

Trade credit in the Chinese Economy: An analysis of Listed Companies

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Abstract. To provide a comprehensive analysis of trade credit activity in China, This study compared the use of the important non-formal financial channel, trade credit, between different sectors in China. This study further compared the use of trade credit between the firms of different scale. The results suggest that trade credit is an important source of funding for companies in the Chinese economy. Firstly, trade credit terms vary across industries, but tend to stay stable within industries and over time. Secondly, some manufacturing industries are net trade credit providers while others are net trade credit recipients. Thirdly, small and medium-sized firms (SMEs) are vital ingredient in the Chinese economy. SMEs can get short-term finance from their suppliers, however data shows that SMEs in china are net trade credit provider due to weaker position in the market. The results highlight the importance of supply chain financing for market completion.

Keywords: Trade credit; Chinese Economy; Account receivable; Account payable

1 Introduction

Trade credit involves supplying goods and services to business customers on a ‘deferred payment’ basis , that is, giving the customer time to pay. The majority of businesses engaged in business-to-business trade are both recipients of trade credit from suppliers and provider of trade credit to customers. Thus, trade credit is an important source of funding for all companies in the economy. Ge and Qiu(2007) compared the use of trade credit between state and non-state owned firms in China, and confirm that firms in China support their growth through non-formal financial channels, trade credit. China was considered to be a developing country with poorly developed financial institutions .However, in this paper we try to answer the question: if anything changed with the use of trade credit with the development of formal financial system in China.

Studies support the notion that credit terms vary across industries and countries, but tend to stay stable within industries and over time .In some sectors firms are net providers of credit and others are net users of credit. For instance, retailers sell for cash payments but buy in supplies on credit terms. Fabbri and Klapper(2008) find that suppliers with relatively weaker market power are more likely to extend trade credit and have a larger share of goods sold on credit. What more access to bank financing and profitability are not significantly related to trade credit supply. The result highlight the importance of supply chain financing for market completion In this study, we explore the use of trade credit between different industrial sectors, and provide a basis for supply chain financing based on trade credit.

Small and medium-sized firms (SMEs) are vital ingredient in Chinese economy. On the one hand, the SMEs have limited access to bank loans. In addition to regular sources of finance, SMEs can get short-term finance from their suppliers. Thus Trade credit is considered to be the most important and largest form of short-term financing for SMEs. On the other hand, some studies find that SMEs are net trade credit provider due to weaker position in the market. To test the truth, we explore the trade credit for SMEs in China.

The aim of this paper is to provide a comprehensive analysis of trade credit activity in China. We explore the trade credit activity between firm of different sectors and of varying sizes. The remainder of the paper proceeds as follows: Section 2 describes the data source .Section 3 examines the use of trade credit between different sectors and trade credit for SMEs. Section 4 summarizes and concludes the paper.

2 Data

We explore trade credit activity in the Chinese corporate sector by analyzing the financial statements of all limited companies in the period 2004-2013. The analysis of trade debtors' and trade creditors' figures gauge trade credit activity as reported on company balance sheets.

3 The use of trade credit

3.1 Trade credit in the Economy

The granting of credit by non-financial firms to their customers is a widespread practice in the China. In addition to regular sources of finance, firms can get short-term finance from their suppliers. This amount of deferred payment is known as trade credit. Trade credit is the most important and largest form of short-term financing for the corporate sector. This section provides estimates of the importance and significance of trade credit in the Chinese corporate sector. The analysis is based on financial statements of all limited companies within the period 2004-2013. The analysis is comprehensive since it is based on the whole population of limited companies that actively file annual returns and accounts. The trade debtors figures and trade creditors figures were searched for positive values and firms with positive values were identified as credit-active companies. Around 70% of limited companies extend trade credit to customers, and around 75% of companies receive credit from suppliers. About 68% of the companies are both providers and recipients of trade credit. In the past decade, the proportion of companies that both extend and receive trade credit has significantly increased: in 2005 about 40% of the companies have trade debtors on balance sheets and about 53% of the companies have trade creditors on balance sheets, while in 2013, about 95% of all listed companies use trade credit. Most of them are both providers and recipients of trade credit. The overall size of trade creditors was greater than that of trade debtors. The aggregate value of trade debtors on company balance sheets was 2 trillion RMB in 2013, while the aggregate value of trade creditors on company balance sheets was 3.9 trillion RMB in 2013. In addition, the total value of trade credit and bank credit were rising during the past ten years and in the post-recession period (after 2009), the total value of trade creditors exceeded that of bank credit. That means trade credit is an important source of funding for all companies in the economy, especially when bank finance is scarce.

3.2 Trade Credit Active Companies: by sector

Credit terms vary across industries and countries, but tend to stay stable within industries and over time. Moreover, in some sectors firms are net providers of credit and others are net users of credit. For instance, retailers sell for cash payments but buy in supplies on credit terms. Thus, the following disaggregations are provided by industry sector. The sample is firstly split into 6 categories and then split into 26 industrial sectors based on Standard Industrial Classification (SIC) Codes.

The situation of trade credit disaggregated by Industry sector was much the same as the total situation: the size of trade creditors was greater than that of trade debtors. The real estate sector was especially that case. The real estate industry had a number of corporate accounts payable accounted for about 90%. Industrial and commercial sectors had a number of corporate accounts payable accounted for about 70%. The proportion of companies in financial sector that extend or receive trade credit was notably lower than other sectors, at about 20%.

Further observation is about the trade credit activity in the Manufacturing and wholesale and retail. Highest proportion of listed companies are in manufacturing industry, up to 62.2%, followed by the wholesale and retail (6.3%). 12 manufacturing sectors use more trade credit than the average level: black metal smelting and rolling processing industry, wine, beverage and refined tea manufacturing, railway, shipbuilding, aerospace and other transport equipment manufacturing, paper and paper products industry, textile industry, chemical fiber, oil processing and coking and nuclear fuel processing industry, pharmaceutical manufacturing, non-metallic mineral products, chemical raw materials and chemical products manufacturing, automobile manufacturing, non-ferrous metal smelting and rolling processing industry. 90% of companies in wholesale sector has trade debtors on balance. Wholesale and retail are trade credit active sectors.

The aggregate values of trade debtors and trade creditors are plotted over the time period .The aggregate values of trade debtors and trade creditors in industrial sector are far more than that of other sectors.

We gauge the total value of trade credit by count the total value of accounts receivable and accounts receivable.4 category sectors are net trade credit receivers. They are utilities sector, real estate sector, industrial sector and commercial sector. industry and real estate sectors take up the largest trade credit, combined by more than 80% of the trade credit overall size. Firm in industry sector supply nearly 1415 billion in trade credit and receive nearly 2163 billion, and thus net recipients of trade credit in 2013.

Further observation is made inside industrial sector. From the view of account receivable:10 sectors in the manufacturing industry account for more than 80% of the total amount of accounts receivable They are computers, communications and other electronic equipment manufacturing industry (16.1%) , special equipment manufacturing (15.2%) , electrical machinery and equipment manufacturing (11.9%) , general equipment manufacturing industry (10.7%) , car manufacturing (8.3%) , railway, shipbuilding, aerospace and other transportation equipment manufacturing industry (7.4%) , pharmaceutical manufacturing (4.9%) , chemical raw materials and chemical products manufacturing (4.3%) , non-metallic mineral products (3.4%)

From the view of account payable: 10 sectors in the manufacturing industry account for more than 85% of the total amount of accounts payable they are black metal smelting and rolling processing industry (14.9%) , car manufacturing (14.8%) , computers, communications and other electronic equipment manufacturing industry (10.7%) , electrical machinery and equipment manufacturing(10.1%),electrical machinery and equipment manufacturing (8.6%) , special equipment manufacturing (7.3%) , general equipment manufacturing industry (7.2%) , chemical raw materials and chemical products manufacturing (5.1%) , non-metallic mineral products (3.6%) , non-ferrous metal smelting and rolling processing industry (3.3%)

Above analysis show that manufacturing trade credit are concentrated in a few industries. Some manufacturing sectors are active in both providing and receiving trade credit, such as computers, communications and other electronic equipment manufacturing industry, special equipment manufacturing, electrical machinery and equipment manufacturing, general equipment manufacturing industry, and car manufacturing industry.

Some manufacturing industries are net trade credit providers: special equipment manufacturing, communications and other electronic equipment manufacturing industry, general equipment manufacturing industry, pharmaceutical manufacturing, rubber and plastic products, instrument manufacturing, fabricated metal products, textile and apparel, clothing industry, paper and paper products, leather, fur, feather and its products and footwear and so on.

Some manufacturing industries are net trade credit recipients. The following are ranked in the scale of net trade credit: black metal smelting and rolling processing industry, car manufacturing, railway, shipbuilding, aerospace and other transportation equipment manufacturing, chemical raw materials and chemical products manufacturing, non-ferrous metal smelting and rolling processing industry, oil processing and coking and nuclear fuel processing industry, non-metallic mineral products, wine, beverages and refined tea manufacturing, chemical fiber industry, and electrical machinery and equipment manufacturing.

3.3Trade Credit for SMEs

Small and medium-sized firms (SMEs) are vital ingredient of a successful, innovative and growing economy. In Chinese economy, SMEs contribute nearly 80% of employment, more than 50% of gross domestic product (GDP) and 60%of exports. However, SMEs have more difficulty in accessing finance partly because their small size and lack of credit worthiness add to the inefficiency of credit markets due to problems of asymmetric information (Stiglitz and Weiss,1981).SMEs tend to face even greater difficulty in developing economies, where capital markets and regulatory frameworks are not fully developed.

The poor availability and poor quality of credit information on smaller companies has hindered the flow of institutional credit and equity to this opaque sector. Consequently, SMEs are often heavily reliant on short-term finance and, where possible turn to suppliers as their main source of short-term finance (trade credit). This is particularly the case when other sources of finance are scarce. Consequently, trade credit is an important source of finance for small firms.

However, in order to compete in markets, small firms have to extend trade credit to their customers. Late payment and the subsequent effects on cash flow are problematic for small businesses that have limited financial resources. The impact of delayed payment could be devastating for some businesses. The financing cost and management time involved in slow or uncertain payment erodes the profitability of a sale and, when profit margins are tight, can eliminate it altogether.

The data on trade credit aggregates is calculated in relation to the size of companies which are classified as small (total asset values up to 1200 million); medium(asset values> 1200 million and <3500 million)and large (asset values>3500 million).The data shows that smaller firms supply nearly 61 billion in trade credit and receive nearly 36 billion, and thus net providers of trade credit in 2013.On the contrary, larger firms supply nearly 1989 billion in trade credit and receive nearly 3693 billion, and thus net recipients of trade credit in 2013.The data doesn't show that small firms substitute trade credit when bank credit is in short supply and no evidence show that large firms (with accesses to institutional financial finance) provide trade credit to the smaller firms sector. For small firms that both extend and receive trade credit, the challenge of managing uncertain cash of potential delayed payments is acute. The taking of extend trade credit from suppliers is a pervasive and perennial problem that often has a disproportionate impact on smaller firms. Delays in the payment of an invoice may be justified by the buyer through disputes over quality service ect. Indeed ,payment delays have a complex array of causes but smaller firms have to accede to the bargaining of large buyers.

Trade debt is an important asset on the balance sheet. In this section we gauge how important an asset is by looking at trade debt in relation to total assets. We compute the ratio of trade debtors on the balance sheet to total assets (expressed as a percentage) by company size and over time. For smaller companies the ratio is around 12%, and for larger ones around 8%.

The ratio are relatively stable over time. For smaller companies the proportion of trade debt as asset is higher than is the case for larger firms. On average, trade debt makes up around 12% of total assets in small to medium firm balance sheets and 8% in medium to lager firms. All sectors show a build-up of trade debt prior to the financial crisis

We examine the liabilities side of the balance sheet and look at trade creditors (credit taken from supplier) in relation to other credit. We compute the ratio of trade creditors on the balance sheet to total liabilities (expressed as a percentage) by company size and over time. There is a consistent pattern across firms of different size. For smaller companies the ratio is around 30%, and for larger ones around 20%. For small companies, trade creditors become an increasingly important source of short-term finance.

4 Conclusions

Trade credit is pervasive in the Chinese economy and for all business. It represents both an important element in gaining and managing customers and in financing the purchase of supplies. Our data appear to confirm that trade credit is an important source of funding for all companies in the economy.

Around 70% of limited companies extend trade credit to customers, and around 75% of companies receive credit from suppliers. About 68% of the companies are both providers and recipients of trade credit. In the past decade, the proportion of companies that both extend and receive trade credit has significantly increased.

The total value of trade credit and bank credit were rising during the past ten years and in the post-recession period, the total value of trade creditors exceeded that of bank credit. That means trade credit is an important source of funding for all companies in the economy, especially when bank finance is scarce.

The overall size of trade creditors was greater than that of trade debtors. The aggregate value of trade debtors on company balance sheets was 2 trillion RMB in 2013, while the aggregate value of trade creditors on company balance sheets was 3.9 trillion RMB in 2013.

Trade credit vary across industries, but tend to stay stable within industries and over time. Some industries are net trade credit providers while others are net trade credit recipients. 90% of Companies in Wholesale sector has trade debtors on balance. Wholesale and Retail are trade credit active sectors. The aggregate values of trade debtors and trade creditors in industrial sector are far more than that of other sectors. Industry and real estate sectors take up the largest trade credit, combined by more than 80% of the trade credit overall size. Firm in industry sector supply nearly 1415 billion in trade credit and receive nearly 2163 billion, and thus net recipients of trade credit in 2013.

Trade credit is a source for small firms. SMEs can get short-term finance from their suppliers, however data show that SMEs in china are net trade credit provider due to weaker position in the market. Late payment can be regarded as a contributory factor to small business financial distress and failure. The results highlight the importance of supply chain financing for market completion.

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