

## Trade credit and bank relationships: evidence from pre-World War I Belgium

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Postprint / Postprint

Zeitschriftenartikel / journal article

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### Empfohlene Zitierung / Suggested Citation:

Deloof, M., & Overfelt, W. v. (2010). Trade credit and bank relationships: evidence from pre-World War I Belgium. *Applied Economics*, 1-26. <https://doi.org/10.1080/00036840903166269>

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Journal:	<i>Applied Economics</i>
Manuscript ID:	APE-08-0292.R1
Journal Selection:	Applied Economics
Date Submitted by the Author:	21-Jan-2009
Complete List of Authors:	Deloof, Marc; University of Antwerp, Accounting and Finance Van Overfelt, Wouter; University of Antwerp, Accounting and Finance
JEL Code:	G32 - Financing Policy Capital and Ownership Structure < G3 - Corporate Finance and Governance < G - Financial Economics, G21 - Banks Other Depository Institutions Mortgages < G2 - Financial Institutions and Services < G - Financial Economics, N23 - Europe: Pre-1913 < N2 - Financial Markets and Institutions < N - Economic History
Keywords:	Trade credit, Bank-firm relationships, Pre-World War I Belgium, Economic institutions

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Trade Credit and Bank Relationships:  
Evidence from Pre-World War I Belgium

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**Abstract**

We investigate the determinants of trade credit granted by suppliers in a historical environment which was characterized by high information asymmetries and strong banks, focusing on the role of bank-firm relationships. Our results, which are based on a unique sample of 535 firm-year observations for 125 listed Belgian firms in four dominant industries in the period 1905-1909, are generally consistent with the financing role of trade credit. They suggest that trade credit was a tool for channeling funds from firms with close bank ties to other firms, which is consistent with findings for contemporary developing countries.

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## I. Introduction

For many firms, trade receivables are an important part of their assets. This raises the question why firms extend credit to their customers. It has been argued that trade credit is used to reduce the transaction costs of paying bills (Schwartz, 1974; Ferris, 1981), to smooth demand and price discriminate (Emery, 1987; Brennan et al., 1988), or to allow customers to assess product quality before paying (e.g. Smith, 1987; Lee and Stowe, 1993; Bastos and Pindado, 2007). Finance based trade credit models argue that suppliers have significant cost advantages over financial institutions in providing credit to their customers (e.g. Schwartz, 1974, Emery, 1984; Biais and Gollier, 1997). Furthermore, suppliers desiring to maintain a long-term relationship with customers may grant more concessions to a customer who is in need for extra liquidity than would be granted lenders in a competitive credit market (Wilner, 2000; Cuñat, 2007). In countries where formal financial institutions are underdeveloped, trade credit may be an important *informal* financial institution (McMillan and Woodruff, 1999; Demirgüç-Kunt and Maksimovic, 2001; Fisman and Love, 2003; Cull et al., 2007): firms with better access to credit channel short-term funds from financial institutions via trade credit to financially weaker firms.

In this paper, we go back to the start of the 20<sup>th</sup> century to test the hypothesis that bank-affiliated firms with better access to credit redistributed funds via trade credit to financially weaker customers. Belgium before World War I provides a particularly interesting environment to test this hypothesis. Investors were poorly protected and faced severe information problems (Théate, 1905), while the banking sector was strongly developed (e.g. Rajan and Zingales, 2003). A limited

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2  
3 number of universal banks offered a wide range of services to firms (e.g.  
4 Durviaux, 1947; Kurgan-Van Hentenryk, 1991), and many Belgian firms had  
5 close ties with these banks (Van Overfelt et al., 2009). We investigate the  
6 determinants of trade credit granted by suppliers to their customers. Our findings,  
7 based a sample of 535 firm-year observations for 125 listed firms in the coal-  
8 mining, tramways, railways and textile industries in the period 1905-1909,  
9 generally confirm the financing role of trade credit. We find that firms in which a  
10 bank had an equity stake redistributed capital via trade credit to other firms.  
11 However, firms with a banker on their board but without a bank equity stake did  
12 not provide more credit to their customers. Older firms and firms with higher cash  
13 flows also provided more trade credit. Consistent with findings for contemporary  
14 developing countries, our results suggest that a century ago, trade credit was a tool  
15 for channelling funds from firms with close bank ties to other firms. As such, our  
16 study provides a unique contribution to the literature.

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The remainder of the paper is structured as follows. Section 2 discusses the financing role of trade credit, while section 3 focuses on trade credit and bank relationships in pre-World War I Belgium. The sample and the construction of the variables is discussed in section 4. Regression results are presented in section 5. Section 6 concludes.

## II. The financing role of trade credit

Finance based trade credit models argue that suppliers have significant cost advantages over financial institutions in providing credit to their customers. Petersen and Rajan (1997) point out that there are at least three sources of such cost advantages. First, the trading relationship gives suppliers an informational

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3 advantage over outside financial institutions. Size and timing of the buyer's orders  
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5 and his ability to take advantage of early payment discounts help the supplier in  
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7 assessing the condition of the buyer's business and his creditworthiness. Second,  
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9 the supplier has more control over the actions of the buyer if they have a repeated  
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11 relationship. The supplier holds the threat of stopping the supply of inputs to the  
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13 buyer if he has few alternative sources. The threat by a financial institution to  
14  
15 withdraw future finance on the other hand may have little immediate impact on  
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17 the borrower. Third, if the buyer defaults, the supplier may be able to seize the  
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19 goods he supplied. Furthermore, suppliers desiring to maintain a long-term  
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21 relationship with customers may grant more concessions to a customer who is in  
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23 need for extra liquidity than would be granted lenders in a competitive credit  
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25 market. Suppliers know that they may have to help customers in financial distress,  
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27 so they will charge them a higher trade credit interest rate as compensation for  
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29 providing insurance against liquidity shocks (Wilner, 2000; Cuñat, 2007). Trade  
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31 creditors may also alleviate the problems of bank information monopolies: when  
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33 the bank raises the interest rate to extract a rent, the borrowing firm can substitute  
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35 bank debt by trade debt (Tsuruta, 2008). Burkart and Ellingsen (2004) and Antov  
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37 and Atanasova (2007) argue that when suppliers have significant cost advantages  
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39 over financial institutions in providing credit to their customers, trade credit may  
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41 not only be a substitute for institutional financing, but may actually *increase* the  
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43 availability of institutional financing: trade credit use mitigates moral hazard  
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45 problems and may be perceived as a favorable signal that is informative of the  
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47 creditworthiness of the borrower.  
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58 Recently, a new literature has emerged which argues that in countries where  
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60 formal financial institutions are underdeveloped, trade credit is an important

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3 informal financial institution. McMillan and Woodruff (1999) find that  
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5 Vietnamese firms are more likely to extend trade credit if it trusts its customer  
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7 enough to offer credit. They extend more credit to customers who find it hard to  
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9 locate an alternative supplier and customers belonging to network of similar firms.  
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11 Fisman and Love (2003) show that industries with higher dependence on trade  
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13 credit financing have higher growth rates in countries with weaker financial  
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15 institutions. In such countries, firms with better access to credit may redistribute  
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17 capital via trade credit to financially weaker customers (e.g. Marotta, 1997;  
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19 Demirgüç-Kunt and Maksimovic, 2001; Nilsen, 2002). These firms will act as  
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21 “agents” for the financial institutions, channelling short-term funds from the  
22  
23 financial institutions to their best use. Consistent with this view, Love et al. (2007)  
24  
25 find that after the emerging markets financial crises of the 1990s, firms with more  
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27 vulnerable financial positions were more likely to reduce their supply of credit to  
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29 customers. Cull et al. (2007) find that state-owned Chinese firms, which have  
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31 privileged access to loans, redistribute credit to private firms with less privileged  
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33 access. Profitable private firms in China lend part of their formal credit via trade  
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35 credit to their customers.  
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### 45 **III. Bank relationships and trade credit in pre-World War I Belgium**

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47 As in many developing countries today, investors in pre-World War I Belgium  
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49 were poorly protected and faced severe information problems. Théate (1905), a  
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51 contemporary Belgian law scholar, argued that investor protection was much  
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53 worse in Belgium than in other European countries such as Britain, France and  
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55 Germany. In an environment characterized by high information asymmetries and  
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57 agency costs, it can be expected that trade credit is an important financing tool  
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3 (e.g. McMillan and Woodruff, 1999; Fisman and Love, 2003). Miwa & Ramseyer  
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5 (2006) find that manufacturing firms in Japan at the turn of the last century indeed  
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7 raised much of the money they needed through trade credit.  
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11 While investor protection was weak, banks played an important role in pre-World  
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13 War I Belgium. The ratio of commercial and savings deposits over GDP indicates  
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15 that the banking sector in 1913 was more important in Belgium (0.68) than in  
16  
17 Germany (0.53), the U.S. (0.33), Japan (0.13) or the U.K. (0.10) (Rajan and  
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19 Zingales, 2003). In the late 19<sup>th</sup> century and the early 20<sup>th</sup> century, banks in  
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21 industrializing countries generally played a dominant role in corporate finance  
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23 (e.g. Cameron, 1967; Carosso, 1970; Rajan and Zingales, 2003; Fohlin, 2006).  
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25 The most prominent of these banks in Belgium were universal banks, which  
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27 offered a wide range of services to firms: they took equity stakes, provided loans,  
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29 assisted firms in the issuance of securities and were often involved in the  
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31 management of affiliated firms (e.g. Durviaux, 1947; Kurgan-Van Hentenryk,  
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33 1991).  
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41 These banks had close ties with many Belgian firms, either as a shareholder or  
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43 through interlocking directorships (Van Overfelt et al., 2009). Firms with close  
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45 bank ties are likely to face less credit constraints than firms without bank ties.  
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47 Enhanced monitoring by the universal bank through close and continued  
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49 interactions with the firm increases available credit for the firm. Delegated  
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51 monitoring by a financial intermediary has lower monitoring costs than  
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53 monitoring by a group of individual borrowers, and it avoids the free rider  
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55 problem (Diamond, 1984). The Belgian universal banks indeed played an active  
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57 role in the companies they controlled (Kurgan-Van Hentenryk, 1997).  
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3 Furthermore, bank equity stakes and board positions may have provided signals of  
4 credit worthiness to capital markets (see e.g. Carosso, 1970; De Long, 1991;  
5 Ramirez, 1995; Franks, Mayer and Wagner, 2006). A bank with access to more  
6 timely information and with incentives to produce more durable information can  
7 better certify offer prices in securities issues. The findings of Deloof et al. (2007)  
8 that in the period considered in this study, Belgian firms with a banker on their  
9 board paid higher and more stable dividends than firms without bank relationships  
10 is consistent with the “certification” role of bank directors.  
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15 A number of studies find that relationships with financial institutions indeed  
16 reduce credit constraints (see Ongena and Smith, 2000, for a review). Some of  
17 these studies focus on the early 20<sup>th</sup> century. Ramirez (1995) finds that firms  
18 affiliated with J. P. Morgan were less liquidity constrained, while the results of  
19 Becht and Ramirez (2003) suggest that coal-mining firms affiliated with a  
20 universal bank in Germany also faced less credit constraints. DeLong (2001)  
21 shows that the presence of directors affiliated with J.P. Morgan was associated  
22 with higher firm value. Van Overfelt et al. (2009) find similar results for firms  
23 affiliated with universal banks in pre-World War I Belgium.  
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28 In our empirical analysis we will assume a bank relationship (i) if a bank has a  
29 direct equity stake in the firm, and/or (ii) if the firm has a bank director on its  
30 board. Firms with a bank equity stake are likely to have a close relationship with  
31 the bank. A relationship at the board level represents a continuous interaction and  
32 information exchange between the firm and the bank and may facilitate access to  
33 bank credit, even in the absence of a bank equity stake. We expect that firms with  
34 bank relationships extended more credit to their customers.  
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3 We will also consider the financing role of trade credit by using firm size and firm  
4 age as proxies for access to external financing (e.g. Petersen and Rajan, 1997).  
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6 Larger and older firms may grant more trade credit to customers because well-  
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8 established firms have better access to external financing. It can also be expected  
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10 that firms with more internal cash are able to extend more credit to their  
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12 customers (e.g. Petersen and Rajan, 1996). We therefore expect a positive  
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14 relationship between cash flow and trade credit granted.  
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21 Product quality explanations of trade credit on the other hand predict that larger  
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23 and older firms will extend *less* trade credit to their customers than smaller and  
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25 younger firms, because they have more established reputations: firms with  
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27 established reputations need not use additional quality signals (e.g. Long et al.,  
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29 1993; Lee and Stowe, 1993).  
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#### 34 **IV. Sample and Variables**

##### 35 *Sample*

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38 Our sample consists of Belgian firms listed on the Brussels Stock Exchange in the  
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40 period 1905-1909. We focus on four major industries: coal-mining, tramways,  
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42 railways and textiles. At the time, these were the four largest Belgian industries in  
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44 terms of (i) the number of firms in the industry and (ii) the number of firms  
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46 affiliated with a universal bank. We hand-collected financial statement data from  
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48 the appendices to the Official Gazette (“Annexes au Moniteur Belge: Recueil  
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50 Spécial des Actes des Sociétés”). This is the most reliable source of Belgian  
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52 financial statement data for that period. All firms constituted under Belgian  
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3 corporate law were legally required to publish their balance sheets and income  
4 statements in the Official Gazette (Théate, 1905).  
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9 Since the discretionary power of management to design the financial statement  
10 was high, there is substantial heterogeneity in the structure of the financial  
11 statements. Therefore we had to reformat the financial statements in a uniform  
12 structure. Fortunately, the law provided some guidelines about the depreciation of  
13 assets and the distribution of profits (Resteau, 1913a and 1913b) and we were able  
14 to check practitioners' guides to get a better understanding of the accounting  
15 principles at the turn of the century (François, 1902 and 1907).  
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27 After removing some observations with missing or outlying values for the  
28 variables considered in the empirical analysis, our sample consists of 535 firm-  
29 year observations for 125 different firms.  
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### 33 34 *Variables*

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37 Our measure of trade credit is accounts receivable scaled by total assets<sup>1</sup>. As for  
38 bank relationships, we consider relationships with six different banks: (i) the  
39 Société Générale; (ii) the Crédit Général Liégeois; (iii) the Banque d'Outremer;  
40 (iv) the Banque Liégeoise; (v) the Banque de Bruxelles and (vi) the Banque  
41 Internationale de Bruxelles. These were the most important listed universal banks  
42 both in terms of total assets and the value of the industrial portfolio (Durviaux,  
43 1947; see also Van Overfelt et al., 2009). The data on the bank equity stakes were  
44 collected from the "Recueil Financier", which listed the industrial portfolio of the  
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59 <sup>1</sup> Accounts receivable are scaled by total assets instead of sales because the financial statements  
60 generally did not show sales. We do not consider accounts payable because financial statements in  
pre-World War I Belgium did not distinguish between trade liabilities and bank debt.

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3 banks considered in this study. We are able to identify only 17 firms in which a  
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5 bank had an equity stake<sup>2</sup>.  
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9 For the bank directors, we collected data on the board of directors from the  
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11 “Recueil Financier”, a financial annual containing a variety of firm-specific  
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13 information, including directorships<sup>3</sup>. Bank directors are based on the boards of  
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15 1905. For some companies that went public after 1905, we also used the 1905  
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17 board if it was available in the Recueil Financier. If it was not available, we used  
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19 the board from the year the listing started. Bank relationships were very stable  
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21 anyway. Van Overfelt et al. (2009) find for a very similar sample that most firms  
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23 with a bank director in 1905 already had a bank director in 1895, and most firms  
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25 without a bank director in 1905 did not have a bank director in 1895. As in  
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27 Germany, the boards of Belgian firms had a dual structure, consisting of an  
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29 executive board (“administrateurs”) and a supervisory board (“commissaires”).  
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31 While executive directors held a significant number of directorships in other  
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33 firms, their supervisory peers rarely held directorships in other firms. We  
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35 therefore assume that an executive director of the bank who is on the executive  
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37 board of the firm is a bank director<sup>4</sup>.  
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48 <sup>2</sup> The limited number of bank equity stakes is remarkable, as studies on the history of Belgian  
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50 universal banks tend to stress the role of these banks as equity investors (see for example Kurgan-  
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52 Van Hentenryk, 1991). However, this finding is consistent with the conclusion of Fohlin (2006)  
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54 that German banks in the late 19th century owned few equity stakes in non-financial companies.  
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57 <sup>3</sup> To check the accuracy of the “Recueil Financier”, we compared the information in the “Receuil  
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59 Financier” with the entries in the appendices of the Official Gazette for a sub-sample of firms but  
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we found no differences.

<sup>4</sup> We cannot rule out the possibility that some of these directors were in fact industrialists sitting on  
the board of a bank, and not bankers on the board of industrial firms. However, anecdotal evidence  
suggests that these directors generally were representing the interests of the bank. For example,  
Edouard Despret, who died in October 1906, held board positions in 19 different firms at the time  
of his death. He was the vice-president of the Société Générale, which was by far the largest bank  
in Belgium. In November 1906, he was succeeded on the board of the Société Générale by Jean  
Jadot. Before becoming a director of the Société Générale, Jean Jadot held no board positions at

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Table 1 about here  
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Table 1 shows the number of firms interlocked with each universal bank. 43 of the 125 firms in our sample were interlocked with a universal bank. Almost half of these firms were interlocked with either the *Société Générale* or the *Crédit Général Liégeois*. The table also shows the number of equity stakes held by each universal bank. Most of these stakes were held by the *Société Générale*; the other banks had very few or no equity stakes. All the firms in which a bank had an equity stake were also interlocked with that bank.

As for the other explanatory variables,  $\ln(size)$  is the natural logarithm of total assets; and  $\ln(age)$  is the natural logarithm of difference between the current year and the year the firm transformed to a limited liability company. *Cash flow* is operating profit plus depreciation over the fiscal year, scaled by the book value of total assets.

The financial statements of the firms considered in this study distinguish between two forms of debt: “obligations” or bonds, and “créditeurs”, which is all other debt. “Créditeurs” could be bank debt but also trade liabilities. We include both *Bonds* and *Other debt*, which are scaled by the book value of total assets, as control variables in our regressions. Firms with access to bond financing and/or other debt financing may redistribute funds via trade credit to other firms. On the other hand, it is generally observed that firms try to “match maturities”: short-

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all. Three years later, he was a director of 13 different firms. In most of these firms, Edouard Despret had been a director when he died (Sources: the 1906 annual report of the *Société Générale* and the 1906 and 1910 editions of the *Receuil Financier*). All the firms in which Edouard Despret held positions before his death still had one or two *Société Générale* Directors in 1909.

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3 term needs are financed with short-term debt and long-term needs are financed  
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5 with long-term sources of funds (e.g. Stohs and Mauer, 1996; Deloof and Jegers,  
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7 1999). Maturity matching suggests a positive relationship between accounts  
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9 receivable and other debt, and a negative relationship between accounts receivable  
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11 and bonds. To capture industry-specific trade credit policies, we also consider  
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13 dummies for the coal-mining, tramways, and textiles industries.  
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20 Table 2 about here  
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28 Table 2 presents descriptive statistics. Investments in accounts receivable were  
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30 substantial: on average 20.1% of total assets (median is 14.0%). However, Table 3  
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32 shows that there were large differences across industries. While accounts  
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34 receivable were on average more than 20% of total assets for coal-mining and  
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36 textile firms, they constituted less than 10% of total assets for tramways and  
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38 railways firms. Our sample reflects the importance of the coal-mining industry at  
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40 the turn of the 20<sup>th</sup> century: a majority of the firm-year observations (341) in our  
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42 sample are observations for the coal-mining industry.  
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50 Table 4 about here  
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## 54 **V. Regression results**

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57 Table 4 reports regression results. All regressions are estimated assuming random  
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59 effects. We use clustered standard errors to assess the significance of the estimated  
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3 coefficients. Standard errors clustered by firm account for the fact that standard  
4 errors of regression coefficients are downward biased if residuals are correlated  
5 across time for a given firm. When both fixed firm and time effects are present in  
6 the data, the time effect can be addressed by including time dummies and then  
7 estimating standard errors clustered on the other dimension (Petersen, 2009).  
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16 In regression (1) we include a bank equity stake dummy as a measure of bank  
17 relationships. The coefficient of this variable, which is statistically significant at  
18 the 10% level, implies that the ratio of accounts receivable to total assets is 8.8%  
19 higher for firms with a bank equity stake than for firms without a bank equity  
20 stake. This result is consistent with the hypothesis that bank affiliated firms with  
21 better access to credit redistributed capital via trade credit to other firms.  
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32 Finance based models of trade credit predict that larger and older firms with better  
33 access to credit will extend more credit than smaller and younger firms. Product  
34 quality models on the other hand assume that larger and older firms extend less  
35 credit, because firms with established reputations need not use trade credit as a  
36 quality signal. In regression (1), the  $\ln(\text{size})$  coefficient is insignificant, while the  
37  $\ln(\text{age})$  coefficient is positive and significant at the 10% level, which is consistent  
38 with the financing hypothesis, but inconsistent with the product quality  
39 hypothesis. We also find that cash flow is positively and significantly (at the 1%  
40 level) related to accounts receivable, confirming that firms with more internal  
41 cash were able to grant more credit to their customers.  
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56 Consistent with the maturity matching hypothesis, we find that accounts  
57 receivable are positively and significantly (at the 5% level) related to “other debt”.  
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60 Finally, our results suggest that coal-mining firms extended more trade credit than



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3 firms in other industries: the coefficient of the coal-mining dummy is positive and  
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5 significant at the 5% level.  
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9 In regression (2) we consider our second measure of bank relationships: a dummy  
10 which equals one if a firm had a bank director on its board, and zero otherwise.  
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12 However, the coefficient of this variable is insignificant.  
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16 Firms in trouble may extend trade credit to attempt to maintain their sales  
17 (Petersen and Rajan, 1997; Marotta, 2005). We test this conjecture by separating  
18 cash flow into cash flow if positive and cash flow if negative: firms with a  
19 negative cash flow are more likely to be in trouble than firms with a positive cash  
20 flow. In regression (3), the coefficient of former remains positive and significant  
21 at the 1% level, while the coefficient of the latter is insignificant. The conjecture  
22 that firms in trouble extended more trade credit is therefore not confirmed.  
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34 Most of the sample firms in which a bank has an equity stake are coal-mining  
35 firms. It is therefore possible that the effect of bank equity stakes we found in  
36 regression (1) is in fact a proxy for a “coal-mining effect”: maybe it was not firms  
37 with a bank equity stake but firms in the coal-mining industry which extended  
38 more trade credit. In regression (4) we re-estimated our base model for coal-  
39 mining firms only (341 firm-year observations). The bank equity coefficient is  
40 again economically large (0.147), and statistically significant at the 5% level. This  
41 result suggests that even *within* the coal mining industry firms with a bank equity  
42 stake extended more trade credit. The findings for the other independent variables  
43 are also confirmed:  $\ln(\text{age})$ , cash flow and other debt are all significant when we  
44 consider coal-mining firms only.  
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## VI. Conclusions

This study investigates the factors correlated with accounts receivable in an environment characterized by high information asymmetries and poorly protected investors, focusing on the role of bank relationships. The results are generally consistent with the financing role of trade credit, but inconsistent with product quality explanations for trade credit. The results also confirm that firms with close bank ties redistributed capital via trade credit to other firms. However, only firms with a bank equity stake extended more trade credit. Firms with a banker on their board which did not have a bank equity stake did not provide more credit to their customers.

Most of the sample firms with a bank equity stake were coal-mining firms, in which the Société Générale held a stake. The Société Générale was the dominant universal bank in Belgium, not only before World War I but for most of the 19<sup>th</sup> and 20<sup>th</sup> centuries. Historical evidence confirms that the Société Générale had a close relationship with the coal mining firms in which it held a stake. For example, Kurgan-Van Hentenryk, (1997) notes that in 1881 the Société Générale established the “Inspection des charbonnages” (collieries inspectorate), in order to monitor the costs of collieries under its control. De Beelde (1992) provides evidence that the Société Générale imposed cost accounting rules on affiliated coal mining firms.

This raises the question *which customers* were granted more credit by bank affiliated firms. It cannot be ruled out that affiliated firms extended more credit only to firms controlled by the same bank. As a matter of fact, Deloof and Jegers (1996) find evidence that Belgian firms belonging to a group in the 1990s used

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3 trade credit as a tool to finance other group members. The available data for the  
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5 period considered in this study do not allow us to investigate trade payables  
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7 policies. However, our finding that firms with a bank director, which were likely  
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9 to have easier access to credit than firms without a bank director, did not extend  
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11 more trade credit could be interpreted as an indication that it was not the  
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13 availability of credit *per se* which led firms with a bank equity stake to provide  
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15 more trade credit.  
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For Peer Review

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**Table 1. Company Interlocks and Equity Stakes for each Universal Bank**

This table reports the firm interlocks and equity stakes for each universal bank. The sample consists of 535 firm-year observations in the coal-mining, trams railways and textiles industries. A firm is interlocked with a universal bank if an executive director of the bank is also a member of the executive board of the company. All the firms in which a bank had an equity stake were also interlocked with that bank.

Universal Bank	Number of interlocked firms	Number of equity stakes	Average percentage of shares held
Société Générale	17	12	20%
Crédit Général Liégeois	18	3	26%
Banque d'Outremer	10		
Banque de Bruxelles	5	1	4%
Banque Liégeoise	4	1	4%
Banque Internationale de Bruxelles	3		

## Table 2. Descriptive Statistics

This table reports descriptive statistics for a sample of 535 firm-year observations for 125 listed Belgian firms in the coal-mining, trams, railways and textile industries in the period 1905-1909. Accounts Receivable, Cash Flow, Bonds and Other Debt are scaled by the book value of total assets. Cash Flow is operating profit plus depreciation over the fiscal year. Size is total assets at the beginning of the fiscal year (expressed in Belgian Francs). Age is the difference between the current year and the year the firm transformed to a limited liability company.

	Mean	Median	Standard Deviation	Minimum	Maximum
Accounts Receivable	0.201	0.140	0.196	0.000	0.926
Cash Flow	0.140	0.113	0.121	-0.255	0.871
Size	9,077,236	4,544,958	15,932,929	291,502	135,587,143
Age	28.250	23.000	19.328	1.000	81.000
Bonds	0.127	0.000	0.187	0.000	0.843
Other Debt	0.147	0.099	0.139	0.000	0.747

**Table 3 Average accounts receivable / total assets for each industry**

This table reports the average accounts receivable over total assets ratio for a sample of 535 firm-year observations for 125 listed Belgian firms in the coal-mining, trams, railways and textile industries in the period 1905-1909. The number of observations for each industry-year are given in parentheses.

	Coal-mining	Tramways	Railways	Textile
1905	0.233 (66 obs.)	0.097 (13 obs.)	0.081 (6 obs.)	0.233 (12 obs.)
1906	0.256 (69 obs.)	0.066 (16 obs.)	0.082 (6 obs.)	0.249 (12 obs.)
1907	0.248 (70 obs.)	0.081 (17 obs.)	0.097 (5 obs.)	0.203 (20 obs.)
1908	0.230 (69 obs.)	0.068 (17 obs.)	0.095 (5 obs.)	0.202 (20 obs.)
1909	0.226 (67 obs.)	0.061 (18 obs.)	0.092 (5 obs.)	0.196 (22 obs.)
1905-1909	0.239	0.074	0.089	0.210

**Table 4. Regression Results**

Random effects regressions are based on a sample of 535 firm-year observations for 125 listed Belgian firms in the coal-mining, trams, railways and textile industries in the period 1905-1909. Accounts Receivable (the dependent variable), Cash Flow, Bonds and Other Debt are scaled by the book value of total assets. Cash Flow is operating profit plus depreciation over the fiscal year. Ln(size) is the natural logarithm of total assets. Ln(age) is the natural logarithm of difference between the current year and the year the firm transformed to a limited liability company. All regressions include year dummies. P-values (robust for heteroscedasticity) are in parentheses below each coefficient. P-values for random effects estimations are based on clustered standard errors. \*\*\*: denotes significance at the 1% level; \*\*: denotes significance at the 5% level; \*: denotes significance at the 10% level.

	(1)	(2)	(3)	(4)
Sample:	All Companies	All Companies	All Companies	Coal-Mining Companies
Bank Equity Stake	0.088* (0.076)	-	0.088* (0.077)	0.147** (0.019)
Bank Director	-	0.042 (0.240)	-	-
Ln (Size)	-0.003 (0.866)	0.001 (0.949)	-0.003 (0.877)	-0.021 (0.431)
Ln (Age)	0.021* (0.059)	0.019 (0.118)	0.021* (0.059)	0.026* (0.056)
Cash Flow	0.341*** (0.000)	0.336*** (0.000)	-	0.393*** (0.000)
Positive Cash Flow	-	-	0.344*** (0.000)	-
Negative Cash Flow	-	-	0.241 (0.293)	-
Bonds	0.052 (0.610)	0.048 (0.642)	0.046 (0.687)	0.133 (0.230)
Other Debt	0.164** (0.011)	0.162** (0.013)	0.162** (0.014)	0.233** (0.020)
Coal-Mining	0.152** (0.036)	0.154** (0.034)	0.150** (0.045)	-
Tramways	0.032 (0.645)	0.016 (0.811)	0.032 (0.648)	-
Textiles	0.110 (0.111)	0.109 (0.107)	0.109 (0.119)	-
Overall R <sup>2</sup>	0.314	0.230	0.316	0.328
No. of observations	535	535	535	341