5TH IMF Statistical Forum
WASHINGTON, D.C.

MEASURING THE DIGITAL ECONOMY
DIGITAL’S PERCENTAGE OF CHINA’S GDP AND GROWTH RATE

- Digital Economy
- China’s GDP

Source: China Academy of Information and Communication Technology (CAICT), Ministry of Industry and Information Technology (MIIT)
China is a leading country in the digital economy.

**Retail E-commerce Transaction Value**
- **%**, **$ billion**
  - 2005: China, 64.6; U.S., 35.0; Rest of the world, <1.0
  - 2016: China, 33.5; U.S., 24.1; Rest of the world, 42.4

**Mobile payments, 2016**
- **$ billion**
  - China: 790
  - U.S.: 74
  - 11x

**Global unicorns, June 2016**
- **%**, **number**, **$ billion**
  - U.S.: 19; 12; 47
  - China: 34; 43; 45
  - Rest of the world: 262; 883

Source: McKinsey Global Institute (MGI), CHINA’S DIGITAL ECONOMY: A LEADING GLOBAL FORCE, August 2017
BEYOND PAYMENT
A NEW DIGITAL HORIZON
THE OVERVIEW OF CHINA PAYMENT LANDSCAPE
THE OVERVIEW OF CHINA PAYMENT LANDSCAPE

The Decline of Cash Usage
Total consumption

The Rise of Third-party Payment
Retail-related Consumption

BUILDING THE 3rd PARTY NETWORK ON HANDLING OF THE C2B OR SMALL ENTERPRISES B2B PAYMENT FLOWS

<table>
<thead>
<tr>
<th>Non-Cash Payment</th>
<th>Cash</th>
<th>Bank Cards</th>
<th>Bills</th>
<th>Debit Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers</td>
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<tr>
<td>Small Business</td>
<td></td>
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<td></td>
<td>Large Corporate</td>
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<tr>
<td>Business</td>
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<tr>
<td>Financial Institutions</td>
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</tr>
<tr>
<td>Government</td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Bernstein Analysis
THE OVERVIEW OF CHINA PAYMENT LANDSCAPE

Mobile Payments, 2016

- China: $790 billion
- U.S.: $74 billion

$ Billion

11x

Mobile Payments Penetration Rate, 2016

- China: 77%
- U.S.: 48%

Source: CB Insights; Ipsos, 18,000 customers surveyed
ALIBABA AND TENCENT ARE LEADERS OF THIRD PARTY PAYMENT SEGMENT

2016
Combined Payments of AliPay and Tencent Payment

2012-2016
Combined Payments of AliPay and Tencent Payment
Increase by

2.9
Trillion USD

33x

2012-2016
AliPay Payment Increase by

23x

2012-2016
Tencent Payment Increase by

85x

Source: United Nation based Better Than Cash Alliance; iResearch
THE EMERGENCE OF CHINA CASHLESS SOCIETY. A REALITY, NOT A MYTH.

- Online shopping: 94%
- Telephone bills payment: 93%
- Money transfer: 92%
- Air tickets: 83%
- Food delivery: 74%
- Credit card repayment: 72%
- Financial products: 69%
- Lottery: 66%
- Entertainment: 62%
- Utility bills: 62%
- Education: 59%
- Gaming payment: 55%
- Beauty care: 55%
- Insurance: 48%
- Cross-board Transfer: 41%

E-payment’s penetration in daily consumption scenario

Source: iResearch, PBOC, PCAC, Bernstein Analysis
1. The Overview of China Payment Landscape

2. The Evolution of China Cashless Society
THE EVOLUTION TOWARDS A CASHLESS SOCIETY IN CHINA

PHASE I: FROM 0 TO 1
Infrastructure Building

Drivers
- Digital Infrastructure
- Digital Pioneers
- Digital Users

Challenges
- Consumer Adoption
GOVERNMENT AS A POLICY MAKER, INVESTOR, INNOVATOR, AND CONSUMER

1994.4
The National Computing and Networking Facility Project

2000.4
4 Major network: CSTNET, CHINANET, CERNET, CHINAGBNET realized interconnection

2009.4
The birth of China’s Mobile Internet

2009.11
The “Internet of Things" strategy

2009.11
The birth of the “3G” Era

2013.8
The "Broadband China" strategy

2013.12
The birth of the “4G” era
A MULTI-FACETED AND MULTI-INDUSTRY DIGITAL ECOSYSTEM

A ubiquitous network connection enabled the very first tipping point
A WORLD CLASS E-COMMERCE ECOSYSTEM

Launched in 2005

Launched in 2004
ALIBABA’S MILESTONES IN THE EVOLUTION OF PAYMENT

- Alipay established
- Alipay became one of the first third-party payment providers
- Alipay launched a financial product platform Yu’ebao
- Alipay payments value was less than RMB 0.5 trillion
- Alipay was re-branded as Ant Financial

Source: www.wikipedia.org
China has the world’s largest number of mobile users. 724 million of China’s population utilize mobile access, which is 52%+ of China’s population. Europe and North America’s utilization of mobile access is 733 million.
# The Evolution Towards a Cashless Society in China

## Phase I: From 0 to 1
- **Infrastructure Building**
  - Challenges: Consumer Adoption
  - Drivers: Digital Infrastructure, Digital Pioneers, Digital Users
  - Tipping Points: Ubiquitous Network Connection, Ecommerce

## Phase II: From 1 to N
- **Flying Wheel Effect**
  - Challenges: Mobile Payment Adoption
  - Drivers: Mobile Internet, Open Platform Innovation, Social Connectivity

WECHAT PAY ACHIEVED ALMOST 40% MARKET SHARE IN 4 YEARS

Mobile Pay Market Share (2014Q1)
- WeChat Pay: 9.6%
- AliPay: 77.8%
- Others: 12.6%

Mobile Pay Market Share (2017Q2)
- WeChat Pay: 39.8%
- AliPay: 54.5%
- Others: 5%

*Notes: WeChat Pay market share also includes QQ wallet

Source: iResearch
## THE EVOLUTION TOWARDS A CASHLESS SOCIETY IN CHINA

### PHASE I: FROM 0 TO 1
- **Infrastructure Building**
  - Consumer Adoption
  - Digital Infrastructure
  - Digital Pioneers
  - Digital Users

### PHASE II: FROM 1 TO N
- **Flying Wheel Effect**
  - Mobile Payment Adoption
  - Mobile Internet
  - Open Platform Innovation
  - Social Connectivity

### Challenges
- Consumer Adoption
- Mobile Payment Adoption

### Drivers
- Digital Infrastructure
- Digital Pioneers
- Digital Users
- Mobile Internet
- Open Platform Innovation
- Social Connectivity

### Tipping Points
- Ubiquitous Network Connection
- Ecommerce
- WeChat “Hong Bao”
WECHAT HONG BAO: COMBINES PAYMENT WITH LOCAL CULTURE

Total Number of Hong Bao Sent on the Chinese New Year’s Eve (2014-2017)

*Notes: Hong Bao, includes WeChat and QQ Platform Data
THE MARKET SHARE WAR OF ONLINE TAXI HAILING

THE GROWTH OF CHINA MOBILE PAYMENT USERS

Source: CNNIC, 2011-2017
THE MARKET SHARE WAR OF ONLINE TAXI HAILING

People Completely Accepted Cashless Payment

The Growth of China Mobile Payment Users

Source: CNNIC, 2011-2017
QR CODE: VIRTUALLY CONNECTING EVERYTHING
# The Evolution Towards a Cashless Society in China

## PHASE I: FROM 0 TO 1
**Infrastructure Building**

- **Challenges**
  - Consumer Adoption

- **Drivers**
  - Digital Infrastructure
  - Digital Pioneers
  - Digital Users

- **Tipping Points**
  - Ubiquitous Network Connection
  - Ecommerce

## PHASE II: FROM 1 TO N
**Flying Wheel Effect**

- **Challenges**
  - Mobile Payment Adoption

- **Drivers**
  - Mobile Internet
  - Open Platform Innovation
  - Social Connectivity

- **Tipping Points**
  - WeChat “Hong Bao”
  - Taxi Mobile Wallet Warfare
  - “Scan” QR-Code
# THE EVOLUTION TOWARDS A CASHLESS SOCIETY IN CHINA

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**PHASE I: FROM 0 TO 1**
**Infrastructure Building**

**PHASE II: FROM 1 TO N**
**Flying Wheel Effect**

**PHASE III: FROM N TO ∞**
**Digital Civilization**

- **Drivers**
  - Digital Infrastructure
  - Digital Pioneers
  - Digital Users

- **Tipping Points**
  - Ubiquitous Network Connection
  - Ecommerce

- **Challenges**
  - Consumer Adoption
  - Mobile Payment Adoption
  - User Centric Ecosystem

- **Infrastructure**
  - Mobile Internet
  - Open Platform Innovation
  - Social Connectivity

- **Mobile Payment**
  - WeChat “Hong Bao”
  - Taxi Mobile Wallet Warfare
  - “Scan” QR-Code
Big data
Internet of Things
Cloud Computing
Health Care
Government
Manufacturing Industry
Transportation
Artificial Intelligence
Education
Business
Finance
Internet of Things
Tourism
Agriculture
Finance
Entertainment
"INTERNET PLUS"
A WECHAT ENABLED SMART GALAXY

WeChat City Service
362 Cities
310 Million Users

Source: Tencent Internal Data, 2016
XIONG’AN: A CUSTOMIZED SMART CITY SOLUTION

Tencent Cloud

Tencent TrustSQL

Tencent Big Data

FinTech

Tencent Cloud-based “BaaS”
# The Evolution Towards a Cashless Society in China

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- Drivers: Digital Infrastructure, Digital Pioneers, Digital Users
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## Phase II: From 1 to N
- Flying Wheel Effect
- Challenges: Mobile Payment Adoption
- Drivers: Mobile Internet
- Tipping Points: WeChat “Hong Bao”, Taxi Mobile Wallet Warfare, "Scan" QR-Code

## Phase III: From N to ∞
- Digital Civilization
- Challenges: User Centric Ecosystem
- Drivers: The Internet Plus Policy
- Tipping Points: Public and Private Sectors Adoption, Verified Personal ID and Social Credit Scoring System, Blockchain Technology
1. THE OVERVIEW OF CHINA PAYMENT LANDSCAPE
2. THE EVOLUTION OF CHINA CASHLESS SOCIETY
3. THE OPPORTUNITIES OF DIGITAL CIVILIZATION
CAPTURING OPPORTUNITIES OF DIGITAL CIVILIZATION

Do not jump into bandwagon without best expertise
CAPTURING OPPORTUNITIES OF DIGITAL CIVILIZATION

Do not jump into bandwagon without best expertise

Use technology as both a driver and a guardian
A SECURED AND STABLE DATA OPERATIONS OF TENCENT

- **Bank Channels:** 200+
- **Payment Performance:** 208,000+/second
- **Receivable Capacity:** 1 billion+/day

**Service Availability Rate:** 99.999%

**Bank Connection Disaster Recovery:** Auto Switching in Seconds

**Payment Disaster Recovery:** Multi-active Cross Data Center Replication

Source: Tencent Internal Data
CAPTURING OPPORTUNITIES OF DIGITAL CIVILIZATION

Do not jump into bandwagon without best expertise

Use technology as both a driver and a guardian

Believe in the value of a joint-effort ecosystem
“Humans are connected by the internet, forming a ‘Community of Common Destiny in Cyberspace’.
No single company or organization is able to take this challenge on by itself. In fact, it requires an open mindset and the joint efforts of governments, industry partners and various social groups to build and govern together.”

“人类以互联网为连接，形成前所未有的‘网络空间命运共同体’。不是任何一家公司或组织可以凭借一己之力就能够完全解决和应对，需要各国政府、行业合作伙伴以及社会各界一起探索，以开放分享的态度，进行共建、共治。”

——Huateng Ma
Chairman of the Board and CEO
BELIEVE IN THE VALUE OF A JOINT-EFFORT ECOSYSTEM

- Policymakers
- Financial Institutions
- Technology Companies
- Startups
- Other Businesses
- Malaysia Mobile Digital Payment
CAPTURING OPPORTUNITIES OF DIGITAL CIVILIZATION

Do not jump into bandwagon without best expertise

Use technology as both a driver and a guardian

Believe in the value of a joint-effort ecosystem

Do find the Malaysian-way of digital journey
CONSISTENTLY PROMOTING INNOVATION, BUILDING A PAYMENT ECOSYSTEM

2013
• Migration to e-payments
• Enhancing payment system infrastructure
• Improving accessibility, security and convenience

2014
• Migration to e-payments
• Adoption of debit cards
• Promoting financial inclusion

2015
• Moving Forward with e-Payments
• Elaborate on the importance of collaborative efforts

2016
• Moving Forward with e-Payments
• Promoting competition, collaboration and innovation
• Open and competitive Payment and Settlement Systems

2017
• Mobile Payment is the Next Wave
• Promote efficiency, competition and innovation
• Strengthen industry alignment
• Supporting inclusive governance

Source: Payment related speeches of YBhg. Tan Sri Muhammad bin Ibrahim; BNM Payment System Forum & Exhibition 2013 - 2017
“For many years, Bank Negara Malaysia has taken the leading role in shaping the development of the country’s payment systems, in line with its statutory mandate to promote safe, efficient and reliable payment systems.”

Tan Sri Muhammad bin Ibrahim
Governor of the Central Bank of Malaysia (Bank Negara Malaysia)

Terima Kasih