International Perspective on FinTech Regulation

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Best available technology has always been used for money: to validate and record balances...
...provide safekeeping,...
...and facilitate transfers
Technology is transforming every industry

- Always available
- Where you want it
- Buy only what you want
- Contextualization
- Asset-light business
- On-demand delivery
- Tailored product

Banking has lagged

NEW HOURS
EFFECTIVE SEPTEMBER 1, 2017

MAIN BANK
LOBBY HOURS
Mon-Fri: 8:30am - 5:30pm
Sat: Closed
DRIVE UP HOURS
Mon-Fri: 7:00am - 6:00pm
Sat: 9:00am - 1:00pm

HAMBURG
LOBBY HOURS
Mon-Fri: 8:30am - 5:30pm
Sat: Closed
DRIVE UP HOURS
Mon-Fri: 8:00am - 6:00pm
Sat: 9:00am - 1:00pm

NORTH CROSSST
LOBBY HOURS
Mon-Fri: 8:00am - 5:00pm
Sat: Closed
DRIVE UP HOURS
Mon-Fri: 8:00am - 6:00pm
Sat: Closed

FOUNTAIN HILL
DRIVE UP HOURS
Mon: 10:00am - 1:00pm
Tues: Closed
Wed: 10:00am - 1:00pm
Thurs: 10:00am - 1:00pm
Fri: 9:00am - 4:00pm
Sat: Closed

WORLD BANK GROUP
Finance, Competitiveness & Innovation
Drivers of digital transformation in financial services

- Ubiquitous connectivity
- Regulatory change
- Mass data storage and analytics
- Consumer expectations
- Low cost / Highly portable computing
The pace of technology adoption in financial services is accelerating
New technology and approaches across the value chain are transforming the industry.

<table>
<thead>
<tr>
<th>User Needs</th>
<th>Traditional Model</th>
<th>Gaps</th>
<th>Technological Innovations</th>
<th>FinTech Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay</td>
<td>Digital, Wire/Net</td>
<td>L</td>
<td>H H H H</td>
<td>Virtual currencies, mobile payments, mobile POS, 24/7 payments, blockchain-based settlement.</td>
</tr>
<tr>
<td>Save</td>
<td>Bank deposits</td>
<td>L</td>
<td>H H L L</td>
<td>Virtual currencies, mobile payments, mobile POS, 24/7 payments, blockchain-based settlement.</td>
</tr>
<tr>
<td>Borrow</td>
<td>Bank loans, credit cards, mortgages, trade credit</td>
<td>H H H L</td>
<td></td>
<td>Credit modeling, feature lending, Crowdfunding, loan syndication, address underwriting.</td>
</tr>
<tr>
<td>Manage Risks</td>
<td>Insurance contracts, trade insurance, regulatory compliance, KYC, AML</td>
<td>H L H L</td>
<td></td>
<td>Regtech, smart contracts, digital, blockchain-based exchanges, security, digital.</td>
</tr>
<tr>
<td>Get Advice</td>
<td>Financial planner, investment advisor</td>
<td>H M L M</td>
<td></td>
<td>Robo-advising, automated wealth management.</td>
</tr>
</tbody>
</table>

Business models are reconfiguring in ways that challenge existing regulatory approaches.

- New providers from outside the regulated sector
- New products and services
- Disaggregated and recomposed value chains
- Hybrid businesses that cut across regulators

Existing Regulatory Framework

- E-Commerce Lending
- Mobile Remittance
- P2P
- Cryptocurrency
- Personal Financial Management
- Marketplace Finance
- Carrier Billing
- PayGo Solar Leasing
- Big Data Credit Scoring
- E-Wallets
- E-Commerce Lending
- Cloud-Based Services
- Micro-insurance
- Robo-Advisors
- Big Data Credit Scoring
- E-Wallets
FinTech presents benefits and risks with respect to achieving regulatory objectives

<table>
<thead>
<tr>
<th>Regulatory Objectives (I – SIP Framework)</th>
<th>Key Benefits</th>
<th>Key Risks</th>
</tr>
</thead>
</table>
| **Financial Inclusion**                  | • Lower costs and more efficient than traditional and/or informal systems  
• Access to credit via alternative data sources for unbanked and underbanked  
• Simple, more reliable, and significantly faster than informal methods | • Micro-segmentation of risk through use of Big Data analytics may lead to financial exclusion  
• High borrowing rates on digital loans, which make it difficult to fully repay  
• Gender bias and/or income inequality from the use of AI, ML and Big Data analytics | |
| **Financial Stability**                  | • Increased diversification of deposit base and loan portfolios can reduce concentration among systemic financial institutions  
• Improved data quality and risk data aggregation can increase systemic resilience | • Increased financial interconnectedness may result in expedited adverse financial shocks  
• Increased operational risks, such as cyber risks, may increase systemic risk | |
| **Financial Integrity**                  | • Promote traceability of transactions, supporting CFT  
• Facilitate easier verification for KYC process, thereby reducing compliance costs  
• Regulators’ use of technology to support financial integrity | • Virtual currencies may facilitate anonymous funding sources or payments rendering AML/CFT checks to be difficult  
• Decentralized nature of blockchain/DLT may render AML/CFT enforcement unclear if operating outside of country | |
| **Consumer Protection**                  | • Increased transparency, more and better information to consumers, reducing information asymmetries  
• Comparison of financial products and services more quickly and easily | • Limited transparency of fees and charges, which can mislead consumers  
• Over-indebtedness due to lack of visibility of multiple digital loans of each borrower, push loan tactics  
• Lack of data protection, leading to misuse of customer data |
Regulators must balance the risks and benefits of financial innovation

Leveraging the digital opportunity does not come without challenges

- Potential Risks to financial stability, integrity, privacy & consumer protection
- Internationalisation of actors in the financial sector w/o requisite regulatory coordination
- Competitive dynamics leading to market concentration / monopolistic behaviors

Financial Inclusion (new better and more affordable Financial Services)

- Shift towards dynamic efficiency in the financial sector
- Improved variety, customization, and convenience of offerings
- Enhanced economies of scale that lower the marginal cost of serving the bottom of the pyramid
- Support digital “real sector” economy to accelerate inclusion: new business models and channel, new data sources and techniques expand overall demand for formal sector finance.
Choices depend on market conditions...

2015 Venture Capital Investment per US$ 10,000 of GDP
(Bubble Size = Unbanked Population)
...and existing regulatory frameworks

- **Civil Law**
  - Single Regulator
  - Entity Based
  - Principles
  - Common Law

- **Rules**
  - Activity Based
  - Multiple Regulators
Regulatory tools & frameworks to enable innovation

- **Wait & See**: Monitoring of a trend to understand it better before any intervention.
- **Test & Learn**: Custom framework to test a new idea in a live environment.
- **Regulatory Reforms**: Reform existing policy and regulation to consider new innovations.
- **Regulatory Sandbox**: Framework issued by regulator to allow live testing of innovations in a supervised environment.
- **Infrastructure Development**: Development of digital infrastructure.
- **RegTech for Regulators (SupTech)**: Use of innovative technology solutions to help make the financial regulatory process more efficient and effective.
- **Innovation Offices**: Focused on engaging with, and providing regulatory clarification to, financial services providers seeking to offer innovative products and services.
- **International Coordination / Cooperation**: Regional / International coordination on regulation of innovations.
**Framework for Choosing Regulatory Tools**

**Wait-and-See**: Monitoring a trend to understand it better before any intervention

**Test-and-learn**: Custom framework to test a new idea in a live environment

**Regulatory Sandbox**: Live, time-bound testing of innovations under a regulator’s oversight.

**Regulatory Reform**: Reform existing policy and regulation to allow for new licensing of innovations.
Comprehensive FinTech law – Mexico

Overview

• Enacted into law in March 2018, the FinTech Law aims to make financial products and services more accessible to the public at large through technology
• It is the first regulation in Latin America that attempts to cover all sectors related to FinTech under one initiative
• Meets the regulator’s public policy objectives: consumer protection, competition, financial integrity and financial safety and stability
• Initial legislation which provides overarching principles; secondary regulations will be drafted

Key Aspects

1. Regulation of Financial Technology Institutions and their Activities
   • Crowdfunding
   • Electronic Payment Funds Institutions
   • Innovative Companies – all others
2. Regulation of Virtual Assets (crypto-assets)
3. Open banking APIs
   • Financial institutions to share their customers’ data with 3rd parties (and FinTechs) in a secure, standardized manner
   • Covers all financial products and financial institutions
Product-Specific Laws and Regulations – Thailand

Selected laws, regulations, and notifications 2016-2019

- Payment Systems Act 2017
- Equity Crowdfunding 2015
- Insurance Electronic Channels 2017
- Regulatory Sandboxes 2016, 2017
- Decree on Digital Assets Business 2018
- P2P Lending (Individuals) 2019
- Debt Crowdfunding (Companies) 2019

BANK OF THAILAND
Wait and see approach – China

P2P lending in China – Policy interventions

- **State Council issues a directive to promote innovative finance, particularly for micro and small enterprises**
  - March 2015

- **State Council encourages crowdfunding for agriculture and SMEs**
  - September 2015

- **State Council adopts steps to prevent and sanction acts of illegal financing**
  - January 2016

- **China Securities Regulatory Commission publishes regulations on equity crowdfunding defining illegal practices**
  - May 2016

- **Chinese central regulatory agencies and industry regulators released the Guiding Opinions on Promoting the Healthy Development of Internet Finance; People’s Bank of China requires equity crowdfunding companies to be regulated as an agent platform; China Securities Regulatory Commission identified as the primary regulator of equity crowdfunding**
  - July 2015

- **State Council mandates online lending and alternative financing channels to address micro, small, and medium enterprises, farmers, and lower income individuals**
  - February 2016

- **Ministry of Commerce of the People’s Republic of China regional offices must implement a new advertising law to crack down on misleading or fake online ads for online finance companies**
  - October 2016

Source: Aveni and Jenik 2017
Areas of financial supervision in which SupTech is being used

Source: Dirk Broeders and Jeremy Prenio, *Innovative technology in financial supervision (suptech) – the experience of early users*. Financial Stability Institute, July, 2018
Challenges

• New entrants providing financial services but don’t fit an entity-based regulatory structure
• New products don’t clearly map to rules/regulators
• Regulated institutions seeking to adopt new technologies that regulations don’t cover or supervisors are not equipped to assess and monitor

Goals

• Ensure financial stability and integrity
• Encourage and accommodate innovation (for efficiency, inclusion)
• Protect Consumers
• Foster competition

Emerging Regulatory Principles

1. No one size fits all; depends on existing framework, market conditions, resources
2. Apply existing regulations where relevant: not everything that looks new is fundamentally new
3. Principles based approach, applied at the granular activity level
4. Activity based, entity neutral: level playing field for incumbents and entrants to adopt innovations
5. Tech neutral: As long as it meets standards for security, privacy, robustness, we shouldn’t care what specific technology is used underneath
6. Controlled experimentation in regulation alongside new technology/new business models
7. Upgrade supervisory capacity, including through use of technology
8. Enhance coordination and cooperation across regulators domestically and internationally