage of total insurance is, the lower the chances of a loss of deposits due to liquidity risks and run on banks (Cooper & Ross, 2002). Insured deposits increase the confidence of depositors, including peers. Insured deposits are measured as a *percentage of total deposits*, as reported to RBI.

Liquidity Convenience – Banks keep a ready supply of cash for day-to-day business transactions by depositors, including peers. This readily available liquidity increases convenience for

customers, including peers, and an increase in convenience increases P2PT preferences. We measure liquidity convenience as cash in hand, as reported by banks to RBI. Excess cash in hand leads to a loss of interest income for the bank holding the cash.

Interest rates – The literature suggests that interest rates, which signify returns to investment risks, have a positive association with investments/deposits (Freixas & Parigi, 2000; Lucchetta, 2007). Interests are a function of assets generating returns, extant liabilities and returns from competing classes of assets (Schultz, 1988). We measure interests as the weighted average interest rates for deposits with different tenures. For overnight call money (short-term lending), the average call money rate is used.

Interest Rate on Government Bonds – In addition to lending, banks invest in government bonds from their liability capital. Government bonds are risk free and can be used as collateral to borrow from RBI to meet liquidity requirements. Higher interest rates on government bonds are likely to affect lending and transactions against other heads, including P2PT. We measure this as the interest rates on 10-year G-Sec bonds.

Alternative Investments – Banks, under statutory guidance, invest part of their deposits in risk-free government bonds (G-Sec). Such investment forms part of the statutory liquidity of banks, which can be pledged to the central bank to borrow cash via repo. We measure alternative investments in terms of investments in government bonds/securities of various maturities, as reported by banks to RBI. Investments in G-Sec affect the volume traded in the interbank lending market by altering the credit/deposit ratio (Bercoff, Giovanni, & Grimard, 2002)

Liquidity in Market – Enhanced liquidity in the market can affect transaction preference by covering the statutory requirements of peer banks and by affecting lending preferences. We measure liquidity as cash in circulation in the economy, as reported by RBI.

Exogenous Uncertainties – We measure exogenous environmental uncertainties that affect business P2PT preference using an index that captures the effects of economic policy-related uncertainties (EPUI) for India, developed by a consortium of researchers from Northwestern University, Stanford University and Chicago University[4].

Credit Ratio – We measure this as the ratio of loans and advances (as assets) to total liability deposits from banking and nonbanking sources.

All measures, wherever applicable, are denominated by total demand and time liabilities (from bank and nonbank sources) and standardized at the subgroup level. Thus, we control for the *size effect and temporal distortion* and consequent *spurious correlations*. Our measures are consistent with similar studies from emerging economies (Dong, Meng, Firth, & Hou, 2014).

3.4   Model Specification

3.4.1   Models for General Conditions and Post (AQR) Event

In this research, we propose 2 distinct measurement models to test our hypotheses. Hypotheses H1-H3 investigate the effects of the 3 contingent rational considerations in mitigating the dark side in P2PT (i.e., sustenance of P2PT). Hypothesis H4a investigates the effect of PI on dark-side mitigation, while H4b investigates the moderation effect of risk on the aforesaid linkage. We model H1-H3 using the following generic form:

$$DSP2PT_{(i,l,t)} = \theta_0 + \theta_1 \Sigma CV_{(i,t)} + \theta_2 RP_{(i,t)} + \theta_3 Rational\_Considerations_{(i,t-\varphi)} + u_{1(i,t)} \quad ---(1)$$

where $DSP2PT_{(i,l,t)}$ signifies the dark-side effect in P2PT preference, $RP_{(i,t)}$ is the risk perception of peers, $Rational\_Considerations_{(i,t-\varphi)}$ is the rational decision consideration of peers, $\Sigma CV_{(i,t)}$ is the sum of the control variables, θ_i denotes the respective parameters, and $u_{1(i,t)}$ signifies the error terms. The suffixes $_{(i,l,t)}$ have the same meanings as the dependent variables, and φ denotes the

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time period *before* the AQR/event such that *(t-φ)* denotes the period *after* the external stimulus

(event) has taken place. For general condition, φ is assumed to be 0, subsuming all time periods.

To test hypotheses H4a and H4b, we use the following two equations to model the

standalone effect of PI and its interaction with risk perception to mitigate dark side in P2PT:

$$DSP2PT_{(i,l,t)} = \alpha_0 + \alpha_1 \Sigma CV_{(i,t)} + \alpha_2 RP_{(i,t)} + \alpha_3 PI_{(i,l,t-\varphi)} + u_{2(i,t)} \qquad ---(2)$$

$$DSP2PT_{(i,l,t)} = \eta_0 + \eta_1 \Sigma CV_{(i,t)} + \eta_2 RP_{(i,t)} + \eta_3 PI_{(i,l,t-\varphi)} + \eta_4 RP_{(i,t)} * PI_{(i,l,\ t-\varphi)} + u_{3(i,t)} \qquad ---(3)$$

where $PI_{(i,l,t)}$ implies the PI of peers, derived via principal component factor analysis of the 3

rational considerations ($Ind\_Var_{(i,t-\varphi)}$), and $RP_{(i,t)} * PI_{(i,l,\ t-\varphi)}$ denotes the interaction term between

PI and risk perception.

3.4.2 Robustness Tests

Further, we perform 2 robustness checks using different procedures in support of our

primary thesis, namely, the role of PI as an effective governance mechanism to mitigate the

emergence of the dark-side effect in P2PT. The first check involves a methodological test where

we replace panel data regression with the *GARCH(1,1)* process as an alternative method to test

the effect of the three rational considerations under both the general condition and the post-

stimulus. This allows us to measure the effect of serial correlation in time series data and

eliminate it from the standardized residuals (Griliches, 1961), thus addressing concerns regarding

competing techniques (Bertrand, Duflo, & Mullainathan, 2004). The general form is presented as

$$DSP2PT_{(i,l,t)} = \psi_0 + \psi_1 \Sigma CV_{(i,t)} + \psi_2 RP_{(i,t)} + \psi_3 Reg\_Man_{(t-\varphi)} + \psi_4 Rel\_Ten_{(i,l,t-\varphi)} + \ + u_{4(i,t)} \quad ---(4a)$$

$$Var(u_{5(i,t)}) = \pi_0 + \pi_1(u_4^2{}_{(i,t-1)}) + \chi_1[Var(u_4^2{}_{(i,t-1)})] \qquad ---(4b)$$

where π *and* χ are the *ARCH* and *GARCH* parameters, $Reg\_Man_{(t-\varphi)}$ represents the effect of the

regulatory mandate, and $Rel\_Ten_{(i,l,t-\varphi)}$ represents the effect of short-term relationship tenure and

inertial routines captured by the GARCH(1,1) process.

For the second robustness check, we employ the *difference in difference* (DD) technique because the presence of endogeneity among the predictor variables can inflate the outcomes. DD measures the difference in outcomes between the control group and the treatment group before and after a specific intervention. This approach eliminates endogeneity from serially correlated errors (Roberts & Whited, 2013) in time series data. We use DD because (i) the specific event/stimulus (AQR) reportedly affected one group of peers (state-owned banks) more than other peers, (ii) the stimulus is likely to reduce P2PT by increasing risk perception, thus revealing the dark side, and (iii) despite increased risk perception, if P2PT *increases counterintuitively,* then we can suggest cognitive dissonance due to PI. Further, we can suggest that PI governs and mitigates the emergence of the dark side in P2PT. We consider state-owned banks as the treatment group and other banks as the control group. Our model comprises 2 parts. First, we show how the stimulus highlighting the treatment group affects risk perception. Second, we show how it affects P2PT and how PI has a stronger effect on P2PT. The general model forms are presented below:

$$RP_{(i,t)} = \beta_0 + \beta_1 \Sigma CVR_{(i,t)} + \beta_2 SOE_{(i)} + \beta_3 AQR_{(t-\varphi)} + \beta_4 SOE_{(i)}*AQR_{(t-\varphi)} + u_{5(i,t)} \qquad \text{---(5a)}$$

$$DSP2PT_{(i,l,t)} = \omega_0 + \omega_1 \Sigma CV_{(i,t)} + \omega_2 RP_{(i,t)} + \omega_3 PI_{(i,l,t-\varphi)} + \omega_4 SOE_{(i)} + \omega_5 AQR_{(t-\varphi)} + \omega_6 SOE_{(i)}*AQR_{(t-\varphi)} + u_{6(i,t)}$$

$$\text{---(5b)}$$

where $\Sigma CVR_{(i,t)}$ represents the sum of the control variables for risk perception, $SOE_{(i)}$ is the treatment group, $AQR_{(t-\varphi)}$ signifies the event, and the interaction term is the DD estimator.

In addition to the GARCH(1,1) process, we use random effect panel data regression for cross-section time series data. We do not use fixed effect panels as the cases (banks in each group) change with inclusion and deregistration by regulators. Additionally, we perform Hausman's test, which supports our choice of random panel data regressions.

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4.   Results

Pearson's correlation matrix for the general condition is presented in Table T1 below.

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Table 1 about here
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The test results of hypotheses H1-H3 are presented in Table T2 (models M1-M8), while

those of H4a-H4b and the robustness tests are presented in Table T3 (models M9-M16). Model

M1 represents the effects of control variables on the emergence of the dark side in P2PT, while

M2 represents the effect of risk perception on this outcome. All hypotheses, as per the model

specifications, are tested under the general condition (full data set) and the post-stimulus

condition (post-AQR-period data set) using subgroup-level analysis. Hypothesis H1 tests the

effect of inertial routines on the mitigation of the dark side. Models M3 (general condition) and

M4 (post-AQR condition) suggest that inertial routines (θ_3=0.861 and 0.807, respectively, at

p<0.01) continue to mitigate the dark side in P2PT positively and significantly, thus supporting

H1. H2 tests the effect of relationship tenure via models M5 and M6 and mitigates the dark side

positively and significantly (θ_3=1.000 and 1.089 at p<0.01). Thus, H2 is supported. H3 tests the

effect of regulatory mandates on dark-side mitigation via models M7 and M8. While M7

(general condition) suggests a positive and significant effect in mitigating the dark side

(θ_3=0.326 at p<0.01), M8 (post-AQR) (at θ_3=-0.124, ns) suggests a negative albeit nonsignificant

association. This indicates that that regulatory mandates post-stimulus are not an adequate

mechanism to mitigate the dark side. Thus, H3 is not fully supported.

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Table 2 about here
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Hypothesis H4a, which tests the effect of PI on the dark side (models M9 and M10),

suggests that PI serves as a suitable governance mechanism in mitigating the dark side by

positively and significantly (α_3=0.874 and 0.91 at p<0.01) increasing P2PT preference. Models

M11 and M12 (H4b), which test its interaction effect with risk perception, also reveal a positive

and significant outcome (η_4=0.083 and 0.14 at p<0.01), suggesting that PI sustains P2PT even

when moderated by enhanced risk perception. Thus, both H4a and H4b are supported.

Models M13-M16 serve as robustness tests. Models M13 and M14 report the GARCH

(1,1) process. The GARCH coefficient in M14 (χ_1=0.412, p<0.01) strengthens in the post-AQR

period in the general condition (χ_1=0.172, p<0.01 in M13). The same effect can be observed for

regulatory mandates (ψ_3=-0.231 to 0.154, at p<0.01) and relationship tenure (ψ_4=-0.297 to 1.003,

at p<0.01), suggesting that contingent rational considerations act as an effective deterrent against

the dark-side effect in P2PT. Finally, models M15 and M16 test the DD analysis, with M15

suggesting an increase in risk perception (β_4=0.927, at p<0.01) due to an external stimulus (i.e.,

information on enhanced NPA in the state-owned bank treatment group, post-AQR). Model M16

suggests an increase in P2PT preference due to PI (ω_3=0.879, at p<0.01) despite a waning

preference from the *stimulus*, thus inducing the dark side (ω_6= -0.241, at p<0.01). Taken

together, M15 and M16 highlight an increased risk perception (β_4=0.927, in M15) leading to the

potential emergence of the dark-side effect (ω_6= -0.241 in M16) but a stronger PI ($\omega_3 > \omega_6$ in

M16) sustaining P2PT and mitigating the dark side. Thus, the robustness tests support our thesis.

Table 3 about here
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5.   Discussion and Implications

In this paper, we investigate the role of PI as a credible governance mechanism mitigating

the emergence of the dark side in P2PTs. We build upon the extant literature on PI by addressing

two critical questions. First, do respondents misrepresent their private perception to align with an

external stimulus but in reality follow their predisposed preference (P_1)? Second, is an external

stimulus strong enough to materially alter the perception leading to a preference ($\sim P_1$)? In addressing the first question, we use a methodological intervention. We move away from survey-based perceptual measures, which are prone to self-reporting biases, to objective measures by theoretically grounding ourselves in the risk-return literature in the context of P2PT. This grounding enables a comparison of the effects of external stimulus-induced (contagious) risk perception on preference outcomes, including severance of extant transactions (*and hence the emergence of the dark side*). If the preference persists against the dominant narrative of the literature, despite similar but objectively verifiable risk perceptions, then either (i) the stimulus is not strong enough (hence the second issue) or (ii) there exists some mechanism that mitigates the effect of the risk-induced dark side and sustains the preference (P_1). The *persistence* of the preference, despite risk perception inducing cognitive dissonance, is important. First, it means that the preference (P_1) is a continuing activity. Second, there exist some rational considerations that sustain that continuing activity (P_1) under normal circumstances. Finally, the external stimulus, having sensitized peers to the risk, must moderate the outcome of those *a priori* considerations and affect the preference (P_1 or $\sim P_1$). If the preference outcome is cognitively dissonant with the perception, then by definition, PI exists. Further, PI, induced by the rational considerations, acts as governance mechanism mitigating emergence of the dark side in P2PT.

Consequently, we search for rational considerations that strongly sustain preferences against disruptions. Sustained process-level activities *within a firm* are intuitively related to established routines that resist change. Therefore, we focus on *inertial routines* or operational routines that facilitate interbank lending in our context. These routines, developed via several layers of safety nets (redundancies or operational slack to mitigate uncertainties), are difficult to build and equally difficult to overcome or dismantle. Contextually, generations of bank

employees are trained to reconcile their accounts at the end of the day's operations. Any shortfall or surplus triggers their search for a suitable lender or borrower to help them either avoid penalties (due to liquidity shortfalls) or incur a net loss from holding unproductive cash. A shortfall or surplus is a more immediate performance-related professional concern for a field executive at the branch than NPA-based counterparty liquidity risk at the bank/organization level. Moreover, any external stimulus, such as a transient regulatory advisory, that seeks to restrict interactions with a large number of banking peers who may provide better (interest income) options in the short run is likely to be ignored by field-level employees tasked with the responsibility of increasing bank revenues. Alternatively, having received the advisory, such employees may actually approach riskier peers (treatment group peers) under the perception that such peers, now under active regulatory oversight, are somewhat safer than others. Thus, there is a higher positive association between risk perception and transaction preference (θ_2=0.114*** in model M4, > θ_2=0.034*** in M3). Further, the external stimulus identifies the state-owned bank group with state ownership as the riskier (treatment) group. State ownership carries perceptions of an implicit sovereign guarantee that in turn creates inertia and status quo (Cui & Jiang, 2012) against any information-based dark-side effect, stigmatizing state-owned banks as riskier than others. Although the presence of stimulus-induced perception does impact inertial routines (θ_3=0.807*** in M4, < θ_3=0.861*** in M3), the latter is robust enough to sustain preference (P_1), thus mitigating any disruption or the dark side. Conceptually, organizational routines are designed to absorb transient shocks and ensure the status quo, which we observe here.

The second consideration concerns the nature of the transaction at the interface of the firm and the environment. In the current context, the primary objective of P2PT is to mitigate intraday liquidity shortfalls (Iori, Jafarey, & Padilla, 2006). Short-term peer lending is an immediate

mechanism that stabilizes liquidity shortfalls and reduces the burden of the regulator cum central bank. The riskier peer group includes state-owned entities, much like the central bank, which is an institution owned by the state. State ownership ensures proprietary access to state resources, especially during a crisis (Cull, Li, Sun, & Xu, 2015; Hillman, 2005; Inoue, Lazzarini, & Musacchio, 2013), thus reducing the risk of failure (Li & Atuahene-Gima, 2001). Even if riskier peers face a liquidity crisis, the regulator is likely to extend lending facilities to them in order to address the redemption pressure from borrowers. Finally, it is the state that is responsible for recapitalizing state-owned banks and sustaining the short-term lending market through the regulator. Consequently, there is an implicit sovereign guarantee for short-tenured transactions that reduces the risk perception of lending defaults. Concurrently, peers also undertake long-term deposits, much like retail term deposits. These long-term deposits act as implicit collaterals against potential defaults in short-term lending, thus enhancing confidence in short-term lending preferences. Additionally, peers perceive short-term lending to liquidity-stricken peers (from high NPA) as an opportunity, especially if it is backed by assurance of returns. Hence, we find that interest rates under the post-AQR condition (external stimulus) have a higher positive association with transaction preference (θ_1=0.495*** for model M6) than those under the general condition (θ_1=-0.46** for M5). Further, backed by higher return expectations, short-tenured lending registers enhanced preference (θ_3=1.089*** for M6, > θ_3=1.00*** for M5), although the preference from risk perception decreases (θ_2=0.023, nonsignificant for M6, < θ_2=0.138*** for M5). Thus, short-tenure lending mimics risk-return-based rational choices where risk reduces the preference, but tenure-specific considerations negate the adverse effect. Additionally, the problems of inertia and complacency (Friend & Johnson, 2017) are likely less common in short-tenure P2PT, which helps mitigate the dark side.

The third rational consideration derives from the role of the regulator and its mandates to ensure financial cum liquidity-based stability via interbank lending. The primary regulatory intervention is through the interest rate mechanism. That is, if liquidity increases in the market, causing inflation, the regulator increases the policy rates, encouraging banks to deposit with RBI. Alternatively, if the financial system faces a liquidity crunch, RBI reduces the rates, making borrowing easy for peers. In this study, the role of the regulator needs special attention, as it stabilizes and sustains P2PT and is the source of the external stimulus affecting risk perception and a possible ($\sim P_1$) preference. Our results show that under general conditions, regulatory mandates positively affect preference (θ_3=0.326*** for M7) and risk perception has a positive effect on preference (θ_2=0.134*** for M7). Simultaneously, the peer-to-peer interest rates have a negative association with preference (θ_1= -0.059* for M7), suggesting that under general conditions, excess returns (high interest rates) signal higher risks and a negative preference to transact with risky peers. However, in the post-stimulus period, the regulatory mandate fosters a negative preference (θ_3=-0.124, nonsignificant for M8). The risk preference, though continuing to be positive, has a diminished value (θ_2=0.096, nonsignificant for M8), while interest rates turn positive and significant (θ_1=0.393*** for M8). Prima facie, this conveys a sense of opportunism, the dark side and the termination of P2PT preferences (or $\sim P_1$). However, given the role of regulators and the context of liquidity-related contagious risk (from high NPA), this means that the regulator stabilizes the liquidity problem by reducing policy rates and enabling peers to borrow directly from the regulator but at the cost of reduced interbank lending. Alternatively, riskier peers already under regulatory scrutiny will have to offer a higher interest rate if they are to borrow from other peers. Further, the activities of the regulator affect the risk perception of peers, which has a reduced, positive, and nonsignificant effect on preference. Such regulatory

interventions to mitigate liquidity crises are transient, one-off interventions and not a permanent feature. Consequently, considerations from regulatory mandates do not contribute significantly to the emergence of the dark side (as the associations are nonsignificant) in P2PT preference.

Our investigation highlights that external stimulus-induced risk perception is not an insignificant factor given the three rational considerations. Collectively, the three rational considerations give rise to the PI phenomenon, which sustains and strengthens the extant P2PT preference even when moderated by enhanced risk perception (η_4=0.14*** in M12 for post-AQR, > η_4=0.083*** for M11, the general condition). The enhanced preference, despite enhanced risk perception (η_2=0.032 nonsignificant in H12, < η_2=0.079*** in H11), suggests that PI is an effective governance mechanism, mitigating the dark side in P2PT.

In addition to introducing PI into the dark-side governance literature, our research provides novel insights that may invaluably contribute to the *risk-return-preference* literature, which is currently dominated by three extant paradigms. The first paradigm, building on the agency perspective and rational choice theory (Ackermann, Mcenally, & Ravenscraft, 1999; Markowitz, 1952; Sharpe, 1964), posits an increasing level of risk perception compensated by an increasing level of return expectations, with non-intervening institutions, including regulators and the state, leading to high transaction preferences among transacting peers. These market-based transactions preempt any dark side in exchange relations. The second paradigm, again deriving from rational choice theory, posits uncertainty avoidance; i.e., an increasing level of risk with contagion characteristics, despite being compensated by higher returns under an actively intervening regulator but a passive state, leads to *rationing* (Freixas & Jorge, 2010), *hoarding* (Acharya & Skeie, 2011), *freezing* (Bruche & Suarez, 2010) and *overall disruption* (Diamond & Rajan, 2009) of P2PT. This paradigm suggests that the emergence of the dark side leads to

relationship termination, despite demand for transactions (Afonso, Kovner, & Schoar, 2011). Governance mechanisms to mitigate the dark side involve bailouts with public money, which is costly and risky. The third paradigm, the helping hand or flight to friend (HHFF) hypothesis (Degryse, Karas, & Schoors, 2019), posits an increasing risk perception (including contagion type) with lower return expectations (Affinito, 2012; Bräuning & Fecht, 2017) and an actively intervening state, superseding regulatory activism (Degryse et al., 2019). Under this paradigm, in addition to state interventions, the socio-institutional role of peers and long-term reciprocal relationships (Craig et.al, 2015) mitigate the dark side. In contrast to the second and third paradigms, which suggest mechanisms that are costly ex ante (e.g., quantitative easing), risky ex post (prone to inflationary pressures) or restrictive and intrusive (state interventions), we propose PI as an alternative governance mechanism. PI, with its sociopsychological and cognitive dissonance roots, ensures continued transaction preferences independently of return expectation even under enhanced contagion risks, an actively intervening regulator and a passive state. PI is at the opposite end of the spectrum of the second paradigm and proposes a governance mechanism that is *relatively costless* and borne from the simple adage of *ignorance is bliss*.

Finally, the AQR event seemingly affected the state-owned bank group disproportionately by revealing enhanced NPA. However, we do not find a decrease in P2PT preference for that group[5]. This is interesting, as it may suggest that peers do not distinguish on ownership grounds and that membership within the group is a privilege. Hans Christian Anderson (1837), in his fable "The Emperor's New Clothes", highlighted how the privileges of group membership forced a collective preference contrary to the obvious choice. Alternatively, as industry insiders, peers are aware of the regulator's constraints in naming their non-state-owned peers and its effect on

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[5] We performed additional analysis that we do not report here.

non-peer depositors. Hence, peers choose to be guided by their predisposed rational considerations, which enable them to collectively ignore stimulated risk perceptions and sustain their preferences, thus mitigating the dark side in P2PT.

6.   Limitations and Future Research Directions

Our study has a few limitations. Conceptually, we do not distinguish between transactional (discrete) and relational (continuous) exchanges, and we intermingle the terms transaction and exchange. Therefore, in this paper, all P2PTs are continuous exchanges. This applies to short-term repetitive lending and long-term deposits, creating long-term engagement.

Empirically, we obtained bank-group-level data and not individual bank-level data from RBI. RBI declined to provide data for individual banks, citing the leakage of sensitive information harming the interest of banks. In the process, the contributions of three of the largest banks are aggregated within their respective groups. This is especially true for the SBI, the largest a state-owned bank in terms of branch networks, loans, and deposits. It is possible that the preference shown by peers for state-owned banks, despite perceived risks, is skewed by the presence of SBI in the group. One way to overcome this problem is to separately report SBI from other nationalized banks. However, RBI has recently started aggregating data on SBI and other nationalized banks under the heading of public sector banks, leading to the above issue. Between a reduced and outdated data set and data aggregation, we prefer the latter for greater generalizability. We also did not consider the rural cooperative bank group, due to large amount of missing data and the extremely limited contribution of that group in terms of assets and liabilities under management. Additionally, the regulatory oversight on that group is limited.

We measured the dark side as disrupted transactions; i.e., if the dark side is high, transactions will be low and vice versa. As such, continued transactions will mitigate the dark

side in P2P/B2B transactions through governance mechanisms. We catered to the group size and temporal distortion effect (lending volume increases with time) by standardizing the data at a subgroup level. Thus, we aimed to mimic a dichotomous outcome via standardization, but the measurement concerns persist, necessitating a more direct and appropriate measure in future.

Our empirical context is embedded in an institutional environment that has affected both risk perception and sustained transaction preference. Studies should be conducted in contexts that are independent of the institutional environment, where the emergence of the dark side may be significantly different, and the constituents of PI likewise differ.

We posit that there is limited evidence of real cognitive dissonance in PI. PI is borne from rational institutional considerations that justify the observed preference and may be at odds with the preference expectations of an external stimulus. However, the overall benefit of adhering to the original considerations outweighs the benefits of complying with those of the external stimulus, which explains sustenance. Thus, PI has a rational basis, with the preference being a rational choice outcome. This suggests that PI or even cognitive dissonance may not be so irrational after all. However, we invite scholars to further investigate our line of enquiry in diverse contexts. A relevant context could be COVID-19-related research, with conceptual similarities, namely, extant social exchanges, a contagious risk, regulatory stimulus/quarantine and their effects on exchanges.

Finally, we investigated peer-peer transactions. An immediate future research agenda should involve peer/non-peer exchanges such as bank–customer relationships. Such research, closely mimicking the extant assumptions of the dark-side literature, may offer new and challenging insights.

References

Abosag, I., Yen, D. A., & Barnes, B. R. (2016). What is dark about the dark-side of business relationships? *Industrial Marketing Management*, *55*, 5–9.

Abosag, I., Yen, D. A. W., & Tynan, C. (2015). The dark side of business relationships: An overview. *The Dark Side of CRM: Customers, Relationships and Management*, 150–173.

Acharya, V. V., Shin, H. S., & Yorulmazer, T. (2011). Crisis resolution and bank liquidity. *Review of Financial Studies*, *24*(6), 2166–2205.

Acharya, V. V., & Skeie, D. (2011). A model of liquidity hoarding and term premia in inter-bank markets. *Journal of Monetary Economics*, *58*(5), 436–447.

Ackermann, C., Mcenally, R., & Ravenscraft, D. (1999). The performance of hedge funds: Risk, return, and incentives. *Journal of Finance*, *54*(3), 833–874.

Affinito, M. (2012). Do interbank customer relationships exist ? And how did they function in the crisis ? Learning from Italy. *Journal of Banking and Finance*, *36*(12), 3163–3184.

Afonso, G., Kovner, A., & Schoar, A. (2011). Stressed , not frozen : The federal funds market in the financial crisis. *Journal of Finance*, *66*(4), 1109–1139.

Allport, F. H. (1924). The group fallacy in relation to social science. *Journal of Abnormal Psychology and Social Psychology*, *19*(1), 60–73.

Anderson, E., & Jap, S. D. (2005). The dark side of close relationships. *MIT Sloan Management Review*, *46*(3).

Anderson, L. R. (1942). Distribution of the serial correlation coefficient. *Annals of Mathematical Statistics*, *13*(1), 1–13.

Aulakh, P. S., & Basu, S. (2018). Managerial risk-taking in peer to peer investments: A study of the Indian banking industry. *Academy of Management Proceedings*, *2018*(1), 16465.

Barr, P. S., & Huff, A. S. (1997). Seeing isn't Believing: Understanding Diversity in the Timing of Strategic Response. *Journal of Management Studies*, *34*(3), 337–370.

Barseghyan, L. (2010). Non-performing loans, prospective bailouts, and Japan's slowdown. *Journal of Monetary Economics*, *57*(7), 873–890.

Basu, S., & Moovendhan, V. (2017). Were public sector banks victimised through AQR ? *Economic and Political Weekly*, *52*(12), 97–105.

Bercoff, J.J., Giovanni, J.D., Grimard, F. (2002). Micro and Macro Determinants of Non-performing Loans. *International Journal of Economics and Financial Issues*, *3*(4), 852–860.

Berger, A. N., & Bouwman, C. H. S. (2009). Bank liquidity creation. *Review of Financial Studies*, *22*(9), 3779–3837.

Bertrand, M., Duflo, E., & Mullainathan, S. (2004). How Much Should We Trust Differences-In-Differences Estimates?*. *The Quarterly Journal of Economics*, *119*(1), 249–275.

Bibb, L., & John, D. (1968). Group inhibition of bystander intervention in emergencies. *Journal of Personality and Social Psychology*, *10*(3), 215–221.

Bjerring, J. C., Hansen, J. U., & Pedersen, N. J. L. L. (2014). On the rationality of pluralistic ignorance. *Synthese*, *191*(11), 2445–2470.

Bräuning, F., & Fecht, F. (2017). Relationship lending in the interbank market and the price of liquidity. *Review of Finance*, *21*(1), 33–75.

Bruche, M., & Suarez, J. (2010). Deposit insurance and money market freezes. *Journal of Monetary Economics*, *57*(1), 45–61.

Caccioli, F., Farmer, J. D., Foti, N., & Rockmore, D. (2015). Overlapping portfolios, contagion, and financial stability. *Journal of Economic Dynamics and Control*, *51*, 50–63.

Calvo, G. (2012). Financial crises and liquidity shocks a bank-run perspective. *European*

Economic Review, pp. 317–326.

Child, J. (1972). Organizational structure, environment and performance: The role of strategic choice. *Sociology*, *33*(10), 1–22.

Cifuentes, R., Ferrucci, G., & Shin, H. S. (2005). Liquidity risk and contagion. *Journal of the European Economic Association*, *3*(2), 556–566.

Cooper, R., & Ross, T. W. (2002). Bank runs: Deposit insurance and capital requirements. *International Economic Review*, *43*(1), 55–72.

Craig, B. R., Fecht, F., & Tümer-alkan, G. (2015). The role of interbank relationships and liquidity needs. *Journal of Banking Finance*, *53*, 99–111.

Cui, L., & Jiang, F. (2012). State ownership effect on firms' FDI ownership decisions under institutional pressure: A study of Chinese outward-investing firms. *Journal of International Business Studies*, *43*(3), 264–284.

Cull, R., Li, W., Sun, B., & Xu, L. C. (2015). Government connections and financial constraints: Evidence from a large representative sample of Chinese firms. *Journal of Corporate Finance*, *32*, 271–294.

Darley, J. M., & Latane, B. (1968). Bystander intervention in emergencies: Diffusion of responsibility. *Journal of Personality and Social Psychology*, *8*(4), 377–383.

Davis, M., & Lo, V. (2001). Infectious defaults. *Quantitative Finance*, *1*(4), 382–387.

Deephouse, D. L. (1996). Does isomorphism legitimate? *Academy of Management Journal*, *39*(4), 1024–1039.

Degryse, H., Karas, A., & Schoors, K. (2019). Relationship lending during a trust crisis on the interbank market : A friend in need is a friend indeed. *Economics Letters*, *182* (September), 1–4.

Dess, G. G., & Beard, D. W. (1984). Dimensions of organizational task environments. *Administrative Science Quarterly*, *29*(1), 52–73.

Diamond, D. W., & Rajan, R. G. (2009). *Fear of fire sales and the credit freeze - NBER Working Paper*.

Dinno, A. (2009). Implementing horn's parallel analysis for principal component analysis and factor analysis. *Stata Journal*, *9*(2), 291–298.

Dong, Y., Meng, C., Firth, M., & Hou, W. (2014). Ownership structure and risk-taking: Comparative evidence from private and state-controlled banks in China. *International Review of Financial Analysis*, *36*, 120–130.

Drake, L., Hall, M. J. B., & Simper, R. (2006). The impact of macroeconomic and regulatory factors on bank efficiency: A non-parametric analysis of Hong Kong's banking system. *Journal of Banking and Finance*, *30*(5), 1443–1466.

Durbin, J. (1970). Testing for serial correlation in Least-Squares regression when some of the regressors are lagged dependent variables. *Econometrica*, *38*(3), 410–421.

Fischer, P., Greitemeyer, T., Pollozek, F., & Frey, D. (2006). The unresponsive bystander: Are bystanders more responsive in dangerous emergencies? *European Journal of Social Psychology*, *36*(2), 267–278.

Freixas, X., & Jorge, J. (2010). The role of interbank markets in monetary policy : A model with rationing. *Journal of Money, Credit and Banking*, *40*(6), 1151–1176.

Freixas, X., & Parigi, B. M. (2000). Systemic risk , interbank relations , and liquidity provision by the Central Bank. *Journal of Money, Credit and Banking*, *32*(3(2)), 611–638.

Friend, S. B., & Johnson, J. S. (2017). Familiarity breeds contempt: perceived service and sales complacency in business-to-business relationships. *Journal of Personal Selling and Sales*

Management, *37*(1), 42–60.

Furfine, C. (2003). Interbank exposures: Quantifying the risk of contagion. *Journal of Money, Credit and Banking*, *35*(1), 111–128.

Garcia, S. M., Weaver, K., Darley, J. M., & Spence, B. T. (2009). Dual effects of implicit bystanders: Inhibiting vs. facilitating helping behavior. *Journal of Consumer Psychology*, *19*(2), 215–224.

Garcia, S. M., Weaver, K., Moskowitz, G. B., & Darley, J. M. (2002). Crowded minds: The implicit bystander effect. *Journal of Personality and Social Psychology*, *83*(4), 843–853.

Getmansky, M., Lo, A. W., & Makarov, I. (2004). An econometric model of serial correlation and illiquidity in hedge fund returns. *Journal of Financial Economics*, *74*(3), 529–609.

Ghosh, A. (2015). Banking-industry specific and regional economic determinants of non-performing loans: Evidence from US states. *Journal of Financial Stability*, *20*, 93–104.

Godfrey, L. G. (1978). Testing for Higher Order Serial Correlation in Regression Equations when the Regressors Include Lagged Dependent Variables. *Econometrica*, *46*(6), 1303–1310.

Halbesleben, J. R. B., & Buckley, M. R. (2004). Pluralistic ignorance : Historical development and organizational applications. *Journal of Management History*, *42*(1/2), 126–138.

Halbesleben, J. R. B., Wheeler, A. R., & Buckley, M. R. (2005). Everybody else is doing it, so why can't we? Pluralistic ignorance and business ethics education. *Journal of Business Ethics*, *56*(4), 385–398.

Halbesleben, J. R. B., Wheeler, A. R., & Buckley, R. M. (2007). Understanding pluralistic ignorance in organizations: Application and theory. *Journal of Managerial Psychology*, *22*(1), 65–83.

Hannan, M. T., & Freeman, J. (1984). Structural Inertia and Organizational Change. *American Sociological Review*, *49*, 149–164.

Heidari, A., Yazdani, H. R., Saghafi, F., & Jalilvand, M. R. (2018). A systematic mapping study on tourism business networks. *European Business Review*, *30*(6), 676–706.

Hilary, G., & Hsu, C. (2011). Endogenous overconfidence in managerial forecasts. *Journal of Accounting and Economics*, *51*(3), 300–313.

Hillman, A. J. (2005). Politicians on the board of directors: Do connections affect the bottom line? *Journal of Management*, *31*(3), 464–481.

Hodgkinson, G. P., & Wright, G. (2002). Confronting strategic inertia in a top management team: Learning from failure. *Organization Studies*, *23*(6), 949–977.

Inoue, C. F. K. V., Lazzarini, S. G., & Musacchio, A. (2013). Leviathan as a minority shareholder: Firm-level implications of state equity purchases. *Academy of Management Journal*, *56*(6), 1775–1801.

Iori, G., Jafarey, S., & Padilla, F. G. (2006). Systemic risk on the interbank market. *Journal of Economic Behavior and Organization*, *61*(4), 525–542.

Jorion, P., & Zhang, G. (2009). Credit Contagion from Counterparty Risk. *Journal of Finance*, *LXIV*(5), 509–516.

Karlsson, N., Loewenstein, G., & Seppi, D. (2009). The ostrich effect: Selective attention to information. *Journal of Risk and Uncertainty*, *38*(2), 95–115.

Katz, D., & Allport, F. H. (1931). *Students' attitutes*. Syracuse, NY: The Craftsman Press.

Kelly, D., & Amburgey, T. L. (1991). Organizational Inertia and Momentum: A Dynamic Model Of Strategic Change. *Academy of Management Journal*, *34*(3), 591–612.

Khandwalla, P. N. (1973). Viable and Effective Organizational Designs of Firms. *Academy of*

Management Journal, *16*(3), 481–495.

Kingshott, R. P. J. (2006). The impact of psychological contracts upon trust and commitment within supplier-buyer relationships: A social exchange view. *Industrial Marketing Management*, *35*(6), 724–739.

Kingshott, R. P. J., & Pecotich, A. (2007). The impact of psychological contracts on trust and commitment in supplier-distributor relationships. *European Journal of Marketing*, *41*(9–10), 1053–1072.

Kraft, H., & Steffensen, M. (2007). Bankruptcy, counterparty risk, and contagion. *Review of Finance*, *11*(2), 209–252.

Krech, D., & Crutchfield, R. S. (1948). Theory and problems of social psychology. In *Theory and problems of social psychology.*

Lengnick-Hall, C. A., & Beck, T. E. (2005). Adaptive fit versus robust transformation: How organizations respond to environmental change. *Journal of Management*, *31*(5), 738–757.

Li, H., & Atuahene-Gima, K. (2001). Product innovation strategy and the performance of new technology ventures in China. *Academy of Management Journal*, *44*(6), 1123–1134.

Little, R. G. (2002). Controlling cascading failure: Understanding the vulnerabilities of interconnected infrastructures. *Journal of Urban Technology*, *9*(1), 109–123.

Lucchetta, M. (2007). What do data say about monetary policy, bank liquidity and bank risk taking? *Economic Notes*, *36*(2), 189–203.

March, J. G., & Shapiro, Z. (1987). Managerial Perspectives on Risk and Risk Taking. *Management Science*, *33*(11), 1404–1418.

Markose, S., Giansante, S., & Shaghaghi, A. R. (2012). "Too interconnected to fail" financial network of US CDS market: Topological fragility and systemic risk. *Journal of Economic Behavior and Organization*, *83*(3), 627–646.

Markose, S. M. (2014). Systemic risk analytics : A data-driven multi-agent financial network (MAFN) approach. *Journal of Banking Regulation*, *14*(3/4), 285–305.

Markowitz, H. (1952). Portfolio selection. *Journal of Finance*, *7*(1), 77–91.

Miller, D. T., & Morrison, K. R. (2009). Expressing deviant opinions: Believing you are in the majority helps. *Journal of Experimental Social Psychology*, *45*(4), 740–747.

Monin, B., & Norton, M. I. (2003). Perceptions of a fluid consensus: Uniqueness bias, false consensus, false polarization, and pluralistic ignorance in a water conservation crisis. *Personality and Social Psychology Bulletin*, *29*(5), 559–567.

Mooi, E. A., & Frambach, R. T. (2012). Encouraging innovation in business relationships-A research note. *Journal of Business Research*, *65*(7), 1025–1030.

Moscovici, S., & Zavalloni, M. (1969). The group as a polarizer of attitudes. *Journal of Personality and Social Psychology*, *12*(2), 125–135.

Nelson, R. R., & Winter, S. G. (1973). Toward an Evolutionary Theory of Economic Capabilities. *The American Economic Review*, *63*(2), 225–235.

Nelson, R. R., & Winter, S. G. (1982). An Evolutionary Theory of Change. In *Massachusetts, Belknap Harvard*.

O'Gorman, H. J., & Garry, S. L. (1976). Pluralistic Ignorance: A replication and extension. *Public Opinion Quarterly*, *40*(4), 449–458.

O'Gorman, H. J. (1975). Pluralistic ignorance and white estimates of white support for racial segregation. *Public Opinion Quarterly*, *39*(3), 313–330.

O'Gorman, Hubert.J. (1986). The discovery of pluralistic ignorance: An ironic lesson. *Journal of the History of the Behavioral Sciences*, *22*(4), 333–347.

Pennathur, A. K., Subrahmanyam, V., & Vishwasrao, S. (2012). Income diversification and risk: Does ownership matter? An empirical examination of Indian banks. *Journal of Banking and Finance*, *36*(8), 2203–2215.

Petrou, A., Pantziou, E. F., Dimara, E., & Skuras, D. (2007). Resources and activities complementarities: the role of business networks in the provision of integrated rural tourism. *Tourism Geographies*, *9*(4), 421–440.

Porac, J. F., & Rosa, J. A. (1996). Rivalry, industry models, and the cognitive embeddedness of the comparable firm. *Advances in Strategic Management*, *13*, 363–388.

Porter, M. E. (2008). The five competitive forces that shape strategy. *Harvard Business Review*, *86*(1), 25–40.

Prentice, D. A., & Miller, D. T. (1993). Pluralistic Ignorance and Alcohol Use on Campus: Some Consequences of Misperceiving the Social Norm. *Journal of Personality and Social Psychology*, *64*(2), 243–256.

Roberts, M. R., & Whited, T. M. (2013). Chapter 7 - Endogeneity in Empirical Corporate Finance1. In G. M. Constantinides, M. Harris, & R. M. Stulz (Eds.), *Handbook of the Economics of Finance* (pp. 493–572).

Rochet, J.-C., & Tirole, J. (1996). Interbank lending and systemic risk. *Journal of Money, Credit and Banking*, *28*(4), 733–762.

Roscoe, B. A., Hopke, P. K., Dattner, S. L., & Jenks, J. M. (1982). The use of Principal Component Factor Analysis to interpret particulate compositional data sets. *Journal of the Air Pollution Control Association*, *32*(6), 637–642.

Rousseau, D. M. (1990). New hire perceptions of their own and their employer's obligations: A study of psychological contracts. *Journal of Organizational Behavior*, *11*(5), 389–400.

Rousseau, D. M., & Tijoriwala, S. A. (1998). Assessing psychological contracts: Issues, alternatives and measures. *Journal of Organizational Behavior J. Organiz. Behav*, *19*(1998), 679–695.

Schultz, T. P. (1988). Education investments and returns. In *Handbook of Development Economics* (pp. 543–630).

Sharpe, W. F. (1964). Capital asset prices: A theory of market equilibrium under conditions of risk. *Journal of Finance*, *XIX*(3), 425–442.

Shleifer, B. A., & Vishny, R. W. (1990). Equilibrium short horizons of investors and firms. *American Economic Review*, *80*(2), 148–153.

Tajfel, H., & Turner, J. C. (1986). The social identity theory of inter-group behavior. In S. Worchel and L. W. Austin (eds.), Psychology of Intergroup Relations. Chicago: Nelson-Hall. In *Psychology of intergroup relations. Chicago: Nelson (1986)*.

Taylor, D. G. (1982). Pluralistic Ignorance and the spiral of silence: A formal analysis. *Public Opinion Quarterly*, Vol. 46, pp. 311–335.

Todd, R. la P., & Metlay, D. S. (1996). Hazards and institutional trustworthiness : Facing a deficit of trust. *Public Administration Review*, *56*(4), 341–347.

Villena, V. H., Choi, T. Y., & Revilla, E. (2020). Mitigating Mechanisms for the Dark Side of Collaborative Buyer–Supplier Relationships: A Mixed-Method Study. *Journal of Supply Chain Management*, 1–31.

Vorauer, J. D., & Ratner, R. K. (1996). Who's going to make the first move? Pluralistic ignorance as an impediment to relationship formation. *Journal of Social and Personal Relationships*.

Weber, K., & Glynn, M. A. (2006). Making sense with institutions: Context, thought and action

in Karl Weick's theory. *Organization Studies*, *27*(11), 1639–1660.

Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (2005). Organizing and the process of sensemaking. *Organization Science*, *16*(4), 409–421.

Westphal, J. D., & Bednar, M. K. (2005). Pluralistic Ignorance in corporate boards and firms' strategic persistence in response to low firm performance. *Administrative Science Quarterly*, *50*(2), 262–298.

Williamson, O. E. (1973). Markets and hierarchies, some elementary considerations. *American Economic Review*, *63*(2), 316–325.

Williamson, O. E. (1985). The Economic Institutions of Capitalism. In *The Free Press*.

Winter, S. G. (2003). Understanding dynamic capabilities. *Strategic Management Journal*, *24*(10 SPEC ISS.), 991–995.

Xu, T., He, J., & Li, S. (2016). A dynamic network model for interbank market. *Physica A: Statistical Mechanics and Its Applications*, *463*, 131–138.

Yang, D., Sheng, S., Wu, S., & Zhou, K. Z. (2018). Suppressing partner opportunism in emerging markets: Contextualizing institutional forces in supply chain management. *Journal of Business Research*, *90*(April), 1–13.

Table 1: Pearson's Correlation Matrix (General Condition)

SL No.	Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Peer-to-Peer Transaction Preference	1.0000														
2	Age	-0.1310*	1.0000													
3	Other Demands and Time Liabilities	0.1944*	-0.3679*	1.0000												
4	Cash in Hand	-0.0537*	-0.1101*	-0.0781*	1.0000											
5	Insured Deposits	0.1137*	-0.8892*	0.3182*	0.0939*	1.0000										
6	Gov. Security Interest Rates	-0.1577*	0.0347	-0.0503*	-0.0920*	-0.0472	1.0000									
7	Gov. Security Investments	0.1394*	-0.1578*	-0.0870*	-0.1115*	0.1924*	-0.1326*	1.0000								
8	Currency in Circulation	-0.0978*	0.9663*	-0.3338*	-0.2014*	-0.8569*	0.0514*	-0.1644*	1.0000							
9	Economic Policy Uncertainty Index	-0.1781*	-0.0054	-0.0673*	0.1148*	0.0243	0.3590*	-0.1078*	-0.0787*	1.0000						
10	Interest Rates	-0.1119*	0.0160	0.0104	0.0344	0.0058	0.5202*	-0.2366*	-0.0214	0.4906*	1.0000					
11	Risk Perception	0.1111*	0.4071*	-0.2871*	-0.1147*	-0.3240*	-0.2275*	0.2780*	0.4246*	-0.2772*	-0.2705*	1.0000				
12	Pluralistic Ignorance	0.8733*	-0.0959*	0.0900*	-0.0634*	0.0676*	-0.2028*	0.1874*	-0.0733*	-0.2092*	-0.1964*	0.1847*	1.0000			
13	Regulatory Mandate	-0.0070	0.6579*	-0.2137*	-0.1115*	-0.5706*	0.3918*	-0.1678*	0.6651*	0.1345*	0.4115*	0.1804*	-0.0332	1.0000		
14	Inertial Routines	0.8807*	-0.1293*	0.1674*	-0.0548*	0.1104*	-0.1646*	0.1468*	-0.0971*	-0.1873*	-0.1294*	0.1107*	0.9079*	-0.0117	1.0000	
15	Tenure-Specific Transactions	0.7071*	-0.1534*	0.2857*	-0.0120	0.1578*	-0.0269	0.0083	-0.1176*	-0.0599*	0.0598*	-0.0729*	0.3279*	0.0068	0.5962*	1.0000

(* at $p<0.05$)

Table 2: Effect of Rational Considerations on the Dark Side in Peer-to-Peer Transactions

VARIABLES	DSP2PT Model M1	DSP2PT Model M2	DSP2PT Model M3	DSP2PT Model M4	DSP2PT Model M5	DSP2PT Model M6	DSP2PT Model M7	DSP2PT Model M8
Age	-0.430***	-0.447***	-0.034	-0.514**	-0.130	-0.160	-0.498***	-0.602*
	(0.114)	(0.113)	(0.057)	(0.213)	(0.080)	(0.222)	(0.111)	(0.340)
Existing Liabilities	0.168***	0.188***	0.062***	0.176***	0.004	-0.069**	0.177***	0.309***
	(0.026)	(0.026)	(0.013)	(0.029)	(0.019)	(0.033)	(0.025)	(0.038)
Liquidity Convenience	0.002	0.003	0.006	0.013	-0.034*	0.017	-0.010	0.016
	(0.026)	(0.026)	(0.013)	(0.018)	(0.018)	(0.017)	(0.025)	(0.024)
Insured Deposits	-0.049	-0.064	-0.008	-0.168	-0.122***	-0.278	-0.077	-0.037
	(0.051)	(0.051)	(0.025)	(0.121)	(0.036)	(0.202)	(0.050)	(0.273)
Interest Rates on Govt. Bonds	-0.125***	-0.106***	-0.005	0.014	-0.061***	-0.074*	-0.175***	-0.040
	(0.028)	(0.028)	(0.014)	(0.043)	(0.020)	(0.039)	(0.029)	(0.060)
Alternative Investments	0.138***	0.099***	0.010	0.035	0.063***	0.040	0.083***	0.023
	(0.025)	(0.026)	(0.013)	(0.026)	(0.019)	(0.037)	(0.026)	(0.052)
Liquidity in Market	0.354***	0.299***	0.032	-0.040	-0.049	-0.076	0.117	0.007
	(0.103)	(0.103)	(0.051)	(0.082)	(0.073)	(0.077)	(0.103)	(0.113)
Exogenous Uncertainties	-0.105***	-0.084***	-0.004	-0.110*	-0.044**	-0.012	-0.063**	0.022
	(0.028)	(0.028)	(0.014)	(0.064)	(0.020)	(0.058)	(0.028)	(0.081)
Interest Rates	0.050*	0.057*	0.025*	-0.005	-0.046**	0.495***	-0.059*	0.393***
	(0.030)	(0.030)	(0.015)	(0.050)	(0.021)	(0.062)	(0.032)	(0.086)
Risk Perception		0.140***	0.034**	0.114***	0.138***	0.023	0.134***	0.096
		(0.029)	(0.015)	(0.031)	(0.021)	(0.050)	(0.029)	(0.067)
Inertial Routines			0.861***	0.807***				
			(0.012)	(0.027)				
Tenure-Specific Transactions					1.000***	1.089***		
					(0.024)	(0.054)		
Regulatory Mandate							0.326***	-0.124
							(0.038)	(0.169)
Constant	-0.000	-0.000	-0.009	0.429**	-0.000	0.357	-0.000	1.119***
	(0.023)	(0.023)	(0.011)	(0.178)	(0.016)	(0.285)	(0.022)	(0.426)
Observations	1,690	1,690	1,680	450	1,690	450	1,690	450
Number of Code	10	10	10	10	10	10	10	10

Standard errors in parentheses; *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 3: Effects of Pluralistic Ignorance on the Dark Side in Peer-to-Peer Transactions and Robustness Test

VARIABLES	DSP2PT	DSP2PT	DSP2PT	DSP2PT	DSP2PT	DSP2PT	Risk Perception	DSP2PT
	Model M9	Model M10	Model M11	Model M12	Model M13	Model M14	Model M15	Model M16
Age	0.010	-0.004	0.007	-0.039	0.232***	-0.102***		-0.028
	(0.053)	(0.176)	(0.053)	(0.170)	(0.047)	(0.011)		(0.055)
Existing Liabilities	-0.012	-0.023	-0.008	0.018	0.062***	-0.004		-0.020
	(0.012)	(0.024)	(0.012)	(0.024)	(0.006)	(0.005)		(0.012)
Liquidity Convenience	-0.021*	0.013	-0.021*	0.011	-0.009	0.004***		-0.005
	(0.012)	(0.013)	(0.012)	(0.013)	(0.007)	(0.001)		(0.012)
Insured Deposits	-0.074***	-0.184	-0.077***	-0.052	-0.166***	0.000		-0.060**
	(0.024)	(0.157)	(0.024)	(0.155)	(0.019)	(0.005)		(0.024)
Interest Rates on Govt. Bonds	-0.017	-0.025	-0.015	-0.028	0.001	0.017***		-0.003
	(0.013)	(0.031)	(0.013)	(0.030)	(0.010)	(0.003)		(0.014)
Alternative Investments	0.025**	0.020	0.013	-0.036	0.060***	-0.003**	0.345***	0.037***
	(0.012)	(0.029)	(0.012)	(0.030)	(0.011)	(0.001)	(0.018)	(0.013)
Liquidity in Market	-0.096**	-0.094	-0.102**	-0.131**	-0.104**	0.021***	-0.192***	-0.082*
	(0.048)	(0.061)	(0.048)	(0.059)	(0.042)	(0.005)	(0.032)	(0.048)
Exogenous Uncertainties	-0.010	-0.085*	-0.017	-0.080*	-0.000	-0.013**	-0.130***	-0.001
	(0.013)	(0.046)	(0.013)	(0.044)	(0.009)	(0.006)	(0.019)	(0.014)
Interest Rates	-0.032**	0.265***	-0.029**	0.203***	0.168***	-0.367***		-0.023
	(0.014)	(0.049)	(0.014)	(0.049)	(0.010)	(0.003)		(0.014)
Credit Ratio							0.459***	
							(0.022)	
Risk Perception	0.077***	0.006	0.079***	0.032	0.353***	-0.003		0.085***
	(0.014)	(0.039)	(0.014)	(0.038)	(0.010)	(0.002)		(0.014)
Inertial Routines								
Tenure-Specific Transactions					-0.297***	1.003***		
					(0.014)	(0.003)		
Regulatory Mandate					-0.231***	0.154***		
					(0.011)	(0.011)		

Pluralistic Ignorance	0.874***	0.910***	0.896***	0.922***				0.879***
	(0.011)	(0.030)	(0.012)	(0.029)				(0.012)
Risk_Perception x Pluralistic_Ignorance			0.083***	0.140***				
			(0.012)	(0.025)				
L.arch					1.027***	0.727***		
					(0.059)	(0.115)		
L.garch					0.172***	0.412***		
					(0.028)	(0.018)		
Treatment Group							-0.247***	0.071***
							(0.039)	(0.026)
External Stimulus (Post-AQR Event)							0.841***	0.201***
							(0.072)	(0.054)
Treatment Group x External Stimulus							0.927***	-0.241***
							(0.078)	(0.057)
Constant	-0.007	0.088	-0.009	0.260	-0.326***	-0.044***	-0.224***	-0.063***
	(0.011)	(0.202)	(0.011)	(0.219)	(0.010)	(0.014)	(0.029)	(0.020)
GARCH Constants					0.023***	0.000*		
					(0.003)	(0.000)		
Observations	1,680	450	1,680	450	1,690	450	1,690	1,680
Number of Code	10	10	10	10			10	10

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1