Comparative Study on Making Loans to Large Companies and SMEs in China

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ABSTRACT

The SME financing problem in China has been widely acknowledged during the recent financial crisis. The SMEs compose 99% of all registered enterprises and employ more than 60% of labors in China. They contributed significantly to the economic vitality, as well as to ensuring stable employment and sustainable development of China. However, the SMEs have been short of external funding because they are considered to be riskier than large companies which maintained closer relationships to the governments and state-own-commercial-banks, which are the main financial source under the current banking system in China. Are the SMEs riskier than the large companies in terms of loan issuance? The thesis explores the issue by discussing the current banking structure in China and explaining the reasons from political, economic, social and technological perspectives. Comparing the financial indicators including ROE (return on equity), ROA (return on assets), NPM (net profit margin), ICR (interest coverage ratio), CR (current ratio) and revenue growth of selected SMEs and large companies before and after they received the commercial loans, I find that SMEs did not necessarily demonstrate worse performance than the large companies. Contrarily, the SMEs could more effectively utilize their loans to realize better business outcomes than the large companies did. To further improve the financing issue of SMEs, the thesis will raise recommendations from the perspectives of the government regulatory bodies and the local commercial banks.

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Contents

1. Introduction

The recent global financial crisis has worsened the financing problems for many small and medium enterprises (SME) in China. They suffered huge loss or even went bankrupt because of shrinking demand in foreign markets, increasing labor and raw material costs in local markets, and most importantly, shortage of liquidity. The financial difficulty of SMEs has been widely recognized. According to Ayavagari, firms with bank financing grow faster than firms without external financing support (Ayyagari, Demirgüç-Kunt, & Maksimovic, 2010). As Schoar argued that the majority of funding for small and medium sized enterprises is provided through banks in developing countries (Schoar, 2010). It is reported that currently there are around 6000 small and medium companies in China, comprising 99% of all registered enterprises. The total loans made to SMEs are 1.08 trillion RMB, which is 19.6% of all the loans made in 2011. In spite of recent policy reform encouraging commercial banks to provide loans to SMEs, only 62.2% of SMEs reported that their funding requests could be met up to 80%.

A number of reasons have been identified for the SME financing issue. The vital one was that commercial banks, mostly state-owned, were unwilling to make loans to this kind of enterprise in consideration of potentially higher risks and business volatility, as well as insufficient motivations to make loans under current incentive systems for banking employees. Shen argued that lacking appropriate financing channels has become the main hurdle for the development of SMEs in China (Shen, Shen, Xu, & Bai, 2009). Is making loans to SMEs much riskier than making loans to large established state-owned-enterprises? Research in developing countries including Vietnam and China witnessed that the credits to the large companies of political relationships with banks are less performing than the credits to SMEs (Malesky & Taussig, Oct., 2009). To explore the risk and performance of the loans made to SMEs, first this thesis introduces the current banking system in China, including the four big state-owned banks (SOCB) which were more likely to lease money to large companies. Four representative Joint-Stock-Commercial-Banks which did more business with SMEs in China will also be introduced. The third chapter further explores the problems and reasons why SMEs encounter insufficient financing. The fourth chapter analyzes and discusses financial performance, typical profitability and liquidity ratios of selected SMEs before and after receiving the loans. To promote sustainable growth of SMEs as well as to develop the credit business in the SME sector, the sixth chapter provides solutions and suggestions from the perspective of Chinese banking regulatory administrations as well as commercial banks. Lastly, the thesis will draw conclusions about the risks and benefits of making loans to SMEs according to the study.

2. Current banking system in China

The banking institutions of China mainly are composed of policy banks, state-owned commercial banks (SOCBs), joint stock commercial banks (JSCBs), city commercial banks, rural commercial banks, urban credit cooperatives (UCCs), rural credit cooperatives (RCCs), postal savings, foreign banks and non-bank financial institutions[1]. By the end of 2011, the total assets of all banking institutions in China reached 110,680 billion RMB, with an 18.9% year on year growth (KPMG, 2012). The major financial channels of SMEs are commercial banks and local financial institutions.

2.1 Policy Banks

Policy banks in China include China Development Bank (CDB), Agricultural Development Bank of China (ADBC) and Export-Import Bank of China (EMBC). Their major responsibilities are to support the policy execution of central government. For instance, CDB is focusing on financing major national infrastructure constructions while ADBC is serving the development needs of China's rural areas. On the other hand, EMBC is financing government and state-owned companies to complete large constructions and projects in foreign countries.

[1] According to the China Banking Regulatory Committee, the banking institutions include 10 categories which are policy banks, state-owned commercial banks (SOCBs), joint stock commercial banks (JSCBs), city commercial banks, rural commercial banks, urban credit cooperatives (UCCs), rural credit cooperatives (RCCs), postal savings, foreign banks and non-bank financial institutions (NBFIs). Over the thesis, rural commercial banks, urban credit cooperatives (UCCs), rural credit cooperatives (RCCs) are classified into rural commercial banks while postal savings and non-bank financial institutions (NBFIs) are combined together.

2.2 State-owned commercial banks

There are four large state-owned commercial banks in China: Industrial and Commercial Bank of China (ICBC), China Construction Bank (CCB), Bank of China (BC) and Agricultural Bank of China (ABC). Their total assets were 53,634 billion RMB by the end of 2011, consisting of 48.5% of overall banking assets in China (KPMG, 2012). Ever since Oct. 2005 when CCB went public on Hong Kong Stock Exchange, the other three state-owned banks have followed suit to go public either in Hong Kong or mainland China, with the purpose of inviting strategic investors and improving their competitiveness in the global markets. Since China's entry into the WTO in 2001, China's government has committed to opening the financial market to the rest of the world, though no specific timetable is provided. Though these 4 large banks have been listed on the stock market and transformed themselves into modern commercial banks, with improvements on corporate governance and the introduction of diversified financial products, they are mainly controlled by Chinese government and play essential roles in supporting the development of state-owned enterprises and implementation of national economic policy.

China Construction Bank (CCB). CCB was founded in 1954 to finance important national infrastructure constructions in China. However, with the foundation of China Development Bank (CDB) in 1994, the major role of CCB was gradually replaced by CDB. Currently, CCB is developing into a comprehensive bank that provides commercial banking, investment banking, wealth management and insurance services, although its core revenue of 59 billion RMB was made by its commercial banking service, which was 83% of the total revenue in 2011 (CCB, 2012).

The credits to the top 10 customers of CCB amounted to 15.13% of the total loans it made in 2011. As the chart below shows, 7 of them are from the road transportation industry and 1 from railroads, 1 from the power & energy sector and the other from the public facility management sector. The loan leased by the largest customer, which belongs to the railroad sector, composes 0.47% of the total loan of CCB.

Table 1 From CCB Annual Report 2011, page 41

Customer	Industry	loan (Million RMB)	Percent %
1	Railroads	30,517	0.47
2	Power and energy	14,810	0.23
3	Road Transportation	14,480	0.22
4	Road Transportation	13,056	0.20
5	Railroads	11,950	0.18
6	Road Transportation	11,880	0.18
7	Public Infrastructure Management	11,408	0.18
8	Road Transportation	10,922	0.17
9	Road Transportation	10,858	0.17
10	Road Transportation	10,467	0.16
	Total	140,348	2.16

Industrial and Commercial Bank of China (ICBC). ICBC is currently the largest bank in the world in terms of total assets, 15,476 billion RMB. After its IPO in 2006, ICBC's annual net income reached 208 billion RMB in 2011, with a year-on-year growth ratio of 26.1% (ICBC, 2012). ICBC was founded in 1984 to take over the commercial banking business from People's Bank of China which later was transformed into the "Central Bank" in China. It has the widest network of 16,648 branches in mainland China and served more than 282 million individual customers and 4.11 million corporate customers (ICBC, 2012). The top 10 customers amounted to 2.8% of its total loans made in 2011. Eight of the 10 customers come from the transportation industry, and the other 2 from mining and energy sectors.

Table 2 From ICBC Annual Report 2011, page 83

Customer	Industry	loan (Million RMB)	Percent %
1	Transportation, warehousing&post	40,507	0.50
2	Transportation, warehousing&post	23,248	0.30
3	Transportation, warehousing&post	22,287	0.30
4	Transportation, warehousing&post	22,185	0.30
5	Transportation, warehousing&post	21,408	0.30
6	Mining	19,000	0.30
7	Electricity, gas and water	18,458	0.20
8	Transportation, warehousing&post	18,125	0.20
9	Transportation, warehousing&post	15,579	0.20
10	Transportation, warehousing&post	13,884	0.20
	Total	214,681	2.80

Bank of China. Founded in 1912, Bank of China has been listed on both the Hong Kong and Shanghai Stock Exchanges since 2006. Annual net income of BC was 130 billion RMB in 2011, with an 18.8% growth ratio compared with that of 2010. Corporate commercial banking business consists of 67.7% of its overall income with individual banking business of 24.76% (BC, 2012). Historically, BC is the major financial institution in China to finance foreign investment by the government and provide foreign currency deposits and loans. Currently, it also focuses on automotive, metal and heavy machinery industries. The top 10 customers contributed 2.59% of the total loans it made in 2011. Three of them are from public facility management, 2 of them come from transportation, 2 from mining sector and the rest are from manufacturing and service industries separately.

Table 3 From BC Annual Report 2011, page 51

Customer	Industry	loan (Million RMB)	Percent %
1	Water, environment and infrastructure management	26,428	0.42
2	Transportation and logistics	21,944	0.35
3	Water, environment and infrastructure management	20,000	0.32
4	Mining	18,135	0.29
5	Energy, mining and agriculture	16,034	0.25
6	commercial service	13,862	0.22
7	Electricity, gas and water	12,538	0.20
8	Water, environment and infrastructure management	12,111	0.19
9	Transportation and logistics	11,887	0.19
10	Manufacturing	10,086	0.16
	Total	163,025	2.59

Agriculture Bank of China (ABC). ABC was founded in 1951 and restructured itself from a policy bank to a fully state-owned commercial bank and then a state-controlled bank after its IPO in 2010 (ABC, 2010). It used to function as the policy bank to support the modernization and development of Chinese agriculture. However, with the establishment of Agricultural Development Bank of China (ADBC), ABC evolved into a commercial bank with diversified financial products and services. Its annual net income of 2011 reached 121 billion RMB, with a 28.5% year-on-year growth. The Bank has 23,461 domestic branches (ABC, 2010), extending its coverage to most of the rural areas in China.

Its top 10 customers contributed 2.21% of its total loans made in 2011. Within its top 10 customers, 3 come from energy sector, 2 from transportation, 3 from real estate and construction and 2 from the manufacturing sector.

Table 4 From BC Annual Report 2011, page 75

Customer	Industry	loan (Million RMB)	Percent %
1	Transportation, warehousing&post	21,389	0.38
2	Electricity, gas and water	19,619	0.35
3	Real estate	12,500	0.22
4	Real estate	11,535	0.21
5	Construction	11,313	0.20
6	Manufacturing	10,757	0.19
7	Manufacturing	10,039	0.18
8	Electricity, gas and water	9,669	0.17
9	Transportation, warehousing&post	8,902	0.16
10	Electricity, gas and water	8,704	0.15
	Total	124,427	2.21

2.3 Joint Stock Commercial Banks (JSCBs)

When the profits of the state-owned commercial banks grew by 29% in 2011, joint stock commercial banks (JSCBs) realized profit growth of 47.6% (KPMG, 2012). JSCBs were established under the approval of People's Bank of China to provide commercial banking and personal financial services around China. Currently there are 12 JSCBs which play an increasingly important role in promoting the growth of SMEs. Four of the typical JSCBs will be discussed as follows.

China Minsheng Banking Corp (CMBC). China Minsheng Bank Corporation was founded in 1996 as one of the earliest banks that were launched by non-state owned capital. It was officially listed on the Shanghai Stock Exchange in 2004 and then listed on Hong Kong Stock Exchange in 2009 (CMBC, 2012b). Because of its public-owned characteristics, CMBC differentiates itself from other state-owned commercial banks by growing its market share in the private enterprise sector, especially among SME customers, which has proved to be a successful strategy so far. The annual net income of 2011 reached 27.9 billion RMB, with a 58.8% year-on-year growth ratio. Loans made to private enterprise customers contributed 40.4% of the total amount of loans of 2011. The loans made to SMEs customers were 105 billion, contributed 19.4% of all the yearly loans made, with a 32.3% increase compared with 2010 (CMBC, 2012a).

To enhance its business in SMEs, CMBC has extended its networks into the rural areas of China by establishing 9 rural branches across China. Moreover, it cooperated with 2500 local rural credit cooperatives (RCCs) to provide credit products to SMEs. With direct contact with local villages where more SMEs are concentrated, CMBC is expected to further boost its profits from small companies.

On the other hand, to effectively control the risks of making loans to SMEs while expanding its business to this group of customers, CMBC refines its approval and investigation procedures. First, instead of making loans in accordance with fixed assets, CMBC also accepts other non-asset mortgages such as accounts receivable and goodwill. Second, to fully investigate the risks of specific industries in which SMEs are distributed including dining, furniture, tea and decoration, CMBC assigns a professional service team to evaluate the risks of the whole supply chain in that particular area. Therefore, it can make loans with controllable risks.

According to a business development manager from CMBC from Guangzhou, China, the bank adopts a special strategy to explore the SME markets. First, it classifies its local customers into niche markets such as textiles, automobile part sales, dining, accommodation, kitchenware and tea, according to the local industrial characteristics in each city. Each category of customer is served by a professional team of ten or more service providers, depending on the potential size of the revenue.

Second, to effectively penetrate the potential market, the assigned professional team conducts regular visits to customers prior to the contract period, during the establishment of the contract and even after the partnership to fully understand each customer's need and business condition. Sometimes they even establish friendly contact with the customers' family members and friends to better learn their customers on a personal level.

Third, value-added technology proves to be helpful in maintaining clients' loyalty, exploring further opportunities and monitoring the risks of customers. For SME customers, CMBC will offer a variety of free IT services including POS systems and mobile financing services. The installation of POS accounts will greatly help customers to get rid of manual settlement workloads and provide SME and their customers with access to credit and debit card services. Moreover, the POS system, which is linked to CMBC financial and risk administration, provides instant information on customers' current business through daily cash inflow and outflow data because all the businesses are transacted via the POS system. In addition, the mobile financial service also helps customers to conduct different transactions including cash transit, advisory service and queue number obtainment online.

China Merchant Bank (CMB). China Merchant Bank (CMB) was founded in 1987 in Shenzhen, China (CMB, 2012b). It is the first non-state-owned commercial bank in mainland China. With 3000 billion asset and 900 branches, CMB is listed on both the Hong Kong Stock Exchange and the Shanghai Stock Exchange. The net income of 2011 reached 36 billion RMB, with a 40.2% increase from 2010. The loans to SMEs consisted of 53.22% of the total loans it made in 2011 (CMB, 2012a).

Moreover, to promote its business in the SME sector, CMB established 36 branches with 70 sales teams to enhance its network with SME customers in Changjiang Delta, Zhujiang Delta, Bohai area and Fujian area (CMB, 2012a). Most of the traditional SMEs, which are export-oriented manufacturing enterprises and trading companies, are located in these areas. To improve the quality of the loans and control the risks, CMB also works in partnership with local government and industry associations and committees to identify more financing channels to SMEs.

Industrial Bank Corporation (IBC). Industrial Bank Corporation (IBC) was founded in 1988 as one of the earliest Joint Stock Commercial Banks. Annual net income of IBC reached 33 billion in 2011, with a year-on-year growth ratio of 40.24%. As a medium-sized commercial bank, IBC has 676 branches across China (IBC, 2012).

Shanghai Pudong Development Bank (SPDB). Shanghai Pudong Development Bank (SPDB), a Joint Stock Commercial Bank, was founded in 1993 in Shanghai. After 20 years, it extended its network into 160 cities with 760 branches. Its annual net profit reached 35.8 billion RMB in 2011 with a 41.7% yearly growth rate. In 2010, SPDB has issued 542 billion RMB of loans to SMEs, increasing 31% over 2010 (SPDB, 2012).

2.4 City Commercial Banks

City commercial banks, including city credit cooperatives, are the third category of banking institutions in China. Most of them have a presence only within their own city or province, rather than enjoying a country-wide network. The assets of reported city commercial banks totaled 9,988 billion RMB by 2011, with a 27% increase compared with 2010 (KPMG, 2012). They now encompass 9% of total banking assets in China. Because of local knowledge and close connections to customers, these banks also play an increasingly important role in promoting SME financing.

The fact that the city commercial banks are prevented from operating on a nation-wide scale as JSCB does is due to a strict approval procedure on cross-area banking operations, according to China Banking Regulatory Committee (CBRC). Local city commercial banks need to demonstrate effective risk control capability to expand cross-region operations.

However, when more and more corporate customers develop businesses in different cities across the country, local city commercial banks can hardly meet their customers' needs. Therefore, recently the CBRC has authorized more city commercial banks to conduct banking services throughout the country. Among the 144 city commercial banks, at least 22 were approved to operate in different areas by the end of 2011 (KPMG, 2012).

2.5 Rural Commercial Banks (RCB)

Rural commercial banks have been launched in country areas across China. Their assets amounted to 12,861 billion by 2011, encompassing 12% of overall banking assets in China. From 2010 to 2011, the number of rural commercial banks grew from 85 to 212 (KPMG, 2012). Meanwhile, the number of more traditional financial institutions in rural areas – Rural Credit Cooperatives, has decreased from 2,646 to 2,265 (People's Bank of China, 2012b) because such business models are transforming into commercial banks, which are deemed to be more adaptable to long-term development as well as local customer needs.

According to the 12th five-year plan of the Chinese Central Government, the modernization of rural areas is one of the foremost strategies to ensure the sustainable growth of China (People's Bank of China, 2012b). Rural areas are not simply defined to be the countryside, where only agriculture thrives. On the other hand, more and more competitive SMEs are growing in rural areas in various industries including tourism, logistics, breeding and machinery. Rural commercial banks expect great opportunities to grow along with more aggressive competition to come because JSCB and foreign banks are also attracted by such profitable opportunities to establish presences in rural areas.

2.6 Foreign Banks

In 2011, the assets of all reported foreign banks in China amounted to 2,154 billion RMB, which is 2% of total banking assets of China (KPMG, 2012). Compared to local Chinese banks, foreign banks demonstrate better risk control management that effectively lowers their bad debt ratio and enhances their profitability. The overall bad debt ratio of foreign banks in 2011 was 0.24%, compared with 0.96% of the industry average in China. The net income of foreign banks increased 109% compared with 2010 (KPMG, 2012). Along with the deregulation of China's financial sector after entry into the WTO, more and more foreign banks are advancing their businesses in both urban and rural areas in China. Their market share is expected to expand.

2.7 Postal Savings and Others

Postal Savings is defined as basically the banking service offered by China Post, which was originally a logistics and mail service provider with nationwide networks. Due to the vast area and various economic development phases in different parts of China, some rural regions have little access to modern banks or financial institutions. China Post extends its service to finance because of its unparalleled networks in almost all areas. It is convenient particularly for rural workers to send their income from the city back home via China Post Savings.

Other categories of financing services in rural areas include new models of credit agents that provide limited short-term loans to local customers. Total assets of postal savings and other credit agents amounted to 4,354 billion RMB, which was 4% of China's overall banking assets by 2011 (KPMG, 2012).

3. Current Financing Problems of SMEs in China

It is reported that currently there are over 60 million SMEs, which encompassed 99% of the total number of registered enterprises in China. Though more than half of the enterprises (59.3% of the samples) reported that their profit increased in 2011 compared with 2009 and 2010, financing issues remain critical to hinder the growth of SMEs. According to the survey by People's Bank of China, only 62.2% of SMEs reported that their applying loan amount can be met up to 80% by commercial banks. Still 74.9% of SMEs reported that their net income was negatively affected by the rising cost of raw materials and 28% reported that they were in a difficult condition to sell their products (People's Bank of China, 2012b).

The financing problems of many SMEs are caused by various factors. The recent financial crisis highlighted the inferior position of SMEs in obtaining necessary capital. Along with rising operating costs and decreasing demand, the inability to finance themselves worsened their financial status. The reasons for SMEs financing problems will be discussed under the PEST (Political, Economic, Social and Technology) framework.

3.1 Political

Besides commercial banks, there are limited financing channels that private enterprises, particularly SMEs can resort to. Regarding direct financing from the stock market, there is only the SME Stock Exchange and Entrepreneurship Stock Exchange which SMEs can access for equity. In 2011, only 128 SMEs acquired 79.3 billion RMB from the stock market (People's Bank of China, 2012b). For SMEs, the direct financing amount is 0.5% of that from commercial banks. Meanwhile, the corporate bond market is yet to develop in China, only 3 provinces are "testing" corporate bonds for SMEs by raising 1.4 billion totally in 2011 (People's Bank of China, 2012b).

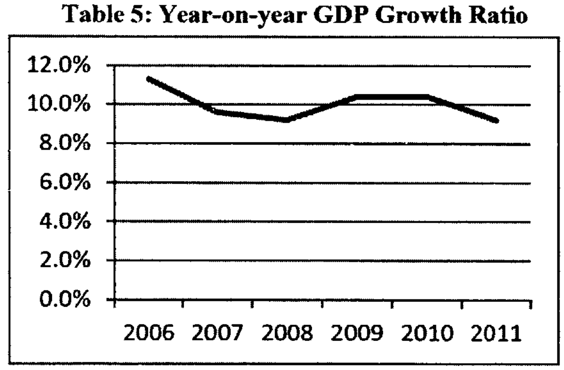
Government policies, particularly those from the Central Bank (People's Bank of China) and Banking Regulatory Committee, have a great impact on the capital adequacy of SMEs. By June 2011, People's bank of China raised the deposit reserve ratio for 6 consecutive times in that year, reaching a historical height of 21.5% (Hexun News, 2011), leading all banks of large and medium size to tighten their loan issuance. Most commercial banks raised the credit interest rate to SMEs or even refused to make loans to SMEs. Thus more and more SMEs turned to other illegal financing channels from private sector, which cost 40%~60% of annual interest rate (Tencent News, 2011).

In addition, during the economic crisis, Chinese Government adopted an aggressive fiscal policy to reboot the economy by injecting 400 billion RMB into the market, which is known as "Market Rescue" (Hexun News, 2012). This capital was mainly allocated to the State-Own-Enterprises (SOE) which helped implement the government policy in stimulating domestic demand and increasing infrastructure investment. With direct capital support from government, SOEs further expand and compete with SMEs, which are marginalized and subject to unfair competition position known as "Squeeze out" effect.

3.2 Economic

The economic environment also plays important role in determining the survival and prosperity of SMEs. Though GDP growth ratio maintained above 9% over recent 6 years of financial crisis (Table 5), it did not necessarily reflect positive implications to SMEs.

Table 5: Year-on-year GDP Growth Ratio



Source: National Bureau of Statistics of China

In terms of the GDP composition, during the economic crisis, particularly in 2009, the contribution of net exports of goods and service fell from 17.9% to -37.4% because the major export markets – U.S and Europe were slowing down and their demand of imports were greatly reduced. However, most of the SMEs were in export-oriented industries such as trading and manufacturing. The shrinking market demand seriously impacts the growth of SMEs and some of them are subject to financial distress.

Table 6: GDP Composition of China 2007 - 2011

Year	Final Consumption Expenditure%	Gross Capital Expenditure%	Net Exports of Goods and Services%
2007	39.6	42.5	17.9
2008	44.1	46.9	9
2009	49.8	87.6	-37.4
2010	43.1	52.9	4
2011	55.5	48.8	-4.3

Source: National Bureau of Statistics of China

Inflation, together with increasing labor costs and raw material costs also worsened the business environment for SMEs during the crisis. The official CPI growth kept around 5% for the past years.

Table 7. CPI Growth 2007~2011

Year	CPI Growth%
2007	4.80%
2008	5.90%
2009	-0.70%
2010	3.30%
2011	5.40%

Source: National Bureau of Statistics of China

Additionally, China government issued the "Lowest Salary Policy" across different provinces which increased the income for the majority of workers in manufactory and service sectors. In most provinces in eastern and southern China, local labor costs increased 200% to 300% from 2006 to 2011.

The decreasing demand in domestic and foreign markets, together with unpredictable inflation in labor and raw material markets has compounding effects on SMEs.

3.3 Social

SMEs in China are traditionally considered to be less resilient than SOEs because they are less supported by government and enjoy fewer favorable policies in either financing or operations. According to a recent survey, only 20% of the SMEs can survive more than 7 years whereas 41% can survive less than 3 years (CreditEase, 2012). SMEs are more fragile to policy and economic changes. Their risks are commonly deemed to be higher than SOEs. Because of the private-owned characteristics of SMEs, they do not have as close a relationship with the big state-owned banks as SOEs do. Therefore, when SMEs raised credit requests, banks will be less likely to underwrite loans to meet SMEs' needs as they do to SOEs.

The industry entrance limitation is another issue that prevents SMEs from accessing and benefiting from certain profitable fields. For example, the energy, railway and telecommunication sectors are strictly limited to state-owned companies and few private firms are able to be authorized or licensed to operate in such sectors. Therefore, most of the SMEs are concentrated in industries such as dining, textiles, manufactory, retail and trade which are competitive and easily exposed to economic fluctuations.

3.4 Technology

First, most of the SMEs do not set up modern accounting procedures. Therefore, they cannot provide necessary documents required by commercial banks to obtain the loans for which they apply (Deloitte, 2012). In addition, they feel it hard to prepare those documents for loans. 68% of the surveyed SMEs still apply handwriting and paper to be their accounting tools (CreditEase, 2012), without finance software.

Second, the founders, as well as the employees in SMEs are insufficient in professional education or management skill trainings compared with those in SOEs or multinationals. According to the survey, 51% of the SME owners' education level is not higher than high school. Only 26% of them received university degrees (CreditEase, 2012). Though many of them are willing to improve their education and professional skills, their current education background hinders them to systematically manage their business in long-term.

Third, the SMEs are concentrated more in labor intensive industries which are competitive but less profitable than knowledge-based or resource-based industries. Because of the education background, as well as the regulatory entrance limitation to certain industries, 38% of the SMEs are in the wholesale and retail business while 18% are in dining and housing industry. Only 13% are in IT or cultural sectors (CreditEase, 2012).

Fourth, currently there are no well-recognized rating agencies in China to evaluate the risk level or investment value for either large or small companies. The rating agencies are important for companies to attract necessary capital through the rates they score. Meanwhile, the rating agencies contributed significantly to improving the finance efficiency by collecting and sharing information about companies' financial and management performances.

Fifth, the traditional risk assessment tools in commercial banks are yet to be improved to meet the growing finance needs of SMEs. As from the survey by People's Bank of China, out of 66 surveyed samples, 10 commercial banks (15.2%) have no evaluation system or quantitative model to rate the risks of borrowers. Meanwhile, only 19 banks (28.8%) are adopting quantified methods to assess the risk levels of their customers and 27 banks are able to generate comprehensive risk evaluation by classifying their customers into different industries and income status (People's Bank of China, 2012a).

4. Sample risk analysis of making loans to large companies in China

The risk of underwriting loans to public large companies is generally regarded to be low because of their value of assets, their goodwill over the years and their relationship with state-owned banks. Recently, the state-owned-enterprises were affected by financial crisis, some of them also leased massive amount of credit from commercial banks to maintain their operations and grow their business. Four sample SOEs are randomly selected. Their risks are discussed and evaluated below in terms of ROE (return on equity), ROA (return on assets), NPM (net profit margin), ICR (interest coverage ratio), CR (current ratio) and revenue growth.

Ansteel Iron and Steel Group Corporation (Ansteel)

Located in Shenyang city of Liaoning province, Ansteel is the second largest iron producer that offers a variety of steel products from the pig iron, raw steel to rolled steel in China. It was established in 1948 as the earliest large iron manufacturer of the new China. Its annual iron production peaked in 2009 with pig iron of 20.5 million tons, raw steel of 20.1 million tons and rolled steel of 19 million tons (Ansteel, 2012b). As a state-own-enterprise, Ansteel has the biggest self-owned iron mine resources over the country. In 2011, its assets were 102,988 million RMB with revenue of 90,423 million and net income of -2,270 million RMB (Ansteel, 2012a).

Its long term debt from commercial banks reached 13,860 million RMB in 2011, with a 3.67 million increase from 2010. The current debt increased from 36,400 million in 2010 to 36,823 million in 2011. Given other categories of debts, the total debts in the recent 3 years are listed below.

Table 8 Total Debt 2009~2011 of Ansteel

Year	2009	2010	2011
Total Debt (Million RMB)	47,189	49,769	50,683

Source: Annual report of Ansteel 2009~2011

The top three banks that offer the largest amount of long term credits to Ansteel in 2011 are as below.

Table 9 Anshan's Loan in 2011

Banks	Bank Categories	Amount (Million RMB)
China Construction Bank	SOCB	840
Industrial and Commercial Bank of China	SOCB	1,800
China Development Bank	SOCB	500
Total		3,140

Source: Annual report of Anshan 2011

All of them are SOCBs or policy bank in China. To further evaluate whether direct finance has been effective in improving its financial performance, a summary of its relative ratios is provided below.

Table 10 Anshan's Loan in 2011

Year	ROA	ROE	NPM	ICR	CR	Revenue growth
2011	-2.20%	-4.50%	-2.50%	-1414%	77.00%	-2%
2010	1.90%	3.60%	2.10%	2985%	85.00%	32%
2009	0.70%	1.30%	1.00%	1067%	68.50%	-12%

Source: Annual report of Anshan 2009~2011

Though the revenue growth ratio returned positive in 2010, it dropped negatively again to -2% in 2011. Moreover, the net profit margin, together with return on equity and return on assets dropped below zero in 2011. The growing amount of debt does not really help support the growth of the company; on the other hand, increasing debt could lower its net income and profit margin when the revenue is not as promising as expected.

China Shipping (Group) Company (China Shipping)

China Shipping was founded in 1997 in Shanghai. It is the largest shipping company under direct government control. With branches and representative offices across more than 90 countries, China Shipping provides container, tanker, freight, passenger transport, car carrier and customized transportation services (China Shipping, 2012). In 2011, the total assets of China Shipping reached 4,908 million RMB with annual revenue of 1,204 million RMB and net income of -92 million. To finance its business growth and facility expansion, China Shipping consistently borrowed from commercial banks. In year 2010, it newly raised 5 loans from 3 banks. 95.6% of the loans are from SOCBs.

Table 11 China Shipping's Loan in 2010

Time	Banks	Bank Category	Million
2010/8/20	Communication Bank of China	SOCB	35
2010/12/24	China Merchant Bank	JSCB	21
2010/3/9	Communication Bank of China	SOCB	211.42
2010/2/11	Communication Bank of China	SOCB	190.96
2010/1/12	Industrial and Commercial Bank of China	SOCB	20
	Total		478.38

Source: Annual report of China Shipping, 2010

In 2011, it raised 6 other loans from 3 banks, with SOCBs' of 34%.

Table 12 China Shipping's Loan in 2011

Time	Banks	Bank Category	Million
2011/1/7	Industrial and Commercial Bank of China	SOCB	47.5
2011/5/4	Industrial and Commercial Bank of China	SOCB	20
2011/5/25	Industrial and Commercial Bank of China	SOCB	20
2011/5/20	Guangfa Bank	JSCB	70
20117/7	Guangfa Bank	JSCB	50
2011/9/1	China Merchant Bank	JSCB	50
	Total		257.5

Source: Annual report of China Shipping, 2011

Below is the financial summary and total debt of China Shipping from year 2009 to 2011.

Table 13 China Shipping's Financial Performance

Year	ROA	ROE	NPM	ICR	CR	Revenue growth
2011	-1.90%	-4.50%	-7.60%	681.90%	16.60%	-4%
2010	-0.20%	-0.40%	-0.70%	5219.10%	24.00%	48%
2009	-1.10%	-1.90%	-6.70%	15517.00%	51.20%	-28%

Source: Annual report of China Shipping, 2009-2011

Table 14 Total Debt 2009~2011 of China Shipping

Year	2009	2010	2011
Total debt (M RMB)	1,668	2,131	2,523

Source: Annual report of China Shipping 2009~2011

As the summary shows, ROA, ROE, NPM are all below zero when current ratio decreased from 51.2% in 2009 to 16.6% in 2011. The revenue rebounded with 48% growth in 2010; however, it dropped below zero again in 2011. The amount of debt increased from 1,668 million RMB in 2009 to 2,523 million RMB in 2011 while net income decreased from -56 million in 2009 to -92 million RMB in 2011. Although it increased its credit over the 3 years, China Shipping did not improve its financial results according to above index.

China International Marine Containers (Group) Ltd. (CIMC)

Founded in 1980, China International Marine Containers (Group) Ltd. (CIMC) is a transportation equipment and airport facilities manufacturer. After 30 years of development, its product category has extended from vehicle and container to transportation equipment for energy, chemical and food. Recently, it also launched financial leasing service to its customers to support their business growth. It went public in 1994 with annual revenue of 64 billion RMB and asset of 64.4 billion RMB in 2011(CIMC, 2012b).

CIMC has been borrowing from banks to optimize its financial structure. By the end of 2009, CIMC has current debt of 1,697 million RMB and long term debt of 5,215 million RMB. The top 5 long term loans of the largest amount are as below. Three of them are from policy banks while 1 is from state-owned commercial bank (CIMC, 2012a).

Table 15 CIMC's Loan in 2009

Banks	Bank Category	Million USD	Million RMB
China Development Bank	Policy Bank	40	275.2
Import & Export Bank of China	Policy Bank	11.5	79.1
China Merchant Bank Corp	JSCB	6.4	44
Import & Export Bank of China	Policy Bank	6.2	42.7
Bank of China	SOCB	2.6	17.9
Total			458.9

Source: Annual report of CIMC, 2009

In 2010, CIMC increased its credit amount and signed a contract with China Merchant Bank for a long term credit contract up to 17.7 billion RMB to satisfy its long-term financing need. Its long term debt amount reached 4,952 million while current debt 29,971 million RMB. The top five loans are as below. Two of them are from policy bank and 2 are from state-own-banks.

Table 16 CIMC's Loan in 2010

Banks	Bank Category	Million USD	Million RMB
China Development Bank	Policy Bank	270	1,857.60
Communication Bank of China	SOCB	75.9	522.2
Bank of China	SOCB	50	344
ABN AMRO Group	Foreign Bank	50	344
Import & Export Bank of China	Policy Bank	30.4	209.2
Total			3,276.90

Source: Annual report of CIMC, 2010

In 2011, CIMC increased its debt. Its long term debt reached 11,512 million RMB while current debt reached 31,236 million RMB by the end of 2011. The top 5 loans are as below.

Table 17 CIMC's Loan in 2011

Banks	Bank Category	Million RMB
China Development Bank	Policy Bank	504.7
Communication Bank of China	SOCB	500
China Development Bank	Policy Bank	378
China Development Bank	Policy Bank	378
Bank of China	SOCB	305.6
Total		2,066.30

Source: Annual report of CIMC, 2011

What happened to CIMC with the increasing amount of loans? Below is a summary of its financial results from 2009 to 2012.

Table 18 CIMC Financial Performance 2009-2011

Year	ROA	ROE	NPM	ICR	CR	Revenue growth
2011	5.60%	19.20%	5.60%	3773.50%	522.00%	24%
2010	5.20%	17.20%	5.40%	66544.90%	234.40%	153%
2009	-0.80%	-2.00%	-1.40%	16569.30%	136.50%	-57%

Source: Annual report of CIMC, 2009-2011

CIMC's revenue dropped significantly in 2009 due to the financial crisis. It came back in year 2010 and kept growing through 2011. ROA kept improving to 5.6% while the current ratio is above five folds. CIMC benefited from the direct fund from the commercial banks.

China Ocean Shipping (Group) Company (COSCO)

Founded in 1961, China Ocean Shipping (Group) Company (COSCO) is a state-owned company that specializes in logistics, shipping, vessel building and repairing. It owns and operates 32 terminals globally, with operations in more than 50 countries and over 130,000 employees worldwide (COSCO, 2012a). It went public early in 1993 in Singapore Stock Exchange and also is listed on both Shanghai and Hong Kong Stock Exchange. Its annual revenue reached 68,908 million RMB in 2011 with total assets of 157,436 million RMB (COSCO, 2012b).

To ensure its long term development, COSCO has borrowed consistently from commercial banks to support its infrastructure construction. In year 2009, its total debt reached 85,227 million RMB with current debt of 27,068 million and long term debt of 58,159 million. The top 5 loans it acquired in 2009 are as below. 71% of them are from SOCB and the 29% are from 2 foreign banks.

Table 19 COSCO's Loan in 2009

Banks	Bank Category	Million RMB
Bank of China	SOCB	8,397
Bank of China	SOCB	2,910
Agriculture Bank of China	SOCB	2,048
Bank of Tokyo Mitsubishi	Foreign Bank	3,152
SG (Societe Generale)	Foreign Bank	2,289
Total		18,796

Source: Annual report of COSCO, 2009

In 2010, COSCO increased its total debt to 88,648 million RMB, with a 4% increase compared with that in 2009. Its long term debt reached 60,256 million while its current debt 28,402 million RMB.

The top 5 loans it made in 2010 were as below. The banks were the same as those of 2009. The loans from SOCBs amounted to 73% while those from foreign banks were 27%.

Table 20 COSCO's Loans in 2010

Banks	Bank Category	Million RMB
Bank of China	SOCB	7,417
Bank of China	SOCB	2,682
Agriculture Bank of China	SOCB	1,987
Bank of Tokyo Mitsubishi	Foreign Bank	2,811
SG (Societe Generale)	Foreign Bank	1,635
Total		16,532

Source: Annual report of COSCO, 2009

In 2011, the total debt of COSCO reached 107,266 million RMB, with a 21% increase compared with 2010. Its long term debt was 59,951 million while its current debt was 47,316 million RMB by the end of 2011. The top 5 loans it made in 2011 were as below. Three of them are from SOCB while 2 of them are from policy banks.

Table 21 COSCO's Loans in 2011

Banks	Bank Category	Million RMB
Bank of China	SOCB	2,349
Bank of China	SOCB	1,512
Agriculture Bank of China	SOCB	1,575
China Development Bank	Policy Bank	3,402
China Development Bank	Policy Bank	2,520
Total		11,358

Source: Annual report of COSCO, 2011

Below is a summary for COSCO's financial performance from 2009 to 2011.

Table 22 COSCO Financial Performance 2009-2011

Year	ROA	ROE	NPM	ICR	CR	Revenue growth
2011	-6.60%	-30.10%	-15.20%	-1758.60%	134.00%	-15%
2010	4.50%	14.20%	8.40%	2289.70%	214.60%	45%
2009	-5.40%	-17.60%	-13.50%	-1910.10%	203.90%	-52%

Source: Annual report of COSCO, 2009-2011

Overall, the increasing credit did not improve COSCO's financial performance as expected. Its revenue witnessed negative growth in 2009 and 2011. The net profit margin also fell below zero because of the negative income it made in 2009 and 2011. Current ratio shrank from 203.9% to 134% in 2011.

The interest coverage ratio decreased to -1758.6% by 2011. The increasing debt did not improve its financial performance over the 3 years.

Not as certain as expected

From the study on the above four state-owned large enterprises, three of them have encountered substantial losses over the past three years though they consistently make loans from commercial banks to meet their financial needs. Relationship credit underwriting is one of the most important forms of loan making between the commercial banks and the state-owned enterprises. However, these loans did not ensure profitable outcomes.

5. Sample risk analysis of making loans to SMEs in China

The risk of SMEs is one of the key factors that prevent commercial banks from lending money. Their weak relationship with the banks, their uncertain business prospects and their less technology-based business model and less support from government, hinders banks, particularly state-owned commercial banks, from granting credits to them. However, the actual risks, as well as the benefits in issuing loans to SMEs should be analyzed before making conclusions. Five sample SMEs are randomly selected. Their financial performance before and after acquiring loans are discussed and analyzed. The financial index of these companies including ROE (return on equity), ROA (return on assets), NPM (net profit margin), ICR (interest coverage ratio), CR (current ratio) as well as revenue growth will be computed and compared.

Eternal Asia Supply Chain Management Ltd (EA)

Headquartered in Shenzhen city, Eternal Asia Supply Chain Management Ltd (EASCM) is a supply chain service provider that enables their customers to integrate the flows of capital, information and logistics and enhance competitiveness. With 4000 employees and 90 branches throughout China, EA now provides supply chain management services in various industries such as IT, solar, communication, FMCG (fast-moving-consumer-goods) and chemical, household appliance and apparel. It was listed in

SME Stock Exchange of China in 2007 (Eternal, 2012b). Its total assets by the end of 2011 reached 12,859 million (Eternal, 2012a).

In 2009, EA obtained 801 million RMB from 4 banks as below to expand its network and operation.

Table 23 Eternal's Loan in 2009

Banks	Bank Category	Million RMB
CITIC Bank	JSCB	230
China Merchant Bank	JSCB	125
China Construction Bank	SOCB	296
Industrial and Commercial Bank of China	SOCB	150
Total		801

Source: China Capital Market Disclosure, http://xinpi.stcn.com/

In 2010, EA further obtained 1,345 million RMB from 7 banks to grow its business as below.

Table 24 Eternal's Loan in 2010

Banks	Bank Category	Million RMB
China Construction Bank	SOCB	155
Communication Bank	SOCB	230
Bank of China	SOCB	230
CITIC Bank	JSCB	200
China Merchant Bank	JSCB	180
China Minsheng Bank	JSCB	200
Huaxia Bank	JSCB	150
Total		1,345

Source: China Capital Market Disclosure, http://xinpi.stcn.com/

In 2009 and 2010 when the global financial crisis was slowing the economic growth of China and the world, EA raised more than 2,000 million to expand its market. Were the loans risky to EA or the lending banks? Below is a summary of financial performance of EA from 2009 to 2011.

Table 25 Eternal Financial Performance 2009-2011

Year	ROA	ROE	NPM	ICR	CR	Revenue growth
2011	0.90%	8.50%	1.60%	166.60%	106.30%	16%
2010	0.90%	8.30%	2.00%	163.40%	104.80%	129%
2009	0.90%	5.90%	3.00%	18.50%	109.90%	-8%

Source: Annual report of Eternal, 2009-2011

The large amount of debt did not greatly impact the financial results of EA. In 2009, due to the severity of economic crisis, EA's revenue saw negative growth. Meanwhile, current ratio and net profit margin stayed positive at 109.9% and 3% separately. In 2010 and 2011, EA's revenue increased by 129%

and 16% respectively and current ratio, NPM, ROA and ROE were above industry average. The direct finance from commercial banks improved the ROE, ICR and revenue growth of EA throughout the 3 years.

Chongqing LUMMY Pharmaceutical Co., Ltd (Lummy)

Founded in 1999, Chongqing Lummy Pharmaceutical Co., Ltd (Lummy) is a pharmaceutical enterprise focusing on drug research and development, manufacturing and sales. In 2011, its total assets reached 1 billion RMB with annual revenue of 534 million RMB (Chongqing Lummy, 2012a). With over 750 employees, Lummy specialized in producing anti-infective drugs and featured rugs. Its sales network covers 29 provinces over China. It went public on Entrepreneurship Board since 2009 (Chongqing Lummy, 2012b).

In 2010, Lummy raised in total 90 million RMB from Industrial Bank Corp and China Minsheng Bank to improve its liquidity.

In 2011, Lummy further raised 168 million RMB from 4 banks, most of which are city commercial banks, to expand its operations as below.

Table 26 Chongqing Lummy's Loans in 2010

Banks	Bank Category	Loan Amount(M RMB)
Industrial Bank Corporation	JSCB	60
China Minsheng Bank	JSCB	30
Total		90

Source:China Capital Market Disclosure, http://xinpi.stcn.com/

The Direct financing from the commercial banks proved to be effective to improve Lummy's financial performance. In spite of the financial crisis in 2009 and 2010, the net profit margin and revenue growth ratios of Lummy are both above 10%. Though it lent 168 million in 2011, its revenue grew by 41% while current ratio stayed at 117%.

Table 28 Chongqing Lummy Financial Performance 2009-2011

Year	ROA	ROE	NPM	ICR	CR	Revenue growth
2011	5.10%	8.90%	10.30%	612.40%	117.20%	41%
2010	4.70%	7.40%	10.90%	1196.60%	160.20%	13%
2009	5.80%	7.20%	11.30%	993.50%	441.70%	26%

Source: Annual report of Chongqing Lummy, 2009-2011

The commercial loans improved its financial results and improved public expectation on its business outlook. Its ROE increased from 7.2% in 2009 to 8.9% in 2011. All the loans it received are from JSCB or city commercial banks. The increasing credit amount contributed significantly to improving its revenue growth.

JANUS (Dongguan) Precision Components Co.,Ltd

Located in Dongguan city, one of the leading manufactory zones of China, Janus is a professional provider for precision structural components and producer of consumer home electronics. Its R&D focus on precision molds enables it to become a component supplier for various corporate customers including Samsung, Huawei, ZTE, Haier and Sharp. Janus was established in 2003 and has been listed on Entrepreneurship Board since 2010 (Janus, 2013). Its total assets reached 1.6 billion RMB in 2011 with annual revenue of 1.3 billion RMB (Janus, 2012).

Below is the loan summary of Janus from 2009 to 2011.

Table 29 Janus' Loans in 2009

Banks	Bank Category	Loan Amount(M RMB)
CCB	SOCB	10
CCB	SOCB	10
ABC	SOCB	2.1 *
Total		22.1

** Note: Janus borrowed 2,333,732.31 HKD, which was 2.1 million RMB under 0.9 RMB/HKD exchange rate.*

Table 30 Janus' Loans in 2010

Banks	Bank Category	Loan Amount(M RMB)
CCB	SOCB	10
CCB	SOCB	20
CCB	SOCB	20
CCB	SOCB	2.6
Total		52.6

Table 31 Janus' Loans in 2011

Banks	Bank Category	Loan Amount(M RMB)
CCB	SOCB	14
Ping An Bank of China	JSCB	10
CCB	SOCB	22.75*
Total		46.75

** Note: Janus borrowed 350USD from CCB, which was 22.75 million RMB under 6.5 RMB/USD exchange rate.*
Source: Janus Annual Report 2010-2011

Below is the financial index summary of Janus from 2009 to 2011.

Table 32 Janus Financial Performance 2009-2011

Year	ROA	ROE	NPM	ICR	CR	Revenue growth
2011	3.90%	5.20%	4.70%	22736.00%	245.60%	40%
2010	4.90%	6.00%	7.30%	9001.50%	417.20%	33%
2009	14.80%	27.80%	9.40%	4797.30%	129.80%	34%

Source: Annual report of Chongqing Lummy, 2009-2011

With the commercial loans, Janus' revenue growth rate increased from 33% to 40% in 2011. Because it increased its stock equity from 243 million RMB in 2009 to 1,213 million RMB in 2011, ROE reduced accordingly from 27.8% to 5.2%. Its current ratio still stayed up to 245.6% in 2011. The direct financing met the funding needs of Janus and improved its business performance.

Southeast Space Frame Co., Ltd (SPFC)

Established in 1984, Southeast Space Frame Co., Ltd (SPFC) is a company specialized in steel structures and space frames in fabrication and erection. It engaged in various construction projects of national or international prestige, including the Water Cube in Beijing Olympic Center, Beijing new T3 Airport Terminal and Guangzhou Airport (SPFC, 2012b). Its total assets were 5,228 million RMB by the end of 2011 with annual revenue up to 3,657 million RMB. It went public in 2007 in the SME Board in China (SPFC, 2012a).

SPFC consistently borrowed loans from the commercial banks from 2009 to 2011 to finance its projects and expansion. In 2009 SPFC obtained totalling 410.8 million RMB of loans from 6 banks, 5 of which are joint-stock-commercial-banks.

Table 33 SPFC's Loans in 2009

Banks	Bank Category	Loans
Shanghai Pudong Development Bank	JSCB	100
Shanghai Pudong Development Bank	JSCB	30
China Merchant Bank	JSCB	50
Communication Bank of China	SOCB	30.8
China Minsheng Bank	JSCB	30
China Everbright Bank	JSCB	50
CITIC Bank	JSCB	80
CITIC Bank	JSCB	40
Total		410.8

Source: Annual Report of SPFC - 2009

In 2010, SPFC further borrowed 476 million RMB from 4 JSCB banks in different cities and amounts.

Table 34 SPFC's Loans in 2010

Banks	Bank Category	Loans
CITIC Bank	JSCB	50
China Everbright Bank	JSCB	50
Shanghai Pudong Development Bank	JSCB	100
China Merchant Bank	JSCB	40
CITIC Bank	JSCB	66
China Merchant Bank	JSCB	20
China Merchant Bank	JSCB	50
CITIC Bank	JSCB	80
China Everbright Bank	JSCB	20
Total		476

Source: Annual Report of SPFC - 2010

In 2011, SPFC received 10 new loans, totalling 525 million RMB from 6 banks, 5 of which are joint-stock-commercial-banks.

Table 35 SPFC's Loans in 2010

Banks	Bank Category	Loans
Agriculture Bank of China	SOCB	40
China Merchant Bank	JSCB	20
CITIC Bank	JSCB	80
CITIC Bank	JSCB	50
China Everbright Bank	JSCB	20
Shanghai Pudong Development Bank	JSCB	100
CITIC Bank	JSCB	55
CITIC Bank	JSCB	60
China Everbright Bank	JSCB	20
Bohai Bank of Tianjin	JSCB	80
Total		525

Source: Annual Report of SPFC - 2011

Regardless of the enormous amount of loans, totalling 1,411.8 million RMB from 2009 to 2011, SPFC demonstrated great financial performance and maintained steady growth. Below is the summary of its financial index.

Table 36 Janus Financial Performance 2009-2011

Year	ROA	ROE	NPM	ICR	CR	Revenue growth
2011	1.70%	5.40%	2.50%	145.50%	125.30%	16%
2010	1.90%	7.20%	2.30%	201.80%	107.40%	8%
2009	1.20%	4.40%	1.40%	98.00%	106.90%	45%

Source: Annual report of SPFC, 2009-2011

Though revenue growth slowed in 2010, the growth ratio of 2009 and 2011 both exceeded 15%. Moreover, the current ratio kept improving from 106.9% in 2009 to 125.3% in 2011 and net profit margin (NPM) from 1.4% to 2.5%. The direct financing was supporting SPFC to consistently grow over the past the past 3 years.

Fujian CEE Installation Co., Ltd (CEE)

Founded in 2002, CEE was a company professionalized in the research, manufacturing and production of electrical equipment of high and low voltage, cable accessories and relevant products in Fujian Province, China. The electric power distribution systems of CEE have been sold to over 30 countries including U.S, Mexico, Australia, Japan, Korea and UK (CEE Power, 2012b). By 2011, the total assets of CEE reached 876 million RMB with the annual net income around 54 million RMB. It went public in 2010 (CEE Power, 2012a) In 2010, CEE obtained 2 loans, totalling 30 million RMB to expand its business.

Table 37 CEE Power's Loans in 2010

Banks	Bank Category	Loan Amount(M RMB)
Xiamen City Commercial Bank	City Commercial Bank	15
China Merchant Bank	JSCB	15
Total		30

Source: CEE Power's Annul Report - 2010

In 2011, CEE further obtained 2 loans amounting to 100 million RMB from China Merchant Bank to ensure its operations. Below is the summary of its financial results from 2009 to 2011.

Table 38 CEE Power's Financial Performance 2009-2011

Year	ROA	ROE	NPM	ICR	CR	Revenue growth
2011	6.30%	8.00%	17.10%	19774.90%	547.50%	33%
2010	5.60%	7.40%	20.10%	65484.30%	491.40%	29%
2009	16.70%	27.10%	21.60%	NA	491.40%	36%

Source: Annual report of CEE Power, 2009-2011

Because it expanded its equity from 150 million in 2009 to 654 in 2010, its ROE and ROA dropped in 2010. However, the loans made in 2010 improved its ROA, ROE, Current ratio as well as revenue growth.

Not as risky as expected

From the sample analysis on above 5 SMEs, direct financing from the commercial banks has positively promoted the financial performance of the companies. They benefited from the financial support and demonstrated financial improvements. In addition, except the case of Janus which borrowed heavily from CCB, the other sample SMEs were granted credits by the JSCB or city commercial banks. The JSCB and the city commercial banks became increasingly important in funding SMEs as is found in the study.

6. Recommendations

According to the analysis, making loans to SMEs is not as risky as expected. While SMEs are benefiting from the financial support to expand their business, the commercial banks can also enhance their service and revenue from the SME customers sector. However, to effectively solve the SMEs financing problem, it needs engagement from more than the commercial banks. Government plays an essential role in creating more favorable policies and platforms to diversify the financing channels, lessening the financing restrictions and promoting healthier competition between SMEs and SOEs. Therefore, recommendations are provided for both commercial banks and regulatory institutions.

6.1 For Financial Regulatory Institutions

Financial regulatory institutions, which are People's Bank of China and Banking Regulatory Committee (CBRC), are responsible for making policies to lessen funding restrictions and diversifying financing channels for SMEs.

Further development of the bond market. In 2011, the new issued corporate bonds in China reached 170.7 billion RMB, compared with corporate loans of 34,700 billion RMB (CBRC, 2012). The volume of corporate bond financing is around 1% of the direct financing from the banks. The percentage is much lower than that of U.S, which was 6% by the end of 2011 (Thomson Reuters, 2013). Corporate bonds are an effective financing channel in terms of lower risk and longer term of return. It can meet the financial need of quality SMEs and support their long-term growth with reasonably priced financial products.

Improve indirect financing from the stock market for SMEs. From western corporate finance theory, indirect finance is more expensive than direct finance because the borrower needs to pay dividend to stock buyers and the company will be partly owned by them. Moreover, indirect financing cost such as share price drop after new equity issuance also makes indirect financing more expensive than direct financing from the commercial banks (Parsons & Mello, 1999). However, the situation in China can be just the other way around. Because of the young development of the stock market- Shanghai and Shenzhen Stock Exchanges were launched in 1990s. The Chinese enterprises that expect to go public are subject to complicated investigation and approval by the government. The Small and Medium Enterprises Stock Exchange was established in 2004 while the Entrepreneurship Stock Exchange in 2009. The latter two stock markets are intended to improve the financing channels of small and medium firms. In 2011, only 128 SMEs financed 79.3 billion RMB from the Entrepreneurship Stock Exchange and 115 enterprises went public and acquired 100 billion RMB (15.8 billion USD) from the SME Stock Exchange. The total direct financing volume is 179.3 billion, which is only 0.8% of the overall bank loans of SMEs in 2011 (People's Bank of China, 2012a). Equity market has a long way to go before meeting the funding demand of SME.

Third, to promote the growth of rating agencies. Rating agencies play important roles in delivering quality information about the risk level, the management profile, the business prospect and the operational efficiency of the companies. In developed countries, the rating agencies have been transformed from a pure information certification towards an active monitoring function (Bannier & Hirsch, 2010) . So far there are no well-recognized rating agencies in China. To solve the SME financing issue, it is essential to objectively disclose their information and enable the financial institutions as well as the individual investors to easily make informed decisions.

Fourth, to promote the growth of local financial agencies and institutions. As above mentioned, along with the modernization of China's rural areas, more and more small enterprises will be launched in rural areas. By the end of 2011, the year-on-year loan issuance to SMEs reached 10,800 billion, growing at 25.8% (CBRC, 2012), which is 10% higher than the average banking loan growth. More and more JSCB and foreign banks are opening their branches in rural villages and towns. Some even expanded their coverage by merging and acquiring local credit cooperatives and banks. However, opportunities are still large to grow local financial institutions which really know their customers and can provide professional services. Small and medium sized financial institutions which are rich in local knowledge and adaptable to meet their clients' needs are more likely to prosper in the SME sector.

6.2 For Banks

Currently short term loan is the major product provided by the commercial banks to SMEs. The growth of SMEs will require more diversified financial services and products.

Professional trainings and information sharing to SMEs. Besides limited financial channels, the difficulties of SMEs also include shortages of talent, ineffective management skills, insufficient knowledge about the market and products, poor information about their competitors and short-sightedness of the founders. Training and information sharing is beneficial to both SMEs and financial institutions. First, SMEs can make more informed business decisions to reduce their risks caused by poor knowledge. Second, it will enhance the relationship between SME and the banks. Additionally, SMEs are more likely to rely on the banks that provide such value-added services. On the other hand, the banks can deepen their understanding on specific industries and customers while intensifying customer's loyalty.

Supply chain finance (SCF). Many small and medium sized enterprises in China were under financial distresses in recent years because of not only reducing orders caused by global financial crisis, but also their shortage of cash flow. These enterprises are usually upstream or downstream in the supply chain, where they have a large amount of inventory or accounts receivable, resulting in insufficient liquidity. Supply Chain Finance can fix such problems by investigating the whole supply chain and designing financial solutions to the companies that need the cash most within the chain. He argued that by building a supply chain visualization platform to translate the risk indicators of the physical supply chain into the risk indicators of the financial supply chain, the banks can intensify their control over the upstream and downstream enterprises and promptly identify risky problems (He & Tang, 2012). Combining knowledge of financial renovation, risk management, product design with supply chain management, SCF service is innovative in China. A couple of banks including Pang An Bank (formerly Shenzhen Development Bank) have engaged in SCF business and demonstrated substantial revenue growth. As a new financing product, supply chain finance is a countermeasure to this problem because it can help SMEs to attain sustainable development through necessary capital support.

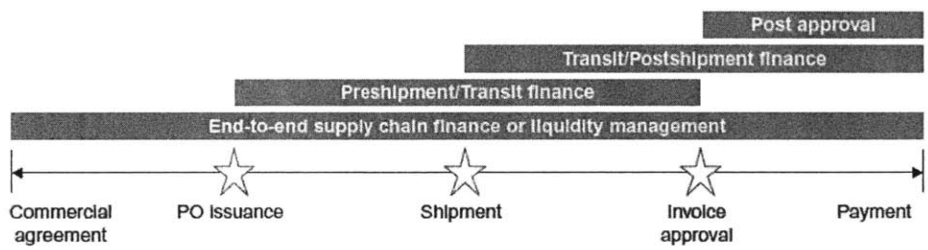


Figure.1 Supply Chain Financing Model *Source: White Paper by Bank of America*

Upgrade on risk management and evaluation systems. As above discussed, 15.2% of current commercial banks in China have so far no evaluation system or model to rate the risks of their borrowers. Meanwhile, only 28.8% of them are adopting quantified methods to assess the risk levels of their customers according to surveys. To objectively price the financial product to SMEs, it is essential to evaluate their risks rather than fully relying on relationship credit. The daily cash flow (Caouette, Altman, & Narayanan, 1998) as well as the current operations, management skills and trustworthiness (Moro & Fink, 2013) of the borrower's management team contribute significantly to the riskiness underlining the loans. To effectively price their SME products, the commercial banks should integrate modern risk management tools, as well as traditional experiences, into the evaluation system.

More alternatives of collaterals. Rather than totally relying on fixed assets, the commercial banks should accept other reasonable forms of collaterals. Due to the uncertain business outlook for SMEs, most of the commercial banks will not grant loans to this group of customers until the required amount of fixed assets are identified. According to the successful experience of CMBC, other collaterals such as accounts receivables and cash flow records are also useful in estimating and controlling the credit risks.

7. Conclusion

Under the current Chinese banking system, the SME financing problem is due to a variety of reasons which were discussed and analyzed from the political, economic, social and technological perspectives.

Is making loans to SMEs riskier than to large SOEs? Through the sample analysis on selected large companies and SMEs, this thesis found that most of the SMEs can effectively utilize their credits to improve financial performance which was demonstrated by the improvement in the key measurements such as ROE (return on equity), ROA (return on assets), NPM (net profit margin), ICR (interest coverage ratio), CR (current ratio) and revenue growth. In addition, this thesis also finds that most of the loans of SMEs were granted by JSCB or the city commercial banks. Meanwhile, the large companies, which are generally considered to be less risky because their close ties to SOCB and government, did not perform better than the sample SMEs in terms of the key financial measurements mentioned above. The large companies are not necessarily more reliable than SMEs regarding financial performance and risk assessment. On the other hand, the large companies are more often able to obtain direct funding from SOCB or policy banks.

It is critical to address the financing difficulties of SMEs through the efforts from both government and the commercial banks because the government plays a significant role in the market by making financial policies and developing diversified financing channels and institutions. Apart from ensuring fair access to the direct funding from the commercial banks, Chinese government can address the issue by promoting the growth of the credit rating agencies, the growth of the corporate bond market and the growth of local financial institutions. The SME financing problem would also be transformed into a great opportunity for both SOCBs and JSCBs in China. Besides improving the SMEs' operational and management knowledge by training and information sharing, the commercial banks can further their service in the SME sector by improving their risk control management, providing flexible financial services like supply chain finance, and allowing other collaterals rather than purely fixed assets.

The SME financing problem may require the engagement of more than the government and local commercial banks. It has been more than a decade since China's entry into WTO. Along with China's reform of its financial sector, what strategies can the foreign banks and other financial institutions do to seize the vast opportunity in the SME sector? Additionally, rather than relying on external financial support, what can numerous SMEs do on their own to ensure sufficient capital for sustainable development,? These relevant questions, though untapped by this thesis, require consideration if we would like to seek a better solution.

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