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**Trust me, I'm an Entrepreneur!**  
**Can Trust Help SMEs to Gain the Credit They Need?**

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Research on relationship lending focuses attention on economic factors which influence the relationships between SMEs' owners/managers and banks but no previous work has focused on the role of trust. Trust is expected to reduce transaction costs and agency costs, reduce the perceived credit risk and, thus, influence credit availability. Trustworthiness is associated with three attributes of SME owner managers' namely; ability, benevolence and integrity. It is hypothesised that lending managers' assessment of the trustworthiness of SME owner managers affects the ability of SMES to gain the credit. Trustworthiness is hypothesised as positively associated with credit access in contrast to lower trustworthiness which is associated with credit constraint. Use of overdraft is considered here as indicator of credit constraint. The data were obtained from a survey of lending managers from banks in North East Italy. Control variables and a vector of trustworthiness factors were collected on a random sample of borrowers, resulting in a sample of 535 firms. Results from regression analysis found evidence that firms enjoying high level of trust are able to access the credit they need and therefore are less credit constrained. Some implications of these results for banks, owner managers and future research are discussed.

Keywords: Trust, Risk, Relationship lending, SMEs, Credit Constrained, Needed Credit

## 1. Introduction

The banking system is essential for the life of firms and especially for small and medium enterprises as they do not have access to capital markets. The implementation of Basel 2 agreement has implications for the relationship between firms and banks (for a general review see Sironi & Zazzara, 2003). To maintain the credit quality of standards of their loan portfolio banks should supplement the data based analysis of firm's credit-worthiness with the relationship based insights in to firm's credibility. Consequently, the research on the relationship between banks and firms continues to attract scholarly attention which is increasing as shown by survey some recent research.

Lending process is very complex and substantially involves the risk evaluation of the firms. Banks rely on different lending technologies and tend to use more than one technology at a time (Berger & Udell, 2006). Among the various lending technologies, relationship lending has a peculiar role. In relationship lending, the bank relies on a variety of private information gathered through contact with the firm, its owner, and the local community in order to evaluate the firm riskiness (see seminal works by Petersen & Rajan, 1994, 1995 and Berger & Udell, 1995). Thus, on one hand the personal ties can help banks to deal with SMEs opaqueness and the related difficulty in valuing firm riskiness; on the other small businesses can be better off because easier access to credit. Previous research on relationship lending focuses attention on a set of variables in order to catch the effect of the relationship such as the length of the relationship, its closeness, the concentration of lending relationships on few banks, the quality of the relationship (Petersen & Rajan, 1994, 1995, Berger & Udell, 1995, Angelini et al., 1998, Harhoff & Körting, 1998, Detragiache, et al., 2000, Berger, et al. 2001, Lehmann & Neuberger, 2001, Stanton, 2002, Akhavein et al., 2004, Elsas, 2005, Agarwal & Hauswald, 2008).

When a bank makes a decision to provide credit, even though it is a contractual relationship, it is underpinned by an assessment of trust. From an etymological point of view, the word credit derives from the Latin noun *creditum* which is translated as a loan or a thing entrusted to another; the related Latin verb *credere* means to believe, to trust, entrust but also to provide credit (Castiglioni and Mariotti, 1981). Underpinning the potential creditor's analysis of the risk return trade-off is an assessment of the trustworthiness of the borrower. Literature on trust stresses that high levels of trust are purported to encourage trustworthy behaviour (Nooteboom, 2003) and that trust can play an impor-

tant role in reducing agency problems such as moral hazard, adverse selection, in cutting transaction costs (Macaulay, 1963, Nooteboom et al., 1997) as well as the expenses of monitoring and control (see Lewicki et al. 1998). Thus, trusting relationship can benefit banks and SMEs. This is not a utopian view of the world and the benefits of increasing levels of trustworthiness could include increase credit gained. This is theoretically supported by the model proposed by Howorth and Moro (2006). However, the role of trust has remained relatively under-investigated, although in recent times a growing interest is emerging (see, for instance, Saparito et al., 2001 and Ferrary, 2003).

Present study analyses whether bank managers' perceived trustworthiness of the small business owner-managers is associated with accessing all the credit the firms needs, that is whether trust avoids to constrain credit. In addition, the study is focussed on two sub-regions of Italian North East where the banking industry environment is different for competition and structure and where there different support is given to the SMEs by the local governments. The research question is tested using a vector of measures of trustworthiness derived from previous studies, in particular from Mayer et al. (1995) and uses a unique dataset collected during the period 2004-2007. Econometric findings support our preposition, discovering a negative relationship between trust and constraining credit: by leveraging trust, banks can help the growth and development of small firms. At the same time, entrepreneurs can only gain real advantages when they develop strong, long term and trusting ties with the banks and the bank managers.

The present paper is organised as follows: section 2 illustrates the literature on relationship lending and section 3 enters trust as an independent variable. Section 4 illustrates the research question and section 5 the research methods. Section 6 explains how the variables are operationalised while section 7 describes the sample used in the research. In section 9 the research question is tested and the findings are commented in section 9. Section 10 concludes.

## 2. Banks and SMEs

Banks play a key role in financing the firms as they tend to leverage bank debt in preference of equity. Interestingly, the wide use of bank debt to finance firms and projects is not context specific: one finds it for large firms and small ones; in Continental Europe as well as in Japanese and Anglo-Saxon world. The importance of the topic justifies and

explains the huge amount of research that has been carried out on bank lending both at large corporation and SMEs level.

Research on lending argues that the lending technologies can be grouped into four main categories (Berger & Udell, 2002): financial statement lending (based on the evaluation of information from the financial statement); asset based lending (based on the provision of collateral and its quality); credit scoring lending (based on statistical techniques); relationship lending. The first three lending techniques are usually grouped together and labelled transaction lending because the riskiness evaluation is based on available factual and public information, collected independently from the quality of the relationship and include loans that are mainly spot-like and for non recurrent needs. Relationship lending is different from transaction lending because it is based on recurrent needs and focuses on the fact that the improvements in the relationships between banks and businesses can help the banks in evaluating firms' riskiness increasing credit availability, reducing the cost of credit and the pledging of collateral, accordingly (Agarwal & Hauswald, 2008). In addition it increases the repayment rate of the loan (Brown & Zehnder, 2007). intrusiveness of control and monitoring. In reality, the different lending technologies are not mutually exclusive as banks tend to use more than one technology at a time (Berger & Udell, 2006). In relationship lending, a key role is played by a variety of private information, which results from strong and long-term relationships (Angelini et al., 1998; Berger, et al., 2001). According to the quoted literature, Berger (1999) summarises the three main characteristics of relationship lending: the information is gathered beyond the relatively transparent data available in the official documents; information gathering is through a continuous process; information remains confidential to the provider of funds who uses it as a basis for taking other decisions.

Because of its nature, relationship lending is complex but it is also worthwhile for the bank. As summed up by Boot (2000), it is a valuable source of information, leaving room for flexibility and discretion. It transforms loans that are worthless in the short run into worthwhile ones. Indeed, the mass of information gathered over a period of time, gives the bank an opportunity to exploit economies of knowledge in the long run. As modelled by Boot and Thakor (2000), relationship lending partially insulates the bank from pure price competition, although it is costly and in competitive markets banks tend to use it less frequently. At the same time, relationship lending technology implies a dif-

ferent structure at bank level: the portfolio should not be constructed by a large number of small value loans, since this has an adverse effect on the manager's ability to monitor them (Stanton, 2002); the bank has to delegate more lending authority to the local loan officers than for transaction based lending (Stein, 2002) and they become the repository of the information about the firm, its statute and the evaluation, giving them a lot of additional power. Yet, this delegation raises agency problems and, consequently, banks that rely more on relationship lending are expected to spend more resources on internal monitoring activity.

Since the beginning, relationship lending research pays particular attention to small firms (Petersen & Rajan, 1994 and 1995) because they are informationally opaque (Berger et al. 2001) and therefore their lending process is more profoundly affected by relationship. Later research (for instance, Binks & Ennew, 1997, Harhoff & Körting, 1998 but also Akhavein et al., 2004) not only confirms this point but it expands the research on the factors that affect relationship lending.

## 2.1 Relationship Lending: What Influences It

One of the main factors that determine the quality of a relationship is the time spent in producing and collecting information. Scholars have approached the problem by looking at both the length of the relationship and the age of the firm. In fact, only the former provides the lender with private information since the latter gives just access to a greater amount of public information. There is evidence that the probability of gaining credit increases with the age of the firm (Angelini et al., 1998, Akhavein et al., 2004). Newer and smaller firms are considered to be the riskiest: they have to gain market shares, have to survive the start up period of getting established, do not have much of a track record. Moreover, the potential lender is uncertain about the competence, skills and trustworthiness of the management as well as the kind of investment opportunities that could arise (Petersen & Rajan, 1994, Berger & Udell, 1994). As they become more established and gain reputation, the information about the firm increases and it is easier for the bank system to evaluate the creditworthiness of the firm (Berlin, 1996).

A long relationship provides banks with great amount of private information giving them the possibility to discriminate between firms with poor track records and those that present moral hazard and adverse selection risks (Diamond, 1984, Berger, et al., 2005).

Greater accessibility to credit is also available because of pre-existing relationships – not necessarily linked with previous lending – such as savings accounts as well as financial management: such relationships provide the bank with additional information to evaluate firm riskiness such as management competence and capability in running the firm and mainly in dealing with the financial issues (Degryse & Van Cayseele, 2000). Thus, firms with longer relationships are expected to gain more credit because they considered to be less risky and are less credit constrained accordingly. A firm is credit constrained when it gains less credit with respect to what it needs.

Relationship is also a matter of closeness: “if scale economies exist in information production, and information is durable and not easily transferable, [...] a firm with close ties to financial institutions should have [...] greater availability of funds relative to firms without such ties” (Petersen & Rajan, 1994). A large body of empirical evidence (for Italy see Castelli et al., 2006) as well as theoretical models (Dell’Ariccia & Marquez, 2004) support this point.

The value of private information depends on its gathering on one (or few) collector(s), as the greater the concentration, the more complete the information, the smaller the agency problems and moral hazard risks. Borrowing from multiple banks not only may generate higher costs for the firm but it may also be informationally inefficient for small businesses, those who suffer more acute asymmetric information problems (Berger, et al., 2001). Concentration of credit can also have negative facets as it can create a situation of information monopoly for the bank (Sharpe, 1990, Fama, 1985). The difficulties in conveying an accurate picture of their performance, the time required to look for and evaluate potential new banks and the administrative effort involved in switching, is expected to represent a very high cost for smaller firms and “if firms are trapped within sub-optimal bank relationships, and they are unable to obtain alternative sources of finance, they could face credit constraints” (Howorth et al. 2003). Thus, Detragiache, Garella and Guiso (2000) argue that the choice between one or more banks depends on the balance between the benefits of reduced cost linked to one bank relationship and the cost of facing problems in refinancing the firm, that is the risk to be credit constrained. Establishing multiple relationships insulate the firm since it serves to increase the probability that at least one relationship bank with private information about the firm will be able to refinance the projects of the firm, thus reducing the probability of early liquidation.

Relationship lending is a matter of quality of information where the higher its quality, the easier for the bank to evaluate the riskiness of the firm, the easier the access of credit for the firm (Elsas, 2005). Elsas and Krahen (1998), by looking at the German market and differentiating between “house-bank” and “non-house-bank” where the former is defined as the bank that has more intensive information than an analogous average bank, discover that the house-banks are more supportive of the firm avoiding credit reduction with downgrading, and increasing its availability with upgrading. Lehmann and Neuberger (2001), by looking at a set of variables that measure the interaction activity between bank manager and the entrepreneur, find a positive correlation with credit availability (i.e. greater interaction is associated to more credit).

Bank dimension can also impact on relationship lending since large banks do business in more impersonal ways relying more on accounting records to evaluate firm risk (Berger et al., 2005). It is worth noting that the relationship between small businesses’ access to finance on one hand and bank size - bank complexity on the other is ambiguous. On one hand, larger and more complex banks look for lending opportunities to small businesses as these firms provide them with the possibility of exploiting portfolio diversification benefits and economies of scale on monitoring activity (when loans are based on facts and figures). On the other, bank size and complexity can generate diseconomies relative to managing and monitoring small loans as well as difficulties in managing effectively the flow of soft information leveraging it in order to evaluate firm risk. Research tends to support the latter aspect, stressing the important role of small banks on small firms lending. From this perspective, small banks’ short lines of command and communication reduce internal agencies and control problems by also reducing transaction costs. Thus, from the strategic point of view, small banks are profitable when they differentiate from large ones instead of mirroring large banks’ strategies (De Young & Duffy 2002) because of their peculiarities in evaluating SMEs risk and dealing with it. Large and small banks should therefore specialise in loans of different dimensions with a positive correlation between bank size and firm size (Petersen, 2002, Stein, 2002).

### 3. Introducing Trust as a Core Independent Variable

As shown in the literature review provided, previous studies on lending relationships do not consider trust among covariates. To the best of our knowledge, only two of them



consider it as one of the independent variables (Harhoff & Körting, 1998, Ferrary, 2003) but they do not pay too much attention to its characteristics or to different aspects of trust. Trust as a variable is far too important to be overlooked (for a general review see Nooteboom, 2002). Bromiley and Harris (2006) argue that excluding trust from lending relationship models partially reduces the explanatory power of the models. Entering trust shifts the attention from the traditional approach linked to transaction costs economics and agency theory to a wider (and more complex) approach where interpersonal ties and relationship are taken into consideration (Barney, 1990).

The importance of trust in human relations is highlighted by various authors. The extensive literature on trust emphasizes that its presence reduces agency problems (Ring & Van den Ven 1992, Wicks et al., 1999, Zaheer et al., 1998); cuts transaction costs (Macaulay, 1963, Nooteboom et al., 1997); reduces expenses of monitoring and control (Lewicki & Bunker 1996, Lewicki, et al., 1998, Lewis & Weigart, 1985, McAllister 1995, Zand, 1972); decreases the use of legalistic remedies (Sitkin & Roth, 1993); improves relationships (Fisman & Khanna, 1999, Deutsch, 2000); supports cooperation (Das & Teng, 1998, Doz, 1996, Dasgupta, 2000, Harris & Dibben, 1999, Jones & George 1998); aids decision taking in a situation where information is scarce (Luhmann, 2000). Trust is closely linked to ethics, it is culturally specific (Donaldson & Dunfee, 1994) and is a construct common to various disciplines from sociology and psychology, to economics, and organisational relations (for a review on this topic see Rousseau, et al., 1998). The multidisciplinary interest in trust implies different approaches to analysing it. As a consequence, different forms of trust are identified, the differences being determined by the particular situation, background and history of the relationship. Although scholars tend to use different names and specifics, forms of trust can be summed up as in:

- deterrence based trust (e.g. Ring & Van Den Ven, 1992) (although somebody has raised the question whether this is trust at all);
- calculus based trust (e.g. Lewicki & Bunker, 1996) which is based on rational choice,
- relational based trust (e.g. McAllister, 1995), that is based on repeated interaction over time;
- identification based trust (e.g. Lewicki & Bunker, 1996);

- institution based trust (e.g. Ring & Van Den Ven, 1992) which is based on ex ante deterrents such as reputation, support from critical mass, etc.;
- conditional- and unconditional-based trust (e.g. Jones & George, 1998);
- weak trust based on limited possibilities of opportunism, semi-strong trust when vulnerabilities are protected by various governance devices, and strong trust when it is based on shared values, principles and standards (e.g. Barney & Hansen, 1994).

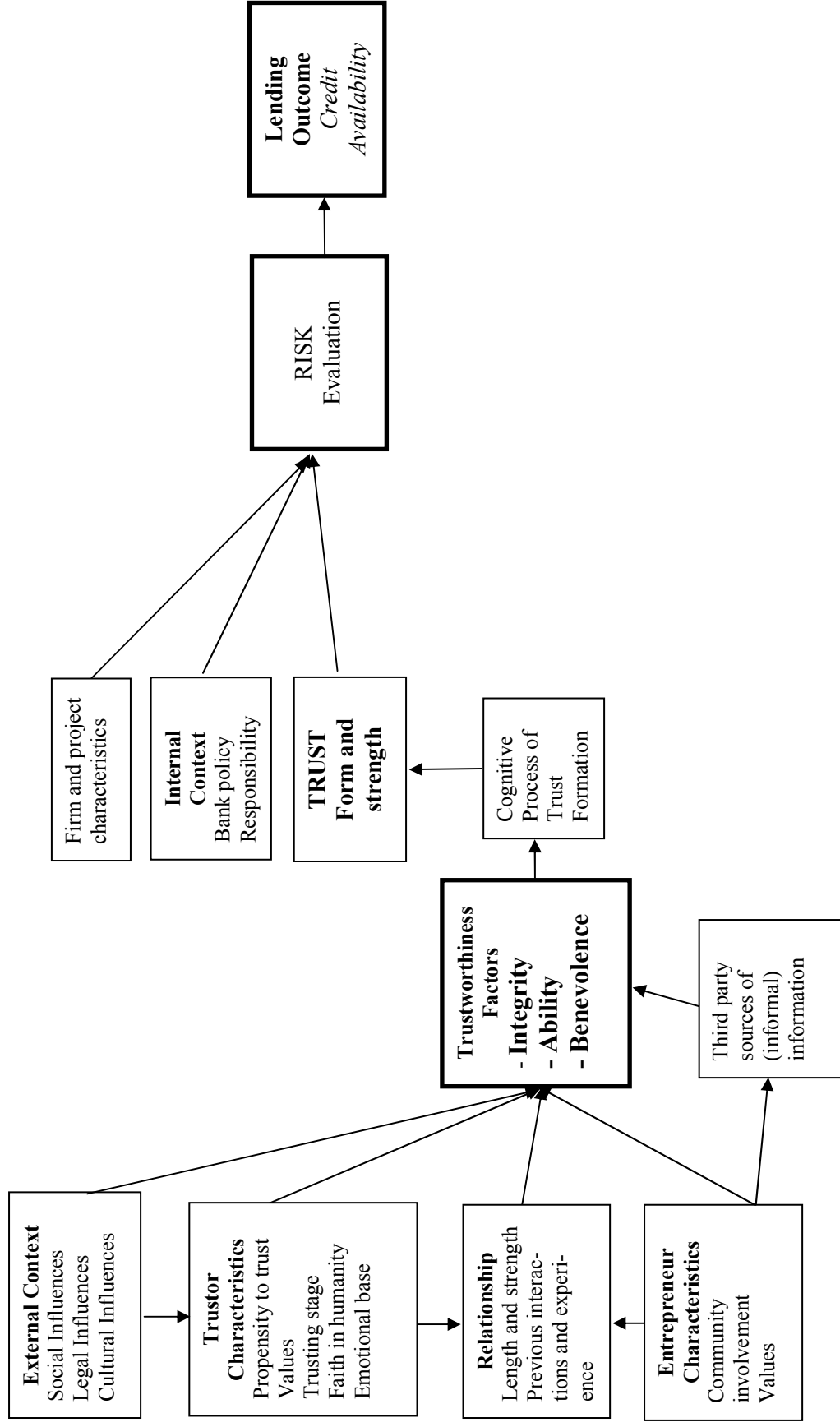
Trust must not be confused with confidence which implies that one does not consider the alternative opportunities, or with reliance which is simply dependent on the proven capability. Trust requires a previous engagement of one person and presupposes a situation of risk where the damage is greater than the advantage. In addition, situation of unilateral dependence such as those of “lock in” because of information capturing (Howorth et al., 2001), cannot be considered trusting relationships. Mayer, Davies and Schoorman (1995) present a useful definition of trust which shows trust is willingness to accept the consequences of placing trust in a trustee:

*“the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor and control that other party”*

(Mayer et al., p. 712, 1995).

Since there no single universally accepted definition of trust it makes difficult to measure trust. Discovering the determinants of trust is not an easy task because if trust is identified with a subjective probability that the trusted party will not abuse the trust put in by the trustee, anything that contributes to this subjective probability would belong to trust (Nooteboom et al., 1997). Mayer et. al., (1995) provide one framework to model the relationship based lending behaviour that incorporates trust. Howorth and Moro (2006) adapted Mayer et. al., (1995) model. This study follows the Howorth and Moro (2006) model (Figure 1).

Figure 1 - Influences on Trust, Risk and Lending Outcomes (Adapted from Howorth & Moro, 2006)



The perception of another's trustworthiness underpins the trust that exists between them. The focus here is on factors that influence the lending managers' assessments of trustworthiness. Mayer, Davies and Schoorman (1995) suggest that trustworthiness is based on three factors: ability, benevolence and integrity. *Ability* looks at aspects such as skills and competence, it is domain specific and it cannot necessarily be generalised to other situations. Trust in the owner manager's business ability will reduce the bank manager's perceived risk about the likelihood of failure, that is that the entrepreneur will be able to repay principal and interest. *Benevolence* is the extent to which a trustee is voluntarily believed to do good to the trustor. Often, benevolence is viewed as relationship specific. The definition of benevolence in owner/manager – bank relationships is extended to a general willingness to voluntarily do good to others, in line with Nooteboom et al.'s (1997) habitualization. In the bank – owner/manager relationship benevolence can play an important role since it can increase the expectation of the bank manager that the SMEs owners/managers will act to meet all the obligations (repayment plans, covenants, etc.) because of the personal ties between bank manager and SMEs owners/managers. In other words, high level of benevolence reduces the perceived riskiness of the SMEs owners/managers. *Integrity* is the perception that the trustee adheres to a set of principles considered acceptable to the trustor. Integrity (i.e. morality and ethical principles) is not linked to skills or competences (morality is not a matter of knowledge or skills) nor is it relationship specific (morality is over and above each kind of specific relationship). Integrity is thus quite intrinsic part of individual's commitments to moral principles making integrity a personal characteristic of owner/manager. In lending relationships integrity can help to reduce the expectation of moral hazard, as well as increasing the perceived reliability of information supplied by the SMEs owners/managers.

The three elements of trustworthiness will contribute to an assessment of the trustworthiness of each SME owner/manager that is context, relationship and person specific. Earlier research has found it difficult to distinguish empirically between components of trust, particularly benevolence and integrity (Nooteboom, Berger & Noorderhaven, 1997) and it has been suggested that perceptions of trustworthiness draw on all these factors with varying degrees of emphasis depending on the context.

Other factors that are expected to influence assessments of trustworthiness include the trustor's propensity to trust which is based on a general belief in humanity that a trustor is better off (McKnight et al., 1998). From the banking point of view, bank managers

with high propensity to trust can facilitate access to credit although the bank internal procedures as well as the laws, conventions and norms on bank lending can frustrate it. In addition, contextual and situational factors can affect trust formation since the trustor's perception and interpretation of the context of the relationship affects both the need for trust and the evaluation of trustworthiness.

### 3.1 Trust in Lending Relationships

The trust which is bestowed on SMEs owners/managers is expected to be based on an assessment of the SMEs owners/managers' integrity, benevolence and ability which will have been made by way of the individual cognitive process of trust formation of the trustor, in this case, of the bank manager. This process will be influenced by the propensity to trust and the emotional base of the bank manager, among other characteristics. The trust formation process will be influenced by the SMEs owners/managers' characteristics insofar as they are known or understood by the bank manager. Therefore previous interactions, shared values, community involvement, secondary and third party sources of information will all influence trust formation through the bank manager's processing of that information about the SMEs owners/managers. It is therefore clear that trust can play a very important role in valuing risk, helping to gain all the credit the firm need that is reducing the risk to be credit constrained. The core role played by trust factors (that is ability, benevolence and integrity) emerges clearly. Consequently, the present research focuses on the role played by trustworthiness factors on credit facility availability as it will be explained in the hypotheses section.

## 4 Research question

The literature about trust points out its relevance as a mean of reducing transaction and agency costs. At the same time, literature on relationship lending stresses the importance of agency issues and moral hazard reduction to reduce risk and improve credit availability. Interestingly, a general question arises when comparing the two streams of research i.e. what is the impact of trust on the lending relationships between banks and small firms owners/managers? More specifically, does trust increase credit facility access guaranteeing the firm the funds it needs?

As illustrated above, the trust which is bestowed on SMEs owners/managers is expected to be based on an assessment of the SMEs owners/managers' integrity, benevolence and ability which will have been made by way of the individual cognitive process of trust formation of the trustor, in this case, of the bank manager.

Because of the trust formation process and what affects it, trust can influence and improve the access to credit, in line with Harhoff and Körting's (1998) work. Thus, Howorth and Moro (2006) develop a proposition that states "*The supply of bank funding is positively related to bank manager's trust.*" This study investigates whether the proposition is supported by econometric analysis of empirical data. The choice of method is explained in the following section.

## 5. Research Method

We use both qualitative and quantitative approaches in this study. Measurement of trust was carried out using a survey of perceptions and actions of lending bank managers. Having measured the trust this measure is used along with other variables to carry out a quantitative analysis of the impact of these variables on the level of funds used by firms through credit facility with the banks. The findings were discussed with a panel of SMEs owners/managers and bank managers.

The data on attributes of trust was collected using a survey filled in by the bank manager. The main body of the survey was aimed at collecting information on managerial and financial aspects of the firm along with various indicators of three attributes of *integrity*, *ability* and *benevolence* which together constituted a measure of trust as is explained below.

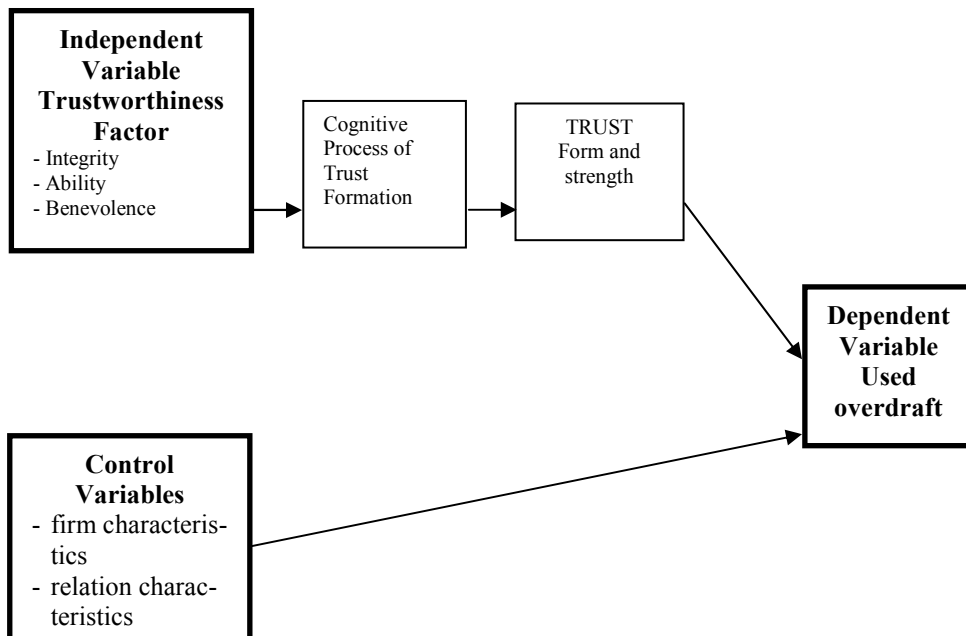
Factor Analysis is employed to test whether trust could be derived from the vector of trust attributes. The research question is then investigated using ordinary least squares with a bootstrapped estimation of the standard errors. The bootstrap technique in estimating standard errors of the dependent variable provides an estimate of the standard errors that is not linked to assumptions regarding the probability distribution of the population (Efron, 1979). In other words, it is a robust system to estimate the standard errors and significance level in general and specifically for the regression covariates. Efron and Tibshirani (1998) state that the bootstrap technique relieves the analyst of

having to make non parametric assumptions about the form of the underlying population when used in a non parametric mode and it provides more accurate answers than standard approaches when used in a parametric mode. In addition, it can provide answers where no textbook formula exists.

## 6. Operationalisation of the variables

The relationship between dependent, independent and control variables is reported in figure 2.

Figure 2



### 6.1 Dependent Variable

It is not easy to measure whether a firm is credit constrained or not. In general terms, it is a matter of entrepreneur and/or manager perception. At the same time, the higher the level of credit used with respect to the overall credit provided by the bank, the higher the probability to be credit constrained that is to face a problem in addressing payments or in matching expected growth targets. In addition, when the firm is using more than the credit provided by the bank, it is definitely credit constrained. Thus, we operationalise

the dependent variable using the percentage of average used overdraft debt with respect the overdraft provided by the bank. The higher the value of the dependent variable (OVUSE) the higher the probability that the firm is credit constrained.

## 6.2 Independent Variable

Trust is measured according to a vector of 10 items that measure the three trust factors as identified by looking at the conceptual framework. The bank’s manager had to evaluate the items on a 5 point Likert-type scale between “I totally disagree” (1) to “I totally agree” (5). Each item was based on previous trust inventories (e.g. Cummings & Bromiley, 1995, Currall & Judge, 1995) as well as items previously developed according to the proposed model, since they gave reliable results (see Mayer & Davies, 1999, Jarvenpaa et al., 1998). Each item was critically evaluated and the fact that the vector of items is requested to measure trustworthiness factors in the financial context was taken into consideration. Table 1 list the items. They are reduced to one TRUST factor using factor analysis. The factor is expected to be negatively related to OVUSE since the higher the trust, the higher the probability that the firm could gain all the credit it needs. If the firm gain all the credit it needs, it will have a bigger cushion that is a greater margin of available, unused credit that is a lower OVUSE.

Table 1

<b>Ability</b>	
The entrepreneur knows very well the market in which he/she operates	<i>ABI1</i>
The entrepreneur is good at selecting the needed resources	<i>ABI2</i>
The entrepreneur is good at managing the resources	<i>ABI3</i>
The entrepreneur is good at understanding market evolution	<i>ABI4</i>
<b>Benevolence</b>	
The entrepreneur adapts his/her interests with those of his/her commercial partners	<i>BEN1</i>
The entrepreneur pays attention to the needs of his/her employees	<i>BEN2</i>
The entrepreneur is very involved in the community	<i>BEN3</i>
<b>Integrity</b>	
The entrepreneur is totally honest during negotiations with commercial partners	<i>INT1</i>
The entrepreneur is consistent in his /her behavior and decisions	<i>INT2</i>
If you know that the entrepreneur is looking for a personal assistant, Would you suggest a female friend to apply to the firm?	<i>INT3</i>



### 6.3 Control Variables

The credit availability is a function of the market concentration proxied by the number of banks operating in a region (Petersen and Rajan, 1995). The greater the competition among banks the greater the dispersion of information among them. Therefore, in concentrated markets, it is easier to raise finance for younger, smaller, marginal firms and they are expected to be less credit constrained. In the regressions the number of the banks that operate in each municipality are entered (N\_BANKS) and a positive relation is expected. The study focuses on two different regions. A dummy variable (REGION) is included where 1 represents Friuli Venezia Giulia. Firms in Friuli Venezia Giulia have less access to grants and public sources of finance and are less protected than those in South Tyrol. In addition, in Friuli firms face more competition from firms which have headquarters outside of the region. For this reasons, firms in Friuli are expected to be more dependent on bank funding. This covariate gives the possibility to control for the system risk at local level and a positive relationship is expected since in South Tyrol (0) the firms are expected to rely less on bank credit. Since the dataset provides data from local and large banks a dummy variable (LOC\_NAT) is used to control for the kind of bank. Large banks (1) are supposed to be less supportive and consequently a positive relation with the dependent variable is expected. The interest rate on overdraft (INT\_OV) paid by the firm is expected to be positively related to OVUSE. Indeed, the higher the cost of the facility, the lower the interest of the firm in using it since it impacts on firm's overall financial performance.

In general terms, a positive correlation between being credit constrained and risk is expected since a negative relationship between credit access and risk is expected (Berger & Udell, 1995). The first covariate that tries to measure the risk (at systemic level) is ECON. It is an index collected by Bank of Italy in accordance to the European Central Bank, which measures the expected change in providing credit to customers. It is implicitly a measure of the change in perceived risk linked to change in economic climate. It is collected every three months through a survey administered to bank managers (no one of them is involved in the research) where they have to score on a five Likert-Type scale between -1 (relaxing approach in providing credit to customers) and +1 (more rigid approach in providing credit to customers). The values used are those collected by Bank of Italy in the quarter when the data were collected in each bank. Since positive values are associated to a more stringent credit policy, a positive relationship between

ECON and OVUSE is expected. In fact, more stringent credit policy implies either refusal to provide additional credit or possible reduction of the overall credit provided to the firms increasing the average used credit accordingly. Riskiness is also linked to firm dimension: bigger firms need more finance on one hand and are considered less risky on the other. In addition, they have greater negotiation power as found by Lehmann and Neuberger (2001). In the regressions, the size of the firm is measured by the natural logarithm of the annual turnover, in line with previous empirical research (LN\_TURNOVER) and a positive relation is expected. The covariate that cope with the riskiness of the credit provided is the COLLATERAL. Indeed, collateral is a way to hedge the loss at default and to deal with various issues such as moral hazard and adverse selection (probability of default). The covariate is expected to be negatively correlated to OVUSE since the existence of collateral should increase the access of credit reducing the possibility to be credit constrained.

We decided to avoid traditional variables to control for the quality of the firm. In fact, neither the profit nor the assets are entered in the regression. The decision is linked with the poor quality of this data (Moro et al., 2009): they are strongly affected by the accounting standard used by Italian SMEs and by accounting creativity. Since there is no substantial difference between pre-tax profit and tax base, profit is strongly affected by minimising the overall amount of taxes the firm has to pay. Assets are usually depreciated as fast as possible (according to tax law) in order to reduce taxes as much as possible. Assets are re-valued only occasionally. As a matter of fact, figures given in the balance sheet are a very poor representation of the real value of the assets and SMEs usually have big hidden reserves (Moro et al., 2009). This point is supported by the comments of the bank managers. They cannot rely on book value of the assets and when they need an estimate of the value of the assets, they have to ask for a survey produced by chartered surveyors. Typically, the figures provided are very different with respect what is recorded in the books.

The relationship provides the banks with additional information that helps to increase the knowledge of the firm and the general context as well. As pointed out by some theoretical models, borrowing constraints become less strict with time because of the increased reputation of the borrower (Martinelli, 1997). At the same time, when firms are small, they can face hold up problems (Howorth et al., 2003). In line with the previous empirical research the log of the length of the relationship (LN\_LENGTH) is entered in the regression. Because the characteristics of the firms (SMEs) a positive relationship is

expected to occur since the bank capture effect is likely to prevail over the information production effect. If the firm has more than a simple lending relation with the bank, it has the possibility to give the bank a lot of additional information about firm performance. MULTI is a dummy variable that control for it. When the information is held by few or even only one bank manager, information dissipation is reduced: a positive relationship between the number of people involved in the relationship at bank level (MANAGERS) and being credit constrained is expected. At the same time, the lending relationship is influenced by bank manager perception of facing a situation with reduced information asymmetry. Previous research (Berger et al., 2001) stresses the importance of the frequency the bank manager meets firms: this increases the acquisition of private information and helps in better evaluating firm's risk and, from the firm point of view, in accessing credit (FREQ\_MEET). The same effect is expected for FREQ\_REV which measure the reviewing activity.

## 7. Sample Data

The research focuses mainly on local community banks that have the legal form of the Banche di Credito Cooperativo. The decision to pay attention to them is twofold: previous research stresses local banks' role in affecting national growth (Usai & Vannini, 2005); they are very small, are local and have strong ties with the community. The sample is represented by six Raiffeisenkassen and two Banche di Credito Cooperativo. In addition, data was collected from local branches of two large national banks.

A sample of non agricultural SMEs firms was created for each bank. The firm is considered to be an SME according to the European Community standards, i.e. firms with a turnover smaller than 50 million Euros and with less than 250 employees. The sample was built up randomly and represents between 10% and 20% of the overall number of firms that had a credit facility with the bank (in terms of both short-term and long-term debt) in the case of local bank while for large national banks the sample represents less than 1% of the entire population and around 5% of the local population of customers. The agricultural firms were excluded from the sample because of the uniqueness of the sector: the firms are quite small, in the form of the sole trader and, among them, there are a large number of part time farmers. In addition, the agricultural sector is widely supported by grants of the local governments. These aspects can bias the results. The initial list contains 535 firms which provided a final dataset of 457 useful observations

(85.44%) with a turnover between 13,000 Euros and 46,900,000 Euros. The overall response rate is homogeneous among the different banks. Summary of the data is reported in table 2.

Table 2 Summary statistics of variables used (N= 457)

Variable Description	Variable	Mean	Std. Dev.	Min	Max
Used debt (in percentage) = percentage of the rolling credit facility used	OVDUSE	60.67	35.62	0	132
Typology of Bank (0 = Local; 1 = National)	LOCNAT	NA		0 18.47%	1 81.53%
Interest rate on overdraft – percentage (N =444)	INT_OV	5.35	1.43	1	12.75
Number of banks in the area	NBANKS	6.92	4.04	1	12
Region (0=Alto Adige; 1=Friuli)	REGION <sub>1</sub>	NA		0 87.25%	1 12.75%
Collateral (0=no collateral; 1=collateral) = personal and firm assets	COLLATERAL <sub>1</sub>	NA		0 18.90%	1 81.10%
Bank of Italy coefficient about expectations in increasing (positive) or reducing (negative) rigidity in providing new/additional credit	ECON	.059	.39	0	.17
Turnover of the firm for the most recent complete financial year (absolute values in thousands)	LNTURNOVR	2,205	4,629	13	46,900
Length of the relationship in years	LNLENGTH	10.34	7.72	0	35
Frequency of reviewing = number of reviewing in a year	FREQREV	2.04	.48	1	3
Frequency of meetings = times of meetings in a year	FREQMEET	2.95	1.23	1	4
Number of bank managers involved in the relation (N =452)	MANAGER	1.592	1.16	1	7
Multiple relationship with this bank (0=no other bank products, 1=other bank products)	MULTI <sub>1</sub>	NA		0 41.98	1 58.02
Trust (Factor) - standardised PCA	TRUST	-9.34e-10	.94	-4.24	2.24

<sup>1</sup> Dummy variable (mean and standard deviation meaning/less)

Average turnover of sample firms is €2.2 million. The relationship is widely concentrated in few persons since on average the firms have contact with 1.6 persons inside each bank. The average used overdraft is 60.67%. The loans given to the firms of the sample are also widely collateralised (81.53%) but differences are found in the collateralisation since 24.78% of the credit is collateralised with firm assets while 80.26% is pledged with personal guarantees (clearly there are many facilities that are collateralised with both firms assets and personal guarantees).

The length of the relationship is 10.34 years on average, with the longest one of 35 years. The frequency distribution of the length of the relationship has the mode in the class 10 years (28.66% of the obs). More than 25% of the observations has a relationship shorter than 4 years, 44% of the sample has a relationship shorter than 9 years while 75% is shorter than 12 years: the SMEs' owners/managers tend to establish long term relationships with the bank. Bank managers' revision the firms' line of credit once in a year in 9.62% of the observations, while the revision is carried out on semi-annual basis in 76.58% of the observations. Bank managers meet 19.91% of the SMEs owners/managers once a year and 52.95% of the customers at least four times in a year. These data suggest that the bank managers have frequent contact with the firms and carry on stringent monitoring activity on them.

### 7.1 Measuring Trust

Trust was measured according to a vector of ten items. The data are reported in table 3. The mode is the score 4 (I partially agree) for each item except for the item "The entrepreneur pays attention to the needs of his/her employee" and "The entrepreneur is very involved in the community" where the mode is the score 3 (neither agree nor disagree). The average of each item is above 3 which stands for neutral. The lowest average is 3.08 ("The entrepreneur is very involved in the community") while the highest is 4.11 ("The entrepreneur knows very well the market in which he/she operates").

As previously illustrated trust is a complex construct: its components interact and help jointly the development of trust. The factor analysis of the survey provides a strong support to this point: it is very difficult to split trust in its factors. Principal components analysis was employed to reduce the vector of ten items which measures different aspects of trustworthiness into a smaller number of components of trustworthiness. However, empirically, the (forced) two and three component models were always sub-

optimal with Eigenvalues well below 1.0 for all components except the first one (although the items did load as expected on components representing ability, benevolence and integrity).

Table 3 – Trust indicators ability, benevolence and integrity (N=457)

<b>Var.</b>	<b>Description</b>	<b>Mean</b>	<b>St.Dev.</b>	<b>Factor1</b>	<b>Uniqueness</b>
<b>ab1</b>	the entrepreneur knows very well the market in which she/he operates	4.11	.71	<b>0.7268</b>	0.4717
<b>ab2</b>	the entrepreneur is able in selecting the needed resources	3.71	.80	<b>0.7139</b>	0.4908
<b>ab3</b>	the entrepreneur is able in managing the resources	3.80	.78	<b>0.7764</b>	0.3973
<b>ab4</b>	the entrepreneur is able in understanding market evolution	3.81	.78	<b>0.7450</b>	0.4449
<b>ben1</b>	the entrepreneur adapts his interests to suit those of commercial partners	3.78	.70	<b>0.7599</b>	0.4226
<b>ben2</b>	the entrepreneur pays attention to the needs of the employees	3.54	.75	<b>0.6566</b>	0.5688
<b>ben3</b>	the entrepreneur is very involved in the community	3.09	1.17		
<b>int1</b>	the entrepreneur is totally honest in negotiations with commercial partners	3.88	.72	<b>0.6437</b>	0.5856
<b>int2</b>	the entrepreneur is consistent in his decisions and behaviour	3.81	.69	<b>0.7417</b>	0.4499
<b>int3</b>	you would be happy to recommend to a female friend to work in the firm	3.43	.95	<b>0.7051</b>	0.5079

The one component model was superior and had very high reliability. BEN3 (involvement in community) had a low communality and was dropped from the PCA which improved the reliability analysis. PCA was run on nine items (Cronbach Alpha 0.8806).

The PCA results indicate that perceived trustworthiness in this context appears to be a single complex entity that draws on a range of aspects of ability, benevolence and integrity. This is in line with previous research (Nooteboom et al., 1997) that found it difficult to distinguish empirically between components of trust, particularly benevolence and integrity. As a consequence, one factor (TRUST) was extracted from the nine items instead of trying to extract three factors (ability, benevolence and integrity). Table 3

presents the results of the one component PCA. All variables loaded at 0.6 or more on the single component. Factor scores were saved for inclusion in regression analysis.

## 8. Model Specification

Foregoing literature review identified that there are various factors that could influence access to credit for SME. However, our interest in this study is to investigate the role of trust in lending decisions while controlling for the impact of other non-trust related factors. We therefore divide all the identified explanatory variables into three sets of factors. In first category collects factors exogenous to firm such as location, interest rate, competition among banks are included. In second category collateral requirements, economic conditions and size (turnover) of firm are included. These are collectively called ‘hard factors’ as they represent hard information or data. And finally in third category includes indicators of the strength of relationship which helps managers form their opinion about trustworthiness of firm. These are length of relationship, frequency of meetings, number of relationship managers and multiple relationships with the bank. In order to investigate our research question following models were used. This approach gives us the possibility to verify which vector affects gaining the credit needed independently of other vectors.

### Exogenous factors

$$\text{OVDUSE} = \beta_0 + (\beta_1 \text{LOCNAT} + \beta_2 \text{INT\_OV} + \beta_3 \text{NBANKS} + \beta_4 \text{REGION}) + \varepsilon \quad (\text{Equation 1})$$

### Hard factors

$$\text{OVDUSE} = \beta_0 + (\beta_5 \text{COLLATERAL} + \beta_6 \text{ECON} + \beta_7 \text{LNTURNOVR}) + \varepsilon \quad (\text{Equation 2})$$

### Relationship factors

$$\text{OVDUSE} = \beta_0 + (\beta_8 \text{LNLENGTH} + \beta_9 \text{FREQREV} + \beta_{10} \text{FREQMEET} + \beta_{11} \text{MANAGER} + \beta_{12} \text{MULTI} + \beta_{13} \text{TRUST}) + \varepsilon \quad (\text{Equation 3})$$

Then, in order to investigate the overall impact of different covariates, we use a the following model where the three vectors are entered together



$$\begin{aligned} \text{OVDUSE} = & \beta_0 + (\beta_1 \text{LOCNAT} + \beta_2 \text{INT\_OV} + \beta_3 \text{NBANKS} + \beta_4 \text{REGION}) + (\beta_5 \text{COLLATERAL} + \\ & \beta_6 \text{ECON} + \beta_7 \text{LNTURNOVR}) + (\beta_8 \text{LNLENGTH} + \beta_9 \text{FREQREV} + \beta_{10} \text{FREQMEET} + \beta_{11} \text{MANAGER} \\ & + \beta_{12} \text{MULTI} + \beta_{13} \text{TRUST}) + \varepsilon \end{aligned}$$

All the terms used in the above equations are explained in Tables 2. In the following section the results from the above analytical models are presented.

## 9. Testing Credit Constrained - Regression Findings

In table 4 three regressions are presented: the first considers only the covariates exogenous to the firm and to the relationship. The second one, looks only at the firm and finance characteristics. The third one considers only the relationship between banks and firms. The number of observations considered is slightly different among the specifications but the t-tests on different datasets show no significant difference. Interestingly, the first specification is not significant at all stressing the fact that the exogenous variables do not affect credit access. The second specification is significant at 99% (but it is borderline) and both firm dimension and whether the credit is collateralised are significant even if COLLATERAL has not the expected sign. By comparing the second regression with the first one emerges that firm and finance characteristics impact on gaining the credit the firm needs more than the exogenous general characteristics of the area and of the economic context.

The specification that considers only the relationship variables is very significant and has an adjusted R<sup>2</sup> greater than 0.09. All the variables entered are significant. This finding supports the key role of relationship variables and specifically of TRUST in helping firms in accessing credit they need. Indeed, this set of covariates is that one that affects mainly the satisfactory access to credit.

Table 4 – Regression findings

	Number of obs	436	Number of obs	422	Number of obs	431
Replications	750	750	Replications	750	Replications	750
Wald chi2(4)	6.52	Wald chi2(3)	14.49	Wald chi2(5)	37.16	
Prob>chi2	0.1636	Prob>chi2	0.0023	Prob>chi2	0.0000	
R-squared	0.0178	R-squared	0.0824	R-squared	0.1033	
AdjR-squared	0.0087	AdjR-squared	0.0359	AdjR-squared	0.0906	
Root MSE	35.4630	Root MSE	34.3052	Root MSE	33.9884	

	Observed Coef.	Bootstrap Std. Err.	P> z	Observed Coef.	Bootstrap Std. Err.	P> z	Observed Coef.	Bootstrap Std. Err.	P> z	
Exogenous	LOCNAT	17.8156	7.4955	**						
	NBANKS	-1.9217	.8215	**						
	REGION	9.1692	8.1699							
	ECON	-111.4581	74.0898							
Hard	INT_OV				-0.6659	1.3318				
	COLLATERAL				10.5839	4.0294	***			
	LNTURNOVR				-4.9652	1.5385	***			
Relational	LNLENGTH							-5.5367	2.4710	**
	FREQREV							6.5136	3.7707	*
	FREQMEET							2.5055	1.3053	*
	BANKMAN							6.4130	2.7510	**
	MULTI							9.8475	3.1908	***
	TRUST							-4.7404	1.4131	***
	_CONS	76.1056	7.7328	***	125.0597	23.6582	***	35.2972	8.7725	***

\* Sig. at 90%

\*\* Sig. at 95%

\*\*\* Sig. at 99%

Moving on in the analysis, in table 5 four specifications are presented. The first one considers only hard covariates (that is the exogenous variables and firms' specific characteristics); the second enters the relationship covariates except TRUST. This gives us the possibility to compare the specification results to the findings of previous research and test how relationship variables impact on gaining the needed credit. TRUST is entered in the third one. By entering it separately we can appreciate how it impacts on the model. The last regression is the parsimonious version of the third specification, where the covariates that are not significant are dropped.

Regressions have adjusted  $R^2$  between 0.0385 and (first specification) and 0.1223 (third regression). All the specifications are significant according to Wald  $\chi^2$  test even if the first one is significant at 99% while all the others are significant at 99.99%. Missing data affects slightly the number of observations in the regressions: indeed MANAGERS covariate constraints the number of useful observations to 451. T-tests on the dependent variable and firm dimension (LN\_TURNOVER) did not show any significant difference at 99% level between datasets. The second (and third) specification supports strongly the hypothesis: TRUST has the expected sign (negative) confirming the role of trust in reducing the situation of being credit constrained and it also maintains negative sign (and is significant) in specifications not reported here. By entering relationship variables and TRUST, the adjusted  $R^2$  improves strongly from 0.0385 (first specification) to 0.1223 (third regression).

It is interesting to cross analyse the findings of regression in specifications reported in table 4 and in table 5. Adjusted  $R^2$  improvement when relationship covariates and TRUST are entered is mainly explained by relationship variables and TRUST than by the possible effect this set of covariates have on hard covariates. This point is supported by the key role played by relationship variables when regressed as stand alone ones as shown in the third regression of table 4.

Table 5 – Regression findings

	Number of obs Replications	422 750	Number of obs Replications	417 750	Number of obs Replications	417 750	Number of obs Replications	429 750
	Wald chi2(6)	19.42	Wald chi2(11)	41.40	Wald chi2(11)	56.44	Wald chi2(12)	59.05
	Prob>chi2	0.0070	Prob>chi2	0.0000	Prob>chi2	0.0000	Prob>chi2	0.0000
	R-squared	0.0545	R-squared	0.1379	R-squared	0.1497	R-squared	0.1376
	AdjR-squared	0.0385	AdjR-squared	0.1122	AdjR-squared	0.1223	AdjR-squared	0.1170
	Root MSE	34.2591	Root MSE	32.9321	Root MSE	32.7450	Root MSE	33.3750

	Observed Coef.	Bootstrap Std. Err.	P> z	Observed Coef.	Bootstrap Std. Err.	P> z	Observed Coef.	Bootstrap Std. Err.	P> z				
Exogenous	LOC_NAT	16.12158	7.3770	**	18.26745	7.0978	***	17.41127	7.2941	**	11.16526	5.7140	*
	INT_OV	-1.061376	1.4277		-3.104061	1.4855		-5.860458	1.4003		-1.318893	.6210	**
	NBANKS	-1.609149	.7744	**	-1.974558	.7671	***	-1.782923	.7722	**			
	REGION	11.09578	8.2377		13.90495	8.3010	*	10.94337	8.6741				
Hard	COLLATERAL	10.96895	4.1212	***	9.17423	4.0754	**	8.274507	3.9509	**	8.691795	3.8913	**
	ECON	-124.9841	70.6552	*	-192.8858	75.0247	***	-170.6112	78.0452	**	-119.2077	42.3200	***
	LNTURNOVR	-5.030555	1.4737	**	-2.993427	1.2808	**	-2.815855	1.2524	**	-2.849024	1.2048	**
Relational	LNLENGTH				-6.509479	2.7689	**	-5.71121	2.7612	**	-5.005316	2.7133	*
	FREQREV				4.910035	4.2338		5.180528	3.9193				
	FREQMEET				2.527855	1.4777	*	2.604949	1.4379	*	3.545855	1.3471	***
	MANAGER				4.60642	2.7793	*	4.991315	2.8156	*	5.011929	2.8865	*
	MULTI				13.05467	3.2663	***	12.7873	3.1250	***	10.92743	3.3477	***
	TRUST							-3.955326	1.5354	***	-4.245832	1.4068	***
	_CONS	141.8101	25.76455	***	97.70556	25.16349	***	92.53237	23.49467	***	92.68489	18.0128	*

\* Sig. at 90%

\*\* Sig. at 95%

\*\*\* Sig. at 99%

Turning attention to other covariates, competition (N\_BANK), COLLATERAL and firm dimension measured through LN\_TURNOVER are as expected and are significant. INT\_OV is negatively related to OVUSE as expected but it is not significant, also in regressions not reported here. Interestingly, REGION is positively related supporting our argument that firms in a region where there is more competition among firms and a lower support from local government, leverage more short term credit i.e. it is more credit constrained even if its significance is border line. As expected, large banks (LOC\_NAT) tend to be more restrictive in lending to SMEs forcing them to leverage more overdraft. Unexpectedly, when banks decide to apply more stringent criteria in providing credit (MKT\_PERCEPTION), firms are less credit constrained. The covariate is significant. A possible explanation is that general economic outlook affects only partially the banks and possibly only the credit provided to new customers, not to the current ones according to a pecking order. The length of the relationship (LN\_LENGTH) has negative sign and is significant suggesting that longer relationships help firms in gaining the credit they need. Information dispersion linked to the number of bank employees involved in the relationship with the SMEs owners/managers (MANAGERS) adversely affect gaining credit even if the covariate is significant but border line. Personal contact between SMEs owners/managers and bank manager (FREQ\_MEET) adversely affects being credit constrained. One possible explanation is that the firm that are more credit constrained are considered by the bank riskier and are more monitored through frequent contact, even if the significance of the covariate is low. The reviewing activity (FREQ\_REV) is not significant (and is dropped in the last specification). Strangely, relying on the bank for other services (such as payment and collection process) does not help the firm in avoiding to be credit constrained (MULTI).

## 10. Comments on Findings

Present research investigates the role of trust as a determinant in helping firm to access the credit they need. Trust is a very complex concept. There are many different definitions of trust and a variety of models that try to explain it and how it works. The present research grounds on the framework which states that the formation of trust is mainly influenced by the personal predisposition to trust and by three trust factors: ability (the perceived competence of the trustee), benevolence (the willingness to be well disposed to the trustor) and integrity (the ethics and morals of the trustee) (Howorth & Moro,

2006, Mayer et al. 1995). We tested whether high level of trust (ability, benevolence and integrity) is positively related to gaining the credit the firm needs.

The regression analysis shows that trust does have significant impact on the ability of firms to access the credit facility. The trust factor seems to guarantee the access to the needed credit as hypothesised but some additional comments are needed. In interviews, bank managers stated that they have no sector or industry specialisation. In fact, they usually deal with a very heterogeneous set of firms. This is a very important aspect since it affects at least partially their capability to evaluate thoroughly the information provided and to question owners/firms' managers about the data provided. In addition, they clearly state that to value the assets of the firms they need chartered surveyor support. Thus, presence of knowledge gap about specific sectors in which firms operate and lack of the reliability of data submitted in many cases means the subjective assessment by managers becomes a deciding factor in lending decisions. Which means that entrepreneur should share as much information as possible with the managers.

However, the popular perception among owners/managers of small firms seems to be in opposite direction. Owners/managers of small firms, usually think that being open with the bank (that is, trusting bank managers) may result in adverse impact on their credit access or terms of borrowing. The present study provides support to the opposite actually. Since high level of trust is found to have positive impact on gaining the credit needed, SMEs owners/managers should nurture trust. They have to change their approach towards banks, build up strong relationships and develop trusting relationships (i.e. improving the flow of the information to the bank and keeping the bank manager updated about the firm's situation).

Research provides some additional interesting findings on other covariates. Gaining the credit the firm needs and the index that measures the prospective credit availability has the unexpected sign. However, this issue needs further research. We think following observations in this regard may be useful.

The finding provides some support to the fact that banks might insulate SMEs during economic downturns from being adversely affected in accessing credit, possibly because the bank use a pecking order approach refusing credit to new (unknown) customers instead of reducing credit to the current (known) ones. We suggest that this approach

is possible because of Italian banks balance sheet strategies. Generally speaking, there are two main models in dealing with collecting funds and providing credit. The first one is called originate-to-hold (OTH): the bank provides credit to customers and hold it in the assets side of its balance sheet. This strategic approach emerges by simply looking at the liabilities side of banks' balance sheets where the largest part of the liabilities are savings accounts, certificates of deposit and bonds: they are the financial tools used to collect the finance available from savers. This is typically the model used in Continental Europe and is at a variant with the Anglo Saxon banking system which relies more on originate-to-distribute (OTD) that is provide credit, pack it with other credits and sell in the market as some kind of security (the CMBS – commercial mortgaged-back securities – are one of the most famous examples). In the latter case, the provided credit will not be on the assets side of the originator bank but it will be an assets of the financial institution who buys it. In OTD strategy, the originator bank's capability to provide finance is linked to its capability to raise finance in the financial market selling securities: if the financial markets freeze, the bank will be incapable to collect new finance and to provide new loans for the firms. Italian banking system relies on OTH for two main reasons. On one hand, the majority of the Italian banks are constrained in their capability to collect funds at good conditions in the financial markets (Kashyap, 1998): this is limited only to the few largest banks. On the other hand, traditionally, Italian savers are happy to invest in very-secure low-return financial tools provided by the banks (savings accounts and certificates of deposits) instead of investing in the stock exchange. Thus, Italian banks might be less affected by difficulties in collecting finance in the financial markets during economic or financial downturns and they may transfer such a greater steadiness of funds on to the current customers according the pecking order approach: they guarantee credit even in economic downturn to current customers and constrain only the new ones. From this point of view, Ferri et al., (2009) stresses the peculiar role played by relationships in accessing credit in harsh times.

## 11. Conclusions

Present study is an additional step in the research about the role trust plays in the business relationship. There is some research that looks at the role of trust in accessing venture capital, in developing relationships with business angels, in accessing trade credit, in getting support from customers and suppliers when starting up or a spinning off a

firm. At the same time, there is a poor track record on research about the trust role on banking relationships. Paradoxically, when a bank makes a decision to provide credit, even though it is a contractual relationship, it is underpinned by an assessment of trust. In fact, underpinning the potential creditor's analysis of the risk return trade-off is an assessment of the trustworthiness of the borrower.

By approaching lending relationship from a different perspective, present research opens a new, interesting perspective on lending relationships. It points out that lending relationships cannot be reduced to facts and figures because trust (and soft information in general) plays an important role in accessing credit. In addition, the role of trust might be greater and more important for very small marginal firms that lack the capacity to provide the facts and figures that large banks ask, and cannot access financial markets for either equity or bonds. This fact cannot be neglected since very small firms are the real skeleton of the economic fabric of Europe and US, representing the largest part of the firms' population and producing the largest part of the GDP of developed nations. In addition, small firms represent the largest majority of the population of firms in developing countries.

Explicitly, by leveraging trust, banks can help the growth and development of small firms, and insulate the SMEs against the economic downturns. At the same time, SMEs owners/managers can only gain real advantages in gaining the credit they need when they develop strong, long term and trusting ties with the banks and the bank managers. To sum up, bank managers can leverage trust and provide credit if and only if such a behaviour is reciprocated by the SMEs owners/managers.

Present research opens to future research. The first area for further investigation might be to test the hypotheses in regions with a different cultural background such as the Anglo Saxon world where the banking system is largely dominated by large banks and the SMEs owners/managers have been used to deal with credit rating/scoring systems since the mid '90s (and consequently they are used to provide hard information). A different but very interesting area for investigation would be to verify whether banks that leverage trust have a higher level of risk than those who do not leverage it, i.e. whether leveraging trust in lending relationships implies a greater risk affecting the profitability of the bank. According to the small example used in present research, it seems that leveraging trust improves banks profitability since the write offs of the banks involved in the research is lower than the average. Finally, it is interesting to verify whether the economic downturn can affect trust role in lending relationship: on one hand banks could



be expected to pay more attention in lending to incumbent and prospective customers scrutinizing them thoroughly on fact and figures, irrespective of trusting relationships; on the other, consolidated trusted relationship can help the bank in sorting out good and bad customers.

## References

- Agarwal, S., R. Hauswald, 2008, “The Choice between Arm’s Length and Relationship Debt: Evidence from eLoans”, *Federal Reserve Working Paper, 2008-10*
- Akhavein, J., L. G. Goldberg, L. J. White, 2004, “Small Banks, Small Business, and Relationships: An Empirical Study of Lending to Small Farms”, *Journal of Financial Services Research, 26, 3, 245-261*
- Allen, L., G. DeLong, A. Saunders, 2004, “Issues in the Credit Risk Modelling of Retail Market”, *Journal of Banking and Finance, 28, 727-752*
- Andrew, J., 2005, “Corporate Credit and the End of Relationship Lending”, *Credit Control, 24-28*
- Angelini, P., R., Di Salvo, G. Ferri, 1998, “Availability and Cost of Credit for Small Business: Customer Relationships and Credit Cooperatives”, *Journal of Banking and Finance, 22, 925-954*
- Barney, J. B., 1990, “The Debate Between Traditional Management Theory and Organisational Economics: Substantive Differences or Intergroup Conflict?” *Academy of Management Review, 15, 3, 382-393*
- Barney, J. B., M. H. Hansen, 1994, “Trustworthiness as a Source of Competitive Advantage”, *Strategic Management Journal, 15, 175-190*
- Berger, A. N., G. F. Udell, 1995, “Relationship Lending and Lines of Credit in Small Firm Finance”, *Journal of Business, 68, 3, 351-381*
- Berger, Allen N., 1999, “The “Big Picture” About relationship-Based Finance”, *Federal Reserve Bank of Chicago Proceedings, 390-400*
- Berger, A. N., L. F. Klapper, G. F. Udell, 2001, “The Ability of Banks to Lend to Informationally Opaque Small Business”, *Journal of Banking and Finance, 25, 2127-2167*

- Berger, Allen N., W. Scott Frame, Nathan H. Miller, 2002, “Credit Scoring and the Availability, Price and Risk of Small Business Lending”, *Federal Reserve System (FEDS) Working Paper No. 2002-26*
- Berger, A. N., N. H. Miller, M. A. Petersen, R. G. Rajan, J. C. Stein, 2005a, “Does Function Follow Organisational Form? Evidence From the Lending Practices of Large and Small Banks”, *Journal of Financial Economics*, 76, 237-269
- Berger, A., N, W. Scott Frame, N. Miller, 2005b, “Credit Scoring and the Availability, Price, Risk of Small Business Credit”, *Journal of Money, Credit and Banking*, 37, 2, 191-222
- Berger, A. N., G. F. Udell, 2006, “A More Complete Conceptual Framework for SMEs Finance”, *Journal of Banking and Finance*, 30, 2945-2966
- Berlin, M., 1996, “For Better and For Worse: Three Lending Relationships”, *Federal Reserve Bank of Philadelphia Business Review*, (Nov.-Dec.), 3-12
- Binks, M. R., C. T. Ennew, 1997, “The Relationship Between U.K. Banks and Their Small Business Customers”, *Small Business Economics*, 9, 167-178
- Boot, A. W. A., 2000, “Relationship Lending: What We Do Know?”, *Journal of Financial Intermediation*, 9, 7-25
- Boot, A. W. A., A. V. Thakor, 2000, “Can Relationship banking Survive Competition?”, *The Journal of Finance*, LV, 2, 679-713
- Bromiley, P., J. Harris, 2006, “Trust, Transaction Cost Economics, and Mechanisms”, in R. Bachman and A. Zaheer (eds) *The Handbook of Trust Research*, Edgar Elgar
- Brown, M., C. Zehnder, 2007, “Credit Reporting, Relationship Lending, and Loan Repayment”, *Journal of Money, Credit and Banking*, 39, 8, 1883-1916
- Castelli, A., G. P. Dwyer Jr., I. Hasan, “2006, Bank Relationships and Small Firm’s Financial Performance”, *Federal Reserve Bank of Atlanta Working Paper*, 2006-5
- Castiglioni, L., S. Mariotti, 1981, *IL - Vocabolario della lingua latina*, Loescher - Torino
- Cummings L. L., P. Bromiley, 1996, “The Organisation Trust Inventory (OTI): Development and Validation”, in R. M. Kramer and T. R. Tyler (eds) *Trust in Organisation*, Sage Publications

- Currall, S. C., T. A. Judge, 1995, “Measuring Trust between Organisational Boundary Role Persons”, *Organisational Behaviour and Human Decision Processes*, 64, 2, 151-170
- Das, T. K., B. S. Teng, 1998, “Between Trust and Control: Developing Confidence in Partner Cooperation in Alliances”, *Academy of Management Review*, 23, 3, 491-512
- Dasgupta, P., 2000, “Trust as a Commodity”, in D. Gambetta (ed.) *Trust: Making and Breaking Cooperative Relations*, electronic edition, Department of Sociology, University of Oxford, chapter 4, 49-72
- Degryse, H., P. Van Cayseele, 2000, “Relationship Lending within a Bank-Based System: Evidence from European Small Business Data”, *Journal of Financial Intermediation*, 9, 90-109
- Dell’Ariccia, G., R. Marquez, 2004, “Information and Bank Credit Allocation”, *Journal of Financial Economics*, 72, 185-214
- Detragiache, E., P. Garella, L. Guiso, 2000, “Multiple versus Single Banking Relationships: Theory and Evidence”, *The Journal of Finance*, LV, 3, 1133-1161
- Deutsch, M., 2000, “Cooperation and Competition”, in M. Deutsch and P. T. Coleman (eds) *The Handbook of Conflict Resolution*, Jossey Bass
- De Young, R., D. Duffy, 2002, “The Challenges Facing Community Banks: In Their Own Words”, *Economic Perspectives*, 4Q, Federal Reserve Bank of Chicago, 2-17
- Diamond, D. W., 1984, “Financial Intermediation and Delegated Monitoring”, *Review of Economic Studies*, LI, 393-414
- Donaldson, T., T. W. Dunfee, 1994, “Toward a Unified Conception of Business Ethics: Integrative Social Contracts Theory”, *Academy of Management Review*, 19, 2, 252-284
- Doz, Y. L., 1996, “The Evolution of Cooperation in Strategic Alliances: Initial Conditions or Learning Process?”, *Strategic Management Journal*, 17, 55-83
- Efron, B., 1979, “Bootstrap Methods: Another Look at the Jackknife”, *Annals of Statistics*, 7, 1-26
- Efron, B., R. T. Tibshirani, 1998, *An Introduction to the Bootstrap*, Chapman and Hall CRC
- Elsas, R., J. P. Krahen, 1998, “Is Relationship Lending Special? Evidence from Credit-File Data in Germany”, *Journal of Banking and Finance*, 22, 1283-1316

- Elsas, R., 2005, “Empirical Determinants of Relationship Lending”, *Journal of Financial Intermediation*, 14, 32-57
- Fama, E., 1980, “Theory of the Firms”, *Journal of Political Economy*, 88, 2, 288-306
- Ferrary, M., 2003, “Trust and Social Capital in the Regulation of Lending Activities”, *The Journal of Socio-Economics*, 31, 673-699
- Ferri, G., M. R. Riggi, Z. Rotondi, 2009, “Inside the Crisis: the Importance of the Bank-Firm Relationships in Harsh Times” in Bracchi G., Masciandario D. *Dopo la crisi. L'industria Finanziaria Italiana fra stabilita' e Sviluppo*” Edibank, Rome
- Fisman, R., T. Khanna, 1999, “Is Trust a Historical Residue? Information Flows and Trust Levels”, *Journal of Economic Behaviour and Organisation*, 38, 79-92
- Harhoff, D., T. Körting, 1998, “Lending Relationships in Germany – Empirical Evidence from Survey Data”, *Journal of Banking and Finance*, 22, 1317-1353
- Harris, S., M. Dibben, 1999, “Trust and Cooperation in Business Relationship Development: Exploring the Influence of National Values”, *Journal of Marketing Management*, 15, 463-483
- Howorth, C., M. J. Peel, N. Wilson, 2003, “An Examination of the Factors Associated with Bank Switching in the U.K. Small Firm Sector”, *Small Business Economics*, 20, 4, 305-318
- Howorth, C., A. Moro, 2006, “Trust within Entrepreneur Bank Relationships: Insights from Italy”, *Entrepreneurship Theory and Practice*, 30, 4, 495-517
- Jarvenpaa, S. L., K. Knoll, D. E. Leidner, 1998, “Is Anybody Out There? Antecedents of Trust in Global Virtual Teams”, *Journal of Management Information Systems*, 14, 4, 29-64
- Jones, G. R., J. M. George, 1998, “The Experience of Evolution of Trust: Implications for Cooperation and Teamwork”, *Academy of Management Review*, 23, 3, 531-546
- Lehmann, E., D. Neuberger, 2001, “Do Lending Relationships Matter? Evidence from Bank Survey Data in Germany”, *Journal of Economic Behaviour and Organisation*, 45, 339-359
- Lewicki, R. J., B. Benedict Bunker, 1996, “Developing and Maintaining Trust in Working Relationships”, in R. M. Kramer and T. R. Tyler (eds) *Trust in Organisation*, Sage Publications

- Lewicki, R. J., D. J. McAllister, R. J. Bies, 1998, “Trust and Distrust: New Relationships and Realities”, *Academy of Management Review*, 23, 3, 438-458
- Lewis, J. D., A. Weigert, 1985, “Trust as a Social Reality”, *Social Forces*, 63:4, 967-985
- Luhmann, N., 2000, “Familiarity, Confidence, Trust: Problems and Alternative” in D. Gambetta (ed.) *Trust: Making and Breaking Cooperative Relations*, electronic edition, Department of Sociology, University of Oxford, chapter 6, 94-107
- Macaulay, S., 1963, “Non-contractual Relations in Business: a Preliminary Study”, *American Sociological Review*, 28, 1, 55-67
- Martinelli, C., 1997, “Small Firms, Borrowing Constraints, and Reputation”, *Journal of Economic Behaviour and Organisation*, 33, 91-105
- Mayer, R. C., J. H. Davies, F. D. Schoorman, 1995, “An Integrative Model of Organisational Trust”, *Academy of Management Review*, 20, 3, 709-734
- Mayer, R. C., J. D. Davies, 1999, “The Effect of the Performance Appraisal System on Trust for Management: A Field Quasi-Experiment”, *Journal of Applied Psychology*, 84, 1, 123-136
- McAllister, D. J., 1995, “Affect- and Cognition-based Trust as Foundations for Interpersonal Cooperation in Organisations”, *Academy of Management Journal*. 38, 24-59
- McKnight, H. D., L. L. Cummings, N. L. Chervany, 1998, “Initial Trust Formation in New Organisational Relationship”, *Academy of Management Review*, 23, 473-490
- Moro, A., Lucas, M, Grassi, E. Bazzanella C., 2009, “The Short Term Debt vs. Long Term Debt Puzzle: A Model for the Optimum Mix”, paper presented to the 5<sup>th</sup> Conference on Performance Measurement and Management Control – Nice September 23<sup>rd</sup>-25<sup>th</sup>, 2009
- Nooteboom, B., H. Berger, N. G. Noorderhaven, 1997, “Effects of Trust and Governance on Relational Risk”, *Academy of Management Journal*, 40, 2, 308-338
- Nooteboom, B., 2002, *Trust*, Edward Elgar Publishing
- Petersen, M. A., R. G. Rajan, 1994, “The Benefits of Lending Relationships: Evidence from Small Business Data”, *The Journal of Finance*, XLIX, 1, 3-37
- Petersen, M. A., R. G. Rajan, 1995, “The Effect of Credit Market Competition on Lending Relationship”, *The Quarterly Journal of Economics*, 110, 407-443

- Petersen, M. A., 2002, "Information: Hard and Soft", *Kellogg Graduate School of Management – Northwestern University working paper*
- Ring, P. S., A. H. Van Den Ven, 1992, "Structuring Cooperative Relationships Between Organisations", *Strategic Management Journal*, 13, 483-498
- Rousseau, D. M, S. B. Sitkin, R. S. Burt, C. Camerer, 1998, "Not So different After All: a Cross Discipline View of Trust", *Academy of Management Review*, 23, 3, 393-404
- Saparito, P., C. Chen, H. J. Sapienza, 2001, "The Central Role of Trust in Bank – Small Firm Relationships", *University of New Hampshire Working Paper*
- Sharpe, S. A., 1990, "Asymmetric Information, Bank Lending, and Implicit Contracts: A Stylized Model of Customer Relationships", *The Journal of Finance*, XLV, 4, 1069-1087
- Sironi, A., C. Zazzara, 2003, "The Basel Committee Proposals for New Capital Accord: Implications for Italian Banks", *Review of Financial Economics*, 12, 99-126
- Sitkin, S. B., N. L. Roth, 1993, "Explaining the Limited Effectiveness of Legalistic "Remedies" for Trust/Distrust", *Organisation Science*, 4, 3, 367-392
- Stanton, K. R., 2002, "Trends in Relationship Lending and Factors Affecting Relationship Lending Efficiency", *Journal of Banking and Finance*, 26, 127-152
- Stein, J. C., 2002, "Information Production and Capital Allocation: Decentralized versus Hierarchical Firms", *The Journal of Finance*, LVII, 5, 1891-1921
- Usai, S., M. Vannini, 2005, "Banking Structure and Regional Economic Growth: Lessons from Italy?", *Annals of Regional Science*, 39, 691-714
- Wicks, A. C., S. L. Berman, T. M. Jones, 1999, "The Structure of Optimal Trust: Moral and Strategic Implication", *Academy of Management Review*, 24 1, 99-116
- Zaheer A., B. McEvily, V. Perrone, 1998, "Does Trust Matter? Exploring the Effects of Inter-organisational and Interpersonal Trust on Performance", *Organisation Science*, 9, 2, 141-159
- Zand, Dale E., 1972, "Trust and Managerial Problem Solving", *Administrative Science Quarterly*, 17, 229-239