Euro-Mediterranean High Level Seminar
Digital Transformation: Financial inclusion & Stability
Casablanca - 17 & 18 May 2017

«« 2nd session »»

Digital Transformation of Financial Services: Opportunities and Challenges

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Director of Banking Supervision
Summary

DIGITAL FINANCE ISSUES

1. Digital transformation of Financial Services
2. Digital Finance: a socio-economic development lever
3. Challenges and risks

MOROCCAN CONTEXT

1. National framework of digital economy
2. The banking sector and the digital transformation
3. Future non-banking players of payment services
Summary

1. Digital Finance Issues
   - Digital transformation of Financial Services
   - Digital Finance: a socio-economic development lever
   - Challenges and risks

2. Moroccan Context
   - National framework of digital economy
   - The banking sector and the digital transformation
   - Future non-banking players of payment services
FINANCIAL SERVICES VALUE CHAIN

Payment Services

Customer Relationship

Retail and commercial banking

Wholesale banking, Markets

Wholesale payments, clearing and settlement Infrastructure

Digital wallets, electronic money, mobile payments

Aggregators, comparison tools, Robot consultants, Identity

Peer to peer lending, Crowdfunding, Big Data Analysis

High Frequency trading, Algorithms

Distributed ledger

DIGITAL TRANSFORMATION OF FINANCIAL SERVICES

- **Online Banks**
  - Banking activities extended to digital channels
  - Starting 1990’s

- **Specialized Fintechs**
  - Specialization by categories

- **Digital banks (Neo-banks)**
  - Starting 2005
  - Specialization by categories
  - Banks designed to be mobile
  - Starting 2009

- **Bank As Services**
  - Starting 2014
  - Bank democratization to all sectors

B-Part Consulting, 2017
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Digital financial services could increase the GDP of emerging economies 6 percent above baseline projected GDP.

Emerging economies’ GDP

$ trillion

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP</th>
<th>GDP impact of digital financial services</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>31.3</td>
<td></td>
</tr>
<tr>
<td>2025F1</td>
<td>65.5</td>
<td>3.7%</td>
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**GDP impact of digital financial services by channel**

- **Increased labor**
  - Time savings for individuals
- **Increased investment in physical capital**
  - Shift in savings from informal vehicles to formal digital accounts
  - Increased credit to small businesses and households
- **Increased productivity**
  - Cost and time savings for businesses and financial services providers
  - Reduction in government leakage of expenditure and tax collection

1 Based on average GDP growth forecast of emerging countries from IHS and Oxford Economics. NOTE: Numbers may not sum due to rounding.
### DIGITAL FINANCE: A SOCIO-ECONOMIC DEVELOPMENT LEVER

#### FINANCIAL INCLUSION

- Banking population: Increased use of financial services
- Unbanked population: Increased access to financial services
- Financing of investment projects not eligible for bank credit
- Possible evolution of the financial literacy rate with well-designed and well-targeted technological innovations

### Many stakeholders stand to gain from digital financial services

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<th>Stakeholder Class</th>
<th>2014 Baseline</th>
<th>New Credit</th>
<th>New Deposits</th>
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<td>1111</td>
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<td>MSMEs and individuals</td>
<td>2.1 trillion</td>
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<td>758</td>
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<td>Financial-service providers</td>
<td>4.2 trillion</td>
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1. Stakeholder benefits are calculated using 2014 baseline values.

Digital finance for all: Powering inclusive growth in emerging economies, September 2016

Digital Finance: A Socio-Economic Development Lever

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Retail Banks are more advanced, compared to their peers, in terms of digital innovation:

- Reducing the operating costs per client by up to 29%;
- Generating additional profit of 53% per client.

**COST SAVING**

- Slowdown in the pace of new branches openings;
- Savings on staff-related costs;
- Operational efficiency.

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**Digital technologies cut the cost of providing financial services by 80 to 90 percent**

Annual cost to serve one customer in emerging economies, 2014

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Cost Savings (20-30% of Traditional Bank Branch)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts</td>
<td>Cost of opening and maintaining account</td>
</tr>
<tr>
<td>Cash-in, cash-out (CICO)</td>
<td>Cost of providing cash withdrawals and deposits</td>
</tr>
<tr>
<td>Transactions</td>
<td>Cost of supporting money transfers</td>
</tr>
<tr>
<td>Total</td>
<td>Total cost of providing financial services</td>
</tr>
</tbody>
</table>

- 65–75% 20–30 5–10
- 40–60% 6–8 3–5
- 90–95% 50–100 3–5
- 80–90% 75–130 10–20

*Study undertaken by the Boston Consulting Group (BCG) which involved 40 institutions around the world, covering a panel of 220 million customers and nearly 26,300 bank branches.*

Digital finance for all: Powering inclusive growth in emerging economies, September 2016

McKinsey & Company
FINANCE DIGITALE : OPPORTUNITES

**TIMELINESS**
- Accessibility to information
- Decision making
- Processing times

**USE OF DATA**
- Social and behavioral profiling
- Customizing the service offer
- Reducing the proportion of activities with low levels of added value (seizure, downloading, printing ...)

**TRANSPARENCY**
- Commercial offers and prices
- Access to real-time information
- Traceability of transactions

**SECURITY**
- Advanced analysis (Big Data)
- Process automation
- Identification of the potential sources of fraud
- Improved risk management.
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### CHALLENGES AND RISKS

| Regulation                                                                 | Risk management                                                      | Consumer protection                                           | Capacity building                                           |
|                                                                           |                                                                     |                                                              |                                                              |
| • New areas: Cloud use, Big data use…                                     | • Cybercrime                                                        | • Processing of personal data                                 | • Strong evolutions of activities and organizations         |
| • Proportionate to foster innovation                                       | • Transactions security                                              | • Security of client funds                                    | • Skilled human resources in the field                       |
| • Response to financial stability issues                                  | • Money Laundering and Terrorist Financing                           |                                                              | • IT Investment / Technology Infrastructure                  |
| • International Coordination                                              | • Credit risk (crowdfunding)                                        |                                                              |                                                              |
|                                                                           |                                                                     |                                                              |                                                              |
|                                                                           |                                                                     |                                                              |                                                              |
|                                                                           |                                                                     |                                                              |                                                              |
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NATIONAL ECOSYSTEM FAVORABLE TO DIGITAL TRANSFORMATION

Legal framework:

- Electronic exchange of legal data
- Legal provision concerning the protection of personal data
- Electronic money and the creation of "payment institution" status.
- Law number 31-08 enact consumer protection measures including cyber consumer
- Legislative Decree governing the practice to protect information systems of critical importance against cyber attacks: Cyber Defense
- Bank Al-Maghrib Directive on intrusion testing of bank’s Information systems
- Cryptography policy and electronic certification
- Draft legislation concerning the Crowdfunding

Governmental strategy dedicated to:

MOROCCO DIGITAL 2020

- Digital transformation of the public administration (e-gov)
- Bridging the digital divide and widespread Wi-Fi outdoor access
- The set up of neutral and independent organisation dedicated to digital transformation (ADEN)
- Strengthening the ecosystem for digital transformation
- The position of Morocco will better promote him as a regional hub of digital activities
EQUIPMENTS AS WELL AS HOUSEHOLDS' CONSUMPTION PATTERNS IN CONSTANT EVOLUTION

- **Equipment and usage of ITC is increasing....**

  - **94.4%**
    - The proportion of individuals (12-65 years old) who uses a mobile cellular

  - **54.7%**
    - The proportion of individuals who uses Smartphones

  - **66.5%**
    - The proportion of households with Internet access

  - **42.78%**
    - Internet penetration rate

  - **54.8%**
    - The proportion of households with access to a computer or tablet PC

- **.... with the changing needs and expectations of the costumers:**

  - **Immediacy**
  - **Proximity**
  - **Autonomy**
  - **Ease of use of products and services.**
  - **Agility**
  - **Personnalisation**

*ANRT* « ICT household/ individual survey conducted in 2015
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A WELL DEVELOPED BANKING SECTOR REMAINS COMPETITIVE AND CONCENTRATED

19 Banks
- 7 Moroccan private owned banking including 3 with global presence
- 7 Foreign-owned banks
- 5 Government-owned banks

120% of GDP representing nearly 2/3 of financial system
- 81% - Loans to GDP
- 85% - Deposits to GDP

<table>
<thead>
<tr>
<th>Number</th>
<th>Share in total assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offshore banks</td>
<td>33</td>
</tr>
<tr>
<td>Finance companies</td>
<td>6</td>
</tr>
<tr>
<td>Microcredit associations</td>
<td>13</td>
</tr>
<tr>
<td>Payment institutions</td>
<td>10</td>
</tr>
<tr>
<td>Other institutions</td>
<td>2</td>
</tr>
</tbody>
</table>
# Outstanding Developments of Banking Services in Morocco within the Last Decade

## Branches
<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Branches</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>2,451</td>
</tr>
<tr>
<td>2016</td>
<td>6,283</td>
</tr>
</tbody>
</table>

## Number of branches per 10,000 inhabitants
<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Banking Cards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>0.8</td>
</tr>
<tr>
<td>2016</td>
<td>1.9</td>
</tr>
</tbody>
</table>

## Banking Cards
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<td>12.9</td>
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</table>

## ATM
<table>
<thead>
<tr>
<th>Year</th>
<th>Number of ATMs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>2,761</td>
</tr>
<tr>
<td>2016</td>
<td>6,821</td>
</tr>
</tbody>
</table>

## Rate of bancarization
<table>
<thead>
<tr>
<th>Year</th>
<th>Rate of Bancarization</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>24%</td>
</tr>
<tr>
<td>2016</td>
<td>71%</td>
</tr>
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</table>
More recently in North America and Asia through representative offices (Canada, USA, UAE, China).
PRESENCE IN ALL OF THE 5 AFRICAN REGIONS THROUGH 26 COUNTRIES

North Africa

Central Africa

West Africa

Eastern Africa & Madagascar
INCREASING NUMBER OF INITIATIVES WHICH ENABLE BANK TO EXPAND ON LINE SERVICES

ON-LINE BANKING SERVICES

SRC & SVI

SMS-banking

M-banking

E-banking

Branches

Automates multi-services

ATM (Out-of-branches)

PHYSICAL NETWORK

MULTI CHANNELS

Corporate website

ON-LINE BANKING INFORMATION
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A new category of non-banking institutions, introduced by Act No. 103-12, entitled to collect deposits and to offer one or more payment services.

- Accreditation process;
- Minimum capital adapted;
- Accounting and prudential provisions;
- Lighter identification system for payment account holders;
- Opening of a global blocking account with a bank, to protect the funds of the payment account's holders;
- Two categories of payment agents: exclusive main agents and retailers paying agents.
A draft law on collaborative financing has been prepared by the MEF, currently being discussed between stakeholders.

Collaborative Financing Company whose activity is the management of CFP *

Requirement for an accreditation and subjected to a control

Funded Projects (Capped amounts)

3 types of operations: investment, loan, donation

Contributors

Limited amounts of contribution per project and platform

* Collaborative Financing Platform allowing the connection between the project promoters and the contributors.
THANK YOU FOR YOUR ATTENTION