

Analysis on Market Size and Structure of Chinese Bankcard Industry

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ABSTRACT: This paper analyzed the market size and market structure of Chinese bankcard industry, including issuing market and acceptance market. Data showed that China's banking card market structure was evolving from monopoly to oligopoly competition.

Keywords: Bankcard Industry, Market Size, Market Structure, Analysis.

I. INTRODUCTION

Bank card was a secure and convenient means of payment, which developed accompanied by social and economic development, and was widely used with the progress of modern society. This paper analyzed the market size and market structure of Chinese bankcard industry, including issuing market and acceptance market.

II. SIZE OF ISSUING MARKET

Since 2003, the first year of credit card issued in China, the size of bank card grow rapidly, the growth was shown in Figure 1.

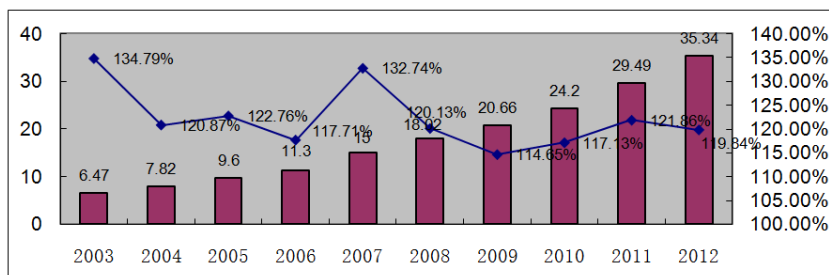


Figure 1: growth of issuance volume

In recent years, the bank card issuing market showed the several characteristics. Firstly, the chip card replaced magnetic stripe cards gradually. Secondly, functions of debit and credit card gradually clear. As shown in, the size and growth of a credit card has exceeded that of debit card.

Table 1 : Banking card volume and growth in 2003—2012 (Unit: one hundred million)

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
debit card	size	6.2	7.5	9.2	10.8	14.1	16.6	18.8	21.9	25.5	32.0
	growth	31.3%	21.1%	22.1%	17.7%	30.0%	17.6%	13.0%	16.5%	16.4%	25.5%
credit card	size	0.3	0.3	0.4	0.5	0.9	1.4	1.9	2.3	3.0	5.4
	growth	17.0	19.0	26.0	23.0	82.0	58.0	30.0	24.0	30.4	35.0

III. SIZE OF ACCEPTANCE MARKET

As shown in Figure 2, market acceptance of merchants increased year by year, the growth rate has exceeded 50% in 2012.

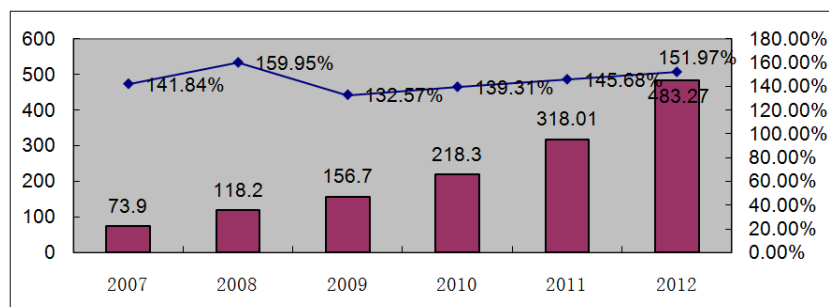


Figure 2: the number of accepted market merchants of China's banking card industry

As shown in Figure 3, the number of ATM terminals has increased, but the growth rate declined, which is affected by the substitution of bank cards for cash.

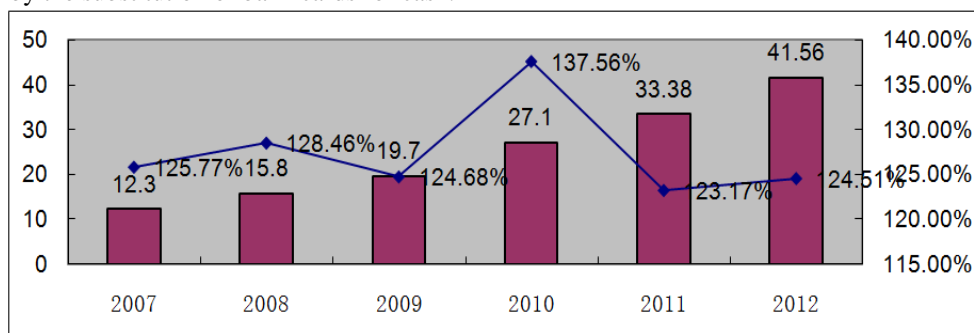


Figure 3: the number of ATM terminals

As shown in Figure 4, the number of POS terminals has increased, and contrast with Figure 2, the growth rate of POS machines is similar to that of merchants.

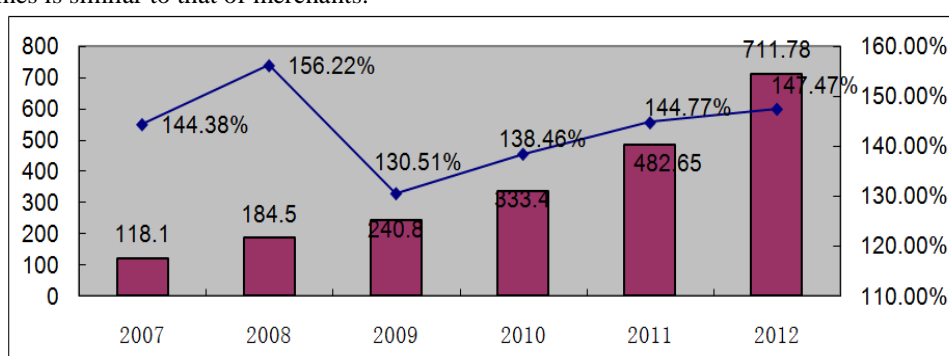


Figure 4: the number of POS terminals

Since 2007, merchants, ATM and POS all have a highly growth. Because of the improvement of people's living standards, demand of quick payment promoted a change of payment.

IV. STRUCTURE OF ISSUING MARKET

Bain's classification of concentration as shown in Table 2

Table 2 Classification of Market Structure type

Type of Market Structure	CR ₄ (%)	CR ₈ (%)
Oligopoly I	75 ≤ CR ₄	----
Oligopoly II	65 ≤ CR ₄ < 75	85 ≤ CR ₄
Oligopoly III	50 ≤ CR ₄ < 65	75 ≤ CR ₄ < 85
Oligopoly IV	35 ≤ CR ₄ < 50	45 ≤ CR ₄ < 75
Oligopoly V	30 ≤ CR ₄ < 35	40 ≤ CR ₄ < 45

China's banking card concentration of issuing market in 2003-2012 was shown in Table 3.

Table 3: concentration of issuing market

Index		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
CR1	Card volume	0.2310	0.2108	0.2281	0.1957	0.2113	0.2083	0.1757	0.1714	0.1690	0.1854
	Turnover	0.3980	0.4130	0.3699	0.3808	0.3562	---	0.3126	0.2951	0.2499	0.2525
CR4	Card volume	0.6894	0.6613	0.6677	0.6598	0.6672	0.6477	0.6227	0.6154	0.6056	0.5896
	Turnover	0.8524	0.8106	0.8520	0.7994	0.7579	---	0.6503	0.6508	0.6179	0.5983
CR8	Card volume	0.8852	0.8695	0.8579	0.8598	0.8400	0.8229	0.7959	0.7859	0.7643	0.6672
	Turnover	0.9482	0.9294	0.9401	0.8832	0.8695	---	0.7642	0.7781	0.7578	0.7312

The CR₄ and CR₈ all showed a downward trend, especially the market concentration of card volume, decreased from 88.52% to 66.72%, shows that issuing market of China's banking card industry had an oligopoly market structure. In recent years, with the issuing market monopoly gradually reduced, more and more issuers occupied a place in the market, and the overall structure of the market is gradually transformed by the oligopoly towards competitive.

V. STRUCTURE OF ACCEPTANCE MARKET

The CR_n of acceptance market were shown in Table 4. Overall, index continued to decline, the market's concentration is decreasing, and the market structure of oligopoly is being break in.

Table 4 : CR_n of acceptance market

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
CR_1	MA	0.2425	0.2245	0.2048	0.1857	0.1607	0.1595	0.1498	0.1439	0.1264	0.1136
	ATM	0.2283	0.2052	0.2219	0.2009	0.1835	0.1692	0.1587	0.1562	0.1412	0.1309
	POS	0.2217	0.2386	0.2458	0.2619	0.2821	0.2913	0.2845	0.2784	0.2591	0.2483
CR_4	MA	0.8017	0.7738	0.7495	0.7313	0.6929	0.6753	0.6310	0.6015	0.5094	0.4538
	ATM	0.6781	0.6646	0.6386	0.6166	0.5982	0.5803	0.5812	0.5681	0.5546	0.5432
	POS	0.7368	0.7424	0.7301	0.7186	0.7004	0.6788	0.6593	0.6374	0.6108	0.6043
CR_8	MA	0.9284	0.9324	0.9372	0.9283	0.9021	0.8799	0.8468	0.8124	0.7930	0.7692
	ATM	0.8706	0.8533	0.8173	0.8095	0.7928	0.7840	0.7780	0.7693	0.7618	0.7317
	POS	0.9368	0.9204	0.9199	0.9033	0.8928	0.8771	0.8542	0.8390	0.8215	0.8043

Table captions appear centered above the table in upper and lower case letters. When referring to a table in the text, no abbreviation is used and "Table" is capitalized. (10)

VI. CONCLUSION

Throughout China's banking card market, CR_4 and CR_8 of the issuing market all showed a downward trend, market structure evolved from oligopoly I to oligopoly III. The acceptance market had a same situation, means that China's banking card market structure was evolving from monopoly to oligopoly competition.

REFERENCES

- [1] Guisun Chen, Wujun Kong, Lingzhu Wan, New developments in theory of foreign bank card industry. *Industrial Economics Research*, 2007(1), 2007, 71-79.
- [2] Liangchun Yu, Yuan Ju. Monopoly and competition: China's banking reform and development . *Economic Research Journal*, 1999(8), 1999, 48-57.
- [3] Jinpu Jiao. Analysis of the competition of Chinese banking market . *Macroeconomics*, 2001(6), 2001, 41-46.
- [4] Guohong Wang. Restructuring of Chinese banking market commentary, *Productivity Research*, 2004(2), 2004, 8-10+13.
- [5] Qiong Zhou, Yumin Zhuang. Study of the market structure and pricing conduct of Chinese bank card industry. *Modern Economic Science*, 2005(7), 2005, 53-58+111.
- [6] Xiaomin Jiang. Market structure of China's banking card industry . *Shanghai Finance*, 2011(4), 2011, 81-85.
- [7] Bain, *Industrial Organization* (New York, John Wiley, 1959).
- [8] National Bureau of Statistics, *China Statistical Yearbook 2002-2008*(Beijing, Machinery Industry Press).