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Abstract

This paper examines the impact of trust on informal financial development. We isolate the inherited component of trust for 19 countries using US census data and relate it to firms' access to trade credit. We discover that trust disproportionately elevates the use of trade credit by companies that face obstacles to obtaining funds from formal channels. Further analyses show that the effect is more pronounced in finance-dependent industries and that better access to trade credit promotes sales growth. Our results are robust to alternative samples, different estimations of inherited trust and various model specifications.

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1. Introduction

Trust plays a critical role in the function of financial markets (Guiso et al., 2004). Prior literature documents that trust promotes household participation in the stock market (Guiso et al., 2008), reduces information asymmetry in financial systems (Pevzner et al., 2015; Li et al., 2019; Wei and Zhang, 2020) and increases venture capital investment (Bottazzi et al., 2016). Trust can also enhance bank-firm relationships (Pasiouras et al., 2020), lower bank loan rates (Hasan et al., 2017; Hagendorff et al., 2022) and reduce the cost of cross-border bond issuance (Brockman et al., 2020). While the effects of trust on formal financial markets have been studied extensively, its effects on informal finance are less well understood. In this study, we uncover a positive impact of trust on informal finance.

A prevailing form of informal finance is trade credit (Rajan and Zingales, 1995; Giannetti, 2003). Levine et al. (2018) show that trade credit accounts for 25% of firms' debt liabilities across 34 countries from 1990 to 2011.[1] However, evidence on how trust affects trade credit is scarce. Two notable exceptions are Levine et al. (2018) and Wu et al. (2014). Levine et al. (2018) find that trust promotes access to trade credit during systemic banking crises. While insightful, the results and the associated implications are restricted to periods of the financial crisis. Wu et al. (2014) focus on a single country and rely on a contemporaneous component of trust to estimate the effects, rendering their results to be subject to concerns of reverse causality and omitted variables. Our study differs from and complements this line of inquiry by exploiting a plausibly exogenous variation in trust and a large cross-country sample spanning 2009-2019.

Assessing the causal impact of trust on trade credit is challenging. For example, modern economic factors, such as economic development stage and institution quality, might codetermine

[1] In addition, the Bank for International Settlements (BIS) estimates that the volume of trade payables amounts to approximately one third of the outstanding bank loans of non-financial companies in European countries, the US and Turkey as of 2018. At the macro level, an active line of research suggests that non-financial firms function as financial intermediaries through trade credit provisions (Demirgüç-Kunt and Maksimovic, 2001; Amberg et al., 2021), which promotes economic growth (Fisman and Love, 2003).

contemporaneous trust levels and informal finance patterns. In addition, the development of informal financial markets may in turn affect the trust level. We address these challenges by constructing a measure of inherited trust (Algan and Cahuc, 2010; Ongena and Popov, 2016). Specifically, we regress the trust levels of descendants of US immigrants on their country of origin, controlling for a wide range of individual characteristics (e.g., income, education, religion and employment), and the country of origin fixed effects are used to measure the inherited trust levels. Since cultural elements tend to be persistent and passed on through generations (Putnam, 2000; Guiso et al., 2006; Osili and Paulson, 2008, Dohmen et al., 2012), the trust of US descendants is likely to be a good proxy for the attitude to trust of their forebears and thereby the trust level in the country where the forebears originally came from. The advantage of using the measure is twofold. First, since the measure is calculated using US census data, we can hold constant institutional environment, culture and other national characteristics which have been shown to be key determinants of trust. Hence, the residual variations in trust levels can be more convincingly attributed to the cultural differences across the home countries. Second, since the inherited component of trust is historically rooted and predates modern institutional factors, the measure is less prone to reverse causality and omission of contemporaneous variables that codetermine trust and trade credit financing.

A remaining challenge in our study is that there may be factors specific to each country that influence both inherited trust and access to trade credit. For instance, the initial economic conditions of a country might impact both its inherited trust level and the development of informal finance.[2] To overcome this challenge, we test the hypothesis that trust differently impacts the use of trade credit by financially constrained firms compared to unconstrained firms. This approach allows us to control for a strict set of fixed effects. The literature suggests that trade credit is of a lower pecking order in external financing, and as a result, firms that have difficulty obtaining funding through traditional institutions (e.g., bank loans) have a higher demand for trade credit (Petersen and Rajan, 1997; Deloof and Jegers, 1999; Huyghebaert, 2006; Nilsen, 2002; Casey and O'Toole,

[2] A common solution to this problem is including country-specific fixed effects in the regression model. However, in our analysis, inherited trust is a time-invariant country-level variable and would be absorbed by country fixed effects.

2014; Amberg et al., 2021).[3] This predicts that a change in trade credit provision would impose a larger effect on firms that are more reliant on informal finance. Therefore, we conjecture that trust disproportionately impacts the use of trade credit by financially constrained firms. In the baseline model, we control for country-year, country-industry, and industry-year fixed effects, which account for both time-varying and persistent country and industry-level confounders.

Several lines of research suggest how trust can affect firms' access to trade credit. First, trust might promote access to trade credit by facilitating information sharing. Guiso et al. (2008) and Levine et al. (2017) imply that places with greater levels of trust have better information flow because residents have a greater propensity to share information. Pevzner et al. (2015) suggest that information shared by others is perceived as more credible in high-trust regions, which further stimulates information sharing. As emphasized by extant literature (Mian and Smith, 1992; Biais and Gollier, 1997; Petersen and Rajan, 1997; Del Gaudio et al., 2021; Wu et al., 2021), trade credit provision crucially depends on the information shared between suppliers and customers through both their formal and informal interactions. In higher-trust regions, customers might be more willing to share accurate and complete information with suppliers, and the shared information is more likely to be perceived as credible, which facilitates the decision to grant trade credit. Therefore, access to trade credit might be more prevailing in regions with higher levels of trust.

On the other hand, trust may reduce trade credit provision via declined motives for signaling product quality. A stream of research argues that suppliers tend to use trade credit to signal the high quality of their products (Lee and Stowe, 1993; Long et al., 1993; Emery and Nayar, 1998). The benefits of signaling depend on customers' ex-ante beliefs about product quality. Hence, the motive for signaling might be weaker in economies with a higher level of trust, where customers tend to believe products are of good quality even in the absence of signaling. As a result, trust might have a negative impact on access to trade credit. Given the two competing hypotheses predicted by existing theories, how trust impacts access to trade credit is an empirical question.

[3] Suppliers have incentives to grant trade credit to firms that have difficulties financing via formal channels because suppliers may have a comparative advantage over formal institutions in enforcing payment and in liquidation (Biais and Gollier, 1997; Petersen and Rajan, 1997; Maksimovic, 2003; Cunat; 2007). In addition, a supplier may have a higher dependence on its customers compared to formal institutions (Wilner, 2007). Finally, suppliers may have incentives to invest in the future viability and profitability of their customers by lending to these apparently high-risk firms (Petersen and Rajan, 1997).

To assess the two alternative hypotheses, we extract data from the General Social Survey (GSS) on the attitude to trust of US descendants of immigrants across 31 countries from 1972 to 2016 and measure inherited trust by the country of origin fixed effect.[4] We also obtain firm-level financial data from the World Bank Enterprise Survey (WBES) and our baseline sample consists of 15,379 firms across 19 countries from 2009 to 2019. Our baseline results reveal that trust imposes a disproportionately positive impact on the access to trade credit by financially constrained firms relative to unconstrained firms. The estimate implies that a one-standard-deviation increase in inherited trust elevates the use of trade credit in financially constrained firms by 3.0 percentage points more than in financially unconstrained firms.[5] Overall, the results support the view that trust promotes informal access to credit.

We perform a battery of additional tests to verify the robustness of our baseline findings. First, a paramount concern is that our results might be driven by the differences in alternative firm characteristics between financially constrained and unconstrained firms. In that case, our causal interpretation of the impact of inherited trust on trade credit might be threatened. We take three avenues to alleviate this concern. First, we employ two balancing techniques to ensure the two groups of firms are similar in a vector of observable firm-level characteristics. We start with a propensity score matching in which we match financially constrained firms to their unconstrained counterparts with similar characteristics. We then supplement the propensity score matching with the entropy balancing approach that enables us to obtain a higher degree of covariate balance. Second, we gather data on an alternative sample of firms from the Business Environment and Enterprise Performance Survey (BEEPS) 2009, IV and V, and assemble a panel data set that allows us to control for time-invariant firm-level characteristics by including firm fixed effects. The results estimated by the balanced sample and panel data sample are similar to our baseline estimates.

In addition to the balancing and panel data estimation, we address the residual concerns relating to firm-level omitted variables by conducting two cross-sectional tests. Suppose the differential effects of trust on trade credit in financially constrained firms are indeed driven by the variation in external financing obstacles across firms rather than confounders. In that case, the

[4] We use respondents who belong to the American ethnic group as the reference in the baseline estimation. Our results are robust to using Swedish Americans as the reference, as in Algan and Cahuc (2010).

[5] The interpretation is based on the estimates in column (4) Table 4.

effects will be reinforced by factors associated with firms' need for external funds. To this end, we further differentiate our sample firms by their dependence on external finance (Rajan and Zingales, 1998) and dependence on trade credit (Fisman and Love, 2003). Both measures are constructed at the industry level using data from US firms in the 1980s, and thus capture exogenous variations in dependence on external finance and trade credit across industries due to technological reasons. Results show that the differential impact of trust on trade credit in financially constrained firms relative to unconstrained firms is more pronounced in industries that are more reliant on external finance and trade credit finance. The evidence supports our interpretation of the baseline findings.

Next, we alleviate another valid concern that our results might be driven by important institutional determinants of trade credit, such as national culture (e.g., El Ghoul and Zheng, 2016; An, 2020) and financial development (Beck et al., 2008), that may impact differently the use of trade credit by financially constrained and unconstrained companies. We tackle the issue by controlling for additional country characteristics, allowing these characteristics to have a differential impact on the use of trade credit by financially constrained companies. Our results are robust to the inclusion of the additional control variables. We also address the concern relating to the potential measurement errors in inherited trust. In the baseline analyses, we construct the inherited trust measures using the attitude to trust of descendants of US immigrants in a carefully selected cohort. To mitigate the concern that the measures might be biased representations of the inherited component of trust, we perform the estimations using two alternative measures estimated using either the trust of a different cohort or that of all descendants of US immigrants obtained from GSS from 1972 to 2016. Our findings remain unaffected. Moreover, since Indian companies alone represent 44% of our sample, it is possible that our results are primarily driven by the relation between trust and trade credit in India. We show that our results are robust to excluding Indian firms.

Finally, a natural question to ask following our baseline findings is whether the positive impact of trust on the use of trade credit translates into better performance. We conjecture that if a firm facing difficulties accessing formal external finance in high-trust countries receives more trade credit from its suppliers than its counterparts in low-trust countries, the firm may have greater short-term liquidity and thereby provide more trade credit to its downstream customers, which in turn increases its sales. We discover that, in firms facing financing obstacles, access to trade credit has an increasingly positive impact on sales as the inherited trust level increases. By contrast, we do not find any impact of trust on the relationship between trade credit and sales growth in financially

unconstrained firms. Thus, our results support the view that trust has a real impact on firms' performance by fostering access to trade credit.

Our study is closely related to several papers exploring the relationship between trust and informal finance. Wu et al. (2014) use data on Chinese firms and find that firms in regions with high trust levels are more likely to use trade credit, where trust is measured by contemporary trust attitudes, voluntary blood donation volume, and the number of non-government organizations. Levine et al. (2018) examine a cross-country sample and demonstrate that trust mitigates trade credit reduction during systemic banking crises, where trust is assessed by survey answers three years prior to the crises. Our paper, however, is distinct from these studies in two crucial ways. First, we broaden the research scope by providing evidence of the relationship between trust and trade credit across different countries during normal periods. Second, by exploiting a source of exogenous variation in trust and controlling for country-level fixed effects, we address the concerns of reverse causality and omitted variables. Additionally, Bedendo et al. (2020) discover that managers from culture groups with low trust levels have a preference for trade credit financing. While Bedendo et al. (2020) explored how cultural traits of management impact financing decisions of companies within the same region, our focus is on how trust levels across regions shape informal financing patterns. Our paper and Bedendo et al. (2020) therefore uncover different pathways through which culture influences informal financing. Bedendo et al. (2020) suggest that, by holding constant the general willingness to share information, managers with low trust levels exhibit a stronger preference for informal networks. We posit that trust levels across regions enhance firms' access to trade credit by fostering information sharing.[6]

This paper is related and contributes to several strands of literature. A group of studies investigates the impact of trust on financial development, focusing on formal financial markets. For example, Hong et al. (2004), Guiso et al. (2008), and Georgarakos and Pasini (2011) suggest that trust is positively related to household participation in stock markets. Pevzner et al. (2015) find that investors in high-trust regions are more reactive to market information. Li et al. (2019) document

[6] Bedendo et al. (2020) do not directly measure trust levels. They assume that Italian culture is associated with lower levels of trust, as compared to German culture, and proxy trust levels with a dummy variable indicating whether a manager belongs to the Italian cultural group. We construct a more direct measure of trust levels.

that trust mitigates IPO underpricing. Bottazzi et al. (2016) posit that venture capitalists are more likely to invest in countries with higher levels of trust. Regarding formal credit markets, Hasan et al. (2017) discover that bank loan spreads are lower in high-trust regions, and Brockman et al. (2020) indicate that firms in countries with a higher degree of trust are subject to fewer covenants when issuing bonds to foreign creditors. We build on the literature by documenting the impact of trust on informal finance, with a focus on trade credit.

Our paper is also related to the literature examining the factors that explain cross-country differences in the use of trade credit. The factors include the legal system (Demirguc-Kunt and Maksimovic, 2001; Johnson et al., 2002), the development of financial intermediary sectors (Demirguc-Kunt and Maksimovic, 2001; Ferrando and Mulier, 2013) and cultural factors, such as collectivism, power distance, uncertainty avoidance, masculinity and gender bias (El Ghoul and Zheng, 2016; An, 2020). We contribute to this strand of literature by showing that trust, one of the essential cultural aspects in economics and finance literature, also affects trade credit financing.

The rest of the paper proceeds as follows. Section 2 reviews previous research and develops hypotheses. Section 3 describes how we measure inherited trust, and Section 4 discusses the sample and data. Sections 5 and 6 show the baseline results, robustness checks and additional analyses, and Section 7 concludes.

2. Related literature and hypotheses development

One function of trade credit is to serve as a channel for the funding of companies that have difficulties obtaining bank finance (e.g., Petersen and Rajan, 1997). Prior literature suggests that trade credit is available when bank credit is limited because suppliers have informational advantages over banks in providing short-term financing to customers. For instance, Mian and Smith (1992) discuss that monitoring of credit quality can occur as a by-product of selling if suppliers' sales representatives regularly visit the trading partner. Biais and Gollier (1997) and Petersen and Rajan (1997) suggest that suppliers are able to obtain private information about customers, and the additional information reduces credit rationing due to adverse selection.

The above studies advocate the view that information that suppliers obtain about customers, such as credit quality, is a vital determinant of trade credit provision. In essence, because information about credit quality is asymmetrically held, suppliers often face a trade-off. On the one hand, extending trade credit can attract new customers, boost sales and increase market share. On

the other hand, offering trade credit may expose the supplier to moral hazard by attracting buyers with poorer credit quality and higher default risk. Therefore, all other things being equal, if information asymmetry between sellers and buyers is alleviated, sellers will be more likely to extend trade credit. In line with this view, García-Teruel et al. (2014) document that companies with superior earning quality have more access to trade credit.

Trust has been suggested to reduce information asymmetry by facilitating information exchange. For example, Guiso et al. (2008) show that households in higher-trust regions are more likely to participate in stock markets. One reason, as stressed by the authors, is that trust facilitates the collection and dissemination of information. Furthermore, Pevzner et al. (2015) find that in countries where trust is more prevailing, investors are more reactive to corporate earnings announcements because they perceive the disclosed information to be more credible. This further stimulates information sharing. From an inverse perspective, Levine et al. (2017) present evidence that the slave trade is negatively related to information sharing and trust levels in a region.

Collectively, we conjecture that trust facilitates information sharing and hence reduces information asymmetry between different parties. In higher-trust regions, customers are more willing to share accurate and complete information with suppliers, and the shared information is more likely to be perceived as credible by suppliers, which promotes sellers' trade credit provision and buyers' access to trade credit. Relating to our empirical setting, we conjecture that trust disproportionately helps companies that are more in need of informal finance. Prior literature has suggested that trade credit is of a lower pecking order in external financing, which implies that companies that have difficulties financing through formal channels, such as bank loans, should have a higher propensity to use trade credit (Petersen and Rajan, 1997; Deloof and Jegers, 1999; Huyghebaert, 2006; Nilsen, 2002; Casey and O'Toole, 2014). Consistent with this view, Amberg et al. (2021) present evidence that the demand for trade credit increases when firms face negative liquidity shocks due to bank fraud. Therefore, if trust indeed promotes access to trade credit, we should observe that, as the level of trust increases, the use of trade credit by financially constrained firms grows faster than that of unconstrained firms. Our first hypothesis is:

H1: Ceteris paribus, trust has a disproportionately positive effect on access to trade credit by financially constrained companies.

An alternative view is that trust reduces trade credit provision by decreasing motives for signaling product quality. In addition to the financing role of trade credit discussed earlier, previous studies suggest that trade credit can serve as a product warranty or a signal of product quality. Smith (1987) first discusses the idea that companies may use trade credit terms to signal their confidence in product quality by allowing an inspection period. Consistent with this view, Long et al. (1993) show that smaller firms that have a longer production lead time and firms producing products of which the quality requires a longer time to test extend more trade credit. Along similar lines, Lee and Stowe (1993) develop a model that predicts that, due to the information asymmetry about product quality, producers extend trade credit to signal the quality of their products. Emery and Nayar (1998) reach a similar conclusion that sellers with high-quality products tend to permit delayed payment.

As stressed by prior research, the benefits of signaling depend on customers' ex-ante beliefs about product quality. The need for signaling might be weaker in high-trust places where buyers tend to believe that products sold by suppliers are of expected quality even in the absence of signaling. In other words, trust may serve as a substitute for a guarantee of product quality and thus sellers are less likely to extend trade credit. Empirically, we expect the negative effect to be disproportionately larger for access to trade credit by financially constrained companies. Therefore, our alternative hypothesis is:

H2: Ceteris paribus, trust has a disproportionately negative effect on access to trade credit by financially constrained companies.

3. Estimating inherited trust

We describe in this section how we estimate inherited trust with data from GSS. To capture a plausibly exogenous source of trust, we proxy the attitude towards trust of people living in a country by the trust that the US descendants of immigrants have inherited from their forebears who originally came from that country. To obtain the proxy, we regress the attitude to trust of descendants of US immigrants on dummy variables indicating their countries of origin, controlling for individual characteristics. The estimates of coefficients on the country dummies capture the country of origin fixed effects that explain trust levels of the US descendants of immigrants. We use the estimates to measure the trust level of source countries.

Data on the trust of descendants of US immigrants is obtained from GSS, a representative survey conducted in the United States, spanning from 1972 to 2016. The question we use to measure the attitude to trust reads as follows: "Generally speaking, would you say that people can

be trusted or that you need to be very careful in dealing with people?" The available options are "Most people can be trusted," "Can't be too careful" and "Depends." We construct a dummy variable, *trust*, that equals one if the respondent chooses "Most people can be trusted" and zero otherwise. We group the two latter answers to clearly separate high-trusting individuals from low-trusting ones and those with ambiguous attitudes to trust.

We use the GSS ethnic variable to define a respondent's country of origin. The variable is constructed using the responses to the following question: "From what countries or part of the world did your ancestors come?" If more than one country is named, the responses to the follow-up question: "Which one of these countries do you feel closer to?" Moreover, we are able to obtain which generation the US descendants belong to, as GSS provides information on whether a respondent was born in the United States, as well as how many of the respondent's parents and grandparents were born in the United States. We define the first generation as Americans who were not born in the United States, the second generation as those born in the United States and with at least one abroad-born parent, the third generation as those with US-born parents and at least two abroad-born grandparents, and the fourth generation as those with US-born parents and fewer than two grandparents born outside of the United States.

Using the data on the trust attitudes, ethnicity and generational status of the respondents, we construct three inherited trust variables, estimated by different cohorts of US descendants. We describe in this section the inherited trust measure used in the baseline regressions. The alternative measures are discussed in Section 5.4. We follow Algan and Cahuc (2010) and impose a lag of at least 25 years between the contemporaneous economic outcomes, i.e., usage of trade credit, and the periods from which trust has been inherited. By doing so, we aim to capture an exogenous source of trust that predates modern economic and institutional factors. The sample period we use in estimating the relationship between trust and trade credit starts from 2009, which implies that inherited trust needs to be estimated by the descendants of first-generation Americans who immigrated prior to 1984. We only include descendants of first-generation immigrants who came to the United States after 1910, because the trust level in the source country more than a century ago might have a weak link with the trust level today which we attempt to proxy for. Finally, we follow Algan and Cahuc (2010) and assume a gap of 25 years between two generations. The above restrictions yield our baseline group of US descendants to estimate inherited trust, consisting of a) second-generation Americans born between 1910-1984; b) third-generation Americans born

between 1935-1998; and c) fourth-generation Americans born between 1960-1998. The youngest respondents in our sample were born in 1998, because all the respondents in the GSS are at least 18 years old.

In the regressions of estimating inherited trust, we use respondents who belong to the American ethnic group as the reference and control for individual characteristics that might affect the trust of US descendants of immigrants.[7] Following prior research (Algan and Cahuc, 2010; An and Xu, 2021; An et al., 2021), the control variables include the age of the respondents (*Age*); squared age (*Age2*); gender (*Men*); years of education completed (*Education*); the category in which the respondent's income falls (*Income category*); employment status, which we capture with two dummy variables indicating whether a respondent is employed (*Employed*), unemployed (*Unemployed*) or inactive; and religion, captured by two dummy variables indicating whether a respondent's religious preference is Catholic (*Catholic*), Protestant (*Protestant*) or any other.[8]

Table 1 panel A shows the summary statistics of the control variables. Panel B of Table 1 presents regression coefficients estimated by the three cohorts of descendants of US immigrants, with standard errors clustered at the home country level. The estimated coefficients on all the 31 country dummy variables are highly statistically significant at the 1% level, except for Romania, implying that the country of origin fixed effect is an important factor explaining the variation in the attitude to trust of descendants of US immigrants. We also find that male respondents and respondents with more education have higher trust levels. By contrast, unemployed respondents exhibit a lower level of trust relative to the reference group (i.e., the inactive group). Our results are broadly consistent with Algan and Cahuc (2010).

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[7] For robustness, we follow Algan and Cahuc (2010) and use Swedish Americans as the reference group. As shown in the Online Appendix Table OA10, the estimates are almost identical to those in the baseline regressions.

[8] We obtain information on employment status from responses to the question in GSS: "Last week were you working full time, part time, going to school, keeping house, or what?". We code *Employed* as one if the answer to the question is either "Working full time" or "Working part time," and we code *Unemployed* as one if the answer to the question is either "With a job, but not at work" or "Unemployed, laid off, looking for work." Respondents who answered "Retired", "In school", "Keeping house" or "Other" are categorized as "inactive" and used as the reference group. The religion variable in GSS is constructed by responses to the question: "In what religion were you raised?" Together, "Protestant" and "Catholic" represent 82% of our sample, followed by none (12%), Jewish (2%) and Other (1.72%).

[Insert Table 1 here]

Table 1. Estimating inherited trust based on US immigrants

Notes: This table reports the estimation of inherited trust. We regress the attitude to trust of descendants of US immigrants on dummy variables indicating their countries of origin, controlling for individual characteristics. The dependent variable, *Trust*, is extracted from the answers to the survey question in GSS "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?" The answers range from one to three, which corresponds to "Most people can be trusted," "Can't be too careful" and "Depends." *Trust* is equal to one for respondents who answer that people can be trusted and zero for respondents considering that one cannot be too careful or that it depends. Country of origin is determined by the ethnic variable in GSS. Control variables include *Age*, *Age2*, *Men*, *Education*, *Income category*, *Employed*, *Unemployed*, *Catholic* and *Protestant*, which are defined in the Appendix Table A1. Panel A shows the summary statistics of the dependent and control variables. Panel B presents the regression estimates. In panel B, the descendants of US immigrants consist of second-generation Americans born between 1910-1984, third-generation Americans born between 1935-1998 and fourth-generation Americans born between 1960-1998. Standard errors are clustered at the country of origin level. *, **, and *** indicate significance at 10%, 5%, and 1%.

Panel A. Summary statistics

	Obs.	Mean	SD	Min	Median	Max
Trust	24,780	0.40	0.49	0.00	0.00	1.00
Age	24,780	45.68	17.17	18.00	43.00	89.00
Age2	24,780	2381.01	1727.06	324.00	1849.00	7921.00
Men	24,780	0.46	0.50	0.00	0.00	1.00
Education	24,780	1.43	1.18	0.00	1.00	4.00
Income category	24,780	10.14	2.75	1.00	12.00	12.00
Employed	24,780	0.64	0.48	0.00	1.00	1.00
Unemployed	24,780	0.03	0.18	0.00	0.00	1.00
Catholic	24,780	0.28	0.45	0.00	0.00	1.00
Protestant	24,780	0.55	0.50	0.00	1.00	1.00

Panel B. Estimating inherited trust

Dependent variable =	*Trust*	
	Coefficient	Std. error
	(1)	(2)
Individual characteristics		
Age	0.005**	[0.002]
Age2	-0.000	[0.000]
Men	0.032**	[0.012]
Education	0.076***	[0.005]
Income category	0.003*	[0.002]
Employed	0.013	[0.019]
Unemployed	-0.069***	[0.025]
Catholic	0.007	[0.021]
Protestant	0.013	[0.009]
Country of origin		
Africa	-0.026***	[0.002]
Austria	0.274***	[0.008]
Belgium	0.347***	[0.010]
Canada	0.248***	[0.011]
China	0.168***	[0.007]
Czechoslovakia	0.179***	[0.007]
Denmark	0.385***	[0.005]
Finland	0.297***	[0.007]
France	0.169***	[0.006]
Germany	0.185***	[0.004]
Greece	0.040***	[0.006]

Hungary	0.246***	[0.007]
India	-0.100***	[0.003]
Ireland	0.171***	[0.006]
Italy	0.130***	[0.010]
Japan	0.180***	[0.012]
Lithuania	0.328***	[0.010]
Mexico	0.071***	[0.008]
Netherlands	0.217***	[0.004]
Norway	0.214***	[0.005]
Philippines	0.095***	[0.010]
Poland	0.176***	[0.009]
Portugal	0.112***	[0.007]
Puerto Rico	-0.067***	[0.007]
Romania	-0.003	[0.010]
Russia	0.191***	[0.011]
Spain	0.154***	[0.006]
Sweden	0.231***	[0.005]
Switzerland	0.213***	[0.004]
UK	0.194***	[0.012]
Yugoslavia	0.197***	[0.009]
R^2	0.089	
Observations	9,169	

4. Data, sample and financial variables

We outline in this section the sample and other key variables we use to assess the impact of inherited trust on trade credit. Data used to construct firm-level variables are derived from the WBES. Industry-level and country-level variables come from various sources, including Rajan and

Zingales (1998), Fisman and Love (2003), Hofstede (2001), La Porta et al. (2008), The Heritage Foundation and the World Bank.

Our initial sample starts from firms across 139 countries in the WBES over the period 2009-2019. We then merge the initial sample with the inherited trust data, which gives us 40,952 firms in 21 countries. We further require non-missing value for trade credit, financial constraints and the control variables discussed in detail below. This yields 15,379 firms across 19 countries, which we use as the baseline sample. Table 2 shows a list of the 19 countries and the number of firm observations in each country. Our sample is mainly composed of firms in developing countries: India takes up the largest proportion of our sample, followed by Russia, the Philippines and Mexico.

[Insert Table 2 here]

Table 2. Country distribution

Notes: This table presents the mean values of the inherited trust variables and trade credit variables for each sample country. *Inherited trust* measures trust of descendants of US immigrants inherited from their ancestors. *Trade credit (0, 1)* is an indicator variable that equals one if the firm reports that it has access to trade credit and zero otherwise. *Trade credit (%)* is the share of material inputs and services paid after delivery. Detailed variable definitions are shown in the Appendix Table A1.

Country	Obs.	*Inherited trust*	*Trade credit (0, 1)*	*Trade credit (%)*
Bosnia and Herzegovina	179	0.197	0.51	0.29
Croatia	243	0.197	0.88	0.69
Czech Republic	346	0.179	0.46	0.26
FYR Macedonia	202	0.197	0.52	0.33
Greece	279	0.040	0.90	0.58
Hungary	506	0.246	0.23	0.12
India	6,833	-0.100	0.87	0.51
Italy	418	0.130	0.83	0.52
Lithuania	166	0.328	0.50	0.28
Mexico	1,079	0.071	0.86	0.64

Montenegro	88	0.197	0.72	0.34
Philippines	1,183	0.095	0.83	0.66
Poland	657	0.176	0.66	0.31
Portugal	688	0.112	0.76	0.49
Romania	132	-0.003	0.69	0.42
Russia	1,717	0.191	0.70	0.28
Serbia	200	0.197	0.76	0.48
Slovak Republic	244	0.179	0.41	0.18
Slovenia	219	0.197	0.86	0.74

4.1 Firm-level variables

We construct two variables to proxy for the use of trade credit, based on the information provided by the WBES on the payment structure for material inputs or service purchased by firms in the latest financial year before the year the survey was conducted. Customers can pay after delivery if trade credit is granted by suppliers, or they must make the payment before or on delivery otherwise. Accordingly, our first variable, *Trade credit indicator (0, 1)*, is a dummy variable set to one if payment made after delivery is greater than zero. The variable indicates whether a company uses trade credit arrangements at all. Our second measure, *Trade credit (%)*, is a continuous variable ranging from 0 to 100%, calculated as the fraction of payment made after delivery to the total amount paid for purchasing materials or service. The continuous variable captures the amount of trade credit used by our sample firms.

Table 2 shows the mean value of two inherited trust variables for each sample country. Greece has the highest percentage of firms with access to trade credit, i.e., 90%, whilst only 41% of firms have access to trade credit in the Slovak Republic, the lowest among our sample countries. The Slovak Republic also has the lowest average fraction of purchases with trade credit in each firm, i.e., 18%, while Slovenia has the highest average fraction of 74%. Table 3 shows the summary statistics of the two variables across the entire sample. The mean value of the dummy variable, *Trade credit (0, 1)*, is 0.78, and of the continuous variable, *Trade credit (%)*, is 47%. This suggests that 78% of our sample firms use trade credit, and, on average, 47% of material inputs or service are purchased with trade credit by our sample firms.

Financial constraints are measured by the responses to the following survey question in the WBES: "To what degree is access to finance an obstacle to the current operations of this establishment?" We construct a variable, *FC*, that equals one for firms reporting that they face obstacles to accessing external finance and zero otherwise. As shown in Table 3, the mean variable is 0.61 with a standard deviation of 0.49. This implies that 61% of our sample firms face external financing frictions.

In addition, we follow An (2020) to control for firm characteristics that are available at the WBES and may affect the use of trade credit in the regressions. Precisely, we control for firm size (*Firm size*), firm age (*Firm age*), sales growth rate (*Sales growth*), the shares of a firm owned by the largest shareholder (*Ownership concentration*), the shares of a firm owned by domestic private investors (*Private*), the shares of a firm owned by foreign investors (*Foreign*), whether a firm has a positive share of sales exported outside the country (*Export*), the tenure of a firm's CEO (*CEO experience*), whether a firm's CEO is female (*Female CEO*), whether a firm belongs to a business group (*Business group*) and the share of current output over the maximum output possible using the current inputs (*Capacity utilization*). Detailed definitions are presented in the Appendix Table A1. Table 3 shows the summary statistics of the firm-level control variables.

4.2 Industry-level variables

In Section 6, we use industry-level measures of dependence on external finance and dependence on trade credit. To measure dependence on external finance, we follow Rajan and Zingales' (1998) methodology and calculate the fraction of capital expenditure that is not financed by internal cash flows in the United States during the 1980s at the three-digit ISIC level. We then construct a dummy variable, *DEF*, set to one for industries with a dependence on external finance higher than the median value. The measure is calculated with data from US firms for two reasons. First, the US financial market is relatively frictionless, and thus the measure captures the "technological" financial dependence of an industry. Second, the use of external funds by US firms in the 1980s is arguably exogenous to our sample countries' financial development and informal finance.

Our second industry-level variable measures the dependence on trade credit. Fisman and Love (2003) argue that the use of trade credit is inherently more prevalent in certain industries due to market structure and/or product characteristics. For example, since trade credit can serve as a guarantee or signal for product quality, and high-tech products need more quality assurance than

commodities, the high-tech industry is more "trade credit intensive" than the commodity industry. Following Fisman and Love (2003), we compute dependence on trade credit for each three-digit ISIC industry as the change in accounts payable over the change in total assets in the United States during the 1980s, and construct an indicator variable, *DTC*, equal to one if an industry has above-median dependence on trade credit. Similar to the dependence on external finance, we use accounts payable of US firms, with the assumption that variation in the use of trade credit at the industry level in the United States reflects technological differences across industries and is exogenous to country-level cofounders. Table 3 shows the summary statistics of the two industry-level variables. The two variables are constructed using flow measures of dependence on external finance and trade credit. In a robustness check, we use the stock measures developed by Fisman and Love (2003). The alternative measures are discussed in Section 6.2.

4.3 Country-level variables

The key country-level variable in our analyses, *Inherited trust*, is discussed in Section 3. Table 2 shows the mean value of the three measures of inherited trust for each country. The trust inherited from Lithuania in 2009 is the highest, followed by Hungary, while the trust inherited from India is the lowest. Table 3 shows the summary statistics of inherited trust of our full sample. The mean value of inherited trust is 0.04, with a standard deviation of 0.13. This suggests that the trust of US descendants inherited from an average country in our sample is four percentage points higher than that of the reference group.

In addition to inherited trust, in some regressions, we control for country-level institutional and economic factors that are found to impact trade credit usage and may have differential effects on that of financially constrained firms. Following An (2020), we include GDP per capita (*GDP per capita*), annual GDP growth (*GDP growth*), the degree to which a country values male assertiveness over female nurturance (*Masculinity*), the quality of legal protection for creditors (*Creditor rights*), the efficiency of a country's court system (*Formalism*), the quality of a country's private property rights protection (*Private property rights*), and the ratio of country's private credit to GDP (*Private credit depth*). Detailed variable definitions and data sources are reported in the Appendix Table A1. All the country-specific control variables are standardized. Table 3 presents summary statistics.

[Insert Table 3 here]

Table 3. Summary statistics

Notes: This table presents the summary statistics of all variables used in the analyses. All the country-specific control variables are standardized. Variable definitions are shown in the Appendix Table A1.

	Obs.	Mean	SD	Min	Median	Max
Firm variables						
Trade credit (0,1)	15,379	0.78	0.41	0.00	1.00	1.00
Trade credit (%)	15,379	0.47	0.37	0.00	0.50	1.00
FC	15,379	0.61	0.49	0.00	1.00	1.00
Firm size	15,379	1.92	0.76	1.00	2.00	3.00
Firm age	15,373	2.79	0.77	0.00	2.89	5.31
Sales growth	15,379	0.06	0.42	-1.00	0.10	0.71
Ownership concentration	15,379	0.76	0.27	0.01	0.97	1.00
Private	15,379	0.94	0.22	0.00	1.00	1.00
Foreign	15,379	0.05	0.21	0.00	0.00	1.00
Export	15,379	0.15	0.30	0.00	0.00	1.00
CEO experience	15,379	2.67	0.76	0.00	2.71	4.25
Female CEO	15,379	0.13	0.33	0.00	0.00	1.00
Business group	15,379	0.16	0.36	0.00	0.00	1.00
Capacity utilization	15,379	0.80	0.19	0.00	0.80	1.00
Industry variables						
DTC	15,344	0.63	0.48	0.00	1.00	1.00
DEF	15,344	0.61	0.49	0.00	1.00	1.00
Country variables						
Inherited trust	15,379	0.04	0.13	-0.10	0.07	0.33
GDP per capita	15,379	-0.26	0.84	-0.96	-0.80	2.32
GDP growth	15,379	0.24	0.81	-4.14	0.21	1.09

Masculinity	11,277	0.66	0.91	-2.59	0.92	1.68
Creditor rights	11,870	-0.40	0.61	-0.73	-0.73	1.18
Formalism	12,495	0.09	0.47	-0.73	0.17	1.07
Private property rights	12,495	0.79	0.76	-0.83	1.06	2.37
Private credit depth	12,461	0.47	0.21	-0.24	0.52	1.14

5. Empirical Results

5.1 Baseline results

We now proceed with a presentation of our empirical findings. To motivate our baseline estimation model, we first present the correlation between inherited trust and the use of trade credit. We estimate this by regressing measures of access to trade credit on inherited trust levels and firm-level control variables, as discussed in Section 4.1. We include industry-by-year fixed effects to control for the industry-specific trends over time. The results, displayed in Online Appendix Table OA1 columns (1) and (2), reveal negative and statistically significant coefficients on the inherited trust measure. However, this negative correlation may be driven by omitted country-specific factors, such as the development of formal institutions at the time of immigration, which may be positively correlated with inherited trust levels and negatively correlated with modern informal finance practices. We also estimate models that further include the interaction between inherited trust and the measure of financial constraints, as we predict that trust differently impacts the use of trade credit by financially constrained and unconstrained firms (Petersen and Rajan, 1997; Nilsen, 2002; Amberg et al., 2021). This approach, as emphasized by Armstrong et al. (2022), has the potential to eliminate the effect of omitted variables when certain assumptions hold. More specifically, estimating the coefficient on the interaction may effectively difference out the effects of the omitted variables. As presented in columns (3) and (4) of Table OA1, the coefficients on the interaction term are positive and statistically significant. However, omitted variable bias may persist if it varies with the level of financial constraints. As such, we estimate our baseline model which includes country-specific fixed effects to alleviate the omitted variable bias and focuses on the disproportionate impact of trust on the access to trade credit by financially constrained firms. Specifically, our baseline model is:

$$Trade\ credit_{i,c,j,t} = \alpha + \delta Inherited\ trust_c * FC_i + \beta FC_i + X'_{i,t}\phi + \gamma_{c,t} + \theta_{c,j} + \mu_{j,t} + \varepsilon_{i,c,j,t} \quad (1)$$

where *Trade credit* is either a dummy variable indicating whether a firm uses trade credit or a continuous variable measured by the percentage of materials or service purchased with trade credit. *Inherited trust* is measured by the coefficients estimated by the country of origin fixed effects using the trust level of descendants of US immigrants, as discussed in Section 3. *FC* is a dummy variable set to one for firms that face an obstacle to accessing external finance. *X* is a vector of firm-level control variables, and γ, θ and μ donate country-year, country-industry and industry-year fixed effects, respectively. All the variables are defined in Section 4 and the Appendix Table A1. Standard errors are clustered at the country level. In this model, *Inherited trust* is absorbed by the country-level fixed effects. Our coefficient of interest δ measures the differential effects of inherited trust on the use of trade credit by financially constrained and unconstrained firms. We standardize the variable, *Inherited trust*, for the ease of interpretation of δ.

Figures 1 panel A and panel B graphically present how access to trade credit by financially constrained and unconstrained firms changes with the level of trust, conditional on control variables and fixed effects included in equation (1). The figure shows that, relative to financially unconstrained firms, a constrained firm would be more likely to have access to and be offered more trade credit if it moves from a low-trust country to a high-trust country.

We summarize estimates from Ordinary Least Squares (OLS) regressions in Table 4. In columns (1) and (2), we present regressions in which firm-level control variables are not included. Columns (3) and (4) display regression results controlling for firm characteristics. The dependent variable is *Trade credit indicator (0, 1)* in columns (1) and (3), and *Trade credit (%)* in columns (2) and (4). Across all columns, the estimated coefficients on the interaction term of the inherited trust and the financial constraints indicator are positive and statistically significant at the 1% level. Moreover, the estimates on *FC* are positive and statistically significant, which is in line with our conjecture that firms facing obstacles to financing from formal institutions are more likely to use trade credit than firms without such frictions. In sum, we observe that financially constrained firms use more trade credit than unconstrained firms, and the difference becomes larger as the level of inherited trust increases. Our results demonstrate that trust disproportionately promotes access to trade credit by firms with limited access to formal financing.

The effect is economically meaningful. To illustrate, we consider two hypothetical countries. The two countries are identical except that one country has inherited trust equal to the lower quartile of the sample (-0.10), and the other to the higher quartile (0.17). Hence, the difference in inherited trust between the two countries is 0.27, which equals two standard deviations of the variable. Consider the more conservative estimates displayed in columns (3) and (4). The estimate shown in column (3), 0.06, suggests that, when moving from a low-trust to a high-trust country, the increase in the probability of having access to trade credit of financially constrained firms will be 12.0 (=0.06*2.0) percentage points higher than that of unconstrained firms. In the same vein, the estimate displayed in column (4), 0.03, implies that, when moving from a low-trust to a high-trust country, the increase in the share of material inputs and service purchased by trade credit of financially constrained firms will be 6.0 (=0.03*2.0) percentage points higher than that of unconstrained firms.

Overall, our finding supports the view that trust promotes firms' access to trade credit. Literature suggests that information exchanged among suppliers and customers through business interactions is a comparative advantage that suppliers have over formal lenders (Mian and Smith, 1992; Biais and Gollier, 1997; Petersen and Rajan, 1997; Nilsen, 2002). We argue that trust facilitates information sharing (Guiso et al., 2008; Pevzner et al., 2015; Levine et al., 2017), which elevates firms' access to trade credit. Next, we conduct robustness tests to further validate our baseline results.

[Insert Table 4 here]

Table 4. Inherited trust, financial constraints and trade credit

Notes: This table reports that access to trade credit is positively correlated with inherited trust and that the positive effect is disproportionately larger for financially constrained companies. The dependent variable is *Trade credit (0, 1)* in columns (1), (3), and (5), and *Trade credit (%)* in columns (2), (4) and (6). The key explanatory variable is *Inherited trust* is in columns (1) and (2), and an interaction term between the measure of financial constraints and *Inherited trust* in columns (3) and (4). We control for the firm and country-specific characteristics and industry by year fixed effects in the regressions. The country-level control variables include *GDP per capita*, *GDP growth*, *Masculinity*, *Creditor rights*, *Formalism*, *Private property rights* and *Private credit depth*. In columns (3) and (4), the key explanatory variable is the interaction term between the measure of financial constraints and *Inherited trust*. We control for the firm-specific characteristics, country by year, country by industry, and industry by year fixed effects in the regressions. All variables are defined in the Appendix Table A1. T-statistics with standard errors clustered at the country level are reported in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1%.

Dependent variable =	*Trade credit (0, 1)*	*Trade credit (%)*	*Trade credit (0, 1)*	*Trade credit (%)*
	(1)	(2)	(3)	(4)
*FC * Inherited trust*	0.06***	0.03***	0.06***	0.03***
	[5.41]	[5.96]	[5.67]	[6.52]
FC	0.10***	0.02**	0.10***	0.02***
	[5.70]	[2.74]	[5.92]	[3.56]
Firm size			0.05**	0.05***
			[2.78]	[3.92]
Firm age			0.01	-0.00
			[1.44]	[-0.42]
Sale growth			0.01	0.01
			[0.82]	[1.11]
Ownership concentration			-0.01	-0.04**
			[-0.56]	[-2.22]
Private			0.03	0.08
			[0.63]	[1.34]
Foreign			0.02	0.12
			[0.45]	[1.69]
Export			-0.03*	0.01
			[-1.91]	[0.66]
CEO experience			-0.02*	-0.00
			[-2.00]	[-0.23]
Female CEO			-0.02	0.00
			[-1.36]	[0.45]
Business group			0.01	0.04***

			[1.20]	[4.46]
Capacity utilization			0.03	0.02
			[0.80]	[0.87]
Country-level control	Yes	Yes	No	No
Country by Year FE	No	No	Yes	Yes
Country by Industry FE	No	No	Yes	Yes
Industry by Year FE	Yes	Yes	Yes	Yes
R^2	0.202	0.233	0.211	0.248
Obs.	15,373	15,373	15,373	15,373

5.2 Propensity score matching and entropy balancing

Our baseline finding leaves open the possibility that the differential impact of inherited trust on the use of trade credit in financially constrained and unconstrained firms may be driven by firm-level confounding factors. To alleviate the concern, we employ two balancing approaches that make the two groups of firms similar in a wide range of observable firm-level characteristics.

We begin with the propensity score matching (PSM) method, where we match a financially constrained firm to its unconstrained counterpart with the nearest propensity score. The propensity score is the fitted value of regressing *FC* on the covariates with a logit model. We perform a one-to-one match with a caliper of 0.1. The matched sample consists of 10,886 observations, with an equal number of financially constrained and unconstrained companies. Table 5 summarizes the mean value of matching covariates of the two groups after the PSM and shows that the differences in the mean values are not statistically significant.

[Insert Table 5 here]

Table 5. Propensity score matching quality checks

Notes: This table compares the mean values of firm-level variables between financially constrained companies and their matched counterparts that are not financially constrained. We perform a single nearest-neighbor match without replacement, with caliper value equal to 0.1. All the variables are defined in the Appendix Table A1.

	Mean				
	FC=1	*FC*=0	Difference	t-statistic	p-value
Firm size	1.92	1.93	-0.01	-0.60	0.55
Firm age	2.83	2.84	-0.01	-0.39	0.69
Sale growth	0.07	0.07	0.00	0.19	0.85
Ownership concentration	0.75	0.75	0.00	0.04	0.97
Private	0.94	0.94	-0.00	-0.88	0.38
Foreign	0.06	0.05	0.01	0.94	0.35
Export	0.16	0.16	0.00	0.27	0.79
CEO experience	2.71	2.71	0.00	0.24	0.81
Female CEO	0.13	0.13	-0.00	-0.11	0.91
Business group	0.15	0.15	-0.00	-0.54	0.59
Capacity utilization	0.80	0.81	-0.01	-1.55	0.12

Next, we combine the PSM with the entropy balancing approach developed by Hainmueller (2012), which assigns weights to the matched unconstrained firms to balance the distribution of each covariate between the two groups of companies. The weights are estimated by minimizing the differences in the first three moments of each firm-level control variable between the financially constrained and unconstrained firms. Compared to the PSM, the entropy balancing obtains a higher degree of covariate balance. We refer to this sample as the entropy-balanced sample.

Table 6 presents the regression of equation (1) using the PSM and entropy-balanced sample. As in the regressions displayed in Table 4, we employ two measures of trade credit, *trade credit (0,1)* and *trade credit (%)*, as the dependent variable. Columns (1) and (2) show the results estimated by the PSM sample. Columns (3) and (4) report the regression estimates of the entropy-balanced sample. The estimated coefficient on the interaction terms *FC*Inherited trust* is statistically significant at the 1% level. In addition, the economic magnitude of the estimates is similar to that of the baseline results. For example, the estimate displayed in column (1) suggests that, when moving from a low-trust to a high-trust country, the increase in the probability of having access to trade credit of financially constrained firms will be 10.0 (=0.05*2.0) percentage points higher than that of

unconstrained firms. In addition, the coefficients on *FC* remain positive and statistically significant at the 1% level in all the regressions. In sum, our results are robust to a restricted sample in which the characteristics of financially constrained and unconstrained firms have more similar distributions.

[Insert Table 6 here]

Table 6. Propensity score matching and entropy balancing

Notes: This table shows results estimated by samples of financially constrained and unconstrained companies that are similar in characteristics. Columns (1) and (2) show the regression estimates of the sample consisting of companies matched by the propensity score matching (PSM). Columns (3) and (4) show the regression estimates of the PSM-matched and entropy-balanced sample. The dependent variable is *Trade credit (0, 1)* in columns (1) and (3), and *Trade credit (%)* in columns (2) and (4). The key explanatory variable is an interaction term between the measure of financial constraints and *Inherited trust*. Firm controls include *Firm size*, *Firm age*, *Sale growth*, *Ownership concentration*, *Private*, *Foreign*, *Export*, *CEO experience*, *Female CEO*, *Business group* and *Capacity utilization*. All the variables are defined in the Appendix Table A1. T-statistics with standard errors clustered at the country level are reported in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1%.

Matching approach =	PSM		PSM and entropy balancing	
Dependent variable =	*Trade credit (0, 1)*	*Trade credit (%)*	*Trade credit (0, 1)*	*Trade credit (%)*
	(1)	(2)	(3)	(4)
*FC * Inherited trust*	0.05***	0.02***	0.05***	0.02***
	[4.15]	[4.10]	[4.07]	[3.95]
FC	0.10***	0.02***	0.09***	0.02**
	[4.78]	[2.30]	[4.79]	[2.24]
Firm controls	Yes	Yes	Yes	Yes
Country by Year FE	Yes	Yes	Yes	Yes
Country by Industry FE	Yes	Yes	Yes	Yes
Industry by Year FE	Yes	Yes	Yes	Yes
R^2	0.203	0.253	0.204	0.254
Obs.	10,643	10,643	10,643	10,643

5.3 Controlling for country-level characteristics

Although we employ fixed effects in the baseline specification, the country-specific factors may have differential effects on the use of trade credit in financially constrained and unconstrained companies. If this is the case, the coefficient on the interaction of inherited trust and *FC* estimated by our baseline specification would be biased. To address the possibility, we further include in the regression the interaction of the country-level variables and *FC*. We focus on country-specific characteristics that are suggested to explain the country-level variations in the use of trade credit, such as *GDP per capita*, *GDP growth*, *Masculinity*, *Creditor rights*, *Formalism*, *Private property rights* and *Private credit depth* (El Ghoul and Zheng, 2016; An, 2020). A detailed definition of the variables is discussed in Section 4 and shown in the Appendix Table A1.

Table 7 summarises the abbreviated results. Each cell shows an estimated coefficient on the key independent variable from a separate regression. For example, in the first row of column (1), we show the regression estimate of the coefficient on the *FC*Inherited trust*, where the dependent variable is the trade credit indicator and the additionally controlled variable is the interaction of *GDP per capita* and *FC.* All the estimated coefficients are significant at the 1% level, and the economic magnitude is similar to that of the baseline estimates. Therefore, our results remain qualitatively robust after allowing for the differential impact of the country-specific characteristics on the use of trade credit in financially constrained and unconstrained companies.

[Insert Table 7 here]

Table 7. Controlling for additional country-level characteristics

Notes: This table shows that our results are robust to controlling for the interaction terms of the financial constraints measure and country-level variables. Each cell reports the estimated coefficient on the key explanatory variable of a separate regression including an additionally controlled variable. The key explanatory variable is an interaction term between the measure of financial constraints and *Inherited trust*. The dependent variable is *Trade credit (0,1)* in columns (1) and *Trade credit (%)* in columns (2). Firm controls include *Firm size*, *Firm age*, *Sale growth*, *Ownership concentration*, *Private*, *Foreign*, *Export*, *CEO experience*, *Female CEO*, *Business group* and *Capacity Utilization*. All the variables are defined the Appendix Table A1. T-statistics with standard errors clustered at the country level are reported in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1%.

Dependent variable =	*Trade credit (0, 1)*	*Trade credit (%)*
Independent variable =	*FC * Inherited trust*	
	(1)	(2)
Additionally control for:		
FC GDP per capita*	0.06***	0.03***
	[3.02]	[4.50]
FC GDP growth*	0.07***	0.04***
	[5.00]	[4.42]
*FC * Masculinity*	0.05**	0.02***
	[3.46]	[5.32]
*FC * Creditor rights*	0.06***	0.03***
	[5.33]	[5.17]
*FC * Formalism*	0.07***	0.03***
	[6.00]	[3.96]
*FC * Private property rights*	0.06***	0.02***
	[5.59]	[7.01]
*FC * Private credit depth*	0.06***	0.03***
	[6.10]	[6.32]
Firm controls	Yes	Yes
Country by Year FE	Yes	Yes
Country by Industry FE	Yes	Yes
Industry by Year FE	Yes	Yes

5.4 Alternative measures of inherited trust

Our baseline measure, *Inherited trust*, is estimated by the cohort consisting of a) second-generation Americans born between 1910-1984; b) third-generation Americans born between 1935-1998; and c) fourth-generation Americans born between 1960-1998. The baseline estimation of inherited trust is subject to a concern that ancestors' immigration might have been determined by economic shocks, such as wars in their home countries at the time of immigration. Such shocks may have affected both the attitude to trust of descendants of US immigrants and the contemporaneous financing patterns of the companies in the home countries. To alleviate this concern, we construct a robust measure of trust, *inherited trust_robust*, which is estimated by a cohort of US descendants that are at least two generations apart from the first immigrants; that is, a cohort consisting only of third-generation Americans born between 1935-1998 and fourth-generation Americans born between 1960-1998. The larger gap mitigates the effects of the specific country of origin shocks. Furthermore, Osili and Paulson (2008) assert that the ancestral beliefs of US immigrants tend to decline over time, implying that the results estimated by the robust measure provide a lower bound of the effects of inherited trust on trade credit. Finally, to address the remaining concern that the two measures are biased representations of the trust inherited by US descendants from their ancestors, we use an alternative measure of inherited trust, *Inherited trust_all*, which is estimated by all the descendants of US immigrants in the GSS over the period 1972-2016. The Online Appendix Table OA2 shows the estimation of the two alternative measures of inherited trust, and Table OA3 presents the summary statistics of the two measures.

We replicate the regressions in Table 4 columns (3) and (4) with the two alternative measures as the independent variable and display the results in the Online Appendix Table OA4. The coefficients on the interaction terms between inherited trust measures and *FC* are positive and statistically significant at least at the 5% level, and the economic magnitude of the coefficients is similar to that of the baseline estimates shown in Table 4 columns (3) and (4). The results thus indicate that our baseline findings are robust to alternative measures of inherited trust.

5.5 Excluding the largest countries

As shown in Table 2, Indian companies represent 44% of our sample firms. A valid concern is that our baseline results might be primarily driven by the relationship between trust and the use of trade credit in India. Therefore, an important robustness test is to exclude India from the sample. We replicate the baseline regressions shown in Table 4 columns (3) and (4) with the sample without Indian companies. We also run regressions with the alternative measures of inherited trust as the independent variables. Regression results are displayed in the Online Appendix Table OA5. As

shown, the estimated coefficients on the interaction of *FC* and all the inherited trust measures are positive and statistically significant at the 1% level when we use the trade credit dummy as the dependent variable. The estimates are less statistically significant when we use the continuous measure but are all positive and similar in magnitude to those estimated using the full sample. This addresses the concern that our findings might be entirely driven by the relationship between trust and trade credit in India.

In addition to India, firms in Russia, the Philippines and Mexico also represent a substantial portion of our sample, accounting for 11%, 8%, and 7%, respectively. Therefore, we exclude firms in one of the three countries at a time and replicate the baseline regressions. As shown in Table OA5, all the estimated coefficients on the interaction term of *Inherited trust* and the measure of financial constraints are positive and statistically significant, indicating that our results are not entirely driven by any of the four largest countries in the sample. The coefficients are positive but become less statistically significant if we perform the analyses using a sample excluding India, Russia, the Philippines and Mexico at the same time. However, since the four countries together make up 70% of our sample, it is not surprising that these countries have a significant impact on our results.

6. Supplementary evidence

In this section, we present (a) two supplementary tests for the PSM and entropy balancing performed in Section 5.2, which attempt to address the concerns that firm-level confounders might be omitted; and (b) evidence that the positive impact of trust on the use of trade credit translates into higher sales growth.

6.1 Panel estimation controlling for firm fixed effects

Although the covariates matching and entropy balancing performed in Section 5.2 alleviate the concern arising from the observable firm confounders, it does not rule out the possibility that unobservable differences between financially constrained and unconstrained firms might drive the results. Hence, we perform a panel estimation with firm fixed effects, controlling for the time-invariant unobservable confounders. Since our main sample is cross-sectional and does not allow for firm fixed effects, we obtain data from an alternative survey, BEEPS, which contains similar information to the WBES. We assemble a panel data set using data on firms that appear in at least two of the three waves, namely, BEEPS 2009, IV and V. We also require non-missing values of all the key and control variables. The above criteria yield 800 firm-year observations of 396 firms sampled from nine countries in 2008, 2009, 2011, 2012, 2013 and 2019.

Table OA6 in the Online Appendix shows the mean value of inherited trust and trade credit measures for each sample country, while the Online Appendix Table OA7 presents the summary statistics of all the variables used in the regression. The mean value of inherited trust in the panel sample is 0.19, fifteen percentage points higher than that of the baseline sample. This implies that the panel sample is composed of countries with relatively high trust. The mean value of *trade credit (0,1)* is 0.79, and *trade credit (%)* is 40%; both are similar to those of our main sample (i.e., 0.78 and 47%).

We then replicate our baseline regressions with the panel data set, controlling for the firm fixed effects. However, we cannot control for *Ownership concentration*, *Private* and *Capacity Utilization* as in the baseline regressions due to data limitations. We present the results in the Online Appendix Table OA8. Columns (1)–(3) display estimates of regressions with *trade credit (0,1)* as the dependent variable, and columns (4)–(6) show those with *trade credit (%)* as the dependent variable. We employ all three measures of inherited trust, *Inherited trust*, *Inherited trust_robust* and *Inherited trust_all*. When the continuous measure of trade credit is used as the dependent variable, all the estimates are statistically significant at the 1% level. Results estimated by using *trade credit (0,1)* are qualitatively similar to the baseline ones, albeit less statistically significant.

The estimated coefficients are substantially larger than the baseline estimates. For example, the estimate displayed in column (4) is 0.08, suggesting that, when moving from a low-trust to a high-trust country, the increase in the share of material input and service purchased by trade credit of financially constrained firms will be 16.0 (=0.08*2.0) percentage points higher than that of unconstrained firms. The economic magnitude is 2.7 times larger than implied by the corresponding estimate shown in Table 4 column (4), i.e., 6.0 percentage points.[9] The panel estimation further supports the notion that our baseline analyses do not conflate the effect of financing frictions with those of other factors that may also impact the relationship between trust and trade credit.

6.2 Heterogeneous analyses by dependence on external finance and trade credit

Although the panel estimation helps address the possibility that time-invariant unobservable firm characteristics might drive the results, it may be subject to a small sample bias. To supplement the evidence shown in previous sections, we address the residual concerns relating to the omitted

[9] We caution readers that the large economic magnitude estimated by the panel data set controlling for firm fixed effects might be because of the small sample size and over-sampling of high-trust countries.

firm-level variables by performing cross-sectional tests. Specifically, we provide evidence that the disproportionately positive impact of inherited trust on access to trade credit by financially constrained firms varies across industries in a theory-consistent manner.

We first differentiate the firms by the degree of external finance dependence, a measure developed by Rajan and Zingales (1998), which captures the industry's technological reliance on external finance. The second test exploits the variation in the dependence on trade credit across industries. Fisman and Love (2003) suggest that certain industries may have a greater dependence on trade credit due to market structure and product characteristics, and the researchers develop an industry-specific measure of dependence on trade credit. If our baseline results are indeed driven by the variation in financing frictions across firms, the results will be more pronounced in firms of industries that are more dependent on external finance and trade credit.

To test the conjectures, we regress trade credit measures on a three-way interaction of *Inherited trust*, *FC* and the two industry-specific measures, controlling for the interaction of *FC* and *Inherited trust*, the interaction of *FC* and the industry measures, as well as all the control variables and fixed effects in equation (1). Table 8 columns (1) and (2) demonstrate the results for dependence on external finance. The estimated coefficient on the three-way interaction, *FC * Inherited trust * DEF,* is positive and statistically significant at the 10% level when using the trade credit dummy as the dependent variable. The estimated coefficient is of the same sign, albeit not statistically significant when the dependent variable is the continuous measure of trade credit. Columns (3) and (4) show the results of trade credit dependence. When using the continuous measure of trade credit as the dependent variable, the estimated coefficient on the three-way interaction, *FC * Inherited trust * DTC*, is positive and statistically significant at the 10% level. The coefficient estimated by using the trade credit dummy as the dependent variable is also positive, though less statistically significant.[10]

Overall, the results provide some evidence that the disproportionate effect of trust on the use of trade credit by financially constrained firms is more pronounced in industries that are more

[10] Here we use flow measures of dependence on external finance and trade credit. However, as discussed by Fisman and Love (2003), since flow measures are essentially differenced versions of stock measures, using flow measures may be differencing out persistent information about the industry-specificity of financing. For robustness, we use the stock measures of dependence on external finance and trade credit and replicate the regressions. As shown in the Online Appendix Table OA9, our results remain unchanged.

dependent on external finance and trade credit financing, as the theory predicts. Evidence provided in this section lends further support to the interpretation of our main results.

[Insert Table 8 here]

Table 8. Differentiating by dependence on external finance and trade credit

Notes: This table shows that the differential impact of trust on the use of trade credit by financially constrained firms relative to unconstrained firms is more pronounced in industries more reliant on external finance and trade credit finance. The dependent variable is *Trade credit (0, 1)* in columns (1) and (3) and *Trade credit (%)* in columns (2) and (4). The key explanatory variable is an interaction term between the financial constraints measure*, Inherited trust*, and *DEF* in columns (1) and (2), or *DTC* in columns (3) and (4). *DEF* is an indicator variable that equals one if an industry has an above-median value of dependence on external finance and zero otherwise. Dependence on external finance is the industry median of the fraction of capital expenditure that is not financed by internally generated cash flows in the United States during the 1980s. *DTC* is an indicator variable that equals one if an industry has an above-median value of dependence on trade credit and zero otherwise. Dependence on trade credit is the industry median of the change in accounts payable over the change in total assets in the United States during the 1980s. Dependence on external finance and dependence on trade credit are both calculated at the three-digit ISIC level. Firm controls include *Firm size*, *Firm age*, *Sale growth*, *Ownership concentration*, *Private*, *Foreign*, *Export*, *CEO experience*, *Female CEO*, *Business group* and *Capacity Utilization*. All the variables are defined in the Appendix Table A1. T-statistics with standard errors clustered at the country level are reported in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1%.

Industry variable =	External finance dependence		Trade credit dependence	
Dependent variable =	*Trade credit (0, 1)*	*Trade credit (%)*	*Trade credit (0, 1)*	*Trade credit (%)*
	(1)	(2)	(3)	(4)
*FC * Inherited trust * Industry variable*	0.02*	0.01	0.01	0.01*
	[1.83]	[0.94]	[0.99]	[2.07]
*FC * Inherited trust*	0.04**	0.02**	0.05***	0.02***
	[2.79]	[2.54]	[3.68]	[3.43]
*FC * Industry variable*	0.00	0.00	-0.01	-0.01
	[0.09]	[0.16]	[-0.53]	[-0.58]
FC	0.10***	0.02*	0.10***	0.03***

	[4.42]	[1.78]	[5.09]	[3.11]
Firm controls	Yes	Yes	Yes	Yes
Country by Year FE	Yes	Yes	Yes	Yes
Country by Industry FE	Yes	Yes	Yes	Yes
Industry by Year FE	Yes	Yes	Yes	Yes
R^2	0.212	0.248	0.212	0.249
Obs.	15,338	15338	15338	15,338

6.3 Suggestive evidence on firm outcomes

Our final set of tests attempts to answer whether the increased access to trade credit due to higher trust levels has implications on firm outcomes. We expect that if a firm in a higher-trust country receives more trade credit from its suppliers, the firm will have greater short-term liquidity compared to otherwise similar firms located in a low-trust country, and thereby will be able to provide more trade credit to its customers, which in turn will boost sales of the firm.

We test the conjecture by regressing sales growth rates on the interaction of the trade credit measures and inherited trust, controlling for trade credit, as well as the same firm-level characteristics (except for sales growth) and fixed effects as in equation (1). The coefficient on the interaction term captures how the relationship between access to trade credit and sales growth varies across countries with different levels of trust. We run the regressions separately for financially constrained and unconstrained firms, with results shown in columns (1) and (2) and columns (3) and (4), respectively, of Table 9.

As shown, for the regressions with the subsample of financially constrained firms, the estimated coefficients on the interaction terms of trade credit measures and *Inherited trust* are positive and significant at the 1% or 5% level. The coefficients on trade credit are nearly null. The estimates imply that, in firms facing external financing constraints, the use of trade credit has a larger positive impact on sales growth in countries where trust is more prevalent. The estimates are economically meaningful. For example, the estimate shown in column (1), 0.175, suggests that if a financially constrained firm moves from a low-trust country (*Inherited trust* = -0.1) to a high-trust

country (*Inherited trust* = 0.17), the sensitivity of sales growth to having access to trade credit will be 4.9 percentage points (= 0.175*0.28) higher.[11] By contrast, for the regressions with the subsample of financially unconstrained firms, none of the estimates on the interaction of inherited trust and trade credit are statistically significant, while the estimates on trade credit are positive and statistically significant.[12] The results imply that, while on average trade credit promotes sales growth in financially unconstrained firms, the relationship is independent of trust levels.

Together with our baseline results, we interpret the evidence presented in this section as follows: financially constrained firms in low-trust countries have limited access to trade credit, resulting in the insensitivity of sales growth to trade credit; as the trust level increases, financially constrained firms are offered more trade credit by their suppliers, which boosts sales of those firms. As a result, we observe that the impact of trade credit on sales growth in financially constrained companies increases with the trust level. On the other hand, since trust does not have a significant impact on the use of trade credit by firms that are not financially constrained, the relationship between trade credit and sales growth in those firms is not sensitive to the changes in the trust level. Overall, our results support the view that trust fosters firms' sales growth through an informal credit channel.

[Insert Table 9 here]

Table 9. Inherited trust, trade credit and sales growth

Notes: This table shows that, in financially constrained companies, access to trade credit has an increasingly positive impact on sales as the inherited trust level increases. The results presented in columns (1) and (2) are from firms that report facing difficulties in obtaining external finance, and the results in columns (3) and (4) are from firms without such difficulties. The dependent variable, *Sales growth*, is the growth rate of sales over the past three years. The key explanatory variable is an interaction term between trade credit variables and *Inherited trust*. Firm controls include *Firm size*, *Firm age*, *Sale growth*, *Ownership concentration*, *Private*, *Foreign*, *Export*, *CEO experience*, *Female CEO*, *Business group* and *Capacity Utilization*. All the variables are defined in the Appendix Table A1. T-statistics with standard errors clustered at the country level are reported in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1%.

[11] The inherited trust variables are not standardized in the regressions presented in this section.

[12] The results are not in conflict with our baseline finding that financially unconstrained firms are less likely to use trade credit relative to financially constrained firms, as the coefficient here measures the sensitivity of sales growth to trade credit, as opposed to the level of trade credit usage.

Sample=	Financially constrained		Not financially constrained	
Dependent variable =	*Sales growth*			
	(1)	(2)	(3)	(4)
*Trade credit (0, 1) * Inherited trust*	0.18***		0.10	
	[3.18]		[1.24]	
*Trade credit (%) * Inherited trust*		0.28**		0.09
		[2.70]		[0.61]
Trade credit (0, 1)	-0.01		0.03**	
	[-1.52]		[2.45]	
Trade credit (%)		-0.01		0.05**
		[-1.11]		[2.58]
Firm controls	Yes	Yes	Yes	Yes
Country by Year FE	Yes	Yes	Yes	Yes
Country by Industry FE	Yes	Yes	Yes	Yes
Industry by Year FE	Yes	Yes	Yes	Yes
R^2	0.049	0.049	0.039	0.040
Obs.	9,220	9,220	5,801	5,801

7. Conclusions

The literature has documented that trust promotes the development of formal financial institutions. Yet, evidence of the impact of trust on informal finance is scarce. This paper provides new insights by assessing the relationship between trust and firms' access to trade credit with a cross-country sample consisting of 15,379 firms across 19 countries from 2009 to 2019.

Exploiting a plausibly exogenous source of trust, which captures the trust that US descendants of immigrants have inherited from their ancestors, we discover that inherited trust disproportionately promotes access to trade credit for financially constrained firms, relative to their counterparts that are not financially constrained. We also show that our results are not entirely driven by (a) firm-level confounding factors of financing frictions; (b) country-specific features that

may exert differential effects on the use of trade credit by financially constrained firms; (c) measurement errors in inherited trust; or (d) countries which account for a substantial proportion of our sample. In addition, we provide some evidence that the disproportionate effect on financially constrained firms is more pronounced in industries that are more dependent on external finance and trade credit finance. Finally, we provide suggestive evidence that trust facilitates the sales growth of financially constrained firms by promoting access to trade credit.

Our work highlights the role of trust in the informal credit market. We contribute to the existing literature by deepening our understanding of the role of social capital in the economy and the cross-country determinants of informal finance.

Appendix

Table A1. Variable definitions and sources

Variable	Definition	Source
GSS variables		
Trust	It is measured from the answer to the question: "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?" The answers are given on a scale from one to three, which corresponds to "Most people can be trusted," "Can't be too careful" and "Depends." The trust indicator is equal to one if the respondent answers that people can be trusted and zero if the respondent considers that one cannot be too careful or that it depends.	General Social Survey, 1972-2018
Age	Respondent's age.	
Age2	Respondent's age squared.	
Men	An indicator variable that equals one if the respondent is male and zero otherwise.	
Education	A categorical variable that ranges from zero to four, which corresponds to "Lower than high school," "High school," "Junior college," "Bachelor" and "Graduate."	
Income	A categorical indicator that ranges from one to twelve,	

category	with a higher value indicating a higher income category.	
Employed	An indicator variable that equals one if the respondent is currently employed and zero otherwise.	
Unemployed	An indicator variable that equals one if the respondent is currently unemployed but actively looking for a job and zero otherwise.	
Catholic	An indicator variable that equals one if the respondent's religion is Catholic.	
Protestant	An indicator variable that equals one if the respondent's religion is Protestant.	
Inherited trust variables		
Inherited trust	Inherited trust is the country-of-origin fixed effect in the regression of *Trust* of descendants of US immigrants, controlling for individual characteristics. The cohort of US descendants consists of a) second-generation Americans born between 1910-1984; b) third-generation Americans born between 1935-1998; and c) fourth-generation Americans born between 1960-1998.	
Inherited trust_robust	Inherited trust is the country-of-origin fixed effect in the regression of *Trust* of descendants of US immigrants, controlling for individual characteristics. The cohort of US descendants consists of a) third-generation Americans born between 1935-1998; and b) fourth-generation Americans born between 1960-1998.	Authors' estimation
Inherited trust_all	Inherited trust is the country-of-origin fixed effect in the regression of *Trust* of descendants of US immigrants, controlling for individual characteristics. The cohort of consists of all the US descendants of immigrants obtained from GSS over the period 1972-2016.	
Firm variables		
Trade credit (%)	The fraction of material inputs or service paid after delivery last year.	Enterprise Survey by World Bank, 2006-2019
Trade credit (0, 1)	An indicator variable that equals one if the firm uses trade credit in the previous year and zero otherwise.	
FC	An indicator variable that equals one if the firm reports	

	that it faces obstacles to accessing external finance and zero otherwise.	
Firm size	An indicator that equals one if the number of employees in the firm is less than 20, two if between 20 and 99, and three if more than 100.	
Firm age	The number of years since the firm began operation.	
Sales growth	The rate of sales growth for the firm in the last three years.	
Ownership concentration	The share of the firm owned by the largest owner.	
Private	The fraction of the firm owned by domestic private investors.	
Foreign	The fraction of the firm owned by foreign private investors.	
Export	The fraction of the firm's sales that comes from exports.	
CEO experience	Number of years of experience in the industry that the firm's CEO has.	
Female CEO	An indicator variable that equals one if the firm's CEO is female and zero otherwise.	
Business group	An indicator variable that equals one if the firm belongs to a business group, and zero otherwise.	
Capacity utilization	The share of current output over the maximum output possible using the current inputs.	
Industry variables		
DTC	An indicator variable that equals one if an industry has an above-median value of dependence on trade credit and zero otherwise. Dependence on trade credit is equal to the change in accounts payable over the change in total assets in the United States during the 1980s, calculated at the three-digit ISIC level.	Fisman and Love (2003)
DEF	An indicator variable that equals one if dependence on external finance is higher than the median value and zero otherwise. Dependence on external finance is calculated	Rajan and Zingales (1998)

	as the fraction of capital expenditures not financed with internally generated cash flows in the United States during the 1980s calculated at the three-digit ISIC level.	
Country variables		
GDP per capita	A country's GDP divided by its total population.	World Bank
GDP growth	Annual percentage growth rate of GDP at market prices based on constant local currency.	
Masculinity	A scale variable that measures the degree to which a country values male assertiveness over female nurturance.	Hofstede (2001)
Creditor rights	A scale variable that measures the quality of legal protection of creditors.	La Porta et al. (2008)
Formalism	A scale variable that measures the efficiency of a country's court system.	
Private property rights	A scale variable that measures the quality of a country's private property rights protection, averaged over 2009-2018.	The Heritage Foundation
Private credit depth	The ratio of a country's private credit to GDP, averaged over 2009-2018.	World Bank

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Figure 1. Inherited trust, financial constraints and trade credit

Notes: These figures summarize the key findings of this study: moving from a low-trust to a high-trust region increases the use of trade credit disproportionately more for financially constrained companies, relative to companies that are not financially constrained. The y-axis represents the probability of having access to trade credit (Panel A) or share of material inputs and services paid after delivery (Panel B), conditional on country-year, industry-year and country-industry fixed effects, as well as firm-level control variables including *Firm size*, *Firm age*, *Sale growth*, *Ownership*

concentration, *Private*, *Foreign*, *Export*, *CEO experience*, *Female CEO*, *Business group* and *Capacity Utilization*. All variables are defined in the Appendix Table A1. Low (high) trust countries are those with below (above)- median inherited trust. Financially constrained firms are those who report that they face obstacles in accessing external finance.