Conflicted Trust in Banking:
Broad-Scope and Narrow-Scope Trust

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Abstract

We introduce the distinction between broad-scope trust and narrow-scope trust in banking. Broad-scope trust corresponds to trust toward a group in general (e.g., banks as a whole); narrow-scope trust toward a specific individual (e.g., bank–firm relationship). Using U.S. syndicated loans transactions data, from 1998 to 2016, we show that borrowers and lenders deploy more interpersonal trust in enhanced trust environments. However, when generally trusted, banks tend to take advantage of interpersonal trust, reducing their lending commitment and increasing loan spreads. Hence, we find that high general trust can lead to opportunistic behaviours and the extraction of economic rents.

JEL Codes: G21, G32, Z1

Keywords: Trust Environment; Interpersonal Trust; Financial Intermediaries; Credit Conditions; Hold-up; Relationship Lending; Syndicated Loans.

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1. INTRODUCTION

The concept of trust plays a central role in banking. Notably, trust facilitates access to information and optimal credit allocation in the presence of information asymmetries (Becchetti and Conzo 2011, Bester 1985). Maintaining trust is also essential for banks, that are otherwise exposed to runs, and heightened risks of default (Diamond and Dybvig 1983, Gorton and Metrick 2012, Shin 2009). However, banking literature usually refers to trust in a uniform manner. In this study, we propose to consider the different levels that characterize trust and document the consequences in terms of relationship building and credit allocation.

The literature in management has documented the existence of different levels of trust and has established a distinction between general and individual trust.[4] For Rousseau, Sitkin, Burt and Camener (1998, p. 397) "microlevel trust relations are constrained and enhanced by macro processes. Conversely, broader forms of trust, particularly between firms, can be influenced by micro level arrangements—in particular how individuals representing each firm relate to each other." This view implies two relative levels of trust: narrow-scope and broad-scope trust. Narrow-scope trust can be defined as the interpersonal trust that emerges in the context of a specific relationship. It is "process-based" (Zucker 1986) in the sense that it grows "through a process of gathering information about a relationship partner [either] through first-hand information or second-hand data" (Grayson, Johnson, and Chen 2008, p. 242). Broad-scope trust instead can be defined as the general trust an individual has in a group of individuals, a sector, or a system, in a particular context. It does not depend on a specific relationship but rather is a general feeling toward a group. While in this latter case, trust is based on a general feeling towards an abstract group, in the former case it is based on a feeling placed in an individual and anchored in a personal relationship. To take some casual examples, one can, for instance, distrust politicians at large, but trust his local Member of Parliament; or distrust modern medicine but trust his General Practitioner. In our case, we are interested in what happens when individuals might not trust banks at large but trust their personal banker.

This distinction in trust as a general and as an interpersonal process is likely to have far-reaching consequences in banking. Surveys report substantial changes in general trust from the public towards banks. This has been especially noted following the 2008 financial crisis. Several

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[4] A multilevel approach to trust appears in research pertaining to organizational studies (e.g., Rousseau 2005), marketing (e.g., Sirdeshmukh, Singh, and Sabol 2002), joint ventures (e.g., Currall and Inkpen 2002), leadership (e.g., Burke, Sims, Lazzara and Salas 2007), and management (e.g., Bitektine and Haack 2015), among others.

questions arise from these variations. What do these swings entail in terms of a specific borrower-bank relationship? Do borrowers stop trusting their banker when the general mood towards banks is based on distrust? Or, on the contrary, do borrowers invest more in interpersonal trust when general trust is damaged? Do variations in *general* trust towards banks imply changes in *individual* behaviors? For instance, do banks nurture interpersonal trust through better access to credit and better credit conditions when being generally trusted? Or, on the contrary, do banks take advantage of a general positive feeling towards them to extract an economic advantage? Our study proposes to answer these questions.

We start by investigating how interpersonal trust (i.e., narrow-scope trust towards one bank) evolves when general trust (i.e., broad-scope trust towards banks as a group) also varies. The relation between general and personal trust is not straightforward and the literature in management proposes a conceptual framework to apprehend their interaction: the *functionalist* and the *institutionalist* view. The functionalist view can be summarized as follows: if both general trust and interpersonal trust accomplish the same function, they are substitutable. In the case of banking and access to credit, this means that trust emerges *either* through a personal relationship *or* through a positive general opinion. In the case of a fall in general trust, borrowers and lenders would palliate this lack of general trust by building more interpersonal relationships. Conversely, when lenders and borrowers benefit from a more trustful general environment, they will tend to drop out from personal relationships (essentially because they are costly to build, see for instance López-Espinosa, Mayordomo, and Moreno 2017). This substitutability of general and personal trust occurs because trust accomplishes a *function*. This function is needed for credit to be allocated (see for instance Becchetti and Conzo 2011); if general trust is not available generally, it needs to be built at the personal level.

The institutionalist view offers an alternative perspective. Agents evolve in institutions, and trust is one of these institutions (for trust as an institution in economics, see for instance Algan and Cahuc 2010). This view posits that general trust is a needed institution for any other form of trust to develop. Personal trust cannot effectively emerge without a minimum level of general trust in society. In the case of credit allocation, this implies that personal trust between a borrower and a lender better develops when there is already a certain level of general trust between them: borrowers trust their personal banker all the more as banks are generally trusted. The two levels of trust are complementary. When general trust increases, so does personal trust; when general trust decreases, so does personal trust.

The first part of this study offers to determine which view holds in banking. Our work adopts an empirical approach. General trust toward banks is measured with the Gallup Survey indicator of "Trust in Banks"; it refers to trust towards banks *in general* and is an *aggregated* measure. For these reasons, it corresponds to our broad-scope measure of trust. Narrow-scope trust in a bank is measured at the firm level and is based on the frequency of interactions with the same lender over a given period of time. Our measure of narrow-scope trust is outcome based: going repeatedly to the same lender testifies to a greater trust towards this lender. We obtain complete records of transactions between a firm and a bank employing U.S. syndicated loans transaction-level data from LPC Dealscan.[5]

Our results consistently point towards the institutionalist view. When banks are more generally trusted, this translates into more trust interactions between a firm-bank pair. This is also supported when using the 2007-2009 financial crisis as a sudden drop in *broad-scope* trust (Stevenson and Wolfers 2011): after the drop, the frequency of the pair interactions and the development of narrow-scope trust depend even more on general trust. The second part of our work is on what happens next. An intuitive view is that this situation would lead to better credit conditions from the bank – why would otherwise the firm enter into more frequent interactions in the first place? This is what we will call *benevolent trust*. It is based on the idea that lenders build on this personal trust to provide better credit conditions, such as lower spread and larger loans. Lenders do so to preserve interpersonal trust; this could be with the aim of keeping loyal customers in their books, or to more easily secure private information. This outcome would reflect the positive externality general trust exerts, as an institution, on individual level interactions.[6]

On the contrary, banks might be tempted to take advantage of being trusted to extract economic rents. This is what we will call *opportunistic trust*. When being generally trusted, banks might be tempted to either provide less (costly) tokens of trustworthiness, or to altogether take advantage of interpersonal trust. This would, for instance, translate into higher interest rates or

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[5] Employing syndicated loans and LPC Dealscan has several advantages. First, it refers to the transaction level, which provides a high degree of precision and granularity. Second, it identifies both the borrower and the lead arranger(s), allowing us to follow their credit relationship over time. Third, this thorough collection of all syndicated loans by a borrower avoids the selection bias that frequently marks disclosures of standard loans (Maskara and Mullineaux 2011), which would be critical in our case by biasing our main measure of narrow-scope trust.

[6] The benevolent view aligns the two levels of trust: if bankers were to provide worse credit conditions when they are generally trusted, then it would be irrational for firms to trust them with more frequent interactions. The banks, knowing this situation, have a strong interest in behaving well. In some ways, this is a universalist moral way of reasoning: the generalisation of individual actions leads to a norm that ensure group-wise positive outcomes.

lower commitments for trusting borrowers. Banks will adopt this behaviour if they have a "non-universalist" vision of trust – if they do not infer that their specific behaviour will lead to group-wide generalization. They can take advantage of trusting borrowers without worrying about a strong reverberating effect on general trust; in short, there is room for opportunism. During these periods, borrowers would suffer from what could be dubbed *blind trust*.[7] The existence of excessive (naïve) interpersonal trust has notably been documented in the management literature (e.g., Wicks, Berman, and Jones 1999).

To draw apart the opportunistic and benevolent view, we investigate the evolution of credit conditions for more trusting borrowers in periods of general trust. We focus on three main credit conditions in the syndicated loan market: lead bank share, all-in-spread, and collateralization. We find that in an environment of general trust, banks who develop more interpersonal trust with borrowers tend to lend less (i.e., reduce their lending commitment in the syndicate) and increase their interest rate. This is after controlling for loans' characteristics, macroeconomic environment, business cycle, borrowers' risks and characteristics, lenders' characteristics, and variations in supply and demand. Trusting borrowers do *not* benefit from better credit conditions from their banker during periods of general trust; on the contrary, their lending terms worsen. This evidence suggests the existence of excessive interpersonal trust leading to a hold-up phenomenon: banks manage to take advantage of higher general trust to extract economic rents from interpersonal trusting relationships.

Our results primarily contribute to the literature of trust in economics and banking.[8] We introduce a distinction between broad-scope and narrow-scope trust that allows to understand the consequences of the observed cyclicity in general trust in banks in the development of interpersonal trust and firms' access to credit. Conceptually, it enriches the debate on the role of trust and provides a novel perspective on the interaction between creditors and debtors – notably shedding the light on the potential negative consequences of general trust on interpersonal behaviours. Since our work focuses on frequent relationships from which interpersonal trust emerges, it is also related to the relationship lending literature. In additional results, we show that, by fostering personal trust through more frequent relationships, general

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[7] This phenomenon could also explain the cyclicality of general trust; blind interpersonal trust would have to build up before reaching a threshold at which it triggers a general distrust in banks. This view would align with known periods of mistrust and financial collapses, that followed periods of strong trust in financial intermediaries (e.g., the 2008 financial crisis or the Madoff scandal). We leave the exploration of this view for future research.

[8] The next section presents previous works. Key references related to this work are Guiso, Sapienza, and Zingales (2004, 2008), Algan and Cahuc (2010), Lins, Servaes, and Tamayo (2017), Tang, Deng, and Moro (2017) in economics and Becchetti and Conzo (2011), Kim, Surroca, and Tribó (2014) and Moro and Fink (2013) in banking.

trust also fosters relationship lending – based on classic measures from the literature. We provide more substance to this reading and relate it to our core results.[9]

In the next section, we present prior literature and explicate the hypotheses more thoroughly. Section 3 introduces the methodology and data. Section 4 contains the results pertaining to the substitution of complementary effect of narrow and broad-scope trust and section 5 documents the consequences in terms of access to credit. Section 6 presents additional results and section 7 robustness tests. Section 8 concludes.

2. CONCEPTS AND LITERATURE

Trust is an essential mechanism underpinning economic transactions and contributing to positive economic outcomes. Algan and Cahuc (2010), and Horváth (2013) identify its positive effect on economic growth; Guiso, Sapienza, and Zingales (2004) demonstrate its importance for financial development; Georgarakos and Pasini (2011), and Guiso, Sapienza, and Zingales (2008) show that the development of stock market is intrinsically linked to favorable trust environments; Ang, Cheng, and Wu (2015) find that trust helps mitigate contractual uncertainty when property rights are weak; Brown, Gray, McHardy and Taylor (2015) document a positive link of trust between the firm and its employees and financial performance; Dudley and Zhang (2016) show that a positive trust environment affects firms' cash holding behavior; and Lins, Servaes, and Tamayo (2017) relate trust to growth and investments by corporations.

Trust also has a key role in the provision of credit. Theoretical studies provide several reasons trust is conducive to banks' activity. When trusted, banks collect deposits more easily, which reduces the costs associated with a liquidity mismatch, such as when they must liquidate assets to meet depositors' demands (Allen and Gale 2004, Allen and Santomero 1997, Diamond and Dybvig 1983). Thakor and Merton (2018) emphasize the importance of trust for banks when they compete with non-bank lenders. In line with this theoretical literature, available evidence suggests that trust determines credit market development (Becchetti and Conzo 2011), access to credit (Moro and Fink 2013, Tang, Deng, and Moro 2017), loan provision (Chen, Liu, and Wang 2016), lending terms (Kim, Surroca, and Tribó 2014), the supply of bank services

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[9] This is notably important when reading some of our results. Beck, Degryse, De Haas and van Horen (2018) document countercyclicality in relationship lending: credit conditions associated with relationship lending deteriorate in the upward phase of the business cycle. Our results control for the business cycle, general macroeconomic conditions, and time trends; we are measuring a different phenomenon. Furthermore, our results bring a distinct explanation based on a hold-up mechanism and not an intertemporal compensation mechanism.

(Järvinen 2014), and liquidity (Bertrand, Klein, and Soula 2021). In short, prior literature indicates a positive impact of trust on economic outcomes.

Although missing from banking literature, the distinction of the general trust environment from specific interpersonal trust is well-established in other fields. Rousseau, Sitkin, Burt and Camener (1998) define trust as a multilayered concept that includes micro elements, such as specific relationships, and macro elements, such as the context surrounding that relationship. Currall and Inkpen (2006, p.119-120), in developing the concept of trust from a multilevel perspective, posit that "trust at one level serves as the organizational context of trust at another level". They further explain that trust can be measured at different levels, such as an individual person, group, and organization, "because all three entities make trust decisions and exhibit the measurable actions that follow from such decisions." From this perspective, their multilevel definition of trust asserts that "under a condition of risk, a person's, group's, or organization's trust is signified by a decision to engage in action that allows its fate to be determined by another person, group or organization". This multilevel approach in turn has been adopted for research into organizations (e.g., Rousseau 2005), marketing (Sirdeshmukh, Singh, and Sabol 2002), joint ventures (Currall and Inkpen 2002), leadership (Burke, Sims, Lazzara and Salas 2007), and management (Bitektine and Haack 2015). We follow consumer trust research (e.g., Grayson, Johnson, and Chen 2008) and focus on two levels of trust, interpersonal and environmental, which we refer to as narrow-scope trust and broad-scope trust.

Broad-scope and narrow-scope trust are relative concepts, useful for distinguishing two hierarchical levels. Narrow-scope trust exists between the lowest units of analysis, such as individuals (as in Currall and Inkpen 2002) or firms, assuming firms are considered homogeneous constructs and represent the lowest level of an analysis (as in Sirdeshmukh, Singh, and Sabol 2002). Conversely, broad-scope trust exists between the lowest level of analysis and the highest level of analysis. This trust might be toward society, a sector, or a group of firms (as in Grayson, Johnson, and Chen 2008) or toward a firm, if it is defined as a heterogeneous collection of groups and individuals (as in Currall and Inkpen 2002).

It is critical to reemphasize that narrow-scope and broad-scope trust are relative concepts, and different studies employ varying levels of analysis, depending on their topic of interest. Marketing tends to define the trust between a consumer and a firm as narrow-scope trust, whereas the trust that exists between a consumer and a whole sector is broad-scope trust. Conversely, leadership literature often describes narrow-scope trust according to the trust one

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employee has toward a manager and broad-scope trust as trust by a group of employees in the manager. Introducing a multilevel perspective offers a more versatile, complex view of trust, which then can be embedded in multiple relationships and representations. Accordingly, Currall and Inkpen (2006, p. 125) develop a model that reflects their prediction of the "existence of a bidirectional and reciprocal relationship among trust at the interpersonal, intergroups and inter-organisations levels".

In our case, we define lower-level (narrow-scope) trust as that which exists between a borrower and its lender. We adopt an homogeneous vision of the firm and a borrower can be an individual, financial officer, or firm; a lender can be a financial institution, bank, or loan officer. In our empirical investigation, borrowers will be firms, and lenders will be banks that participate in the syndicated loan market. We define the highest level of trust (broad-scope) as that which exists between a borrower and the lending sector as a whole. In our empirical setting, it corresponds to the feeling of trust firms have toward the banking sector. This framework represents a relatively simple multilevel representation of trust, which could be made more complex as needed. For instance, because we address the banking sector specifically, we do not consider how other sectors' trust might affect banking sector trust. Also, due to our focus on one relationship, we do not formally integrate interactions of narrow-scope trust exhibited by different borrowers. Finally, in our main approach, we assume that for one individual, narrow-scope trust does not determine broad-scope trust. This prediction aligns with existing evidence, though Currall and Inkpen (2006) also identify some rare instances in which one individual (e.g., whistle-blower) can determine trust toward the whole sector. This dynamism might imply some degree of endogeneity that we address empirically with instrumental approaches.

With regard to our research interest in how broad-scope trust in banks affects the development of narrow-scope trust, we find two opposite views regarding the effect of general trust on interpersonal trust in prior literature (Grayson, Johnson, and Chen 2008). The first reflects *functionalist theory*, which is based on the premise that social systems exist to achieve certain functions (Durkheim 1893). Merton (1957) suggests that social mechanisms emerge to realize these functions, and these mechanisms evolve or disappear over time, based on their efficiency in performing their specific function. Scholars such as Fukuyama (1995) and Luhmann (1979) suggest that the specific function of trust is to ensure cooperation among individuals in uncertain settings. From this point of view, broad-scope and narrow-scope trust both achieve the same *function*. Functionalist theory predicts that the most efficient level of trust will prevail. Whereas narrow-scope trust requires set-up costs for each relationship, broad-scope trust can

be scaled up to the whole group, which avoids such costs. Applying functionalist theory, we predict that in the presence of broad-scope trust, narrow-scope trust tends to disappear, because it is less efficient. In summary, broad-scope and narrow-scope trust are substitutes (accomplish the same function), and because broad-scope trust is more efficient (less costly), it prevails over narrow-scope trust.

The second, opposite view stems from *institutionalist theory*, which stresses the role of institutions in developing social systems and the importance of the legitimacy of these institutions (e.g., Scott 2013). Legitimate actions are deemed appropriate on the basis of formal or informal, taken-for-granted rules (North 1990, Powell and DiMaggio 2012). Shared norms enable individual actors to predict others' actions, which encourages and enables cooperation among members of a society (Nelson and Sampat 2001). An important point from institutionalist theory is that norms aim for effectiveness in achieving cooperation, not necessarily the greatest efficiency. With regard to trust, it might exist to ensure cooperation among individuals (e.g., Bachmann 2004, Budros 1992), and both narrow-scope and broad-scope trust are effective in doing so. Therefore, in a society that already features strong broad-scope trust, individual members perceive trust as an effective, legitimate mechanism to support sound institutions. A high level of broad-scope trust thereby facilitates the development of narrow-scope trust. Applying institutionalist theory, we predict that more broad-scope trust leads to more narrow-scope trust, even if they accomplish the same function and if one is more efficient than the other.

These two contrasting views can be applied readily to banking, and they serve as the conceptual backing for our hypotheses. We start with functionalist theory: Because narrow-scope and broad-scope trust achieve the same function for individuals, both general trust in banks and trust that emerges from frequent lending relationships ensure lending and access to credit. The most efficient mechanism will prevail, and the relationship lending literature has long documented that setting up specific relationships is more costly to implement than other forms of lending (e.g., López-Espinosa, Mayordomo, and Moreno 2017). Therefore, in the presence of high broad-scope trust, the importance of narrow scope trust will fade and maintaining personal relationships will be less central.

H1a: Functionalist view – More general trust in banks leads to a reduction in the use of narrow-scope trust.

Our alternative hypothesis follows the institutionalist view. Broad-scope trust ensures the legitimacy of trust as a mechanism to facilitate cooperation among agents. Lenders and borrowers therefore become keen to develop narrow-scope trust through repeated interactions. The costliness of these interactions does not matter, because both broad-scope and narrow-scope trust are effective, complementary mechanisms to ensure lending and access to credit. In the presence of more broad-scope trust, narrow-scope becomes a more legitimate institution, such that interpersonal relationships flourish.

H1b: Institutionalist view - More general trust in banks leads to an increase in narrow-scope trust.

Next, we explore the impacts on banks' lending behaviors when general trust varies. That is, within a specific relationship, do banks significantly change the amount, the spread, and the collateral of their loans when general trust increases? In a high trust context, both generally and interpersonally, banks might be more benevolent. This is especially possible if the institutionalist view is held correct. Banks might see an interest in maintaining better access and credit conditions in order to generate a virtuous circle. By reinforcing interpersonal trust with tokens of creditworthiness, banks can hope to sustain the benefits associated with a positive trust environment – in short, banks can ensure that borrowers keep trusting them *as a group* so they also trust them more *as individuals*.

In some respects, this vision of trust is universalist. It is by inferring the consequences on the group that the individual action is decided. Here, non-trustworthy behaviors by the bank could lead to a decrease in trust towards the whole banking industry; eventually, it would have adverse consequences for the bank itself. Adopting such a moral stance finds its roots in the utilitarian theory (Bentham and Mill advocate that effective self-interest within a society should be based on the notion of an act based on the greater good for the greater number); adopting this principle without the calculation of self-interest benefits echoes to Kantian universal moral visions (see Hosmer 1995 for a review on trust and ethics in business).

H2a: Benevolent trust – Trusting borrowers benefit from better credit conditions when general trust increases.

Banks might not necessarily adopt a benevolent behavior in order to preserve trust. An alternative course of action finds its rational in more opportunistic motives. Being generally trusted, banks might be tempted to take advantage of general trust for their own sake. This

might be even more tempting as banks might assume that their individual behavior is unlikely to quickly reverberate on general trust – this goes along the view that it takes exceptional circumstances for individual scandals to shake trust in an industry as a whole (e.g., Currall and Inkpen 2006 with whistleblowers, or the Madoff scandal). In short, once generally trusted, banks might be tempted to extract economic rents. This can for instance take the form of reduced lending commitments and higher interest rates.

This view assumes that frequent borrowers would suffer from excessively trusting their banker in the context of high *general* trust. This aligns with the literature pointing to the risk associated with overcommitment in trust, that exposes the agent to opportunistic behaviors (see for instance Wicks, Berman, and Jones 1999). It suggests that trusting relationships expose individuals to a form of blind trust that can be related to the hold-up literature (Sharpe 1990).

H2b: Opportunistic trust - Trusting borrowers benefit from worse credit conditions when general trust increases.

3. EMPIRICAL SETTING

In this section, we present our dataset, measures of narrow and broad-scope trust, and modeling.

3.1. Dealscan Database

We employ U.S. syndicated loans transaction-level data from LPC Dealscan. Because this database pertains to the transaction level, it provides a high degree of precision and granularity, including information about the borrower and the lead arranger, so we can track their credit relationship over time. As a thorough collection of all syndicated loans by borrower, this database also helps us avoid the severe selection bias that disrupts disclosures of standard loans (e.g., Maskara and Mullineaux 2011). Accordingly, LPC Dealscan has been used widely in previous literature (e.g., Calomiris and Pornrojnangkool 2009, Ivashina 2009, among others).

During the period 1998–2016, we restrict the sample to loans for which we have all information, provided by banking institutions (i.e., excluding loans by funds, government agencies, finance companies, and so forth). We focus on lead lenders that have participated in the loans and been identified in LPC Dealscan as lead managers or with arranger or agent titles in the loan syndication documentation (Calomiris and Pornrojnangkool 2009).

The initial database contains 313,557 loans (as of 2017/03/31). Focusing on loans issued between 1998 and 2016 that contain information on the loan amount, we retain 257,411 loans (82%). Restricting the sample to borrowers with several loans during the sample period leaves 230,874 loans (74%). Cleaning the database and keeping only loans for which we have information about the syndicate (lenders' names, share invested in the loan) produces a sample of 215,670 loans (69%). When we narrow it to U.S. borrowers, the sample contains 98,804 loans (32%). Focusing on lead lenders identified as banking institutions produces a sample of 89,891 loans (29%), with 208,386 observations (on average, 2.32 leads per loan). The main narrow-scope trust measure is based on the previous year, so we remove 1998 from our analysis, because we do not have data about 1997. Finally, after removing all observations with missing data, our sample consists of 181,308 loan lender–level observations from 1999 to 2016.

3.2. Measures of Narrow and Broad-Scope Trust

We develop empirical measures of narrow-scope and broad-scope trust. Narrow-scope trust reflects trust that emerges within a specific relationship. A large body of research in economics, management, and psychology has shown that interpersonal trust is a direct product of repeated interactions and that the choice to repeat interactions reflects the existence of interpersonal trust (e.g., Corts and Singh 2004; Gulati 1995; Kanagaretnam et al. 2010; Singh and Srivastava 2009). Our measure follows this approach. It is based on the frequency of interactions between the same bank and the same firm. Increases in interpersonal trust are captured with increases in the frequency of interactions between the pair of agents. The more frequent the interactions between the same bank and the same borrower, the more interpersonal trust is created between the two of them. This measure not only integrates the fact that more interactions *signal* more interpersonal trust but also that more frequent interactions *create* more interpersonal trust, making it a direct measurement of the development of narrow-scope trust at an individual level.[10]

Compared with alternative approaches, our measure has several advantages. First, it is not based on a declared attitude but on a behavior. The literature has emphasized the importance to employ behavior based measure of trusts and the limited reliability of attitude declarations (e.g., Glaeser et al. 2000; Sapienza, Toldra-Simats, and Zingales 2013). Second, this measure is unlikely to incorporate feelings towards broad-scope trust. A survey question, even framed in a way to refer to a specific bank relationship, is very likely to integrate feelings towards the

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[10] We also employ the number of interactions within a year. Results are reported in section 7.1.

group. This would entail measurement problems with an overlap of the measure of broad and narrow-scope trust. Our approach stays clear from that issue. Third, it is an outcome-based measure, in the sense that repeated interactions are not only a marker of higher interpersonal trust, but they are also the main condition of the emergence of higher interpersonal trust. This ensures a direct measurement of narrow-scope trust.

Practically, our measure is based on recording the frequency of lending interactions between the same bank-firm couple. The higher the frequency (the more frequently a firm borrows from the same lender), the higher narrow-scope trust; the lower the frequency, the lower narrow-scope trust. Figure 1 depicts the main idea of this measure.
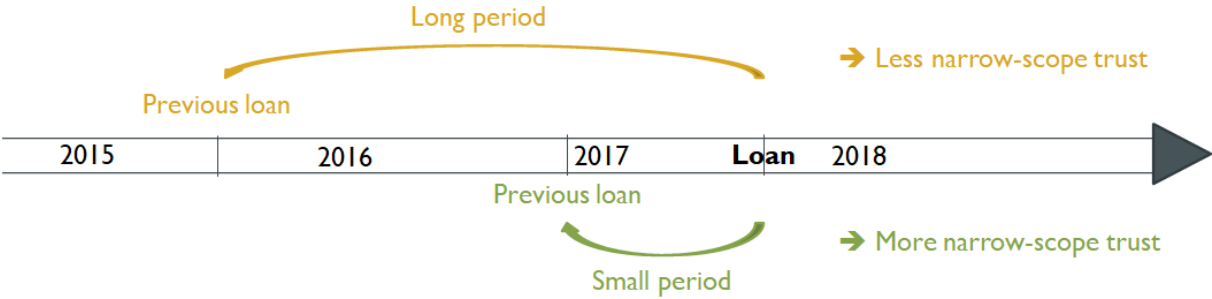

Figure 1 – Narrow Scope Trust measure

The variable *Narrow Trust* is computed as follows. For each loan, we consider if there has been a loan between the same firm and the same bank during a given preceding period. If there has been a loan between the same couple, the variable takes a value of one; otherwise, it takes a value of zero. The main estimations employ a period of 12 months, and robustness tests make this period vary.[11]

$$Narrow\ Trust_{i,j,t}$$
$$= 1\ if\ firm\ i\ has\ a\ past\ experience\ with\ bank\ j\ over\ the\ last\ 12\ months.$$

The main estimations employ a dummy variable, notably to facilitate interpretation when *Narrow-Scope Trust* is interacted with broad-scope trust. Robustness tests offer a count variable

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[11] It is worth noting that a similar measure has been adopted by Calomiris and Pornrojnangkool (2009), with the same database. Their measure proxy for lending technology through repeated interactions. In our main results, we restrict ourselves in saying that our measure captures more frequent interactions and we do not make the stretch of assuming a given lending technology behind these interactions. These topics are however related, and Section 6 discusses our results adopting a relationship lending narrative, completing the findings with seminal relationship lending measurements.

that records the number of times the firm has borrowed from the same bank in the last 12 months, as well as alternative frequencies – results are preserved.

We are now moving to our measure of broad-scope trust. Broad-scope trust is defined as trust towards a group, in our case, trust towards banks, in general. It is not relationship-specific but refers to the more abstract concepts of "banks". In short, we need a measure of trust that is an aggregate feeling towards banks taken as a whole. We rely on the annual Gallup survey that specifically aims at capturing such general opinions towards institutions. We use the annual aggregated answers to the following question: "Please tell me how much confidence you, yourself, have in banks—a great deal, quite a lot, some, or very little?" People can indicate five modalities: none, very little, some, quite a lot, and great deal. There is also a "no opinion" answer.

Our main variable, general trust towards banks (*Broad-Scope Trust*), equals the percentage of people answering "great deal". Similar approaches have been adopted in prior research (e.g., Jansen, Mosch, and van der Cruijsen 2015, Knell and Stix 2015, Stevenson and Wolfers 2011). The robustness section makes this definition of trust vary, employing the other categories and alternative general trust variables.

One of our points of interest is the coevolution of narrow-trust and broad-scope trust in banks. Figure 2 reports the evolution of the two measures from 1999 to 2016.
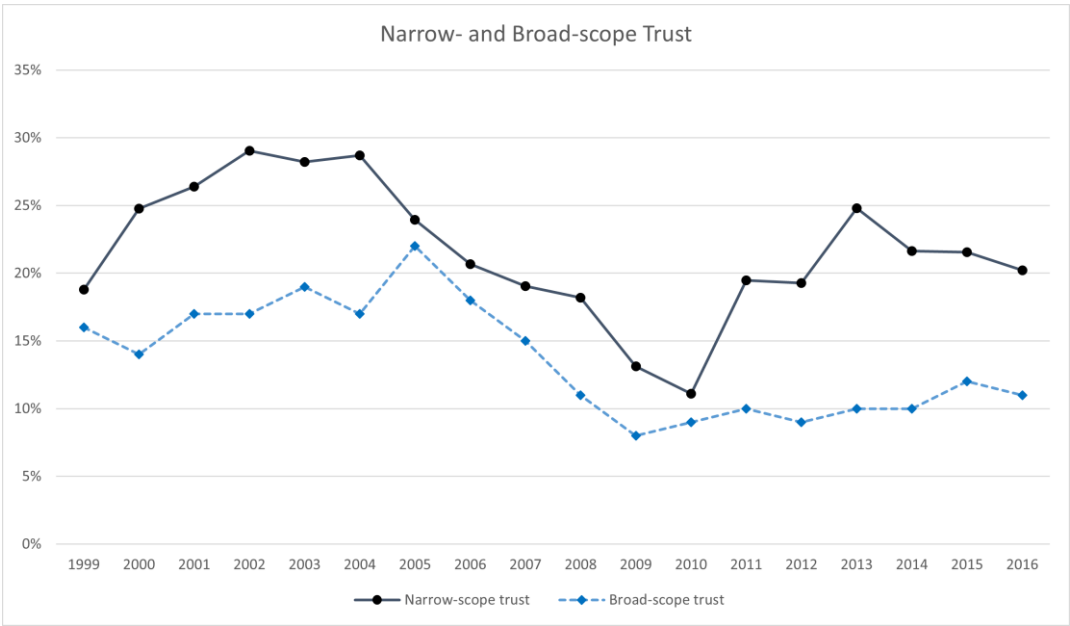

Figure 2. Narrow and Broad-Scope Trust in Banks

General trust in banks starts at 16% in 1999 and peaks in 2005 at 22%. It was still 15% in 2007 but dropped to 8% by 2009. Since then, it has barely recovered, remaining between 9% and 12%. Narrow-scope trust follows a somewhat similar evolution. Starting from 1999, narrow-scope trust progressively increased and plateaued until 2005, before falling down. Compared with general trust, it recovers more swiftly from 2011 but remains below historical highs. In general, both levels of trust tend to follow the same trend, which lends support to the institutional view (more general trust ensures more narrow-scope trust within a relationship). It is also worth noting that both measures tend to be procyclical, though imperfectly and to different extents.

3.3. Empirical Model

To address our research questions, we run two different models. First, we relate narrow-scope trust to general trust level. This captures whether periods of higher general trust in banks translate in more frequent or less frequent interactions between the same bank-firm. More frequent interactions would reflect an increase in narrow-scope trust (institutionalist view) whereas less frequent interactions would reflect a decrease in narrow-scope trust (functionalist view). The model takes the following generic form (variable names reflect the measured concepts for ease of interpretation):

$$Narrow\ Trust_{b,l,t} = \alpha + \beta \times Broad\ Trust_t + \gamma \times Controls_{b,l,t} + \delta_t + \epsilon_l + \theta_b + \varepsilon_{b,l,t},$$

(1)

where $Narrow\ Trust_{b,l,t}$ is our measure of relationship lending between the borrower b and lender l at time t, and $Broad\ Trust_t$ measures the trust environment at time t. We control for several variables and fixed effects: δ_t are time fixed effects, ϵ_l are bank fixed effects, and θ_l are fixed effects at the borrower level. Finally, $\varepsilon_{b,l,t}$ are residuals, robust to heteroskedasticity.

Our second analysis documents the evolution in credit conditions within a relationship when general trust in banks varies. It refers to the benevolent or opportunistic trust behavior of banks when they are generally trusted. The model is based on an interaction and takes the following generic form:

$$Credit\ Condition_{b,l,t} = \alpha + \beta_1 \times Narrow\ Trust_{b,l,t} + \beta_2 \times Broad\ Trust_t + \beta_3 \times \left(Narrow\ Trust_{b,l,t} \times Broad\ Trust_t\right) + \gamma \times Controls_{b,l,t} + \delta_t + \epsilon_l + \theta_b + \varepsilon_{b,l,t}.$$

(2)

Credit condition is the dependent variable. The coefficient of interest is β_3; it informs on the evolution in credit conditions within a firm-bank relationship when general trust in bank varies. We include three credit terms to reflect credit conditions on the syndicated market. *Lender Share* is the amount the lead bank has decided to invest in the loan. It reflects the commitment of the lead bank to the loan. *All-in-Spread* refers to the interest rate of the loan, beyond a benchmark rate (usually LIBOR), expressed in bps. It includes loan fees. The third measure of credit conditions is collateralization; we use a dummy variable *Secured*, equal to 1 if the loan is collateralized and 0 otherwise.

In models (1) and (2), we include several control variables. To control for loans' characteristics, we define their original maturity in months (natural logarithm), the type (revolver or term loan, two dummy variables), objective (dummy variable equal to 1 if the loan's proceeds are used for corporate purposes), currency (dummy variable equal to 1 if the issuance is in USD), and guarantee status (dummy variable equal to 1 if secured). Table 1 informs on the loan characteristics, 49.4% are revolving loans, and 32.2 are term loans. Then 47.6% of the loans are employed for corporate purposes. The vast majority of loans are issued in USD (97.8%). Finally, 43.8% of the loans are secured.[12]

{Table 1}

We control for macroeconomic characteristics with three time-varying variables at the national level using data from the World Bank: GDP growth, inflation (natural logarithm), and banking competition (Hirschman-Herfindahl index of loan amount). For both the lender's and borrowers' characteristics, we use fixed effects. We also control for shifts in the economic environment with U.S. states' fixed effects. Finally, we add quarter fixed effects to reflect time trends. Appendix A provides definitions of each variable.

4. VARIATIONS IN BROAD-SCOPE TRUST AND THE BUILDING OF INTERPERSONAL TRUST

This section presents the impact of broad-scope trust in the development of narrow-scope trust. It employs a general setting and then leverages on the strong decline in general trust associated with the 2007-2009 financial crisis.

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[12] Appendix B reports the pairwise correlations of all our variables.

4.1. Main Estimations

Table 2 contains the baseline estimations relating broad-scope and narrow-scope trust in banks.[13] In general all our models control for macroeconomic conditions and time trend, ruling out the role of the business cycle in leading our results (differentiating us from Beck, Degryse, De Haas and van Horen 2018). All models also control for loans characteristics, and lender, state, and borrower fixed effects.

{Table 2}

Column 1 presents the main estimation. The coefficient of Broad-Scope Trust is positive and significant, indicating that greater general trust toward banks in general increases the frequency of the same firm-bank relationship, which is our measure of narrow-scope trust. This result supports an institutionalist view on trust: interpersonal trust emerges more easily in an environment in which trust is already generally widespread. It indicates a complementary link between general trust (broad-scope) and interpersonal trust (narrow-scope) (H1b). Borrowers and banks more easily adopt trusting relationship when general trust is high because trust already is accepted as an overall institution. Conversely, this also suggests that in an environment of low broad-scope trust, narrow-scope trust emerges with more difficulties.

A critical aspect of our results is the risk that they are driven by surges in demand (superimposed to the business cycle, which is accounted for). Higher frequencies of interaction could then simply be due to peaks in demand of credit, which could convincingly coincide with periods of high general trust. Specification 2 tackles this point by alternatively employing quarters by borrowers fixed effects. Our results remain unchanged, ruling out the role of unobserved demand shifts in explaining the positive and significant relationship between broad-scope trust and the development of narrow-scope trust. Next, an increase in trust in banks might lead to a general increase in the credit supply. In this case, the positive effect of general trust on narrow-scope trust (more frequent pair interactions) might merely reflect changes on the supply side. To rule out this possibility, we rerun our estimations, this time interacting lenders and quarters fixed effects. Results are reported in column 3; there is no meaningful change in the coefficient of *Broad Scope Trust*, ruling out the role of supply dynamics. To account for any broader dynamic, we also interact state and quarter fixed effects. Estimations are reported in column 4

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[13] No clear theoretical explanation exists for the use of clusters in our estimation, but arguably, trust in banks affects lenders differently, such as depending on their characteristics. We test the sensitivity of our analysis by clustering the standard errors at the lender level and obtain similar results.

and leave results unaffected.[14]

Last, our results might be driven by underlying characteristics of banks, that would explain their shift toward more frequent interactions and narrow-scope trust in periods of broad-scope trust. Prior literature indicates a role of banks' characteristics in building relationships (especially the relationship lending literature, see for instance Berger and Black 2011) so we complement the main model with the following characteristics using data from Thomson Reuters Eikon: bank size, liquidity, lending activity, reliance on deposits, debt, market capitalization, loan portfolio quality, profitability mix, and return-on-assets. We did not add these control variables to the baseline model, which would substantially reduce the sample size (by 18%). Columns 5 and 6 report the results, which remain unaffected by the inclusion of lenders' characteristics.

Across all these tests, the results remain identical, with a significant and positive coefficient of *Broad-Scope Trust*. In short, greater general trust in banks leads to an increase in interpersonal narrow-scope trust. The two levels of trust are complementary, supporting the institutionalist view. Firms trust more their own bank when banks are trusted in general. This is critical since it suggests that maintaining a good *general* trust environment is needed for ensuring good firm-level credit interactions.

4.2. The 2007–2009 Financial Crisis

The 2007-2009 financial crisis deeply affected trust in banks (Sapienza and Zingales 2012). An interesting feature is that it deeply affected trust in *all* banks: while some banks were more affected than others by the crisis, the trust of the public toward financial institutions was shaken as a whole (see notably Stevenson and Wolfers 2011). We can exploit the inclusion of the 2007–2009 financial crisis in our sample as an exogenous and sudden drop in *broad-scope* trust, and the consequences it exerted on the link between broad-scope and narrow-scope trust for banks. Supporting our interpretation so far, we would expect a generalized drop in broad-scope trust to reinforce the link between broad-scope and narrow-scope trust. This follows the institutionalist view: if broad-scope trust plays the role of a conducive institution for the development of interpersonal trust, this sensitivity is likely to be accrued after a negative shock in general trust toward banks. On the opposite, from the functionalist perspective, the drop in broad-scope trust during the financial crisis would imply a further substitution between broad-

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[14] Employing interacting sets of fixed-effect to control for time-varying unobservable demand and supply characteristics has been widely employed in empirical economics (for instance, Khwaja and Mian 2008, Chodorow-Reich 2014, among others).

scope and narrow-scope trust after the crisis since narrow-scope trust becomes the main way to accomplish the function of trust between individuals. This would qualify our interpretation.

We document how firms and banks adjust their interactions behavior with respect to the trust environment after the crisis employing time interactions in our main model. Table 3 reports the results.

{Table 3}

In columns 1 and 2 in Table 3, we estimate the main model after adding a dummy variable, *Bank Crisis*, equal to 1 between Q3-2007 and Q4-2009. Even when we thus control for the bank crisis, our results remain the same: *Broad-Scope Trust* is positive and significant. Then in columns 3 and 4, we present the impacts on banks' behavior, using a dummy variable, *Post Crisis*, equal to 1 if the loan is granted after Q1-2009, which we interact with our *Broad-Scope Trust* variable. In both specifications, *Broad-Scope Trust* is positive and significant, whereas the *Post Crisis* variable is negative and significant. Turning to the interaction terms, in both cases, the coefficient is positive and significant. After the crisis, environmental trust is an even more important determinant in the development of interpersonal trust. The crisis seemingly exacerbated the complementarity between the two levels of trust, and banks and customers came to rely even more on general trust to develop narrow-scope trust.

5. HOLD-UP IN BLIND TRUST: IMPACT ON CREDIT CONDITIONS

Our main result is that broad-scope and narrow-scope trust are complementary in banking. Interpersonal trust relationships between a firm and a bank benefit from an enhanced trust environment. Here, we explore the consequences associated with this complementary in terms of access to credit and lending terms. As emphasized in the previous sections, we propose two potential pathways: First, banks might be more benevolent, ensuring better access and credit conditions, to generate a virtuous circle, maintain good broad-scope trust and consequently evoke additional interpersonal trust (the *benevolent trust* view). Alternatively, banks in a trusting environment might be induced to extract rents from borrowers, secure in the knowledge that they are generally trusted and that their behavior is unlikely to reverberate on broad-scope trust (the *opportunistic trust* view).

We test this perspective with three indicators of credit condition on the syndicated loan market: lead lender share, all-in-spread, and presence of collateral. Then we run two specifications of

Equation 2, such that we include both *Broad-Scope Trust* and *Narrow-Scope Trust* variables separately, then add the interaction term of both variables. Table 4 reports the results.

{Table 4}

5.1. Skin-in-the-Game

Our first indicator is the share of the lead lender (for which we measure the use of relationship lending) in the total amount of the loan. This indicator reflects the commitment, or skin in the game, of the lead lender. The lead lender generally has an interest in reducing its share in the syndicated loan, to reduce its risk while still earning fees. Building a relationship, ensuring frequent interactions, and developing interpersonal trust are usually strategies deployed by the firm to ensure funding as needed. In a hold-up scenario, banks that have developed frequent interactions and narrow-scope trust with a specific firm likely reduce their share in periods of high general trust.

In Table 4, columns 1 and 2, the dependent variable is *Lender Share*, or the percentage of the total loan subscribed by the lead of the syndicate. In the first column, narrow-scope trust in the form of frequent interactions increases the share subscribed to by the lead arranger. This standard result demonstrates one of the advantages of developing a close relationship and nurturing interpersonal trust for the firm. When we focus on the impact of broad-scope trust in banks, we find that an increase in trust reduces the share of the lead lender. Simply put, when firms trust banks generally, the need for the main bank to demonstrate commitment decreases. This outcome also is an expected impact of trust, reducing the need for banks to send positive signals to firms. Next, we turn to the interaction effect of *Broad-Scope Trust* and *Narrow-Scope Trust*. This last term is our key variable of interest and indicates how banks within a trusting relationship with a specific firm adjust their share in the loan, at different levels of general trust. The negative, significant coefficient means that banks that are more interpersonally trusted reduce their commitment when general trust increase. This behavior stands in contrast with their one they adopt when we ignore the moderating role of general trust. Contrary to what one might expect (the *benevolent trust* view), narrow-scope trust does not lead to a commitment to lend more in periods of higher general trust; on the contrary, banks then take the opportunity to lend less, hinting to a potential hold-up situation (the *opportunistic trust* view).

5.2. Loan Spread

The reduction in lending commitment in periods of general trust when a bank is trusted by a

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firm might remain benign; perhaps banks simply do not need to send credible signals or commit as much in periods of general trust, without significant economic consequences. To test this option, we next explore the credit conditions associated with relationship lending in periods of trust, focusing first on one key lending term: loan spread. We follow the same empirical approach: we include all control variables, introduce narrow-scope and broad-scope trust, and then consider their interaction.

Columns 3 and 4 of Table 4 report the results. First, column 3 combines narrow-scope and broad-scope trust in a single equation. The result confirms the positive effect of trust on credit conditions: Greater broad-scope trust substantially reduces loans spreads. There is also a positive effect of narrow-scope trust, which also reduces the all-in-spread. This is in line with the positive effect of building up trusting relationships, identified for instance in repeated trust games. In additional specifications (unreported), we find that the coefficient of *Narrow-Scope Trust* becomes significant only when *Broad-Scope Trust* enters the equation. This result supports the idea that the role of narrow-scope trust in affecting the loan spread is a by-product of the trust environment – in line with our results on the role of broad-scope trust as a conducive institution for the development of narrow-scope trust.

Column 4 employs an interaction term and informs on the combined effect on broad-scope and narrow-scope in regard to the loan spread. We observe that the coefficient of narrow-scope trust and broad-scope trust in banks are still both negative and significant, in line with the previous specification. However, the coefficient of the interaction between narrow-scope trust and broad-scope trust is positive and significant. That is, banks that develop more interpersonal relationships increase their interest rates when they evolve in a more trustful environment. This might signal a hold-up scenario. In periods of trust, banks that build more interpersonal trust, reduce their commitment, and increase the cost of credit. In short, they take advantage of the general trust of firms in banks to extract rents from borrowers.

Back-of-the-envelope calculations suggest that this "hold-up in trust" is economically meaningful. Banks that employ relationship lending increase the all-in-spread by 0.831bps for every additional increase in *Broad-Scope Trust*. It is the marginal increase in the cost of credit due to the use of relationship lending in periods of trust. Moving from periods of low general trust (minimum = 8) to high general trust (maximum = 22) implies an increase of 11.634bps in the spread paid by firms employing relationship lending. To determine the value of trust at which this effect surpasses the overall reduction in all-in-spread associated with narrow-scope

trust, we plot the values of *Broad-Scope Trust* in the equation. Narrow-scope trust leads to an increase in spreads for values of *Broad-Scope Trust* equal to or below 16,[15] equivalent to 67% of the period. Hold-up phases due to trust in banks are a frequent phenomenon.

It is important to note that, again, we cannot relate this phenomenon solely to the business cycle. First, we control for time trends with quarter fixed effects. Second, we control for time-varying macroeconomic characteristics, including global output. Third, this explanation does not fit the raw data. The correlation between *Broad-Scope Trust* and GDP growth is positive and significant but not perfect (42.9% in our sample). In several instances, the two diverge, such as in 2001, when a dip in U.S. economic growth due to the Dotcom bubble did not affect trust in banks (= 17). Moreover, after 2011, trust in banks fluctuated around 10, while economic growth resumed to around 2%. Thus, the effect cannot be a mere reflection of the business cycle.

5.3. Loan Guarantees

We now turn to the use of collateral as a measure of credit conditions. When firms build trusting relationships with their bank, they can expect to reduce the need to provide collateral in return for access to credit (Bharath, Dahiya, Saunders and Srinivasan 2011). In periods of high trust, banks might either reduce their requirement to reciprocate interpersonal trust (*benevolent trust*) or, instead, take advantage of being generally trusted for maintaining or increasing their requirement (*opportunistic trust*). The later situation would be a typical hold-up scenario (Sharpe 1990, Steijvers, Voordeckers, and Vanhoof 2010). We investigate if, in a trusting environment, banks that rely on interpersonal trust change their stance toward collateral requirements.

Table 4 provides the result. Column 5 lists the impacts of both narrow-scope and broad-scope trust in banks on the use of collateral. Regarding the impact of trust on collateral requirements, for both types of trust, we expect a reduction in the need for firms to pledge assets, in line with prior literature (e.g., Moro and Fink 2013) and evidence pointing to the positive role of trust in smoothing economic interactions and improving firms' access to credit (Becchetti and Conzo 2011). Results are contrasted. We do observe reduced collateral requirements in periods marked by greater general trust. However, we observe a positive, significant, increase in collateral requirement in the case of narrow-scope trust. Within a more trusting interpersonal relationship,

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[15] We calculate it as $-13.831 + 0.831X \leq 0$, where X is the values of *Broad-Scope Trust*. Thus, we do not consider the additional impact of *Broad-Scope Trust* on spread, which is negative and higher than the interaction term.

banks tend to require more collateral. This might reflect firms being more adamant in providing this collateral and could suggest some form of hold-up due to the existence of switching costs (the relationship lending literature offers some valuable perspective on this, which will be discussed in a subsequent section).

Column 6 introduces an interaction between narrow-scope trust and general trust in banks. The coefficient of the interaction is non-significant, suggesting a similar impact of narrow-scope trust on collateralization, at different levels of trust in banks. It does not support an increase—nor a decrease—in hold-up issues through collateralization associated with the multiple levels of trust. This might be related to the fact that the channels of broad scope trust and narrow-scope trust on collateralization are different, as suggested in model 5.

To conclude, our results support the view that banks change their lending behavior when they are at the same time narrowly and widely trusted. This is visible for their involvement in the provision of credit and the cost of credit. When taken separately, both general and interpersonal trust improve firms' credit conditions. However, their combined effect draws a different picture. When trusted both at the interpersonal and general level, banks are no longer benevolent; on the contrary, they become more opportunistic. Lenders seem to take advantage of the umbrella offered by broad-scope trust to extract economic rents within their interpersonal trust relationships. While this is not observed in the case of collateralization, this is economically significant in terms of lending commitment and all-in spread. It sketches the picture of a *hold-up in blind trust*.

6. ADDITIONAL RESULTS

This section presents two additional results. First, we deconstruct the homogeneity in broad-scope trust and refine the results when multiple levels of broad-scope trust are taken into account. Second, we relate our results to the relationship lending perspective and document how this helps to explain the dynamic between narrow-scope and broad-scope trust.

6.1. Heterogeneous Broad-Scope Trust

Broad-scope and narrow-scope trust is a useful, straightforward, dichotomy of multiple trust levels. Of course, it hides a potentially more complex structure with more than two polar levels of trust. Broad-scope trust is a public representation of a group of individuals and our results depend on the homogeneity of this group as a social construct. This was mentioned when

building the hypotheses; we now return to this question, further deconstructing the different levels of trust.

We deconstruct broad-scope trust into two different levels and propose three levels of trust: narrow-scope, local-scope, and national-scope trust. We maintain narrow-scope trust as trust being developed within a relationship. Local and national-scope trust are group representations. Local-scope trust refers to general trust towards local banks and national-scope trust to general trust towards national banks.[16] Distinguishing between local and national banks' trust feelings might play an important role. Previous literature suggests different dynamics across these two groups of banks. These different dynamics might nurture different group representations. Notably, large national banks deploy a business model more often based on less interpersonal relationships while small local banks tend to invest more into interpersonal trust (this follows the transactional and relationship lending lines, for instance Berger and Black 2011). Scandals affecting national and local banks are also likely to be of a different amplitude and differently affect the feeling of trust. This might change the *general* perception of these two groups of banks.

We employ the Financial Trust Index, created by Chicago Booth/Kellogg School and employed by Guiso, Sapienza, and Zingales (2008). These survey data can separate general trust in banks into several trust indicators, depending on the type: government, national, or local banks or credit unions. We adopt a distinction between general trust in local banks and credit unions and general trust in national banks. We compute two new variables, *Trust in National Banks* and *Trust in Local Banks*,[17] based on the percentage of respondents who answered yes to the question, "Do you trust national/local Banks?". Heterogeneity in representations seem to be important. The correlation coefficient between *Trust in Local Banks* and *Trust in National Banks* is significant and equal to -0.21. That is, these two forms of broad-scope trust tend to evolve in opposite directions.

{Table 5}

We run our main models, employing alternatively trust in local banks and trust in national banks as measures of broad scope trust. It refines the question of an institutionalist or functionalist dynamic across trust levels and the dynamics underpinning the building of narrow-scope trust

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[16] Both are part of broad-scope trust but now form two distinct reference groups. Importantly, we do not assume more interactions with either local or national banks; we assume different representations.

[17] We also compute *Trust in Credit Unions (FTI)*, and the results match those for *Trust in Local Banks (FTI)*.

in the form of interpersonal relationships. Table 5 reports the results. Columns 1-4 report the impact of *Trust in Local Banks* and *Trust in National Banks* on *Narrow-Scope Trust*. The impact of trust in local banks is similar to the main results. An increase in general trust in local banks fosters the development of narrow-scope trust. The two levels reinforce each other and high trust in local banks provides institutional foundation for the development of interpersonal trust. Moving to the impact of trust in national banks draws a different picture. An increase in general trust in national banks leads to a *reduction* in the development of narrow-scope trust. This suggests a functionalist dynamic. More general trust towards national banks reduces the need to build narrow-scope trust, and, conversely, less general trust towards national banks increases the drive for interpersonal trust.

This result shows that heterogeneity in group representations matters. Local trust representations create the foundations for interpersonal trust to thrive; global trust representations accentuate or attenuate the need for borrowers and banks to develop interpersonal trust at the relationship level. It suggests that local representations are determinant in setting up the institutional trust environment whereas global representations are determinant in determining the extent to which trust is needed as a function. This pattern sketches a more complex picture of the relationship between narrow-scope and broad-scope trust. It is very informative in regards with trust dynamic in the banking sector. Scandals and financial crises are often characterized by a downfall in the representation of *global* institutions. Our results show that this results in a retreat towards interpersonal relationships, sustained by positive local representations. On the contrary, periods of expansion in trust towards global institutions allow for the development of less interpersonal trust relationship, beyond the effect of local banks' representation; interpersonal trust appears less needed when trust in global institutions is high. Similar complex multilevel trust patterns can be found in other fields (e.g., Rahn and Rudolph 2005).

We now explore the consequences in terms of credit conditions. Columns 5-7 of Table 5 reports the impact of interpersonal trust on lead lender share, spread, and collateral requirements when *local* banks are more generally trusted. Results are similar to our main ones: when locally trusted, banks increase their spread and reduce their lending commitment, adopting an opportunistic behavior. Columns 8-10 reports the effect for trust in *national* banks. In this case, there is no significant coefficient for the interaction with narrow-scope trust. An increase in national trust in banks does not yield to more adverse credit conditions for firms deploying interpersonal trust. Looking at the *Trust in National* Bank coefficients (without the interaction)

yields further insights. There is a reduction in lending commitment, an increase in yield, and an increase in collateral requirement associated with an increase in trust in national banks, but this is notwithstanding interpersonal trust.

Decomposing broad-scope trust into two sub-categories provides valuable insights. The institutionalist view (broad-scope trust favors the development of interpersonal trust) only holds true for trust in local banks; an increase in trust in national banks leads to a reduction in the deployment of narrow-scope trust. The deterioration in credit conditions within an interpersonal trust relationship also only occurs with trust in local banks. The proximity of the representation of banks seems to play an important role in the interplay between broad and narrow-scope trust. Trust in local entities seems necessary for firms to develop interpersonal trust while trust in national entities reflects a functionalist perspective. We propose one final approach to understand this dynamic: the perspective offered by the relationship lending literature.

6.2. Narrow-Scope Trust: The Relationship Lending View

Our results implicitly relate to the relationship lending literature. Boot (2000, p. 10) defines relationship lending as "the provision of financial services by a financial intermediary that invests in obtaining customer-specific information, often proprietary in nature, and evaluates the profitability of these investments through multiple interactions with the same customer over time and/or across products." Because relationship lending also relies on multiple interactions and, up to an extent, on interpersonal trust to secure soft information, narrow-scope trust and the type of lending technology put in place are intertwined concepts.

In our main analysis, out of conceptual precision, we refrained from directly equating the development of narrow-scope trust to a specific lending technology. We adopt the more seminal view that lending technologies are primarily anchored in the type of information collected.[18] This is however not to say that these two concepts are not related and some lending technologies (e.g., relationship lending) are explicitly based on interpersonal relationship (Uchida, Udell, and Yamori 2012; Duarte, Siegel, and Young 2012; Gabbi, Giammarino, Matthias, Monferrà and Sampagnaro 2020) and might benefit from or generate interpersonal trust. Adopting a

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[18] This debate extends to the definition of our narrow-scope variable. To an extent, it seems to us less of a stretch to assume that frequent relationships reflect first and foremost additional interpersonal trust and then potentially a change in the lending technology (as employed by Calomiris and Pornrojnangkool 2009). This assumption is however not instrumental. As shown in this section, the concepts of narrow-scope trust and relationship lending are not in opposition but complement each other and this debate might be of relatively minor consequences.

lending technology angle allows to further the explanations on the mechanisms underlying the development of narrow-scope trust in the context of broad-scope trust.[19]

To explore the relationship lending view, we build two measures of lending technologies and relate them to broad-scope trust. First, we create a measure of relationship lending based on the approach of Berger and Udell (1995), and Sufi (2007). They focus on the proportion of loans arranged between a specific bank and a specific firm, compared with the number of loans the firm has subscribed to and the number of banks it has used as lead arranger. In short, it measures the importance of a given bank for a firm and proxies for the subsequent information advantage of the lead arranger with respect to other banks. We define this variable as follows:

$$RL^{3y}_{index} = \frac{Number\ of\ loans\ over\ the\ past\ 3\ years}{Number\ of\ lenders\ over\ the\ past\ 3\ years}$$

We measure the proportion of loans and lenders over a period of 3 years. The interpretation of the variable is straightforward: the higher the index, the higher the number of loans provided by the same lender, and thus, the more the lending approach for a specific bank–firm pair can be defined as relational.

Second, we construct a measure of transactional lending. Transactional lending relies on hard information and automated processes that might not necessitate as much interpersonal relationships and trust (Berger and Udell 2005). We construct a transactional indicator, derived from Li, Lu and Srinivasan (2019). It equals 1 if the loan is traded on the secondary market and zero otherwise. The intuition underlying this measure is that by selling the credit, the bank does not primarily value its relationship with its client but more the transactional value of the loan.

{Table 6}

Table 6 reports the results. The first two columns report the impact of broad-scope trust on the structure of the banking pool and the incentive to development of relationship lending and the last column its impact on the use of transactional lending. Regarding relationship lending, results mirror the ones on narrow-scope trust. An increase in general trust towards banks lead

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[19] Notably, the literature points to the cost of developing interpersonal relationship (López-Espinosa, Mayordomo, and Moreno 2017) and the benefits in extracting private information (Berger and Black 2011). From the firm's point of view, the literature also brings the notions of switching costs (Steijvers, Voordeckers, and Vanhoof 2010) and the intertemporal benefits of developing relationships over the business cycle (Bolton, Freixas, Gambacorta and Mistrulli 2016; Beck, Degryse, De Haas and van Horen 2018; Schäfer 2019). Last, the literature shows how both lenders and borrowers can end up trapped in an interpersonal relationship, leading to hold-up situations (Sharpe, 1990) and soft-budget constraint (Dewatripont and Maskin 1995).

to an increase in the use of relationship lending. This suggests a common dynamic in the development of narrow-scope trust and the deployment of relationship lending. The pivotal role played by lending technology is confirmed in the third column: estimates report a decrease in the use of transactional lending when broad-scope trust in banks increase.[20]

These results suggest that the dynamic in lending relationship reflects the dynamic in the development of narrow-scope trust. More broad-scope trust favours more narrow-scope trust and favours the adoption of lending technologies based on the use soft information. This is consistent with the literature on relationship lending. It gives more depth to the mechanisms at play. Regarding the main results, the approach based on lending technologies suggests that a higher broad-scope trust environment facilitates the collection of soft information. This is intertwined with the increase in the frequency of interactions and the development of narrow-scope trust. Regarding the hold-up in blind trust, the literature identifies relationship lending and the development of long-lasting lender-borrower relationship as prone to hold-up situations (Hasan, Ramírez, and Zhang 2019; Steijvers, Voordeckers, and Vanhoof 2010). Developing more narrow-scope trust in a context of high broad-scope trust generates a similar (but distinct) hold-up problem. The effect on lending technologies also helps to explain opposite results when the heterogeneity in broad-scope trust is taken into consideration. Local banks and credit unions usually base their business models on relationship lending, whereas national banks generally embrace transactional lending (Berger, Miller, Petersen, Rajan, and Stein 2005). The type of underlying lending technology might partly explain the either functionalist or institutionalist dynamic between broad-scope and narrow-scope trust.

If narrow-scope trust does not equate to relationship lending from a conceptual perspective, adopting a lending technology perspective helps understand the dynamic at play in banking. The interaction between broad and narrow-scope trust appears to capture changes in lending technologies. These changes are likely to structure and sustain the interpersonal relationship between a borrower and a lender.[21]

7. ROBUSTNESS TESTS

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[20] Since banks employ a mix of lending technologies (Bartoli, Ferri, Murro and Rotondi 2013), additional estimations control for this mix adding the transactional indicator as an independent variable in model 1. Results are not affected (unreported).

[21] Our estimations control for the business cycle. From this perspective, it offers a different explanation to the dynamic in relationship lending terms associated with relationship lending than an intertemporal compensation mechanism across the cycle (as in Bolton, Freixas, Gambacorta and Mistrulli 2016).

In this section, we test our models with alternative measures of narrow-scope and broad-scope. We also produce instrumental variable models to address endogeneity concerns.

7.1. Trust Measures Sensitivity

We offer sensitivity tests for our measures of broad-scope and narrow-scope trust. Regarding our measure of narrow-scope trust, we first offer a count variable that records the number of times the firm has borrowed from the same bank in the last 12 months, instead of using a dummy variable. Second, in our baseline model, the frequency of the interaction to measure narrow-scope trust is one-year backward looking. We offer alternative frequencies employing instead the past 6 months ($Narrow\text{-}Scope_{6months}$), 9 months ($Narrow\text{-}Scope_{9months}$), and 18 months ($Narrow\text{-}Scope_{18months}$). These alternatives aim at ensuring that the format and selection of the frequency employed to measure the firm-bank interactions are not leading our results. Table 7 contains the results.

{Table 7}

We provide two specifications for each model: one with no interaction between borrowers and quarter fixed effects, and one with this interaction. Columns 1–8 present the results. Employing a count variable instead of a dummy variable returns similar conclusions. Changing the frequency also has very little impact on our results. Only in column 4, the model employing a very-short frequency and interaction in fixed-effects leads to a non-significant coefficient. Overall, the coefficients of broad-scope trust are positive and significant. That is, our result of an increase in narrow-scope trust when broad-scope trust increases is consistently confirmed across several sensitivity tests in the measurement of narrow-scope trust.

Second, our measure of broad-scope trust relies on the proportion of answer to one category of the Gallup survey data. We create two new measures of *Broad-Scope Trust* based on alternative data points: the proportion of respondents who trust banks both a great deal and quite a lot (vs. only a great deal) and an average level of trust for which assign a score to each response modality: none = 0, very little = 1, some = 2, quite a lot = 3, and great deal = 4. Then we take a weighted average of the trust index (*Average Trust Index*). This is borrowed from Bertrand, Klein, and Soula (2021). Columns 9–12 in Table 7 report the coefficients for the two new Gallup variables. Both variables remain positive and significant, assuaging the concerns of the specification of broad-scope trust.

7.2. IV Regressions

With an Instrumental Variable (IV) approach, we seek to deal with potential endogeneity concerns between broad-scope and narrow-scope trust. This effort is particularly important if aggregated interpersonal trust generated through narrow-scope trust (notably, but not only, due to the choice of having more frequent interactions) leads to a change in the overall trust environment. Moreover, the previously presented results could be influenced by omitted variables. To address this concern, we employ two IVs.

To start, we instrument broad-scope trust with trust in non-financial institutions, using the Gallup Survey. We employ two institutions. First, we use the aggregated trust in US Congress, which previously has been employed by literature in psychology (e.g., Buriak, Vozňakova, Sułkowska and Kryvych 2019) and economics (Stevenson and Wolfers 2011). The underlying idea is that a broad-scope trust in non-financial institutions reverberates on broad-scope trust in banks. We employ the percentage of respondents who indicate a great deal of trust in Congress. As a second instrument, we turn to Guiso, Sapienza, and Zingales (2004) and use the electoral turnout. This measure reflects other aspects of trust in society, such as public engagement and trust in institutions (Putnam 1993). Compared with survey answers, electoral turnout also provides a more objective measure of public engagement. The U.S. Electoral Project provides electoral turnout data every two years, at the state level. We employ the percentage. Tests on instruments confirm appropriate identification and exogeneity.

{Table 8}

Columns 1 and 2 of Table 8 reports the IV regressions. Results confirm our previous findings. The coefficient of the instrumented predicted values of *Broad-Scope Trust* is positive and significant in all columns. Endogeneity also might affect the impact of broad-scope trust on credit conditions. We follow the same logic and the same IVs for the second equation. Results are reported in columns 3 to 5 of Table 8. For all specifications, the results remain the same: narrow-scope trust in periods of high general trust leads to a reduction in the commitment of the lead lender share and to an increase in the all-in-spread.

8. CONCLUSIONS

Our study introduces a distinction between narrow-scope and broad-scope trust, concepts developed in other fields, to the banking literature. Narrow-scope trust relates to bank–firm

relationships, which is based on an interpersonal trust; broad-scope trust relates to the general trust people have toward banks. We look at how narrow-scope trust varies according to general broad-scope trust. In so doing, we establish whether general trust and interpersonal trust accomplish the same specific function and are substitutable (the *functionalist view*), or if general trust allows banks to elicit interpersonal relationships and are complementary (the *institutionalist view*).

Our work supports the institutional view. Narrow-scope trust in banks emerges more easily when broad-scope trust is high. It also emerges less when broad-scope trust is low. This result casts a new light on the functioning of lending relationships. Interpersonal trust relationships can emerge when general trust is already high. Put another way, agents are capable to build trusting relationship at the personal level when they evolve in a conducive trust environment but struggle otherwise. Our results show that the feeling of proximity matters in this dynamic. This has impact across economics and banking. One immediate application is relationship lending: it suggests that general trust must pre-exist for relationship lending to develop.

Our work also hints at the existence of opportunism and naiveté. When broad-scope trust is higher, banks involved in trusting interpersonal relationships invest less in the loan, commit less, and demand higher interest rates. When being *generally* trusted, banks tend to take advantage of it and benefit from a sort of "blind trust" among borrowers. This newly identified hold-up mechanism arising when environmental trust toward banks is high is economically meaningful. Strong unilateral trust, in a context already marked by high general trust, might lead to opportunistic behaviours by the agent who receives this trust.

From a regulatory perspective, our results support the view that broad-scope trust is an essential ingredient for banks relationships to develop. Kramer (1999) shows that norms and rules strongly drive broad-scope trust, which offers solutions to policymakers. Banks must also seek to globally increase people's confidence in their industry. Last, in a context of high general trust towards banks, borrowers should remain attentive when extending that trust interpersonally.

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TABLE 1: DESCRIPTIVE STATISTICS

The table below reports the descriptive statistics of the variables employed in the study. Appendix A provides the definition of the variables and Appendix B the pairwise correlation.

Variables	Obs.	Mean	Std. Dev.
Main Trust Variables			
Narrow-Scope Trust	181,308	0.221	0.415
Broad-Scope Trust	181,308	13.839	4.012
Loan Characteristics			
Loan maturity (ln)	181,308	3.743	0.689
Revolver	181,308	0.494	0.500
Term	181,308	0.322	0.467
Corporate purpose	181,308	0.476	0.499
USD	181,308	0.978	0.148
Secured	181,308	0.438	0.496
Lender share (ln)	181,308	3.434	1.261
All-in-spread (bps)	164,838	227.754	161.408
Lender Characteristics			
Size	167,472	20.338	1.120
Liquidity	158,988	0.032	0.024
Lending Activity	160,322	0.471	0.147
Deposits Reliance	164,197	0.512	0.160
Debt	167,217	0.250	0.107
Market Cap	165,180	11.075	0.958
Quality of Loan Portfolio	154,576	0.010	0.010
Bank profitability mix	154,963	0.619	0.099
Bank profitability	167,618	0.008	0.010
Macroeconomic Variables			
GDP growth	181,308	2.342	1.323
Inflation (ln)	181,308	0.623	0.797
HHI_{Loan}	181,308	367.375	419.046
Additional Variables			
Trust in National Banks	82,969	32.432	2.722
Trust in Local Banks	82,969	57.440	2.586
RL^{3y}_{index}	84,403	0.396	0.441
TR	181,308	0.131	0.337
Robustness Variables			
Narrow-Scope Trust$_{count}$	181,308	0.239	0.503
Narrow-Scope Trust$_{6months}$	181,308	0.063	0.243
Narrow-Scope Trust$_{9months}$	181,308	0.109	0.312
Narrow-Scope Trust$_{18months}$	181,308	0.311	0.463
Broad-Scope Trust (GD & AL)	181,308	36.499	11.364
Average Trust Index	181,308	2.311	0.236
Electoral Turnout	181,308	17.456	7.995
Trust in Congress	181,308	50.646	9.444

TABLE 2: BASELINE MODEL

These regressions show the impact of Broad-Scope Trust in Banks on Narrow-Scope Trust in Banks. We control for loan characteristics and macroeconomic variables (columns 1–4) and for lender characteristics (columns 5 and 6). Column 1 corresponds to our main estimation, controlling for lender, state, quarter, and borrower fixed effect; columns 2–6 correspond to our sensitivity analyses, with different fixed-effects, and control variables. These regressions are robust to heteroscedasticity. $*p < 0.10$, $**p < 0.05$, and $***p < 0.01$ (precise standard errors are in brackets).

	(1)	(2)	(3)	(4)	(5)	(6)
	Narrow-Scope Trust					
Broad-Scope Trust	0.006***	0.005***	0.006***	0.006***	0.007***	0.007***
	(0.000)	(0.001)	(0.000)	(0.000)	(0.001)	(0.001)
Loan maturity (ln)	-0.025***	-0.025***	-0.025***	-0.025***	-0.030***	-0.030***
	(0.002)	(0.003)	(0.002)	(0.002)	(0.003)	(0.003)
Revolver	-0.057***	-0.037***	-0.056***	-0.058***	-0.059***	-0.037***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Term	-0.003	0.001	-0.003	-0.004	-0.005	0.001
	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)	(0.005)
Corporate purpose	0.046***	0.043***	0.046***	0.047***	0.040***	0.034***
	(0.003)	(0.004)	(0.003)	(0.003)	(0.003)	(0.004)
USD	-0.014*	-0.007	-0.016*	-0.012	-0.015*	-0.007
	(0.008)	(0.008)	(0.008)	(0.008)	(0.009)	(0.009)
Secured	-0.005	0.006	-0.005	-0.003	-0.002	0.005
	(0.003)	(0.004)	(0.003)	(0.003)	(0.004)	(0.005)
GDP growth	0.005***	0.009***	0.005***	0.005***	0.003**	0.008***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
Inflation (ln)	-0.003**	-0.006***	-0.004**	-0.003*	-0.001	-0.004
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)
HHI_{Loan}	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Size					0.016***	0.031***
					(0.006)	(0.007)
Liquidity					-0.194***	-0.338***
					(0.075)	(0.078)
Lending Activity					0.020	0.017
					(0.027)	(0.028)
Deposits Reliance					0.043	0.027
					(0.035)	(0.037)
Debt					-0.109***	-0.109***
					(0.035)	(0.036)
Market Cap					-0.001	-0.009*
					(0.005)	(0.005)
Quality of Loan Portfolio					0.664***	0.617***
					(0.190)	(0.199)
Bank profitability mix					-0.075***	-0.066**
					(0.025)	(0.027)
Bank profitability					3.320***	3.659***
					(0.396)	(0.440)
Lender FE	Yes	Yes		Yes	Yes	Yes
State FE	Yes	Yes	Yes		Yes	Yes
Quarter FE	Yes				Yes	
Borrower FE	Yes		Yes	Yes	Yes	
Borrower*Quarter FE		Yes				Yes
Lender*Quarter FE			Yes			
State*Quarter FE				Yes		
Constant	0.061	-0.033	0.02	0.063	-0.142	-0.357**
	(0.103)	(0.142)	(0.108)	(0.103)	(0.128)	(0.141)
Observations	181,308	181,308	181,308	181,308	149,827	149,827
R^2	0.287	0.478	0.294	0.291	0.298	0.495
Adjusted R^2	0.221	0.376	0.222	0.225	0.222	0.379

TABLE 3: CRISIS IMPACT

These regressions show the impact Broad-Scope Trust in Banks on Narrow-Scope Trust in Banks. In columns 1 and 2 we control for the 2008 crisis, and in columns 3 and 4 for the Post Crisis effect of Broad-Scope Trust on narrow-scope trust. These regressions are robust to heteroscedasticity. $*p < 0.10$, $**p < 0.05$, and $***p < 0.01$ (precise standard errors are in brackets).

	(1)	(2)	(3)	(4)
	Narrow-Scope Trust			
Broad-Scope Trust	0.006***	0.005***	0.004***	0.003***
	(0.000)	(0.001)	(0.001)	(0.001)
Crisis	-0.039***	-0.047***	-0.025***	-0.030***
	(0.005)	(0.008)	(0.007)	(0.009)
Post Crisis			-0.409***	-0.484***
			(0.022)	(0.032)
Broad-Scope Trust × Post Crisis			0.042***	0.050***
			(0.003)	(0.004)
Loan characteristics	Yes	Yes	Yes	Yes
Macro characteristics	Yes	Yes	Yes	Yes
Lender FE	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes
Quarter FE	Yes		Yes	
Borrower FE	Yes		Yes	
Borrower*Quarter FE		Yes		Yes
Constant	0.074	-0.014	0.075	-0.020
	(0.103)	(0.142)	(0.109)	(0.150)
Observations	181,308	181,308	181,308	181,308
R^2	0.287	0.479	0.289	0.480
Adjusted R^2	0.221	0.376	0.223	0.378

TABLE 4: CREDIT CONDITIONS

These regressions show the impact of Broad-Scope Trust in Banks and Narrow-Scope Trust in Banks on Lender Share (columns 1 and 2), All-in-spread (columns 3 and 4), and Secured (columns 5 and 6). In odd columns we include Narrow-Scope Trust and Broad-Scope Trust separately, whereas in even columns we include both variables and their interaction term. Each time we control for loan characteristics and macroeconomic variables. We also add lender, state, and borrower × quarter fixed effects. These regressions are robust to heteroscedasticity. $*p < 0.10$, $**p < 0.05$, and $***p < 0.01$ (precise standard errors are in brackets).

	(1)	(2)	(3)	(4)	(5)	(6)
	Lender share		All-in-spread		Secured	
Narrow-Scope Trust	0.036***	0.114***	-1.831***	-13.831***	0.007***	0.009
	(0.004)	(0.015)	(0.685)	(2.856)	(0.002)	(0.008)
Broad-Scope Trust	-0.006***	-0.004***	-7.624***	-7.823***	-0.002***	-0.002***
	(0.001)	(0.001)	(0.134)	(0.142)	(0.000)	(0.000)
Narrow-Scope Trust × Broad-Scope Trust		-0.005***		0.831***		-0.000
		(0.001)		(0.180)		(0.000)
Loan characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Macro characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Lender FE	Yes	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Borrower*Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-1.645***	-1.660***	349.495***	351.697***	0.275	0.274
	(0.186)	(0.185)	(25.963)	(26.069)	(0.197)	(0.197)
Observations	164,838	164,838	164,838	164,838	181,308	181,308
R²	0.910	0.910	0.808	0.808	0.835	0.835
Adjusted R²	0.892	0.892	0.770	0.770	0.803	0.803

TABLE 5: HETEROGENEOUS BROAD-SCOPE TRUST

These regressions show the effects of two sub-categories of broad-scope trust: Trust in Local Banks and Trust in National Banks. Data are from the Financial Trust Index (FTI). Columns 1 to 4 look at the effect of these two categories of broad-scope trust on narrow-scope trust and columns 5 to 10 at the impact on credit conditions. Each time we control for loan characteristics and macroeconomic variables. We also add lender and state fixed effects. In models 1 and 3, we control for quarter and borrower fixed effects (doing so for models 5 to 10 yields similar estimates and is not reported out of space). These regressions are robust to heteroscedasticity. $*p < 0.10$, $**p < 0.05$, and $***p < 0.01$ (precise standard errors are in brackets).

	(1)	(2)	(3)	(4)	(5) Lender Share	(6) All-in-Spread	(7) Secured	(8) Lender Share	(9) All-in-Spread	(10) Secured
		Narrow-S	cope Trust							
Trust in Local Banks	0.011***	0.013***			-0.003**	-3.807***	-0.003***			
	(0.001)	(0.001)			(0.002)	(0.314)	(0.001)			
Trust in National Banks			-0.004***	-0.006***				-0.009***	1.251***	0.006***
			(0.001)	(0.001)				(0.001)	(0.293)	(0.001)
Trust in Local Banks × Narrow-Scope Trust					-0.006***	1.477***	-0.002			
					(0.002)	(0.521)	(0.001)			
Trust in National Banks × Narrow-Scope Trust								-0.002	0.288	-0.002
								(0.002)	(0.439)	(0.001)
Narrow-Scope Trust					0.400***	-86.935***	0.118*	0.110*	-11.98	0.053
					(0.135)	(29.965)	(0.071)	(0.066)	(14.245)	(0.035)
Loan characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Macro characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lender FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quarter FE	Yes		Yes							
Borrower FE	Yes		Yes							
Quarter * Borrower FE		Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-0.055	-0.022	-0.807***	-1.021***	-1.298***	497.394***	0.173	-1.155***	222.603***	-0.239
	(0.170)	(0.187)	(0.171)	(0.198)	(0.119)	(70.402)	(0.346)	(0.095)	(70.128)	(0.353)
Observations	82,969	82,969	82,969	82,969	73,584	73,584	82,969	73,584	73,584	82,969
R^2	0.336	0.579	0.338	0.581	0.954	0.815	0.888	0.954	0.814	0.889
Adjusted R^2	0.253	0.479	0.255	0.480	0.943	0.769	0.862	0.943	0.768	0.862

TABLE 6: THE RELATIONSHIP LENDING VIEW

These regressions estimate the effect of broad-scope trust in the development of relationship lending. The dependent variables are measures of technologies instead of measures of narrow-scope trust. The main independent variable is *Broad-Scope Trust*. Columns 1 and 2 employ the share of the current bank of the firm's past banking relationships (RL^{3y}_{index} is the ratio of the number of loans over the past 3 years divided by the number of lenders over the past 3 years). Column 3 employs a measure of transactional lending (*TR* is a dummy variable equal to 1 if the loan is traded on the secondary market and zero otherwise). Each time we control for loan characteristics and macroeconomic variables. We also add lender, state, borrower and quarter fixed effects and even columns employ quarters by borrowers fixed effects. These regressions are robust to heteroscedasticity. *$p < 0.10$, **$p < 0.05$, and ***$p < 0.01$ (precise standard errors are in brackets).

	(1)	(2)	(3)
	RL^{3y}_{index}		*TR*
Broad-Scope Trust	0.003***	0.003***	-0.012***
	(0.000)	(0.001)	(0.000)
Loan characteristics	Yes	Yes	Yes
Macro characteristics	Yes	Yes	Yes
Lender FE	Yes	Yes	Yes
State FE	Yes	Yes	Yes
Quarter FE	Yes		Yes
Borrower FE	Yes		Yes
Quarter*Borrower FE		Yes	
Constant	0.277***	0.336***	-0.113*
	(0.055)	(0.033)	(0.059)
Observations	84,403	84,403	181,308
R^2	0.771	0.885	0.484
Adjusted R^2	0.749	0.863	0.436

TABLE 7: ALTERNATIVE MEASURES OF NARROW & BROAD-SCOPE TRUST

These regressions employ alternative measures of broad-scope and narrow-scope trust. Columns 1 to 8 employ alternative measure of narrow-scope; columns 1 and 2 employ a count version of the main variable; and columns 3 to 8 change the frequency to 6 months (model 3 and 4), 9 months (5 and 6) and 18 month (7 and 8). Columns 9 to 12 change the measure of broad-scope trust, employing the percentage of both "Great Deal" and A Lot" (models 9 and 10) and an average of the answer to the survey (model 11 and 12); for these models, the dependent variable is *Narrow-Scope Trust* (one-year frequency). Each time we control for loan characteristics and macroeconomic variables. We also add lender and state fixed effects. In odd models, we control for quarter and borrower fixed effects, and in even models we control for quarter × borrower fixed effects. These regressions are robust to heteroscedasticity. $*p < 0.10$, $**p < 0.05$, and $***p < 0.01$ (precise standard errors are in brackets).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Narrow-Scope$_{count}$		Narrow-Scope$_{6months}$		Narrow-Scope$_{9months}$		Narrow-Scope$_{18months}$		Narrow-Scope Trust			
Broad-Scope Trust	0.007***	0.006***	0.001***	0.001	0.002***	0.001***	0.007***	0.007***				
	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)				
Broad-Scope Trust (GD&AL)									0.003***	0.002***		
									(0.000)	(0.000)		
Average Trust Index											0.114***	0.098***
											(0.007)	(0.010)
Loan characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Macro characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lender FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quarter FE	Yes		Yes		Yes		Yes		Yes		Yes	
Borrower FE	Yes		Yes		Yes		Yes		Yes		Yes	
Quarter*Borrower FE		Yes		Yes		Yes		Yes		Yes		Yes
Constant	0.056	-0.024	-0.123	-0.122	-0.096	-0.088	0.051	-0.076	0.051	-0.050	-0.119	-0.192
	-0.111	-0.143	(0.093)	(0.116)	(0.093)	(0.117)	(0.120)	(0.170)	(0.101)	(0.141)	(0.103)	(0.143)
Observations	181308	181308	181,308	181,308	181,308	181,308	181,308	181,308	181,308	181,308	181,308	181,308
R^2	0.387	0.539	0.205	0.460	0.233	0.487	0.305	0.497	0.287	0.479	0.287	0.478
Adjusted R^2	0.33	0.449	0.131	0.354	0.162	0.386	0.240	0.399	0.221	0.376	0.221	0.376

TABLE 8: BROAD-SCOPE TRUST INSTRUMENTED

These regressions show the impact of Broad-Scope Trust on Narrow-Scope Trust and their combined impact on credit conditions using IV regressions. We instrument Broad-Scope Trust with Electoral Turnout and Trust in Congress. Each time we control for loan characteristics and macroeconomic variables. We also add lender and state fixed effects. Model 1 controls for quarter and borrower fixed effects and the other models control for quarter x borrower fixed effects. These regressions are robust to heteroscedasticity. $*p < 0.10$, $**p < 0.05$, and $***p < 0.01$ (precise standard errors are in brackets).

	(1)	(2)	(3)	(4)	(5)
	Narrow-Scope Trust		Lender Share	All-in-Spread	Secured
Broad-Scope Trust*	0.011***	0.009***	-0.025***	-1.497***	-0.010***
	(0.001)	(0.001)	(0.002)	(0.347)	(0.001)
Narrow-Scope Trust			0.121***	-22.019***	0.000
			(0.020)	(3.643)	
Narrow-Scope Trust ×					
Broad-Scope Trust*			-0.006***	1.333***	0.000
			(0.001)	(0.242)	(0.001)
Loan characteristics	Yes	Yes	Yes	Yes	Yes
Macro characteristics	Yes	Yes	Yes	Yes	Yes
Lender FE	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes	Yes
Quarter FE	Yes				
Borrower FE	Yes				
Quarter * Borrower FE		Yes	Yes	Yes	Yes
Constant	-0.001	-0.089	-1.366***	270.495***	0.379*
	(0.102)	(0.141)	(0.197)	(24.850)	(0.201)
Observations	181,308	181,308	164,838	164,838	181,308
R^2	0.287	0.478	0.910	0.802	0.836
Adjusted R^2	0.221	0.376	0.892	0.762	0.803
Instruments	Electoral Turnout Trust in Congress				

APPENDIX A. VARIABLE DEFINITIONS

Main Trust variables

Narrow-Scope Trust	Dummy variable equal to 1 if the firm has borrowed from the same bank in the last 12 months.
Broad-Scope Trust	Percentage of people who respond "great deal" to the question "Please tell me how much confidence you, yourself, have in banks," conducted at the beginning of each calendar year.

Loan Characteristics

Loan maturity (ln)	Natural logarithm of the loan maturity.
Revolver	Dummy variable equal to 1 if the loan is a revolver loan, 0 otherwise
Term	Dummy variable equal to 1 if the loan is a term loan, 0 otherwise
Corporate purpose	Dummy variable equal to 1 if the loan has corporate purpose, 0 otherwise
USD	Dummy variable equal to 1 if the loan is denominated in USD, 0 otherwise
Secured	Dummy variable equal to 1 if the loan is secured, 0 otherwise
Lender share	Natural logarithm of the share committed by the lead lender
All-in-spread	Loan all-in-spread (in basis points)

Lender Characteristics

Size	Natural logarithm of the total asset (in USD)
Liquidity	Ratio of Cash / Total Asset
Lending Activity	Ratio of Loans / Total Asset
Deposits Reliance	Ratio of Deposits / Total Asset
Debt	Ratio of Debt / Total Asset
Market Cap	Natural logarithm of the market capitalization
Quality of Loan Portfolio	Ratio of Non-performing loans / Total Asset
Bank profitability mix	Ratio of Interest Income / (Interest Income + Non-Interest Income)
Bank profitability	Return on Asset (Net Income / Total Asset)

Macroeconomic Variables

GDP growth	GDP growth at the national level
Inflation (ln)	Natural logarithm of the inflation rate at the national level
HHI_{Loan}	Herfindahl-Hirschman Index of loans amount at the national level
Crisis	Dummy variable equal to one between Q3-2007 and Q4-2009.
Post Crisis	Dummy variable equal to one after Q1-2009, zero otherwise.

Additional Variables

Trust in National Banks	Percentage of people who respond "Yes" to the question "Do you trust National Banks" (Financial Trust Index survey)
Trust in Local Banks	Percentage of people who respond "Yes" to the question "Do you trust Local Banks" (Financial Trust Index survey)
RL_{index}^{3y}	Ratio of the number of loans over the past 3 years divided by the number of lenders over the past 3 years.
TR	Dummy variable equal to 1 if the loan is traded on the secondary market and zero otherwise.

Robustness Variables

Narrow-Scope Trust$_{count}$	Integer variable that counts the number of times the firm has borrowed from the same bank in the last 12 months.
Narrow-Scope Trust$_{6months}$	Dummy variable equal to 1 if the firm has borrowed from the bank in the last 6 months.
Narrow-Scope Trust$_{9months}$	Dummy variable equal to 1 if the firm has borrowed from the bank in the last 9 months.
Narrow-Scope Trust$_{18months}$	Dummy variable equal to 1 if the firm has borrowed from the bank in the last 18 months.
Broad-Scope Trust (GD & AL)	Percentage of people who respond "great deal" or "quite a lot" to the question "Please tell me how much confidence you, yourself, have in banks," conducted at the beginning of each calendar year.
Average Trust Index	The weighted average of the answers to the question "Please tell me how much confidence you, yourself, have in banks," conducted at the beginning of each calendar year.
Electoral Turnout	Percentage of people voting during the last US election.
Trust in Congress	Percentage of people who respond "great deal" to the question "Please tell me how much confidence you, yourself, have in Congress."

APPENDIX B. CORRELATION MATRIX

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) Narrow-Scope Trust	1.000												
(2) Broad-Scope Trust	0.061***	1.000											
(3) Loan maturity (ln)	-0.178***	-0.147***	1.000										
(4) Revolver	-0.083***	-0.021***	0.169***	1.000									
(5) Term	-0.043***	-0.088***	0.308***	-0.680***	1.000								
(6) Corporate purpose	0.049***	-0.233***	0.020***	0.149***	-0.062***	1.000							
(7) USD	0.006***	0.050***	-0.042***	0.037***	-0.060***	-0.003	1.000						
(8) Secured	-0.085***	-0.010***	0.325***	-0.058***	0.289***	-0.145***	-0.021***	1.000					
(9) Lender share	0.135***	-0.093***	-0.086***	-0.054***	-0.021***	0.062***	0.041***	-0.066***	1.000				
(10) All in Spread	-0.116***	-0.307***	0.298***	-0.193***	0.408***	-0.064***	0.005**	0.452***	-0.190***	1.000			
(11) GDP growth	0.031***	0.429***	0.022***	-0.006**	-0.023***	-0.153***	0.030***	0.019***	-0.041***	-0.163***	1.000		
(12) Inflation (ln)	0.012***	0.340***	-0.085***	0.015***	-0.063***	-0.121***	0.026***	0.005**	-0.057***	-0.144***	0.059***	1.000	
(13) HHI$_{Loan}$	-0.005**	-0.169***	-0.057***	-0.050***	-0.016***	-0.106***	0.025***	-0.013***	-0.003	-0.016***	0.275***	0.038***	1.000