

The Role of Technology in Shifting the Institutional Structure of Markets

Panel Session

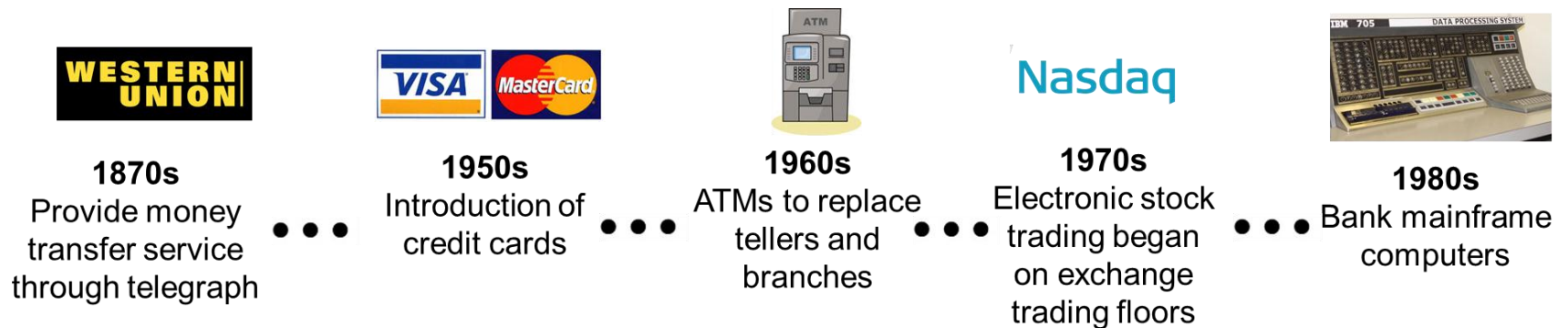
Presentation at OJK-ADB International Seminar “*Navigating Financial Stability in an Evolving Global Economic System*”, Bali on 14 July 2017

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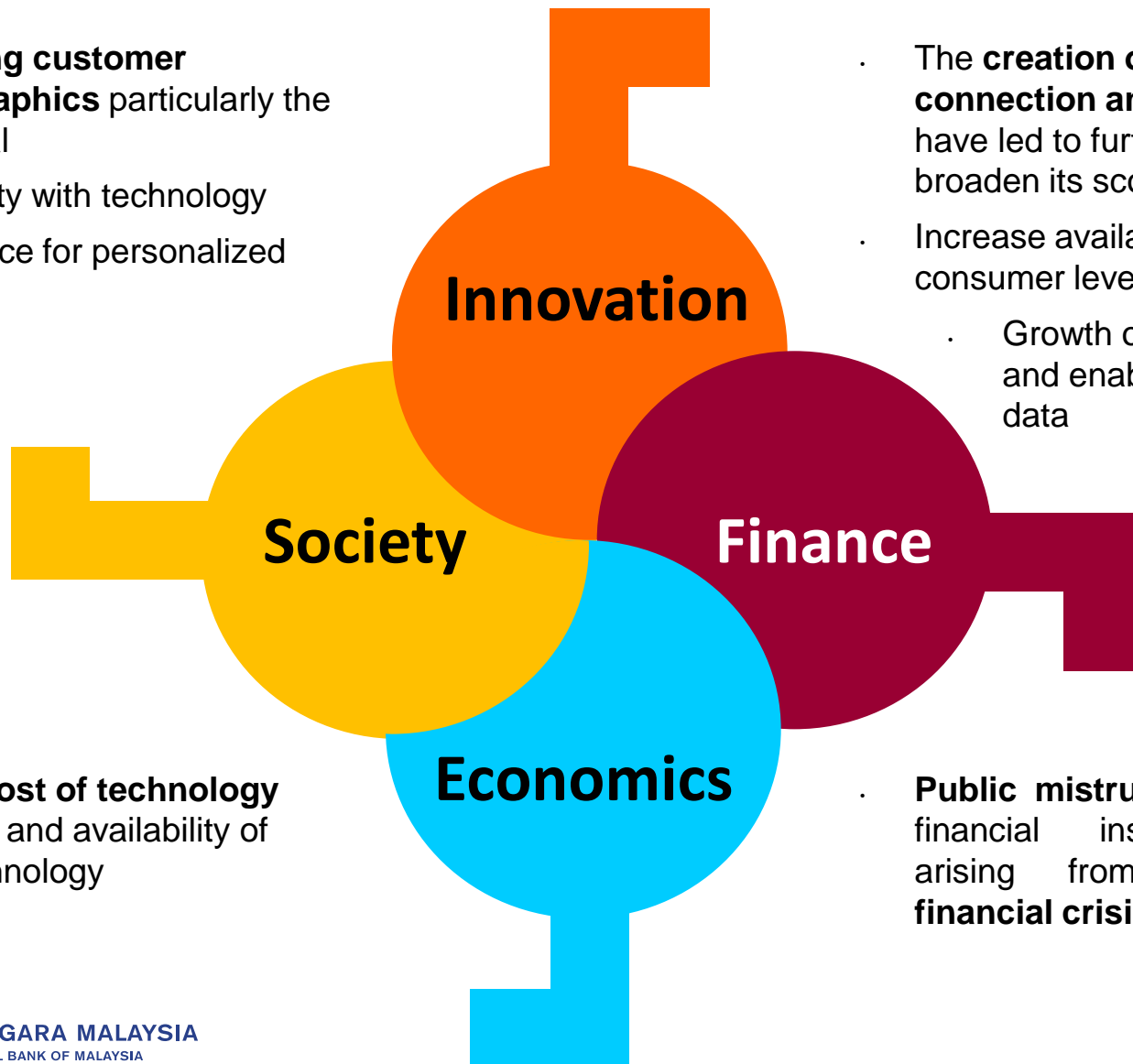
While the idea of fintech is not new, its scope of application is now more pervasive



Recent surge in fintech – The Drivers

- **Changing customer demographics** particularly the millennial
- Familiarity with technology
- Preference for personalized service

- The **creation of internet, mobile connection and smartphones** have led to further innovation and broaden its scope of applications
- Increase availability of **data** on consumer level
 - Growth of computing power and enabling analysis of data



- **Lower cost of technology** adoption and availability of new technology

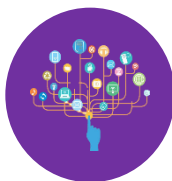
- **Public mistrust** on traditional financial institutions (FIs) arising from the **global financial crisis (GFC)**



New technologies to leverage on for improved financial services delivery capability



Mobile and
digital payments



Big data



Cloud computing



Authentication
and biometrics



Blockchain



Learning machines



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Potential benefits that may be harnessed by leveraging on new technology



Provide value added and customer focus services through the delivery of customised solutions (e.g. biometric technologies, big data and predictive analytics)



Serve “untapped markets” which would not otherwise be cost-effective.



Improve market and system efficiency through the use of predictive analytics to undertake real time risk simulation and management



Enhance compliance and regulatory productivity to meet compliance and reporting obligations



Exaggerated forecast of financial institutions' demise

Financial Institutions



- Trust and confidence from the public
- Experienced and able to navigate complex rules and regulations

Fintech Companies



- Agility
- Lower cost to adopt technology
- Innovative solutions



A vibrant financial system



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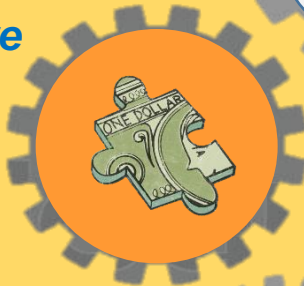
Embracing the fintech revolution

Potential Strategic Involvement

Hackathon



Venture fund



Accelerator / Incubator



Mentorship



- **Mindset shift**
- **Responsive and agile**
- **Talent investment / development**
- **Innovation catalyst**



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Regulatory Sandbox allows innovation of fintech to be deployed and tested in a live environment, within specified parameters and timeframes

Sandbox complements the Bank's proportionate regulatory regime

Features

- Build (almost) anything you want
- In a safe environment, with clear boundaries and safeguards
- We may relax some (but not all) of our rules
- Consequences of failure can be contained



Motivation

Remove regulatory barriers or uncertainty and allow us to review our regulations

Lower cost of testing new ideas and faster time to market

Fine-tuning of products/solutions prior to launch

Evaluate impact and monitor unintended consequences

Reduce risk, contain the consequences of failure and protect financial stability



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Key features of Financial Technology Regulatory Sandbox Framework



- Regulatory sandboxes cannot be used to circumvent existing regulations, and are therefore not suitable for activities/solutions that are already allowed under existing regulations.
- Regulatory Sandbox does not serve as an endorsement tool for fintech solution.
- In addition to regulatory sandboxes, the Bank will also provide 'informal steer' to guide individual FIs/Fintech companies.



Applications to Sandbox are from diverse range of fintech services

Four has been approved to commence testing



GoBear

metasearch online
insurance product
aggregator



GetCover

online insurance
product aggregator



WorldRemit

end-to-end
e-remittance solution
incorporating digital
verification process



MoneyMatch

peer-to-peer
currency exchange
and remittance
platform

4 more on the way.....



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Beyond Sandbox, key areas to look forward to

The Bank has identified 5 key enablers to develop vibrant fintech ecosystem:



Digital Identity



Open API



Community-based
Cybersecurity



Cloud Computing



Distributed Ledger
Technology

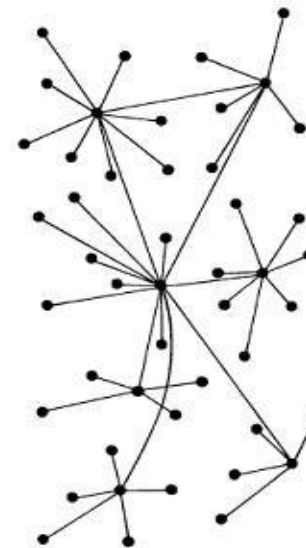


Implications on Structure of Markets and Regulators

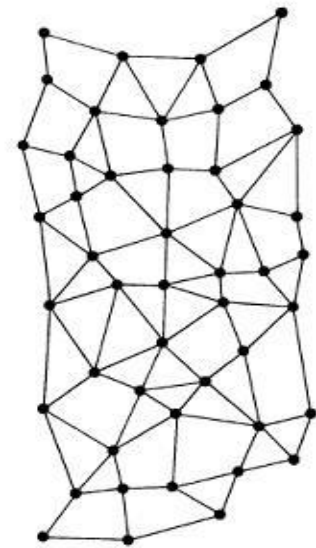


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1. Disintermediation and effectiveness of policy transmission



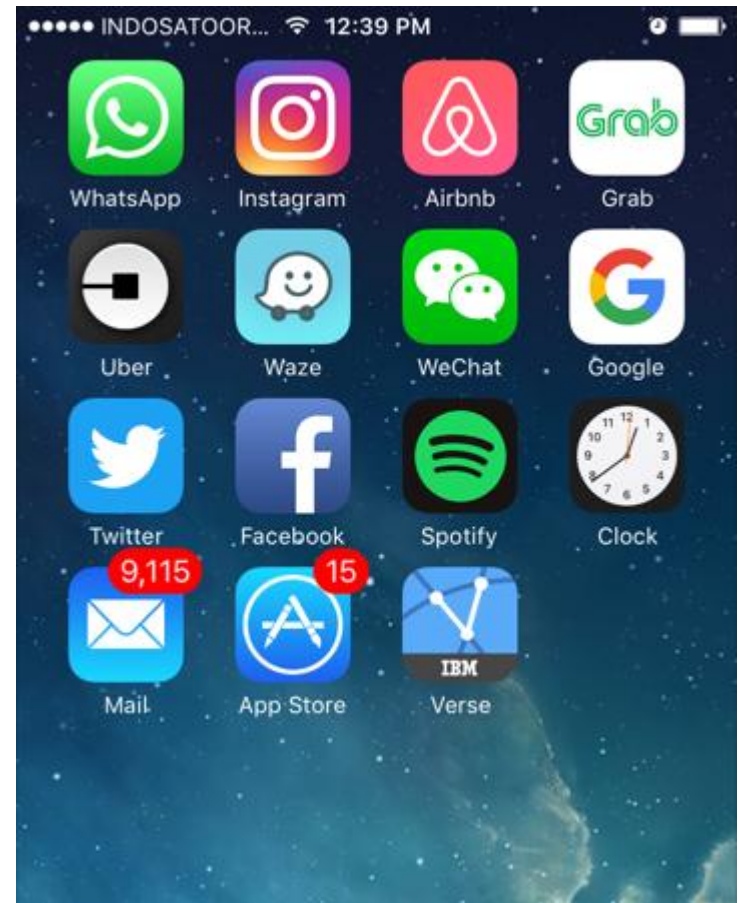
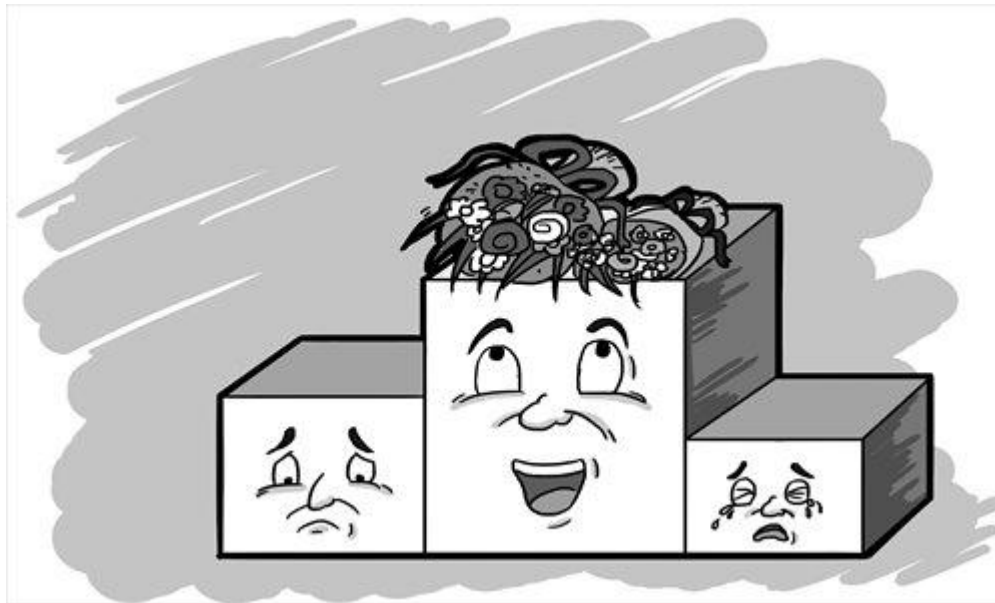
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2. Winner takes all and concentration of markets



3. More Information = More Exclusion?



HM Government



Association of British Insurers

Concordat and Moratorium on Genetics and Insurance

Business • Policy

Use of big data can lead to 'harmful exclusion, discrimination' – FTC

Data model should take account of biases

By OUT-LAW.COM 8 Jan 2016 at 07:03

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4. Do we evolve from supervising people and behaviour to regulating codes and algorithms?



5. High time for Privacy 2.0?



Thank you



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