

---

## INDUSTRY OVERVIEW

---

*This section contains certain information which is derived from official government publications and industry sources as well as a commissioned report from Frost & Sullivan. The information extracted from the commissioned report from Frost & Sullivan reflects estimates of market conditions based on samples, and is prepared primarily as a market research tool. References to Frost & Sullivan should not be considered as the opinion of Frost & Sullivan as to the value of any security or the advisability of investing in our Group. Our Directors believe that the sources of information extracted from the commissioned report from Frost & Sullivan are appropriate sources for such information and have taken reasonable care in extracting and reproducing such information. We have no reason to believe that such information is false or misleading or that any material fact has been omitted that would render such information false or misleading. The information extracted from the commissioned report from Frost & Sullivan has not been independently verified by us, the Joint Sponsors, the Sole Global Coordinator, the Sole Bookrunner, the Sole Lead Manager, the Underwriters or any other party involved in the Global Offering and no representation is given as to its accuracy. The information from official government publications may not be consistent with information available from other sources within or outside the PRC and Hong Kong. Neither our Group, its affiliates or advisors, the Underwriters or their affiliates or advisors, nor any other party involved in the Global Offering make any representation as to the accuracy, completeness or fairness of such information from official government publications.*

### **ECONOMIC GROWTH OF GREATER CHINA**

#### **Overview of the PRC Economy**

The PRC economy has maintained rapid growth in recent years. According to IMF, the PRC experienced significant economic growth with real GDP increasing by at least 7.8% each year between 2008 and 2012, making the PRC one of the fastest growing economies in the world. In 2009, the PRC's real GDP grew 9.2% from 2008, exceeding the PRC Government's 8% target, and it further grew 10.4% in 2010, 9.3% in 2011 and 7.8% in 2012. According to the IMF, the PRC's real GDP growth is expected to be 7.8% in 2013 and 7.7% in 2014 and 7.6% in 2015 and to remain steady at 7.5% in 2016 and 2017. The PRC's nominal GDP has also grown, increasing from approximately RMB31.4 trillion in 2008 to RMB51.9 trillion in 2012 and is expected to grow steadily from 2013 to 2017. According to IMF projections, the PRC's nominal GDP is expected to reach RMB86.9 trillion in 2017 representing a CAGR of 10.8% from 2013 to 2017. Per capita GDP has also grown quickly, from RMB23,647.6 in 2008 to RMB38,353.5 in 2012, representing a CAGR of 12.9% and is forecasted to reach RMB62,638.7 in 2017, at a CAGR of 10.2% from 2013 to 2017.

#### ***Increasing Urbanisation***

Rapid economic growth and PRC governmental policies have led to increasing urbanisation in the PRC. According to the Frost & Sullivan Report, the population of the PRC has been growing from 1.33 billion in 2008 to 1.35 billion in 2012 and is expected to reach 1.39 billion in 2017. The urbanisation rate of the PRC has increased from 45.7% in 2008 to 52.6% in 2012 and is estimated to reach 56.9% in 2017. The trend of urbanisation, along with the growing population base, is anticipated to create an attractive consumer group both in terms of size and purchasing power.

#### ***Increasing Disposable Income of Urban and Rural Households***

With the rapid growth of the PRC economy, income levels of urban and rural households have increased leading to improved living standards. According to the National Bureau of Statistics of China, the per capita annual disposable income of urban households in China increased at a CAGR of 11.7% from approximately RMB15,781 in 2008 to RMB24,565 in 2012. In addition, the per capita annual net income of rural households in China also increased at a CAGR of 13.6% from approximately RMB4,761 in 2008 to RMB7,917 in 2012.

---

## INDUSTRY OVERVIEW

---

### ***Rapid Expansion of China's Retail Market***

The PRC market for consumer goods has been expanding rapidly amid strong growth in the PRC's GDP, rapid urbanisation and increasing disposable income of urban households. Consumer spending, as measured by the total value of retail sales of consumer goods, has grown from approximately RMB11.5 trillion in 2008 to RMB21.0 trillion in 2012, representing a CAGR of 16.3%. According to the Frost & Sullivan Report, consumer spending in the PRC is expected to further increase to RMB36.3 trillion in 2017 to achieve a CAGR of 11.6% from 2013 to 2017.

### **Overview of the Hong Kong Economy**

According to the IMF, Hong Kong's nominal GDP has grown increasing from approximately HK\$1.7 trillion in 2008 to HK\$2.0 trillion in 2012 (including a slight decrease from HK\$1.7 trillion in 2008 to HK\$1.66 trillion in 2009, reflecting the negative influence of the financial crisis in 2008) and is expected to grow steadily from 2013 to 2017. According to IMF projections, Hong Kong's nominal GDP is expected to reach HK\$3.0 trillion in 2017 reflecting a CAGR of around 8.0% from 2013 to 2017. However, growth in Hong Kong's per capita GDP has been moderate, increasing from HK\$245.2 thousand in 2008 to HK\$284.4 thousand in 2012, with a CAGR of 3.8% during this period and a negative growth rate of (3.3%) in 2009. According to the Frost & Sullivan Report, from 2013 to 2017, per capita GDP of Hong Kong is anticipated to show an increased growth rate with a CAGR of 7.5%.

### ***Growth of Medium Employment Earnings***

According to the Hong Kong Census and Statistics Department, medium employment earnings in Hong Kong have remained relatively flat, increasing from HK\$127.5 thousand to HK\$144.0 thousand with a CAGR of 3.1% from 2008 to 2012. However, according to the Frost & Sullivan Report, medium employment earnings in Hong Kong are expected to grow to HK\$189.4 thousand in 2017 to achieve a higher CAGR of 6.0% from 2013 to 2017 in line with increased per capita GDP growth owing to supportive fiscal policies from the PRC government and growing consumption in the PRC of goods and services imported from Hong Kong.

### ***Growth in Hong Kong's Retail Market***

Hong Kong's market for consumer goods has maintained high growth from 2008 to 2012, except for a year of minimal growth in 2009 due to affects of the global economic crisis. Consumer spending, as measured by the total value of retail sales of consumer goods, has grown from approximately HK\$273.1 billion in 2008 to HK\$445.5 billion in 2012, representing a CAGR of 13.0%. According to the Frost & Sullivan Report, consumer spending in Hong Kong is expected to further increase to HK\$918.9 billion in 2017 to achieve a CAGR of 15.6% from 2013 to 2017.

### **Overview of the Macao Economy**

The Macao economy is also growing. According to the Frost & Sullivan Report, Macao experienced rapid economic growth with nominal GDP increasing from approximately MOP166.3 billion in 2008 to MOP348.2 billion in 2012, and its real GDP is expected to increase with a CAGR of 13.5% from 2013 to 2017. According to the Frost & Sullivan Report, the per capita GDP of Macao has also continuously grown from MOP307.9 thousand in 2008 to MOP611.9 thousand in 2012, and is expected to reach MOP1.4 million in 2017, with a CAGR of 18.5% between 2013 and 2017. Macao's GDP growth is due in part to increasing tourism and retail sales, which led to a boom in 2012 according to statistics from the Macao Statistics and Census Service. The Macao government's investment in public infrastructure is also a driver of the region's economic growth and prosperity.

## INDUSTRY OVERVIEW

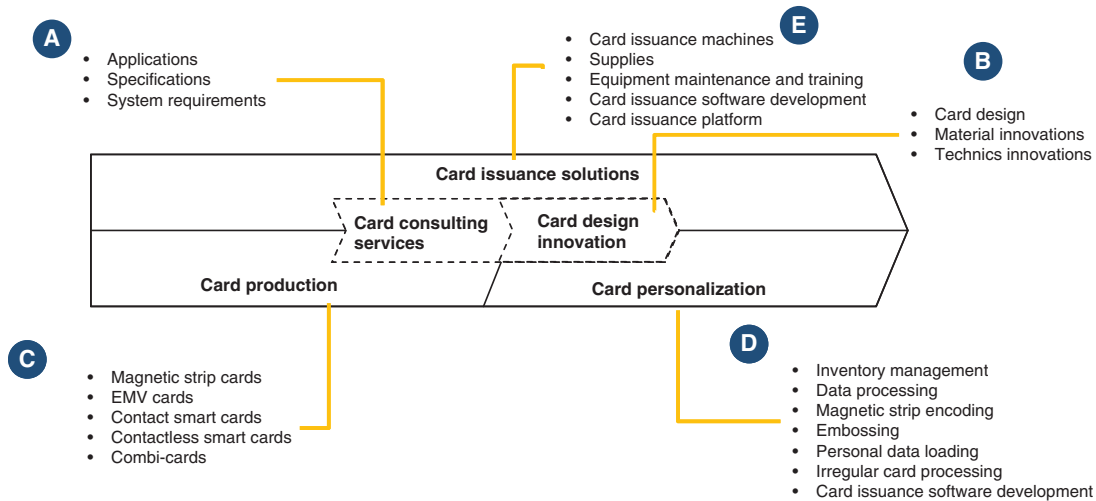
### **Growth in Macao's Retail Market**

Macao's retail sales value of consumer goods, has grown from approximately MOP19.4 billion in 2008 to MOP52.9 billion in 2012, representing a nearly threefold increase. According to the Frost & Sullivan Report, consumer spending in Macao is expected to further increase to MOP145.9 billion in 2017, with a CAGR of 22.1% from 2013 to 2017.

### **OVERVIEW OF THE GREATER CHINA FINANCIAL CARD, PERSONALISATION SERVICES AND ON-SITE CARD ISSUANCE SYSTEM SOLUTIONS MARKET**

The financial card, personalisation services and on-site card issuance system solutions market are three market segments that make up parts of the value chain relating to the design, manufacture, personalisation, issuance and delivery of financial cards to end users to facilitate various types of transactions including cash withdrawal, cashless electronic transactions and provision of social benefits. According to the Frost & Sullivan Report, this market has been well developed Greater China, including pre-production activities (such as card consulting service and card design innovation), production activities (such as card production and card personalisation) and post production activities (such as on-site card issuance system solutions and card reader terminals).

The following chart shows the key components of the value chain of the Greater China financial card, personalisation service and card issuance system solutions service market:



Source: Frost & Sullivan Report

### **THE GREATER CHINA FINANCIAL CARD MARKET**

#### **Overview**

In Greater China, financial cards are issued by state-owned banks, joint-stock banks, foreign banks, commercial banks and rural credit cooperatives for usage by their customers. Financial cards are used as sources of customer identification and other information for a variety of financial services such as cash withdrawals or other bank transactions via ATMs and cashless payments via POS terminals. In terms of technology, financial cards generally fall into two categories, magnetic strip cards and smart cards.

## INDUSTRY OVERVIEW

The table below describes advantages and weaknesses of financial cards compared to other payment methods.

Payment methods	Cash	Cheque	Financial cards	Online payment	Prepaid cards
<b>Advantages</b>	<ul style="list-style-type: none"> <li>Traditional payment method without any technical difficulty for the majority.</li> <li>Widely accepted.</li> </ul>	<ul style="list-style-type: none"> <li>Relatively transparent regulations and detailed transaction records.</li> </ul>	<ul style="list-style-type: none"> <li>Convenience, portability and low-riskiness (smart card in special).</li> <li>Widely used in both small-value and large-value payments.</li> </ul>	<ul style="list-style-type: none"> <li>Transparent relative regulations and detailed transaction records.</li> </ul>	<ul style="list-style-type: none"> <li>Specialized usage, like prepaid phone cards and shopping cards.</li> <li>Diversified issuers.</li> </ul>
<b>Weaknesses</b>	<ul style="list-style-type: none"> <li>Limitations on portability and safety in case of large-value payment and remote payment.</li> </ul>	<ul style="list-style-type: none"> <li>Usually Used In large-value payment.</li> <li>Complex and inconvenient in payment procedures.</li> </ul>	<ul style="list-style-type: none"> <li>Limitations on portability and safety in case of large payment amount and long geographical distance.</li> </ul>	<ul style="list-style-type: none"> <li>Hidden risk of information security.</li> <li>Relatively complex to use.</li> <li>Immature acceptance environment.</li> </ul>	<ul style="list-style-type: none"> <li>Limited number of accepting merchants and therefore a smaller chance of wide application.</li> </ul>

Source: Frost & Sullivan Report

### Card Types and Migration of Technology

#### ***Magnetic Strip Cards***

Magnetic strip cards are a type of card capable of storing data by modifying the magnetism of tiny iron-based magnetic particles on a band of magnetic material on the card. A magnetic strip card is read by swiping the card's magnetic strip past a magnetic reading head on the card reader. Magnetic strip cards have been used commercially since the early 1970s and since the 1980s in the PRC. Due to their long history in the market and relatively lower cost of production, they are widely adopted for use with ATMs and POS terminals. Disadvantages of magnetic strip cards include weaker security, ability to be easily counterfeited, low data capacity and limited prospects for future advances due to physical limitations of this mature technology.

#### ***Smart Cards***

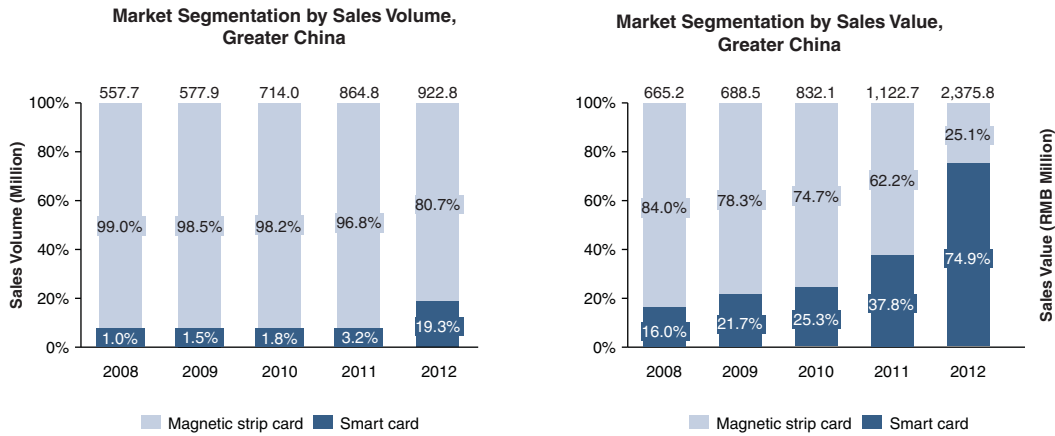
Smart cards, also known as IC cards, are cards that are made of plastic with embedded IC chips. They are typically similar in size to standard magnetic strip cards. The card's IC chip, has significantly larger data storage capacity than a magnetic strip and can be programmed with high-tech security features such as read-write protection and data encryption that can interface with smart card compatible ATMs and POS terminals to authenticate transactions. These security features are superior to those found in magnetic strip card technology. The storage capacity of smart cards is at the megabyte level, rather than the mere 125 bytes of a traditional magnetic strip card, and allows for storage of words, sounds and pictures. The microprocessor of the smart cards allows the card's memory to be divided into different application areas, which allows for multifunctional capabilities. The expandability of IC chip technology allows for future technological advances in smart card security and applications. Smart cards were initially developed for commercial use in the late 1970s and introduced to the PRC market in 1994. Since 2000, their use has become more widespread.

#### ***Market Segmentation by Card Type***

In terms of sales volume, magnetic strip cards continue to dominate the Greater China financial card market, accounted for 80.7% of the total volume of financial cards sold in 2012. However, given the price of smart cards is generally ten times greater than that of magnetic strip cards, the sales value of smart cards accounted for 74.9% of the total value of financial card sold in 2012. The chart

## INDUSTRY OVERVIEW

below illustrates the market segmentation by card type of the Greater China market from 2008 to 2012:



Source: Frost & Sullivan Report

### Migration from Magnetic Strip Cards to Smart Cards

The technological advantages of smart cards in terms of security, functionality and expandability are leading to a migration from the magnetic strip card technology to smart card technology. In the late 1990s, Europay International, MasterCard and Visa rolled out a global initiative for making credit and debit payments using smart cards. Known as the EMV (Europay International, MasterCard and Visa) standard, it has been viewed as one of the most effective tools in fighting card fraud worldwide. The EMV standard defines many aspects of smart card deployment, including the visual appearance of a card, terminal hardware and software, personalisation, cryptography, transaction processing algorithms, etc. EMVCo, owned by American Express, JCB, MasterCard, UnionPay and Visa, manages, maintains and enhances the EMV Integrated Circuit Card Specifications to ensure global interoperability of chip-based financial cards with acceptance devices including point of sale terminals and ATMs. The migration from magnetic strip cards to smart cards with EMV or similar standards, provided a number of benefits including the following:

	<u>For Issuers &amp; Retailers:</u>	<u>For Card Payment Processors:</u>
Reduced fraud	<ul style="list-style-type: none"> <li>● Authentication of smart card protecting against counterfeit and online and offline fraud</li> <li>● Better risk management parameters</li> <li>● Digital data signing for transaction integrity</li> <li>● More robust cardholder verification</li> </ul>	<ul style="list-style-type: none"> <li>● Reduced authorisation expenses</li> <li>● Fewer transaction disputes</li> <li>● Lower processing costs</li> <li>● New merchant accounts (those which were previously too high risk)</li> </ul>
Added value features	<ul style="list-style-type: none"> <li>● Support for complex loyalty schemes</li> <li>● Local applications (ATM, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>● Greater offline transaction security</li> </ul>
Faster, more convenient payments	<ul style="list-style-type: none"> <li>● Support for online and offline transactions</li> <li>● Support for additional non-payment oriented on-card applications – transport, access, etc.</li> </ul>	

Source: Frost & Sullivan Report

---

## INDUSTRY OVERVIEW

---

Furthermore, in recent years, bank regulators in the PRC and Hong Kong have adopted policies and regulation to accelerate the migration of financial cards from magnetic strip to smart card technology to decrease cases of fraud and enhance bank services, thus driving growth of the market share of smart cards. The effect of these policies and regulations have become especially pronounced in 2012, as the market share of smart cards, in terms of sales volume in Greater China, increased from 3.2% for the year ended 31 December 2011 to 19.3% for the year ended 31 December 2012. During the same period, the market share of smart cards, in terms of sales value in Greater China, increased from 37.8% to 74.9%.

### ***Mobile Payments***

Mobile payment, also often referred to as mobile money, mobile money transfer, and mobile wallet, generally refer to payment services operated under financial regulation and performed from or via a mobile device. Instead of paying with cash, check, or credit cards, a consumer can use a mobile phone to pay for a wide range of services and digital or physical goods. Companies from different industries are entering into this emerging market, such as mobile network operators, banks, internet companies, financial card associations and retail stores.

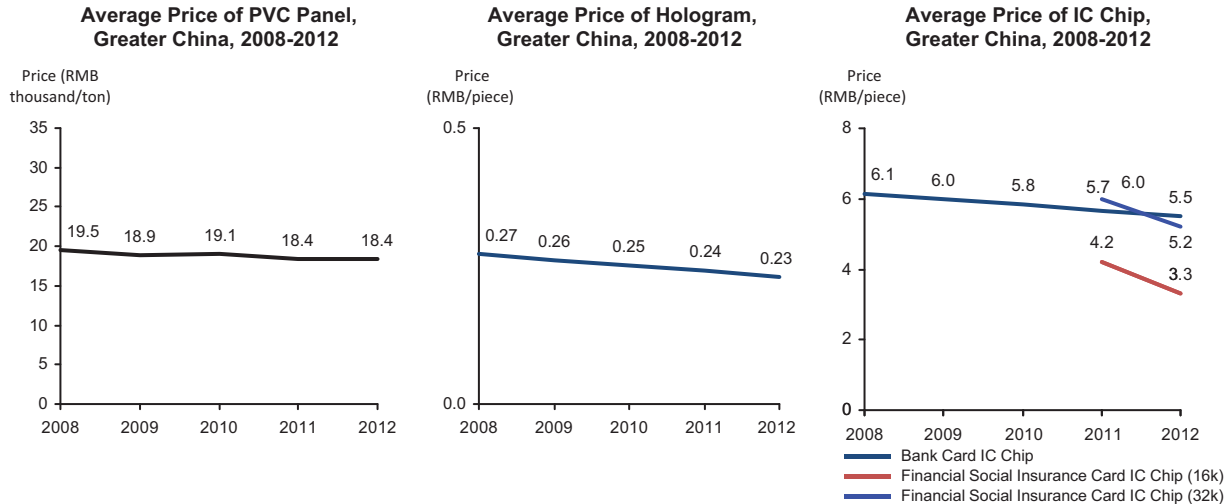
### **Major Raw Materials**

Major raw materials used in the production of financial cards in the Greater China financial card market include IC chips, PVC panels and holograms. PVC panels are used as raw material for the majority of financial cards, and the average price of PVC panels remained relatively stable, with a slight decrease from RMB19.5 thousand per ton in 2008 to RMB18.4 thousand per ton in 2012. Holograms are essential for credit cards, and the average price of holograms has declined from RMB0.27 per piece in 2008 to RMB0.23 per piece in 2012. IC chips are key components of smart cards, and the average prices of various types of IC chips in the Greater China financial card market have decreased since 2008. In particular, IC chips for bank cards have gradually decreased from RMB6.1 per piece in 2008 to RMB5.5 per piece in 2012. Likewise, IC chips for social insurance cards with financial functions, which are commonly supplied in 16K and 32K (a higher end version) versions, have also decreased since they began to be sold in the Greater China market in 2011. 16K IC chips have decreased from RMB4.2 per piece in 2011 to RMB3.3 per piece in 2012 and 32K IC chips have decreased from RMB6.0 per piece in 2011 to RMB5.2 per piece in 2012.

## INDUSTRY OVERVIEW

The chart below illustrates the historical price fluctuation of major raw materials used in the production of financial cards:

### Greater China Financial Card Market

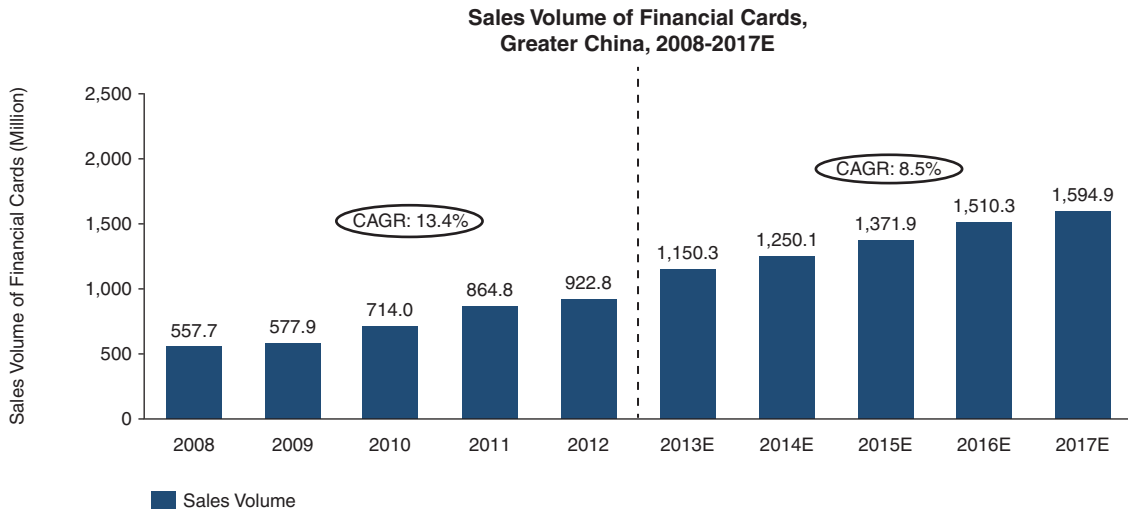


Note: Financial social insurance card IC chips were first sold in Greater China financial card market in 2011.

Source: Frost & Sullivan Report

### Market Analysis

In terms of sales volume, the Greater China financial card market has experienced stable growth from 557.7 million cards in 2008 to 922.8 million cards in 2012, representing a CAGR of 13.4%. Sales volume is expected to continue to grow in the near future, reaching approximately 1.6 billion cards in 2017, representing a CAGR of 8.5% from 2013 to 2017, in line with continuing economic development and further urbanisation in the PRC. The chart below illustrates the growth in sales volume of the financial card market in Greater China from 2008 to 2017.



Source: Frost & Sullivan Report

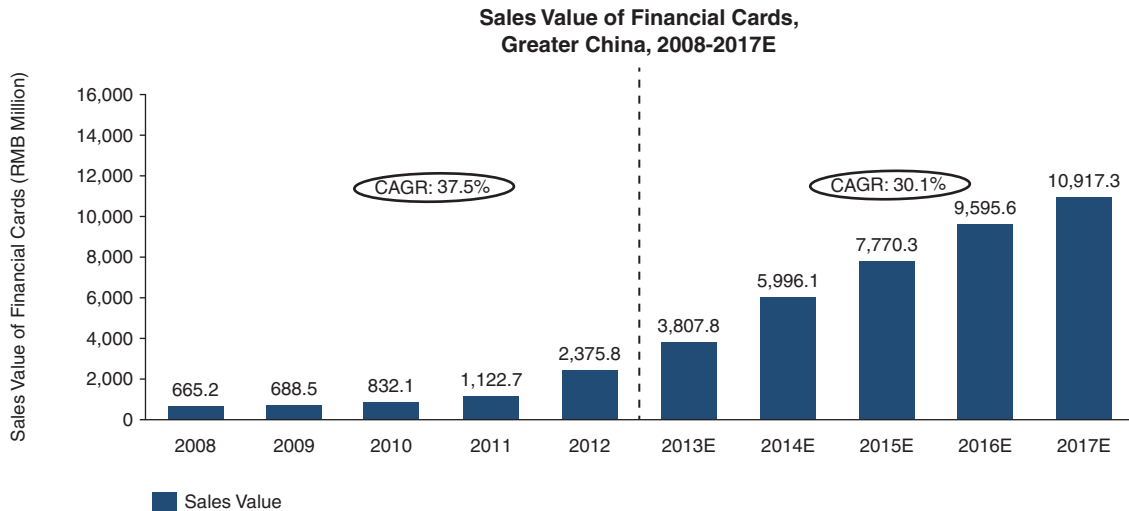


---

## INDUSTRY OVERVIEW

---

In terms of sales value, the Greater China financial card market has experienced stable growth from RMB665.2 million in 2008 to approximately RMB2.4 billion in 2012, representing a CAGR of 37.5%. Such growth is expected to continue, mainly driven by the migration to smart cards, which are expected to have a higher average price. Consequently, Frost & Sullivan forecasts that the sales value of the Greater China financial card market will grow from RMB3.8 billion in 2013 to RMB10.9 billion in 2017, with a CAGR of 30.1%. The chart below illustrates the growth in sales value of the financial card market in Greater China from 2008 to 2017.



Source: Frost & Sullivan Report

### Barriers to Entry

According to the Frost & Sullivan Report, key barriers of entry in the Greater China financial card market include third-party certification requirements, production capacity, technical capabilities and experience, customer relationships and technology.

#### *Third party certification requirements*

Card issuers in the PRC that are financial institutions require their financial card suppliers to have relevant certifications from payment card organisations such as Visa, MasterCard and UnionPay. We are the sole card manufacturer in the PRC simultaneously certified by Visa, MasterCard, American Express, UnionPay, JCB and Diners Club International. Applicants for the certification must have at least five years of production experience in related industries and are assessed on multiple criteria including quality of product, production and management capacity, safety management, etc. The time and resources needed to meet certification requirements present an entry barrier to new market entrants. Furthermore, most of the card issuers in Hong Kong issue financial cards from a wider set of payment card organisations including American Express, JCB and Diners Club, in addition to Visa, MasterCard and UnionPay. This presents additional barriers of entry for new participants in the Hong Kong market, including existing PRC vendors who typically may only have some of these certifications, often just UnionPay and Visa. Separate certifications are also required to supply financial cards to the PRC social insurance card market including certifications issued by UnionPay and the Ministry of Human Resources and Social Security of the PRC.

#### *Production Capacity*

Production capacity, technical capabilities, and experience also take time and resources to develop. The difficulty of developing all of these factors at a high-level, particularly amidst intense competition in the market, represent increased barriers for market entrants.



## INDUSTRY OVERVIEW

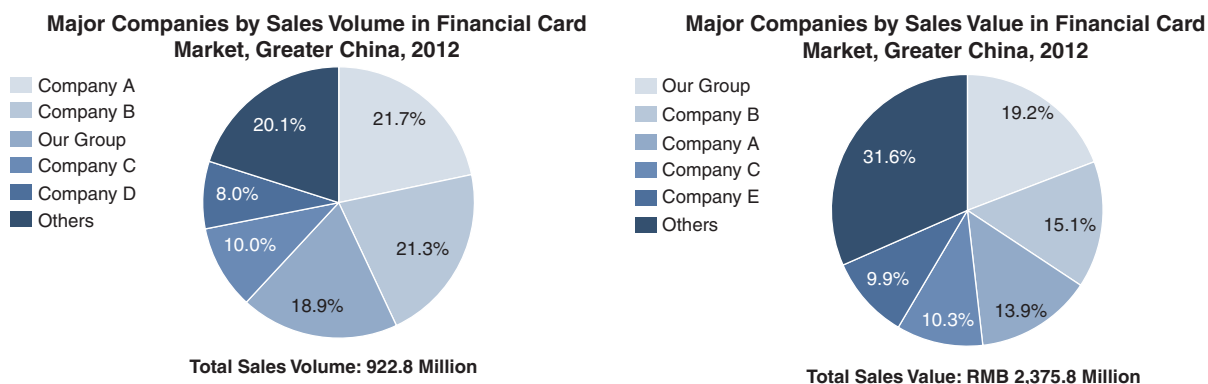
### *Long relationships with suppliers*

Also, strong demands from card issuers for high quality service, reliability and information security, means that card issuers value longstanding relationships with trusted suppliers and are reluctant to change suppliers frequently. Existing qualified suppliers are likely to enjoy an advantage over new market entrants.

### **Competitive Landscape**

The financial card sector in China is concentrated. Large scale manufacturers include Hengbao, Goldpac, Giesecke & Devrient (“G&D”), China Banknote and Eastcompeace. Among them, G&D is a multinational corporation, while China Banknote is a subsidiary of state-owned enterprise China Banknote Printing and Minting Corporation. In terms of key customer types, large state-owned banks and joint-stock banks are the main customers of these financial card manufacturers in Greater China. In addition, as we began operating in Hong Kong and Macao relatively early compared to our peers, we also have a number of financial institution customers outside of the PRC.

In the year ended 31 December 2012, we were the largest financial card supplier in the Greater China market by sales value (19.2%) and the third largest by sales volume (18.9%). During the same period, the top five financial card suppliers accounted for about 68.4% of the total sales value in the Greater China market. In terms of sales volume, in the year ended 31 December 2012, the top five financial card suppliers together accounted for 79.9% of total market in Greater China and the difference between the market share among the top three suppliers was not significant. The charts below illustrate our market share in terms of both sales volume and sales value of the Greater China financial card market:



Note: “Others” include various other smaller domestic companies. All figures are rounded.

Source: Frost & Sullivan Report

### **Driving Factors**

- *Economic growth*

Increased economic development in Greater China will generally lead to increased consumption, which will likely increase the demand for non-cash payment services, especially financial cards. Also, the number of cards owned by the average cardholder, particularly in the PRC, will likely increase in line with economic development, as evidenced by the higher average number of cards owned by average residents in first-tier cities such as Beijing and Shanghai, as compared to other cities and regions in the PRC.

---

## INDUSTRY OVERVIEW

---

- *Technology*

Migration to smart card technology will drive growth in the financial card market. Migration is nearly complete in Hong Kong and is expected to greatly promote further usage of financial cards. In the PRC, PBOC in February 2013 promulgated PBOC 3.0, a standard for smart cards based on latest general technical standards and the experience of promoting smart cards in the PRC. The promulgation of PBOC 3.0 marked the official launch of the PRC's formal migration from magnetic strip cards to smart cards nationwide and should promote further growth in the financial card market. See "Regulations – Regulatory Framework of the Smart Card Industry".

- *Policies and Regulations*

Continued opening of the PRC financial market, particularly to foreign competitors, will likely cause increased competition in the financial card market among card issuers and lead to increased issuance of financial cards and consequently demand for their manufacture. Recently adopted PRC policies, such as the Opinions of the People's Bank of China to Promote Applications of Financial IC Cards\* (中國人民銀行關於推進金融IC卡應用工作的意見) that was issued by PBOC on 11 March 2011 to officially launch a nationwide timeline for smart card migration by 1 January 2015, are also encouraging the adoption of smart cards in the provision of social security benefits, which will lead to increased demand for smart cards from local authorities. Furthermore, both public and private sector financial card issuers are increasing their demand for the more secure smart cards in order to satisfy requirements of internal risk management policies. See "Regulations – Regulatory Framework of the Smart Card Industry".

- *Societal Trends*

With an aging population in the PRC, more citizens are concerned with the development of social security system such as pension as well as health care insurance. To meet the needs by citizens, the PRC government is likely to issue financial cards for social security services more extensively, and increasing demand for manufacturers of financial cards.

## THE GREATER CHINA PERSONALISATION SERVICES MARKET

### Overview

Personalisation services are a group of customised services relating to the packaging and distribution of financial cards. Such services include information processing, financial card packaging, personalised card printing and financial card delivery. As banks and other issuers of financial cards face increasing competition, they are tending to focus more on their core businesses and are seeking ways to lower costs such as through outsourcing of peripheral operations such as personalisation services of financial cards.

### Market Analysis

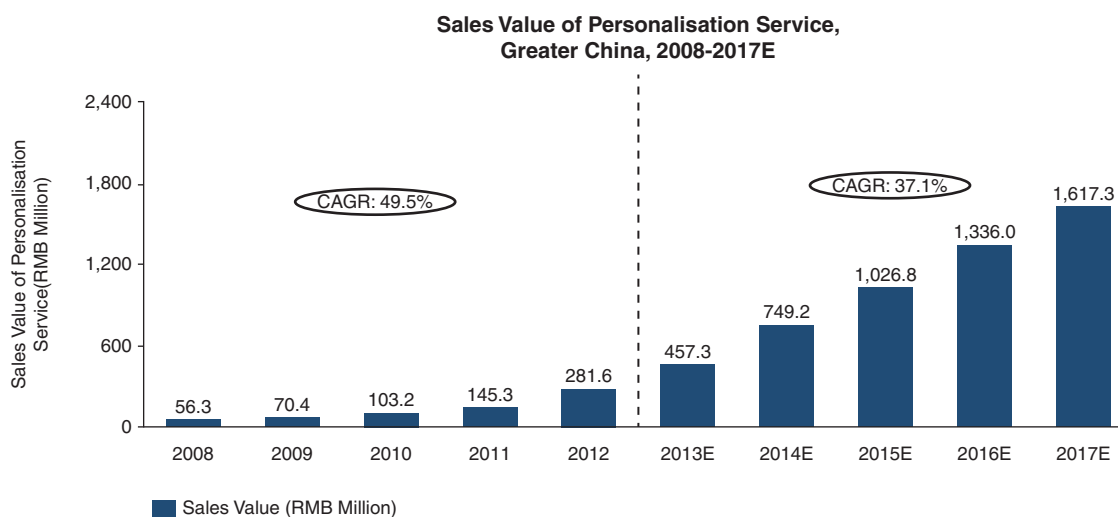
The size of the Greater China personalisation service market in terms of sales value has grown rapidly from RMB56.3 million in 2008 to RMB281.6 million in 2012 with a CAGR of 49.5%. Personalisation service providers are increasingly expected to expand their product and service portfolio in order to meet the increasing personalisation demands by financial institutions, which may lead to a rise in the average price of personalisation services. According to the Frost & Sullivan Report, the sales value of the Greater China personalisation service market is estimated to continue to

---

## INDUSTRY OVERVIEW

---

increase rapidly from 2013 to 2017 with a fairly high CAGR of 37.1%, to reach approximately RMB1.6 billion in 2017. The chart below illustrates the growth in sales value of the personalisation services market in Greater China from 2008 to 2017.



Source: Frost & Sullivan Report

### Barriers to Entry

According to the Frost & Sullivan Report, key barriers of entry in the Greater China personalisation services market include third-party certification requirements, experience and capability, stable relationships with clients and advanced technology. Because personalisation services require service providers to handle highly sensitive personal information of cardholders, card issuers such as financial institutions need to have a high degree of confidence in the qualifications, technical abilities, security procedures and high management standards of their outsourcing vendors. Mishandling of personal information by a vendor can cause financial and reputational harm for the card issuer.

Financial institutions normally require potential vendors to obtain the certificates of production quality issued by major payment card organisations such as Visa, MasterCard and UnionPay. It takes personalisation services providers a substantial amount of time and resources to apply for and pass the certification process, which audits the vendor's quality of services, production process, management capability and safety management. Financial institutions also insist on high standards for management of information security and efficient card processing. This requires development of strong management processes and handling of advanced card personalisation technology.

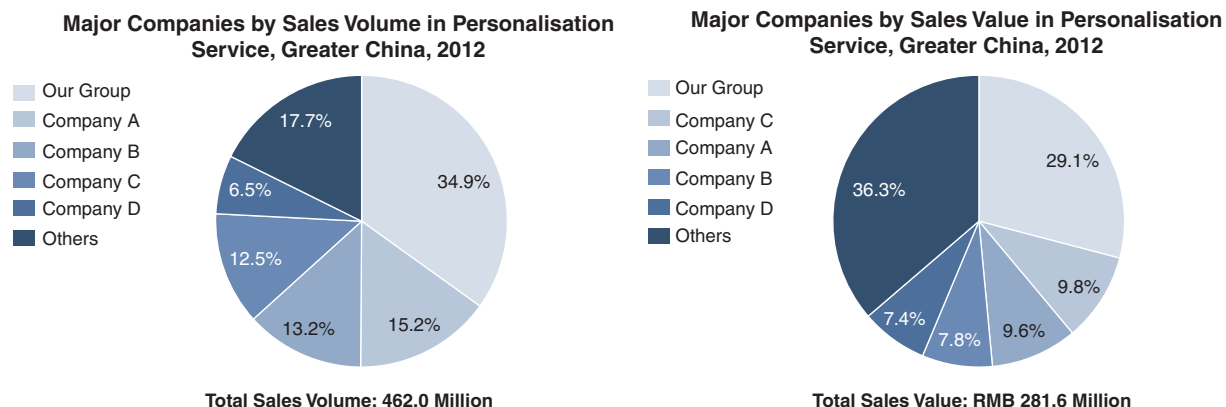
Because of the large amount of time and resources required to earn the necessary certifications and to meet financial institutions' high standards, clients of personalisation services providers tend to change providers infrequently. In most cases, existing service providers have established relationships with major clients who have confidence in their service quality and information security capabilities. The tendency to stick to previous trusted service providers sets an entry barrier for new market entrants.

### Competitive Landscape

In the year ended 31 December 2012, we were the largest card personalisation services provider in Greater China both by sales volume, 34.9%, and by sales value, 29.1%. During the same period, the top 5 personalisation services providers accounted for about 82.3% of the total sales volume and 63.7% of the total sales value in the Greater China market. The charts below illustrate our market

## INDUSTRY OVERVIEW

share in terms of both sales volume and sales value of the Greater China card personalisation services market.



Note: "Others" include various other smaller domestic companies. All figures are rounded.

Source: Frost & Sullivan Report

### Driving Factors

- *Economic growth*

The increasing per capita disposable income of the PRC's urban residents will likely contribute to an increase in the number of financial cards issued and the number of cardholders in the coming years. As financial cards will need to be personalised before delivery to end customers, the personalisation services market would grow in line with the overall growth of financial cards.

- *Demand for Outsourcing*

Through financial card service outsourcing, such as personalisation service, card issuers can save their cost and concentrate resources on product development, marketing and brand-building, in order to identify their strengths and build their core competitiveness. In addition, an increasing number of institutions are expected to provide financial card services, which leads to the growing demand of the Greater China personalisation services market. Those service providers who are capable of providing personalisation services with high quality and security and have a rich production experience would benefit from this growing market.

- *Societal Trends*

Today's PRC consumers tend to seek more customised and unique services. Unique financial card designs, such as photo cards, reflect cardholders' personal styles. To enhance customer retention, financial institutions will need to provide more personalised financial card services, which should create more opportunities for the personalisation services market in the PRC.

## THE GREATER CHINA ON-SITE CARD ISSUANCE SYSTEM SOLUTIONS MARKET

### Overview

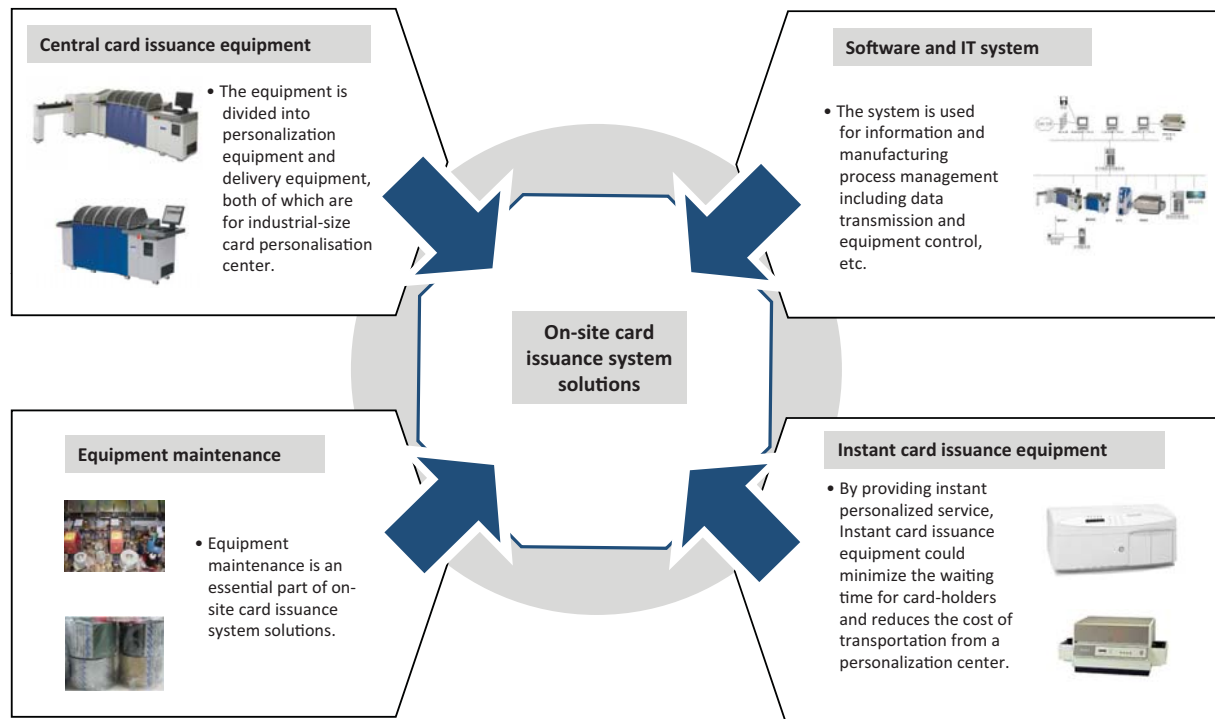
The on-site card issuance system solutions market involves the provision of hardware and software systems to financial institutions and other card issuers that require the capability to directly issue their own cards. Large issuers may want to keep all or a portion of their card issuance and

## INDUSTRY OVERVIEW

personalisation functions in-house and require industrial-sized central card issuance equipment. Some issuers may want to have local in-branch card issuance capabilities for rapid issuance of cards in smaller quantities for quicker service and to distinguish their service offerings from other competitors.

Components of on-site card issuance system solutions may include central card issuance equipment, software and IT systems, desktop card issuance equipment and after-sales services including equipment maintenance and IT support. Providers of on-site card issuance system solutions will typically work with a client to provide a total solution including some or all of these components to meet the client's card issuance needs.

The following chart sets forth the key components of on-site card issuance system solutions.



Source: Frost & Sullivan Report

### Barriers to Entry

According to the Frost & Sullivan Report, key barriers of entry in Greater China on-site card issuance system solutions market include comprehensive card issuance system solutions capability, capability for developing customised software, brand awareness and professional technical teams. Financial institutions have moved away from purchasing equipment and software separately, and are increasingly seeking vendors that can provide comprehensive card issuance system solutions. For vendors, developing the experience and expertise, including assembling professional technical teams, to create comprehensive solutions demands a great investment in time and capital. In Greater China, the requirements for card issuance system solutions by financial institutions also vary due to different business strategies. Therefore, financial institutions require a customised software and IT system solutions, and existing service providers with capability to independently develop custom software are enjoying an advantage over new market entrants. Also, because of the large initial investment needed to implement on-site card issuance system solutions, card issuers will tend to be careful about their selection of solutions providers and are likely to prefer vendors with recognised brands as an indicator of quality and capability, which creates difficulties for new market entrants.

---

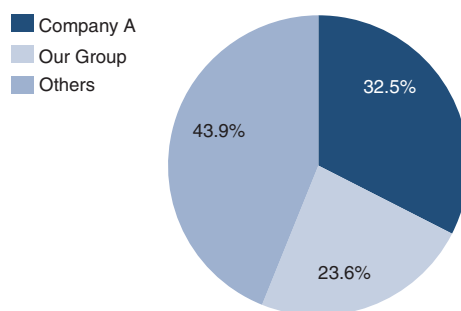
## INDUSTRY OVERVIEW

---

### Competitive Landscape

According to the Frost & Sullivan Report, in the year ended 31 December 2012, we were the second largest provider of on-site card issuance system solutions in Greater China, representing 23.6% of a market with a total sales value of RMB390.0 million. The remaining 72.4% of the market is shared by a number of domestic and foreign companies in the PRC. The charts below illustrate our market share in terms of sales value of Greater China on-site card issuance system solutions market.

**Major Companies by Sales Value in On-site Card Issuance System Solutions, Greater China, 2012**



Total Sales Value: RMB 390.0 Million

*Note: Others include a number of domestic and foreign companies. All figures are rounded.*

*Source: Frost & Sullivan Report*

### Driving Factors

- *Large Banks and Card Manufacturers*

It is common that large banks and card manufacturers possess their own personalisation centres. As the development of the financial card business of large banks increases, the number of cards requiring personalisation also increases. Additionally, as the demand by customers becomes more diversified, both banks and card manufacturers need a multifunctional IT system for financial card issuance, which will likely lead to room for growth in the financial on-site card issuance system solutions market.

- *Joint-Stock Banks and Commercial Banks of Cities and Rural Areas*

In order to distinguish their services from other banks, joint-stock banks and commercial banks of cities and rural areas seek out innovative solutions to serve their customers. An example of such an innovative solution is instant card issuance. Since the instant issuance solution can greatly reduce the waiting time for card holders to receive personalised cards, this service can differentiate a bank from other banks. Such differentiating innovations may drive increased demand by banks for this type of solution to satisfy their customers.

- *Rural Credit Cooperatives*

A growing number of rural credit cooperatives are issuing financial cards to develop their business. Rural credit cooperatives usually suffer from higher pricing for outsourced personalisation service due to the relatively small volume of their card personalisation needs. As a result, they may consider establishing their own small personalisation centre instead, which drives their demand for the purchase of new personalisation equipment and software.

---

## INDUSTRY OVERVIEW

---

### REPORT COMMISSIONED FROM FROST & SULLIVAN

In connection with the Global Offering, we commissioned Frost & Sullivan to conduct an analysis of, and to report on, the financial card, personalisation services and on-site card issuance system solutions markets of Greater China for the period from 2008 to 2017.

Frost & Sullivan is an independent global market research and consulting company which was founded in 1961 and is based in the United States. Certain information set forth in this section has been extracted from the industry report prepared by Frost & Sullivan. The Frost & Sullivan Report prepared by Frost & Sullivan is independent from our influence. Frost & Sullivan received a total commission of RMB720,000 for the research and preparation of the Frost & Sullivan Report. The payment of such amount was not conditional on our successful listing or on the results of the Frost & Sullivan Report.

In preparing the Frost & Sullivan Report, Frost & Sullivan adopted a methodology of both primary research and secondary research, and obtained knowledge, statistics, information and industry insights on industry trends within the Greater China financial card, card personalisation service and on-site card issuance system solutions market. Primary research involved interviewing industry participants and authoritative third-party industry associations. Secondary research involved reviewing company annual reports, official bureaus' databases, independent research reports or journals and Frost & Sullivan's proprietary database built up over the past decades. Historical data for market size and competition analysis was obtained both from primary research including top-down interviews with all the industry participants, and from a variety of secondary research. Forecast data was obtained from historical data analyses plotted against macroeconomic data as well as specific industry-related drivers such as the increase of per capita income.