These days, along with the rapid growth of China’s economy and active involvement around the world, we see booming Chinese companies traded on the international markets. This is an effective way for Chinese companies to raise worldwide capital. As more and more Chinese companies find their way to the U.S. market recently, they attract not only the investors’ attention but also the regulators’ attention. This paper examines the development of China’s economy and the Chinese companies on the U.S. market. It focuses on the three major entry mechanisms used by such companies.
I. **Introduction**

The globalization of capital markets and the China’s\(^1\) economic growth has been under rapid development in the past three decades. On the one hand, Chinese companies have experienced difficulties in raising external capital and witnessed intense competition and stringent listing standards in the China’s market. On the other hand, Chinese companies have the opportunities to take advantages of the global markets with expanded investors, foreign expertise, better price valuation and legal and favored regulatory environment of the major international stock exchanges due in large part to the economic reforms. Not surprisingly, the global markets have seen the explosive existence of Chinese companies. In this paper, the U.S. listed Chinese companies will be focused on.

In recent years, a growing number of Chinese companies have entered U.S. market. According to the statistics from the New York Stock Exchange (NYSE) and Public Company Accounting Oversight Board, there are 88 Chinese companies, mainly from technology sector, listed on NYSE and NASDAQ through IPOs from 2007 to 2011 and 159 via reverse merger transactions from 2007 to March 31, 2010. In this paper, a total of 212 U.S. listed Chinese companies which currently traded on the NYSE and NASDAQ as of April 15, 2012 will be examined. Out of 212 companies, 112 are in the form of American Depositary Receipts, 21 are in the form of ordinary shares and 79 are listed through reverse merger transactions. All of them are with significant demands for external funding for future rapid growth. In this paper, I will compare these three forms in terms of sector, market capitalization, revenue and assets.

\(^1\) In this paper, China is referred to as mainland China, not including Hong Kong and Macau Special Administrative Regions and Taiwan.
The rest of this paper is separated as follows: Section II introduces the background for China’s economy. Section III illustrates the current China’s capital formation. Section IV provides the motives for Chinese companies to go listing abroad and the basic information on major international stock markets. Section V describes the three entry mechanisms that U.S. list Chinese companies have adopted. Section VI follows to present the data, descriptive statistics and the analysis. The paper concludes with the summary and final conclusion in Section VII.

II. China’s Economy Background

After the founding of People’s Republic of China (PRC) in 1949, China has not opened to the world until late 1970s. The Chinese economy has largely undergone a process of transition since a series of economic reform initiations in 1978. Today, China is the world’s second largest economy after the United States. Over the past three decades, China makes rapid economic development and tops the world with a nearly 10% growth rates. According to International Monetary Fund’s (IMF’s) latest projections in 2011, China’s economy would surpass that of the United States and becomes the world’s largest economy in 2016 (Mark Weisbrot, 2011).

In this section, there are four parts which are state owned enterprises age, Chinese economic reforms, stock markets development and current economic trends. They aim at highlighting the background in China’s economy since 1949 and the development of China’s economy.

1. State Owned Enterprises Age

When the Chinese Communist Party became the party in power in 1949, it made efforts to restore the after-war economy. The new government nationalized the industrial economy and the

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2 “Report for Selected Countries and Subjects”. Imf.org.
banking system. It adopted the centralized control measures over both previous state owned enterprises (SOEs) and private companies, and later brought almost the entire industry and commerce under the direct control under the state.

Under the planned economy, the government allocated all the things, including the level of production, volume of sales and human resources, so SOEs had little or no option to decide their business operations. Because SOEs were under the government’s protection and subsidies, they lacked the competition and ran as monopolies. Moreover, SOEs were highly hierarchical companies in the planned economy; the centralized monitoring and decision makings from the top were inefficient and poor. Besides the purpose of making profits, SOEs also bore cradle-to-grave responsibility for their employees which was required by socialistic system during that period. Along with this heavy burden of social welfare function, the SOEs’ economic performance was weak and many SOEs were in deficit (Chi-Wen Jevons Lee, 2001). However, the SOEs were major sector by that time. It contributed 89.17% of the industrial output by 1958, and 80.8% by 1978 before the economic reforms (Stella Nie, 2005). Thus, restructuring SOEs was necessary and became an important objective during the economic reforms.

2. Chinese Economic Reforms

As Xiaoping Deng gradually gained the control over the Chinese Communist Party, he launched a series of economic reforms in 1978. The reforms were also known as Four Modernizations,\(^3\) which aimed at helping China continuously develop its economic systems and open up to the world. During the reforms, China tended to integrate its centralized planned

\(^3\) Four Modernizations involves the reforms in agriculture, industry, science and technology and the national defense. It was proposed by Enlai Zhou in 1963.
economy with a socialist market economy. Chinese economic reforms were developed with socialism with Chinese characteristics.\footnote{Xiaoping Deng mentioned building socialism with Chinese characteristics was the right way for China to develop economy in a talk with the Japanese delegation in 1984.}

The reform of SOEs was on the top list of the economic reforms. Although the initial SOEs’ reforms did not involve much privatization, SOEs tended to be more market-oriented accompanied with decentralized state allocation system. With the formal establishment of Shanghai and Shenzhen stock markets in the early 1990s, a few of selected SOEs were permitted to undertake the financial restructuring by initial public offerings (IPO). In addition, there were more and more mergers and acquisitions among SOEs and bankruptcy for small SOEs (Chi-Wen Jevons Lee, 2001). As a result, the number of SOEs dropped while the competition became intense. With the introduction of Contract Responsibility System in SOEs, employees became more productive. Thus, the economic performance of SOEs has been largely improved (Stella Nie, 2005).

Another noticeable aspect during the Chinese economic reforms is the establishment of special economic zones (SEZs)\footnote{In a broad perspective, SEZs can be characterized as geographic areas along the coast in China where many economic activities were favored by the policy.} since 1978 under the Deng’s lead. By the establishment of SEZs, foreign direct investment was allowed in these areas. The SEZs have played a crucial role in the opening-up process, which allowed accelerating foreign trade.

Chinese economic reform is a continuous program, in which the detailed policies are subject to change with the time. China’s economy has gained much progress under the reforms.
3. Stock Markets Development

As a major part of the economic reform, the Chinese stock market has undergone a rapid development since the early 1990s. The Shanghai Stock Exchange and the Shenzhen Stock Exchange were founded in November 1990 and July 1991 respectively, as a response to provide SOEs with new source to gain capital in the beginning. In 2007, Chinese stock market experienced its peak in terms of the market capitalization and the number of IPOs (Lilai Xu, K.B. Oh, 2011).

There are A-shares and B-shares in the Chinese stock market. The former is issued by all domestic companies and open to domestic investors, while the latter is issued by some listed companies and open only to foreign investors. Chinese government enforced stricter regulations over the stock market in response to the Asian financial crisis in late 1990s. During the economy restoration after the crisis, Chinese government took measures to expand the stock market and reduce state holdings in a hope to generate a high GDP growth (Lilai Xu, K.B. Oh, 2011). According to World Federation of Exchanges (WFE), Shanghai Stock Exchange and Shenzhen Stock Exchange are the 5th largest and 12th largest stock exchanges based on the market capitalization among the world.


As mentioned in the previous section, China is the second largest economy in the world after the United States. Its rapid growth took place 30 years ago, after the implementation of economic reform. Over these years, living standards has improved and large quantity of people was out of extreme poverty. Nevertheless, China is still a developing country with a low GDP per capita.
Although SOEs’ share continued to decrease in the Chinese economy, they still dominate the national economy and remain quasi-monopolies in several sectors, such as telecommunications, petroleum, utilities and banking sectors. It is estimated that the number of SOEs is less than 5% of total enterprises in China. While with average larger sizes, SOEs make up nearly 33% of total enterprise assets (Gao Xu, 2010).

The National People’s Congress carried out the 12th Five-Year Plan for National Economic and Social Development (FYP) for the period of 2011 to 2015 in March 2011. 12th FYP emphasizes continued economic reform needed to spread to much more Chinese citizens and narrow the economic and social inequality. Largely due to the Global Financial Crisis and stimulus programs, China has experienced an economic bubble and high inflation since 2009. Hence, 12th FYP also aims at rebalancing the economy including a target of 7% national GDP growth rate.

In 2010, a total of 34 Chinese companies were successfully listed in NYSE and NASDAQ. This broke the record in terms of the number of Chinese companies listed in the U.S. via IPOs within a year. The pace slowed down in 2011 with only 11 Chinese companies undertook IPOs in U.S., partly due to the worsening credibility of Chinese concept stocks and the slowing economic growth in China.

In general, that being said, China would surpass the United States and become the largest economy among the world in the next five to ten years, if current economic trends continue. Nevertheless, there are still many limits for Chinese economy developing today. I will now discuss the certain characteristics of the Chinese capital formation.

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6 The five-year plans are initiated and adopted by Chinese national congress. They are the guiding principles towards Chinese social and economic development in a certain five-year period. The first FYP was under Mao’s leadership and over 1953-1957 period.
III. **Capital Formation in China**

It has been discussed earlier that the number of SOEs has declined in China. Along with this decreasing dominance of SOEs, private small and medium enterprises (SMEs) have grown at a fast pace. SMEs have made significant contributions to China’s economic development and social stability. At the end of 2005, SMEs made up 99.6% of all enterprises in China (Shen, Xu, Bai, 2008). Chinese government has attempted to support the development of SMEs by passing certain policies and regulations. However, SMEs still face a lot of challenges during the expansions, in large part due to the strict financial constraints. In this section, I will discuss two major reasons, explaining SMEs’ difficulties in raising capital in China.

Under the socialist market economy, it is not surprising that Chinese government plays a very crucial role in guiding the national finance. The government is sometimes characterized as the interference in the national economy. There are five large state-owned commercial banks (SOCBs), 12 joint-stock commercial banks, 124 city commercial banks and many urban and rural credit cooperatives in China’s banking system (Wu, Song, Zeng, 2008). SOBCs make up 52.46% of total banking assets (Cousin, 2007). They have the historical relationships with SOEs, and still maintain the major lenders to the SOEs. On the one hand, most SOEs are less riskier than SMEs due to the government’s support and favored policies, which makes SOEs are more attractive to the lending banks, and on the other hand, the requirements for loans in large banks are very high, which cannot be met by many SMEs. Thus, SMEs generally have limited access to long-term bank loans, especially during the tightened monetary policy period.

Similarly to the SOCBs, Chinese stock market also has the historical relationships with the SOEs. Back to the time of establishment, Chinese stock market was the alternative source of
funding to SOEs. In 1992, The China Securities and Regulatory Commission (CSRC) was formed. It is the securities regulator under the State Council. Due to the government’s interference, CSRC has adopted the policy to control and restrict the IPO numbers. A quota system has been introduced and used for most time. The quota system limits the number of companies to get listed in the stock market. Hence, there are higher standards, more costs and longer waiting time for companies to go public traded in China (Wu, 2011). Without any doubt, this structure of China’s stock market hinders the ability of companies, especially the private SMEs to raise external capital in mainland China.

The situations of capital formation in China has made much more firms wish to go abroad to raise external capital around the world. The next section will provide some basic information on the motives for Chinese firms listing abroad and the choices Chinese firms have made in terms of the major international stock exchanges.

IV. **Going Abroad**

The decision for Chinese enterprises to list overseas is the result of expansion of their business. With the continued economic reforms and rapid economic growth in China, there are increasing demands for additional external capital. After the establishment of stock market and CSRC in mainland China, we have seen a growing number of Chinese stocks on the international stock markets. Chinese enterprises, including both SOEs and SMEs, are with the goal of getting more foreign investments and capital in the global economy system.

Qingdao Beer, a SOE, was firstly listed abroad in 1993. It chose Hong Kong as its capital formation market. Since then, Hong Kong Stock Exchange has been the first choice for Chinese enterprises seeking a listing on a global market. Hong Kong has a well-established legal system
based on English common law, and it is one of the largest and most vibrant financial centers in Asia. It provides investors with a strong and safe investing environment and offers companies an attractive fund raising foundation. After Hong Kong became the Special Administrative Region (SAR) of China, it plays a more and more vital role in linking Mainland China’s economy and international business community. Moreover, due to language and geographical preferences as well as the Hong Kong investors’ familiarity with mainland Chinese firms, Hong Kong Stock Exchange has attracted a significant number of Chinese firms to cross-list (T. Yang, S.T. Lau, 2006). As the end of 2011, Hong Kong Stock Exchange is the sixth largest stock market in the world, based on the total firms’ market capitalization.

Meanwhile, other international major stock exchanges in the United States and Europe are also attractive to Chinese issuers. Since growing number of Chinese firms are seeking quotes on Hong Kong Stock Exchange, the longer waiting time for approval to list there has drawn firms’ attention to consider listing on the alternatives. New York Stock Exchange (NYSE) and NASDAQ Stock Market (NASDAQ) are always outstanding stock exchanges with most capital, listed companies, individual investors and member firms (Pan, 2007). This broad spectrum of market participants, along with the relatively relaxed listing requirements and shorter processing listing time, are welcomed by many Chinese firms. NYSE is by far the world’s largest stock exchange by market capitalization, and NASDAQ right follows.

European stock markets are also leading capital markets in the world. Many Chinese firms successfully launched IPOs there. There are several major listing benefits for Chinese firms in Europe. For example, Euro share price denominates as M&A currency, and there are superb strategic business opportunities in Europe (Ernst & Young). Among several European stock markets, London Stock Exchange is the largest, and it is regarded as the financial center in
Europe. Due to the historical reasons, London and Hong Kong has the similar business model and special politics relationships. Thus, listing in London Stock Exchange is similar to listing in Hong Kong (Yi, 2002), which gives Chinese firms a more familiar and preferred listing route. According to MFE, London Stock Exchange is the fourth largest capital market.

Generally speaking, overseas listing can help Chinese firms to raise the capital needed for additional growth, and it allows the companies to be more international and competitive. According to a recent study conducted by Zhang and King, of the Chinese firms that listed abroad, approximately 59% are listed on Hong Kong and Singapore exchanges, 14% listed on the U.S. market, and the rest listed on European exchanges. In the rest of this paper, I will focus on the Chinese firms on the U.S. markets, namely NYSE and NASDAQ.

V. Entry Mechanisms to the United States Markets

As discussed in the last section, there are some major benefits for Chinese companies to get involved in the global market, such as the greater access to capital, better price valuations and more transparency. U.S. has the largest and the most sophisticated capital markets in the world; thus being public in the U.S. gives Chinese companies better opportunities to raise more funds. There are primarily three basic routes for Chinese companies to get listed on the U.S. market. The first route is to issue IPOs in the form of American Depositary Receipts (ADRs), the second route is to seek a listing in the form of ordinary shares (OSs), and the last route is through reverse merger transactions. I will give a brief analysis of these three methods in this section.
Initial Public Offerings (ADRs and OSs)

ADRs have been in the U.S. market for about 85 years\(^7\). They are a primary tool for foreign companies to go public in the United States, and major U.S. stock exchanges, i.e. NYSE and NASDAQ, have a strong preference for the use of ADRs. ADR is not actual shares of a foreign firm’s stock but the negotiable physical certificate representing one or more shares of its stock. The firm issuing ADR is considered as the Foreign Private Issuer, and is subject to file Form 20-F as its annual report. ADRs denominate in U.S. dollars and are traded in a very similar way as U.S. ordinary shares. Thus, purchasing ADRs listed on the U.S. markets is a convenient method for U.S. investors to invest in a foreign company. U.S. investors do not need to consider the foreign currency fluctuations while diversifying their portfolios and expecting overseas growth (SEC).

Sinopec Shanghai Petrochemical became the first Chinese company to issue IPO in the form of ADRs in 2003. A Chinese firm must get an approval from CSRC before listing abroad. During the IPO process in the Unites States, the company is under scrutiny investigation by SEC, spends a large number of money and time on the registration statement filing. It often takes no less than 9 to 12 months to complete an IPO in the U.S. (K. Chen, Y.C. Lin, Y. Lin, 2012).

However, some of Chinese firms are not allowed to issue ADRs by Chinese government because they are in such industries as Internet which foreign capital is not permitted. If those companies wish to go public in the U.S., they need to use a structure known as the variable interest entity (VIE) to raise capital. VIE uses contractual agreements to enable an offshore

\(^7\) The first ADR was introduced in 1927 by J.P. Morgan for a British firm.
holding company \(^8\) controlled by U.S. investors to finance the actual firm inside China. Companies like Baidu Inc. (BIDU) are listed through this method, and they are required to file 10-K as their annual report. According to a J.P. Morgan ADR manager, most Chinese companies prefer to issue ADR to ordinary shares if they are not in the regulated industries due to the higher chances for them to list back to China (K. Chen, Y.C. Lin, Y. Lin, 2012).

**Revers Mergers**

Another popular route among Chinese firms to get listed in the U.S. is by merging with existing U.S. public firms. These transactions often take place among private SMEs, and are referred to as reverse mergers (RM) \(^9\). In a RM transaction, the private company which is seeking a listing in the U.S. market acquires an existing U.S. public “shell” company which is with few or no active operations by exchanging shares for a majority of the shares of the shell company. After the transaction, the original public company survives without the controlling interest in voting power. In most cases, the board of directors would be replaced by the newly merging private firm (SEC) \(^10\). Upon successfully listed on the U.S. market, this foreign company will be taken as a U.S. domestic company; thus it is required to file 10-Ks and 10-Qs. However, most CRMs are traded on the Over-the-Counter (OTC) market or Pink Sheet. Until those companies meet the listing standards or satisfy certain requirements about the business size of NYSE and NASDAQ, they may have the opportunity to move up and get traded on the major stock exchanges.

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\(^8\) Offshore holding companies are often incorporated in Cayman Islands, British Virgin Islands and Delaware etc. Most of these areas have the tax-exempt benefit and other advantages for actual firms operated in China.

\(^9\) We use CRM when a Chinese reverse merger gets involved in the rest of this paper.

\(^10\) The SEC issued an Investor Bulletin about the reverse mergers to caution U.S. investors about buying shares in companies formed by reverse mergers in June 2011. This issue of Investor Bulletin was much due to more scandals and risks related to the reverse mergers.
We have seen a growing number of CRMs on the U.S. markets. According to a recent data, there are 443 CRMs in the U.S. between 2000 and 2011 (K. Chen, Y.C. Lin, Y. Lin, 2012), but only a small fraction of CRMs has made it successfully to trade on the major U.S. stock exchanges. There are several main causes for Chinese SMEs adopting this listing route. SMEs do not often have a large pool of funding sources, so they are not able to raise enough money in an equity financing through IPOs. A RM seems a better and viable option for them due to its perceived lower costs involved, including accounting and legal fees. A RM is also a quicker method to “go public”. More importantly for some Chinese SMEs, a RM is only required to file a Form 8-K to report the transaction and is not subject to the approval from both CSRC and SEC. Hence, a RM is under less stringent scrutiny by SEC.

We could conjecture that cost benefits and time efficiency combined with the loose requirements for RM transactions are the major driving forces behind the popularity of RM route among Chinese firms, especially among Chinese SMEs.

VI. Sample Data, Descriptive Statistics and Data Analysis

Sample Data Collection

The sample in this paper includes 133 Chinese firms listed through IPOs, out of which 112 are in the form of ADRs and the rest 21 are in the form of ordinary shares, and 79 CRMs\(^\text{11}\). They are all live traded on the NYSE or NASDAQ as of April 15, 2012. Out of total 212 Chinese companies, 86 (40.57\%) are traded on NYSE and the other 126 (59.43\%) companies are listed on NASDAQ. There are no overlaps among these three categories. The data was manually collected

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\(^{11}\) CRMs, which have no measurable market capitalization, have little or no trading activity, or have no recent financial statements with the SEC, are excluded in this study.
from the exchanges on which the shares are listed. I also checked CRM companies from Bloomberg, on which there is a list including all CRM companies currently listed on the NYSE or NASDAQ. To attest their listing methods, I examined Form 20-F or 10-K of those U.S. listed Chinese companies collected from EDGAR data provided by SEC. In particular, I studied the location of company incorporation and its major business. According to the data collected, 68 out of 133 IPO companies are on the NYSE and only 18 out of 79 (22.78%) RMs are on the NYSE.

**Descriptive Statistics**

Chinese firms which go abroad are from various industries and sectors. Table 1 shows the distribution of ADRs, OSs and RMs by using Finance Yahoo sector classification. There are 8 sectors in total involved. Table 1 shows that most of the ADR and OS cases come from the technology sector and most of the RM cases come from the basic materials sector. Companies from technology sector also represent 32% of total. Noticeably, nearly half of 21 OS Chinese companies are from the technology sector. After a further study, most of them are from Internet industry which is a non-foreign owned regulated industry. Hence, if these companies are seeking a quote overseas through an IPO, they can only use VIE structure and issue ordinary shares as explained in the earlier section. This also shows that Chinese companies prefer issuing IPOs in the form of ADRs to OS.
Of the total 212 Chinese companies, the market capitalizations (market cap) range from $6,150,000 to $250,710,000,000 as of April 15, 2012. Market cap is defined as the total market value of a public traded company’s tradable shares. It is an important figure to determine the company’s size. As Table 2 shows, total market capitalization was $974.4 billion. 37% of the companies had market cap below $70 billion, representing 0.28% of the total market cap. 15% of the companies were with the market cap over 1 billion accounted for 96.69% of total market cap. Nearly half of the companies had market cap between $70 million and $1 billion, but only accounted for 3.03% of total market cap.

**Table 1: Sector Classification of U.S. Listed Chinese Companies**

<table>
<thead>
<tr>
<th>Sector</th>
<th># of ADRs</th>
<th># of OSs</th>
<th># of RM</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Materials</td>
<td>9</td>
<td>4</td>
<td>18</td>
<td>31</td>
</tr>
<tr>
<td>Consumer Goods</td>
<td>6</td>
<td>3</td>
<td>16</td>
<td>25</td>
</tr>
<tr>
<td>Financial</td>
<td>6</td>
<td>0</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Health Care</td>
<td>8</td>
<td>1</td>
<td>10</td>
<td>19</td>
</tr>
<tr>
<td>Industrial Goods</td>
<td>3</td>
<td>2</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>Services</td>
<td>30</td>
<td>1</td>
<td>10</td>
<td>41</td>
</tr>
<tr>
<td>Technology</td>
<td>48</td>
<td>10</td>
<td>10</td>
<td>68</td>
</tr>
<tr>
<td>Utilities</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>112</strong></td>
<td><strong>21</strong></td>
<td><strong>79</strong></td>
<td><strong>212</strong></td>
</tr>
</tbody>
</table>

**Table 2: All Chinese Companies by Market Capitalization as of April 15, 2012**

<table>
<thead>
<tr>
<th>Market Capitalization</th>
<th># of Companies</th>
<th>% of Companies</th>
<th>Total Market Capitalization</th>
<th>% of Market Capitalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,000,000,000 +</td>
<td>31</td>
<td>15%</td>
<td>942,134,909,230</td>
<td>96.69%</td>
</tr>
<tr>
<td>$70,000,000 - 1,000,000,000</td>
<td>102</td>
<td>48%</td>
<td>29,531,909,700</td>
<td>3.03%</td>
</tr>
<tr>
<td>Less than $70,000,000</td>
<td>79</td>
<td>37%</td>
<td>2,731,615,466</td>
<td>0.28%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>212</strong></td>
<td><strong>100%</strong></td>
<td><strong>974,398,434,396</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
Table 3 illustrates the revenue distribution by all U.S. listed Chinese companies as of April 15, 2012. Revenue is the number of money that a company receives through its business activities. It is a crucial indicator of the firm’s earnings quality. The revenue data is based on the companies’ most recent financial statements filed with the SEC. It shows that 28 (13.21%) companies had over $1 billion revenue, representing 96.45% of total revenue. The remaining 187 (86.79%) companies only accounted for 3.55% of the total revenue. It is obvious that the revenues are concentrated at the top end of the range.

Table 3: All Chinese Companies by Revenue

<table>
<thead>
<tr>
<th>Assets</th>
<th># of Companies</th>
<th>% of Companies</th>
<th>Total Revenue</th>
<th>% of Total Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,000,000,000+</td>
<td>28</td>
<td>13.21%</td>
<td>1,085,670,900,000</td>
<td>96.45%</td>
</tr>
<tr>
<td>$100,000,000 - 1,000,000,000</td>
<td>117</td>
<td>55.19%</td>
<td>36,332,258,000</td>
<td>3.23%</td>
</tr>
<tr>
<td>Less than $100,000,000</td>
<td>67</td>
<td>31.60%</td>
<td>3,599,650,000</td>
<td>0.32%</td>
</tr>
<tr>
<td>Total</td>
<td>212</td>
<td>100.00%</td>
<td>1,125,602,808,000</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

As Table 4 shows, 182 (85.85%) U.S. listed Chinese companies had less than $1 billion in assets, which accounted for less than 4% of total assets. Similarly with the revenue distribution, assets are concentrated at the top end: 30 (14.15%) companies had assets over $1 billion with a total amount of $1,114 billion, representing 96.09% of the total assets. Asset includes both tangible and intangible which a firm owns and controls to increase the value of a firm and bring more benefits to the firm’s operations. It is another critical figure indicating a firm’s operating capability and the size of the firm.
In the data analysis, I will focus on the performance of U.S. listed Chinese companies particularly based on the market cap.

As shown in the table 2, market cap are divided into three groups. Group 1 has market cap over $1 billion, group 2 has market cap between $70 million and $1 billion and group 3 has market cap lower than $70 million. There are 31 companies in the group 1, 102 companies in the group 2 and the remaining 79 companies in the group 3.

Chart 1 shows that in the group 1, 94% (29) of companies are traded in the form of ADRs, 6% (2) of companies are traded in the form on ordinary shares. Notably, there is not a single CRM inside this group. As Chart 2 illustrates, 66% (67) of companies in the group 2 are ADRs, 5% (5) issued IPOs as the ordinary shares and the rest 29% are CRMs. Still, ADRs take the largest portion in this group. As Chart 3 exhibits, in the group 3, 20% (16) of companies are ADRs, 18% (14) are OSs, and 62% (49) are CRMs. CRMs dominate the group 3. Based on these three charts, we can see that IPOs overshadow the first two groups, and the majority of CRMs is in the group 3. We can conjecture that the CRMs are with less both total and average market cap than that of IPOs.

<table>
<thead>
<tr>
<th>Assets</th>
<th># of Companies</th>
<th>% of Companies</th>
<th>Total Assets</th>
<th>% of Total Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,000,000,000+</td>
<td>30</td>
<td>14.15%</td>
<td>1,114,021,925,000</td>
<td>96.09%</td>
</tr>
<tr>
<td>$100,000,000 - 1,000,000,000</td>
<td>140</td>
<td>66.04%</td>
<td>43,414,770,000</td>
<td>3.74%</td>
</tr>
<tr>
<td>Less than $100,000,000</td>
<td>42</td>
<td>19.81%</td>
<td>1,943,650,000</td>
<td>0.17%</td>
</tr>
<tr>
<td>Total</td>
<td>212</td>
<td>100.00%</td>
<td>1,159,380,345,000</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Data Analysis

Table 4: All Chinese Companies by Assets

<table>
<thead>
<tr>
<th>Assets</th>
<th># of Companies</th>
<th>% of Companies</th>
<th>Total Assets</th>
<th>% of Total Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,000,000,000+</td>
<td>30</td>
<td>14.15%</td>
<td>1,114,021,925,000</td>
<td>96.09%</td>
</tr>
<tr>
<td>$100,000,000 - 1,000,000,000</td>
<td>140</td>
<td>66.04%</td>
<td>43,414,770,000</td>
<td>3.74%</td>
</tr>
<tr>
<td>Less than $100,000,000</td>
<td>42</td>
<td>19.81%</td>
<td>1,943,650,000</td>
<td>0.17%</td>
</tr>
<tr>
<td>Total</td>
<td>212</td>
<td>100.00%</td>
<td>1,159,380,345,000</td>
<td>100.00%</td>
</tr>
</tbody>
</table>
Table 5 shows the comparisons between IPO and RM based on their market cap. IPO includes ADR form and ordinary share form. For IPOs, I chose 121 data out of 133, which excluded approximately 4.5% top and bottom outliers respectively. For RM, I picked 73 data out of 79, which excluded 3.8% top and bottom outliers respectively. There are huge differences among every aspect—mean, standard deviation, sample variance, CV (coefficient of variation) and confidence intervals ($\alpha = 0.05$).

The mean of market cap for the companies through IPO is $1,550.18 million, whereas the mean of market cap for CRMs is only $74.94 million which is approximately 4.8% of the former.
In addition, we are 95% confident that the average amount of market cap for IPO type companies is between 572,160,107 and 2,528,194,498; we are also 95% confident that the average amount of market cap for CRM type companies is between 60,197,882 and 89,684,085. These two sets of comparisons support the conjecture that CRMs is much smaller in size. So CRMs are basically the Chinese SMEs which lack external funding in mainland China and are hard to meet all the listing standards of the major stock exchanges or are not willing to pay higher IPO issuance fees. However, CRMs are provided limited funding due to usually no additional shares issued to the public through the RM transactions. As a result, CRMs have smaller size in general.

The standard deviation, sample variance and CV all show that IPO type companies bear much larger fluctuations in terms of the amount of market cap than CRMs do. This further indicates that CRMs are generally smaller firms with relatively similar market caps. However, the standard deviation and sample variance in both categories are huge. It is accounted for the differences in nature of each firm.

Table 5: IPO VS. RM by Market Cap Analysis

<table>
<thead>
<tr>
<th>Type</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Sample Variance</th>
<th>CV</th>
<th>Interval Lower Limit</th>
<th>Interval Upper Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPO</td>
<td>1,550,177,302</td>
<td>5,433,619,850</td>
<td>2.95242E+19</td>
<td>0.3187</td>
<td>572,160,107</td>
<td>2,528,194,498</td>
</tr>
<tr>
<td>RM</td>
<td>74,940,983</td>
<td>63,189,073</td>
<td>3.9929.E+15</td>
<td>0.0987</td>
<td>60,197,882</td>
<td>89,684,085</td>
</tr>
</tbody>
</table>

VII. Summary and Final Conclusion

In this study, I examine the routes for Chinese companies to seek a list on the major U.S. stock exchanges over the time till 2012. I find there are 112 Chinese companies currently traded on the NYSE or NASDAQ in the form of ADRs, 21 in the form of ordinary shares and 79 have undertaken reverse merger transactions. I observe that Chinese companies which issued IPOs
have a preference of the form of ADRs to the form of ordinary shares, and the total and average size of IPO type Chinese companies is much larger than that of the CRMs. Thus, I conclude that CRMs generally are Chinese SMEs which lack external capital in mainland China.

I first examine the China’s economy background. China’s economy starts with the planned economy with direct and centralized control under the state since the founding of P.R. China. There were few private enterprises at the beginning with majority of SOEs in the country. SOEs ran as monopolies and their operations were so inefficient that many of their financials were in red ink. As noticed that China’s economy need reconstructed by the government under Xiaoping Deng, Chinese economic reforms were launched in 1978. Its opening-up policy and a series of market-oriented reforms help China’s economy improve significantly. During the economic reforms, Shanghai and Shenzhen Stock Exchanges were founded in the early 1990s. Companies, especially large SOEs, benefitted from the stock market by having another source of external capital. More and more SMEs were started during this period, and they experienced a significant development. Today, China is the second largest world’s economy and expected to become the largest in the next five to ten years. The economic reforms have promoted more foreign trades in China, and let China become more and more involved in the world economy.

However, after observing the China’s capital formation, I find that there are still a lot of limitations for many enterprises, particularly SMEs, to develop in mainland China. In today’s China, government still plays a very important role in the economy market. SOCBs are more willing to lend money to SOEs; thus SMEs have limited access to bank loans. In addition, Chinese stock market provided fewer opportunities to SMEs under the CSRC’s regulation. The quota system combined with the high issuance cost and long waiting time make Chinese companies to seek listings abroad to gain more capital.
I continue to study several large overseas stock exchanges. It shows that Hong Kong Stock Exchange is the first choice for Chinese companies to seek a quote. European markets also attract Chinese companies’ attention. Among several European stock markets, London Stock Exchange is the most popular one. Nevertheless, U.S. market has seen an increasing number of Chinese companies due to several advantages in the recent years. So I choose to study U.S. listed Chinese companies.

There are three primary entry mechanisms, known as IPO in the form of ADRs, IPO in the form of OSs and RM. After the investigation, I find that there are more IPO type Chinese companies on the major U.S. stock exchanges like NYSE and NASDAQ. However, there are more CRMs on the U.S. markets. RM is considered as a backdoor listing method. It is quicker, cheaper and under less stringent scrutiny by SEC. But they are hard to find themselves listing on the major U.S. stock exchanges, so CRMs still lack the ability to seek larger amount of external capital.

To final conclude, with the development of Chinese economy, the number of Chinese SMEs increases. Many of Chinese enterprises including both SOEs and SMEs has started to list overseas due to the continued limitations in raising capital in mainland China. The size of U.S. listed Chinese companies in the form of IPOs is with larger variations. Many SMEs entered the U.S. stock exchanges by RM transactions and they still have smaller market cap.


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