



The Siren Call of China's Payments Market

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* Views expressed are strictly the author's.



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Retail payment networks

- Global – MasterCard and Visa Federation (Visa Inc. and Visa EU)
- Tier-two and aspiring global
 - Amex
 - UnionPay
 - Discover/Diners Club
 - JCB
 - PayPal
 - Alipay
- Regional
 - EAPS
 - Eufiserv
 - ATH
 - MercadoPago
- National
 - Interac, Star, Cartes Bancaires, Nets, NYCE, Pulse, BCC, Bancomat Mister Cash, Ideal, Girocard, Multibanco, Sistema 4B, Euro6000, et al
- Aspiring national
 - Rupay
 - Elo
 - Dwolla (trying to compete simultaneously with ACH and Visa and MasterCard)
 - Verve/Interswitch

China's allure



- 4.9 billion payment cards –a)
- With 19.75 billion card payments, it's the second biggest market in world.-a) Annual card payments per capita however only 14.5, compared with 248 in US and 223 in Sweden. –b)
- Pos terminals increased a whopping 49% in 2013 –b)
- Payments on domestic cards in 2014 grew 52% yoy in 2014 -a) accelerating from 44% yoy growth in 2013 -b)
- Susquehanna Financial Group ventured MasterCard and Visa could generate \$181 million and \$264 million revenue respectively in 2016. Jefferies suggested by 2025 MasterCard and Visa could generate an additional \$1.1 billion from China's domestic card-payments market.

(a- Nilson Report

(b- Bank for International Settlements China and Sweden are 2013 #s. Transactions are on domestic cards.

US #s are 2012 and include payments on all cards.

Lack of access

- In 2001 as part of accession to WTO China committed to 100% open up its domestic credit and debit card market by 2006.
- As of 2006 no foreign merchant acquirers or networks had processed a single domestic transaction.
- 2010 US filed a WTO complaint
- 2012 US largely prevailed and China said it wouldn't appeal.
- Yet in 2013 the PBOC blocked a local e-commerce payment system from issuing renminbi MasterCard.
- October 29, 2014 China's State Council announced any foreign firms that "meet the necessary standards" would be welcome compete. –a)
- In April, 2015 China announced it will put in place a licensing regimen under which foreign payment networks can compete for domestic transactions, generating a ripple of excitement. Taken at face value it suggests foreign networks could start competing in the domestic market mid 2016.
- As of today there has still not been a single domestic Amex, Diners Club, JCB, MasterCard or Visa transaction in China.

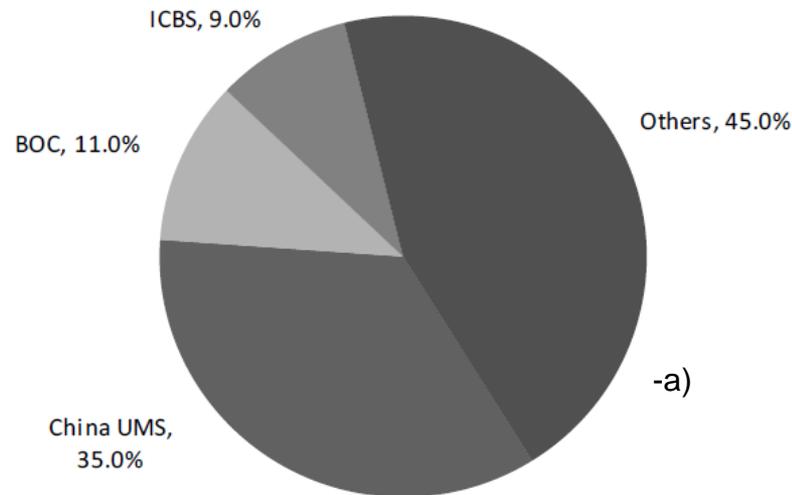
UnionPay

- Established in 2002 by PBOC administrative diktat, owned by 85 banks, the largest of which are state-owned.
- The central bank requires payment cards to clear renminbi transactions through China UnionPay
- UnionPay enjoys a domestic monopoly on retail card payments at the physical pos. Leveraging its privileged position to build network critical mass.
- UnionPay is also an acquirer, manages an ATM network and provides card-issuer processing.
- UnionPay cannot be thought of as entirely commercial or independent from the government.
- The PBOC makes the rules, establishes permissible MSCs and allocations across the payments value chain by sector
- UnionPay's current and previous Chairman and current Vice Chairman are PBOC alumni.
- UnionPay touts visits from former President Hu Jintao, former Premier Wen Jiabao and current president Xi Jinping
- Aspires to be the third genuinely global payment-card network.

Domestic Merchant Acquiring

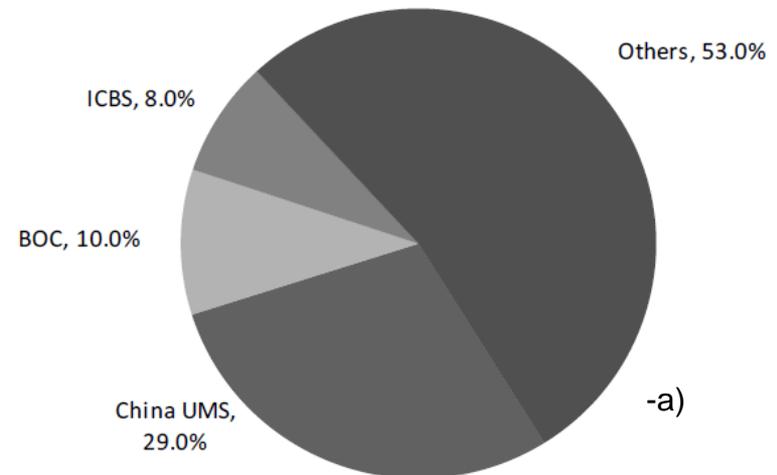
- In 2005 Global Payments and HSBC established a merchant acquiring joint venture. While a majority of its business was in Hong Kong and Taiwan, the focus was on the enormous potential of mainland China. At the time the excitement was palpable.
- In 2010 Global Payments acquired its first domestic transaction in Beijing. Since it's gone radio silent confirming not much is happening.

2013 Acquiring Share of Merchant Accounts



(a- Lafferty)

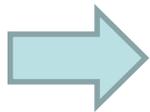
2013 Acquiring Share Payment Volume



-a)

Card-payment-network standards

- On November 1, 2014 China's central bank announced all banks must conform to PBOC 3.0 card-security standards.
- The rest of the world uses EMV chip-card security standards. UnionPay uses PBOC 3.0.
- PBOC 3.0 uses different (incompatible) encryption to which issuers, cards and pos terminals must adhere.
- Will cost more to have EMV/PBOC 3.0-compliant infrastructure.
- UnionPay is using standards to continue to fortify its position.
- Could trigger another WTO complaint.



Imposes an additional burden on foreign payment networks attempting to compete in China.

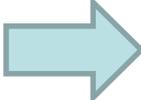
- In addition to establishing and capitalizing a local company, licensing requirements will almost certainly require building or contracting for local processing.

Card-payment-network competitive hurdles

- France had a domestic bank-owned general-purpose-card-network monopoly Cartes Bancaires.
 - MasterCard and Visa enjoyed identical national acceptance
 - Cartes Bancaires cards were cobranded with MasterCard or Visa for use outside France
 - In 2009 Cartes Bancaires' national moat was crossed when Carrefour issued a MasterCard without a CB bug.
 - Today while there are millions of solely MasterCard or Visa-branded payment cards issued in France, Cartes Bancaires remains the overwhelmingly dominant network.

Card-payment-network competitive hurdles

- Canada had a domestic bank-owned pin-debit-payment-network monopoly Interac.
 - MasterCard and Visa are the principal credit-card networks.
 - Interac has zero interchange.
 - MasterCard and Visa have debit toeholds in Canada.
 - Interac remains the largest network by transactions in Canada.
- Neither Interac nor Cartes Bancaires aspires to be a global network. They just want to survive in their home markets.



Canada and France are much easier markets for MasterCard and Visa to penetrate, yet they've struggled competing with entrenched legacy national monopolies.

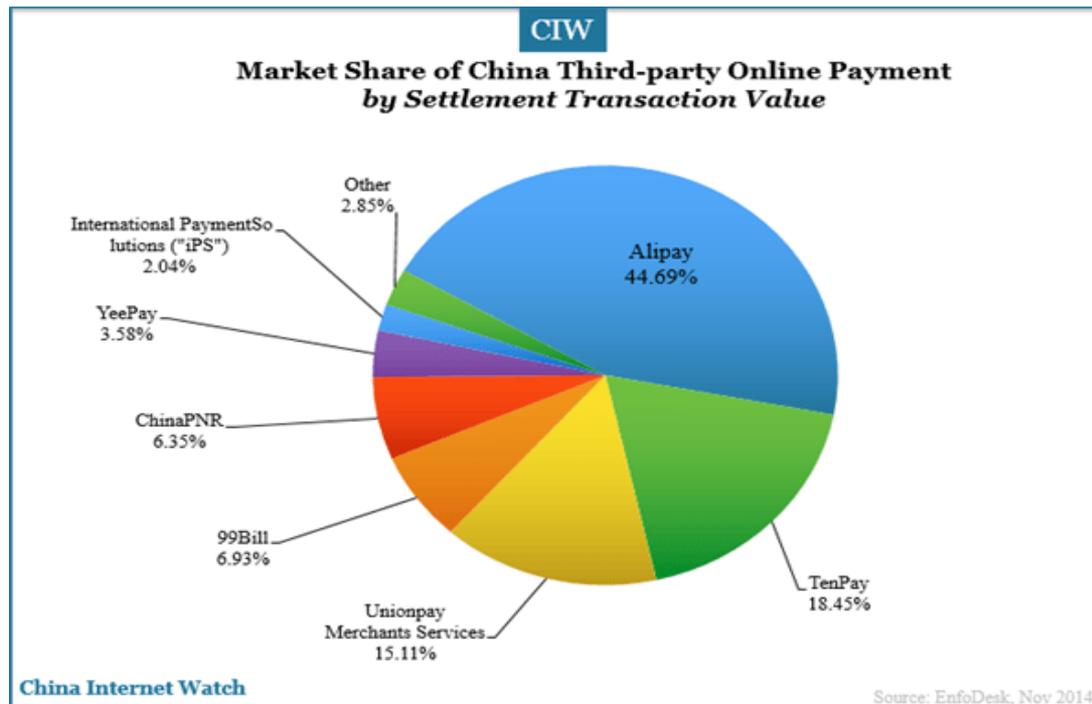
Card-payment-network competitive hurdles

- Discover has and had national acceptance in the US. In 2006 aiming to close its acceptance gap with MasterCard and Visa, for all except its largest merchants, in its home market it started partnering with merchant acquirers to deliver acceptance. In 2015 Discover is within a stone's throw of acceptance parity in the US.
- In China MasterCard and Visa have ~ 10% of UnionPay's acceptance.
- The largest acquirer in China UMS is owned by UnionPay.
- MasterCard and Visa have a long hard slog to match UnionPay acceptance in mainland China.
- Chinese issuers are not going to issue MasterCard and Visa cards for domestic use unless and until the global networks achieve acceptance parity or close to it, in the domestic market.

E-commerce

- Unlike traditional card payments, e-commerce and mobile commerce are vigorously competitive.
- AliPay has direct processing connections with ~ 200 banks
- After UnionPay said Alipay transactions must be integrated into UnionPay's network in August, 2013 Alipay withdrew from the physical pos

3rd Quarter, 2014 Estimated Market Share China Online Payments



-a)

(a- China Internet Watch

Brazil is a more attractive BRIC

- Brazil has more card payments than France and Germany and is growing faster.
- In 2013 per capita annual card payments were 50. –a)
- MasterCard and Visa are the principal credit and debit payment networks
- While legacy monopolist acquirers Cielo and Redecard still dominant the merchant acquiring and processing market, foreign acquirers including Banco Santander, Elavon with Citi, First Data with the largest credit-union cooperative, and Global Payments are active.
- ELO is a domestic payment scheme jv between Banco de Brasil, Bradesco and Caixa Economica Federal, using Visa as a processor, targeted at low-income customers and government-benefit recipients.
 - Cards tripled yoy reaching 37 million cards in 2013

India is a potential Gargantua

- Per capita annual card payments in 2014 were a paltry 1. –a)
- Card payments increased 24.6% yoy in 2014.
- MasterCard and Visa are the principal retail-card payment networks and process domestic transactions
- Merchant acquiring and processing market open.
 - First Data acquired ICICI's merchant processor in 2009.
 - Elavon entered and withdrew.
- RuPay
 - August, 2013 DNS was the first bank to issue RuPay debit cards. In 2013 RuPay cards increased to 13 million, up from just 200,000 at the end of 2012. –b)
 - Network charges issuer \$.001 and acquirer \$.0005 per transaction.**
 - Interchange .45% for transactions up to RS 2000 and .65% above Rs. 2000. –c)

(a- RBI

(b- Payments Cards & Mobile

(c- National Payment Corporation of India

What does the future hold?

- The blurring of e-commerce, mobile commerce and physical pos payments and digital wallets, may ultimately provide an alternate or parallel route into China for foreign payment networks.
- While they may have to play because it's China, foreign payment networks and merchant acquirers and processors, should not bank on material revenue there for a long time.

Q&A