



# Fintech, Inclusive Growth and Cyber Risks

*Lessons From the Middle East and North Africa  
(MENA)*

July 9, 2018

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# Outline

- I. Fintech: An Overview**
- II. The Fintech Landscape in the MENA**
- III. Fintech and Inclusive Growth**
- IV. Cyber Risks**
- V. Insights from the MENA Region**

A light blue silhouette of a world map is centered in the background of the slide.

# Part I

# **Fintech: An Overview**

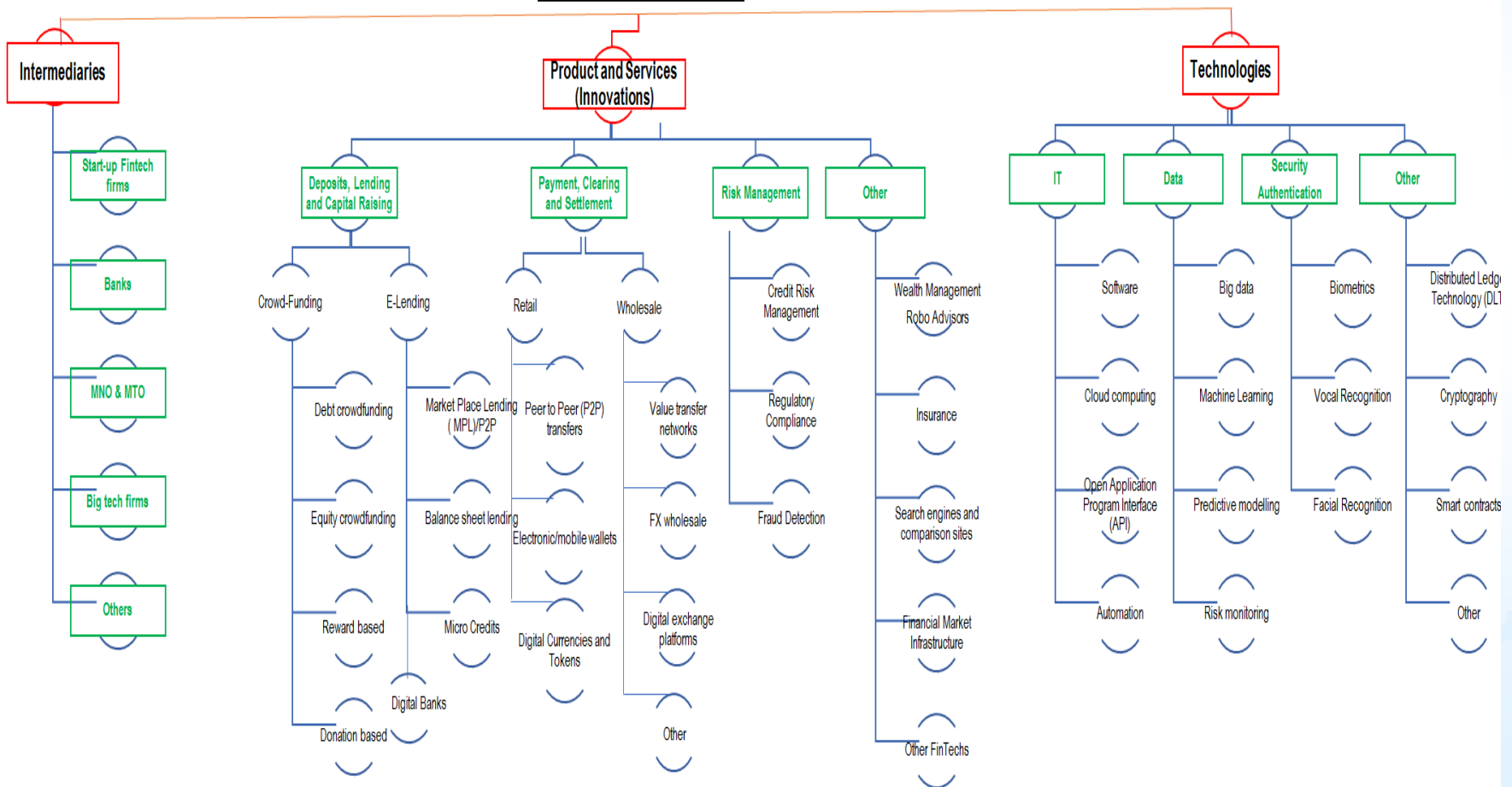


## Definition and scope...

- “*Fintech*” has come to assume many meanings, but at its core, it refers to the use of technology to better deliver financial services.
- The application of technology to financial services dates over centuries, but fintech represents a paradigm shift because it challenges and sometimes displaces traditional financial institutions.
- The FSB defines fintech as “technology enabled financial innovation that could result in new business models, applications, processes or products with an associated material effect on financial markets and institutions and provision of financial services.”
- Following the FSB definition, the review covers financial innovations in payments (electronic and mobile payments, digital wallets); lending (P2P, crowdfunding); crypto currencies; and underlying technologies (blockchain, Artificial intelligence and cloud computing).

# The schematic chart below highlights the three pillars of the fintech industry...

## The Fintech Industry





# Fintech introduces new risks and can magnify existing financial stability risks ...

*But if risks are managed, the benefits can be immense*

## Benefits

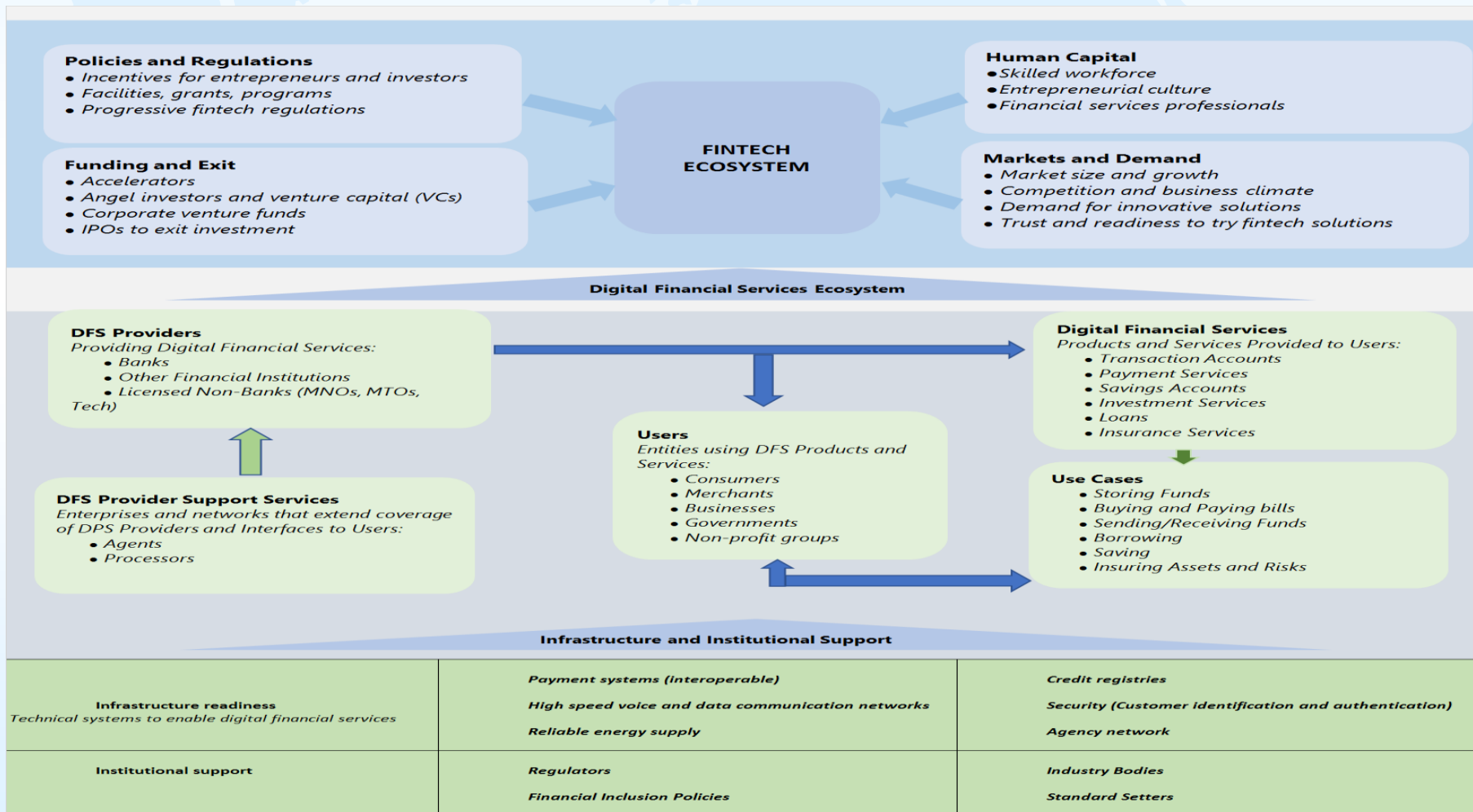
- **Consumers:** *Faster, low cost and customized financial services*
- **Banks:** *Automated processes, reduced operational costs and enhanced risk management*
- **Governments:** *Efficiencies in revenue collections and payments incl., social transfers*
- **Macro benefits:** *Financial inclusion, SME access to finance, inclusive growth*

## Challenges

- Cyber risk
- Consumer protection
- Data privacy and security
- Money laundering
- Regulatory perimeter
- Other (Banking system profitability)



# To develop in a sound and sustained manner, fintech requires an enabling environment...



A light blue world map is visible in the background of the slide, centered behind the text.

Part II  
*The Fintech Landscape in the  
MENA*

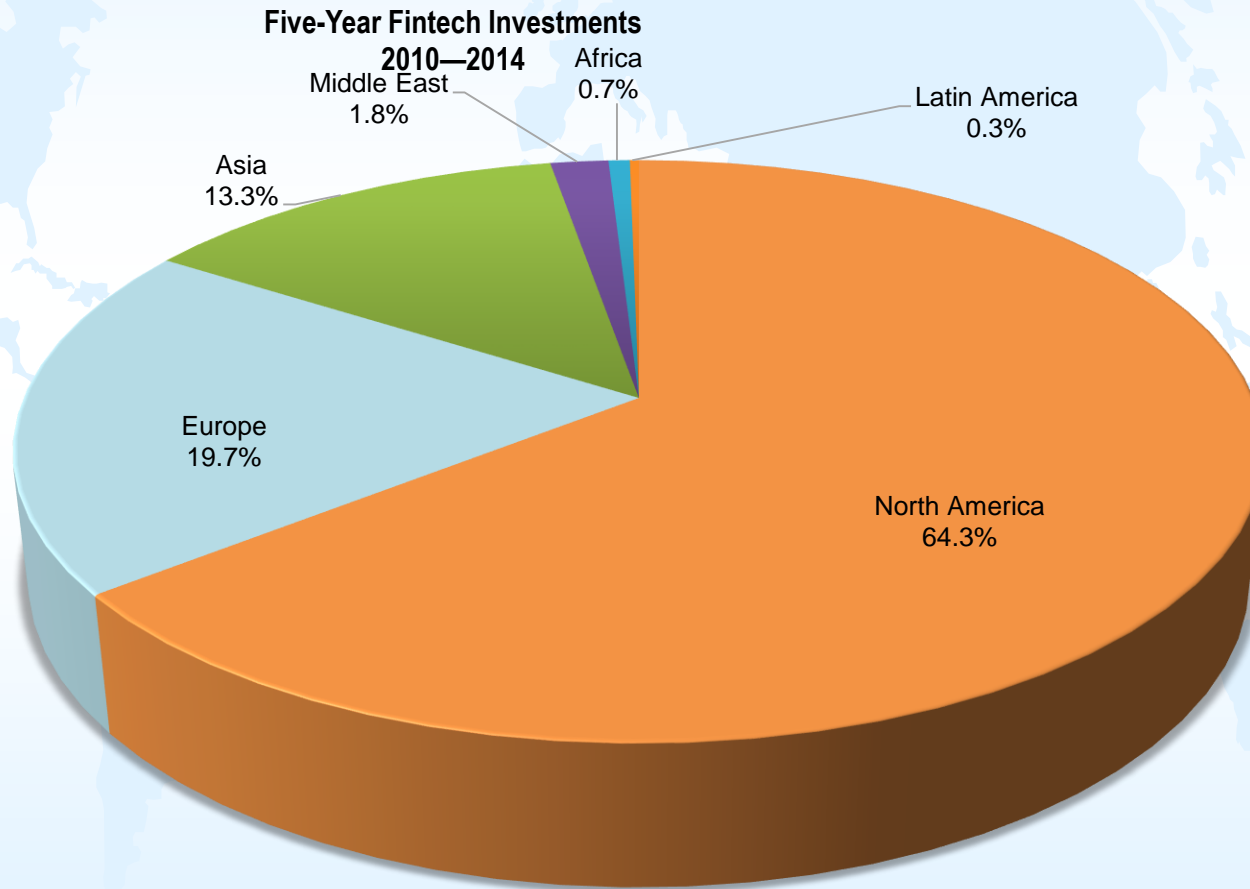




# Trends



# The MENA region had a slow start in adopting fintech...

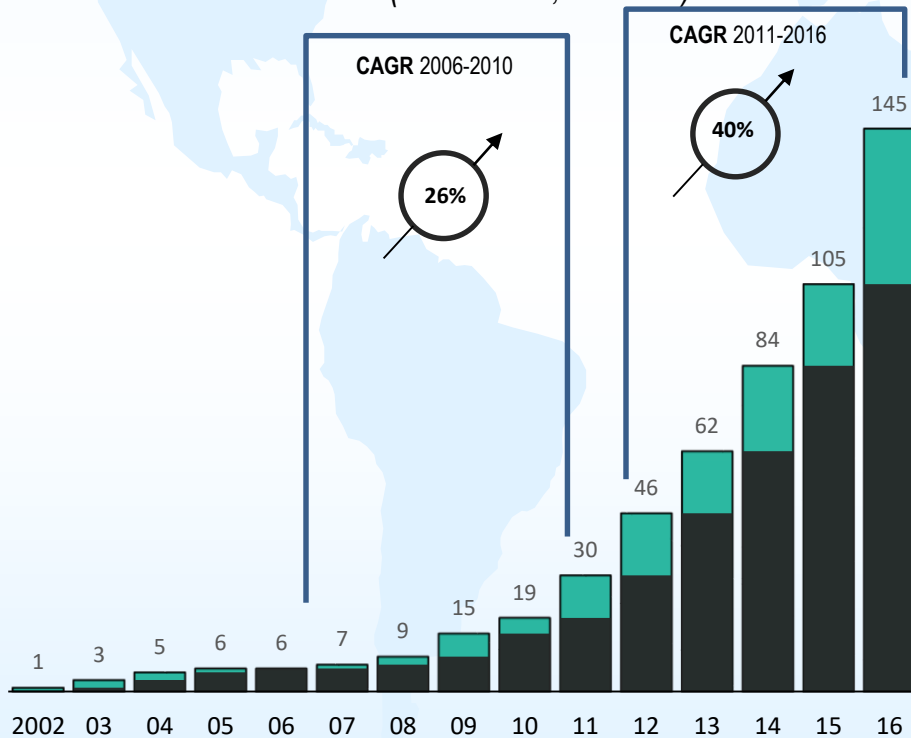


Source: ITA Fintech Market Report, 2016

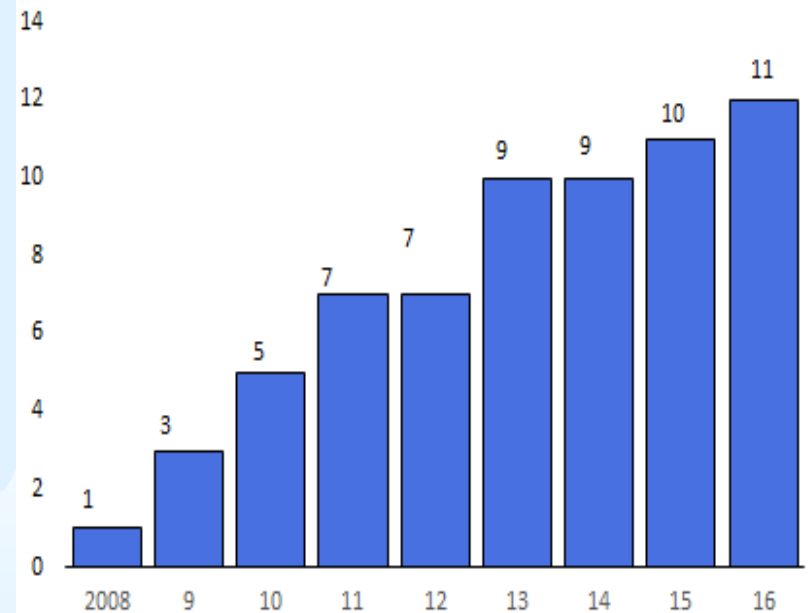


# But fintech is now gathering pace...

### Fintech startup firms in 12 MENA countries (Cumulative, 2002-16)



### Countries Offering Mobile Money Services, 2008-2016 (Number)



Source: Wamda Research Lab, 2016

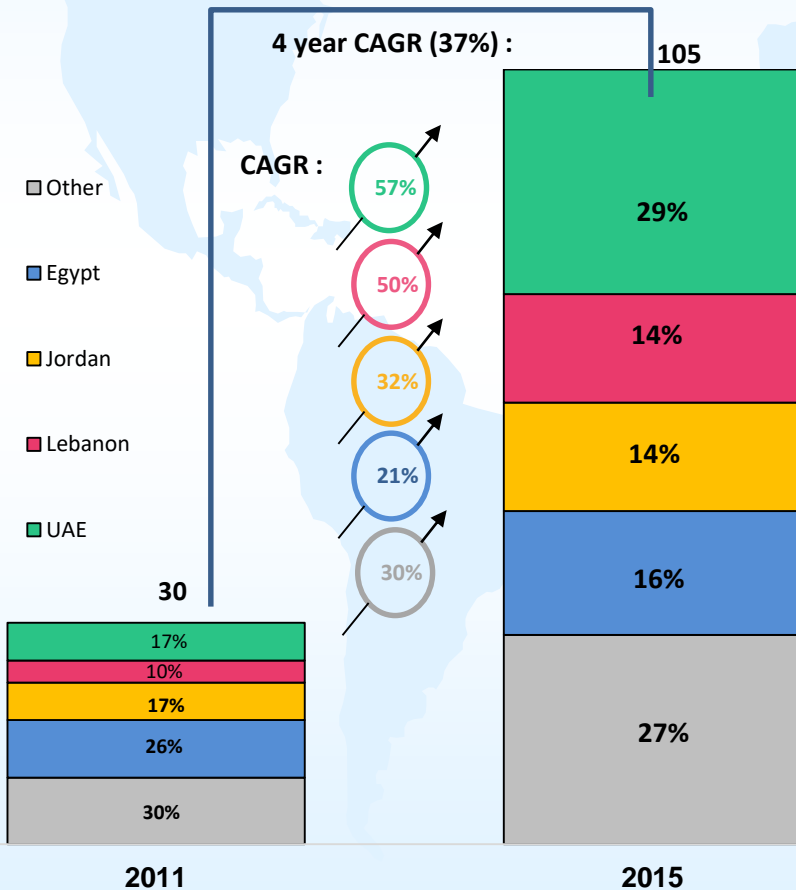


# Though still concentrated in a few countries, new growth centers are emerging...

## Countries Driving Fintech Growth

(Cumulative numbers by country, 4 year CAGR, 2011-15)

The number of countries offering Mobile Money Services to unbanked has continued to expand



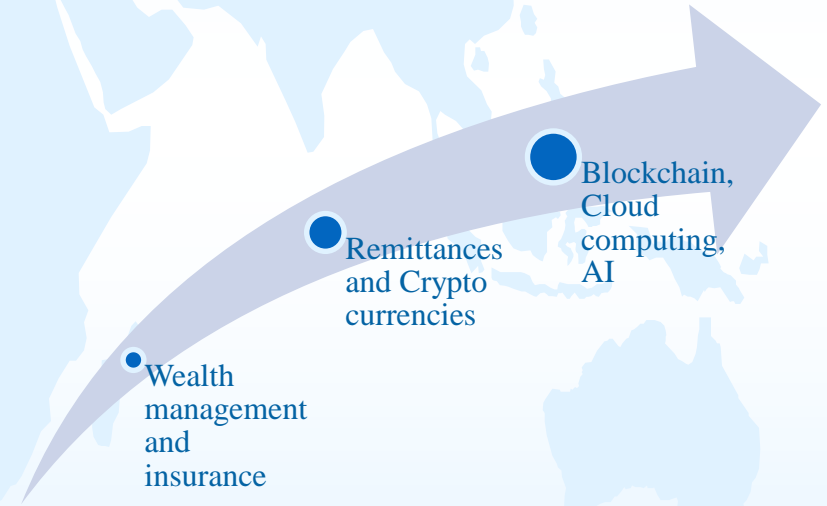
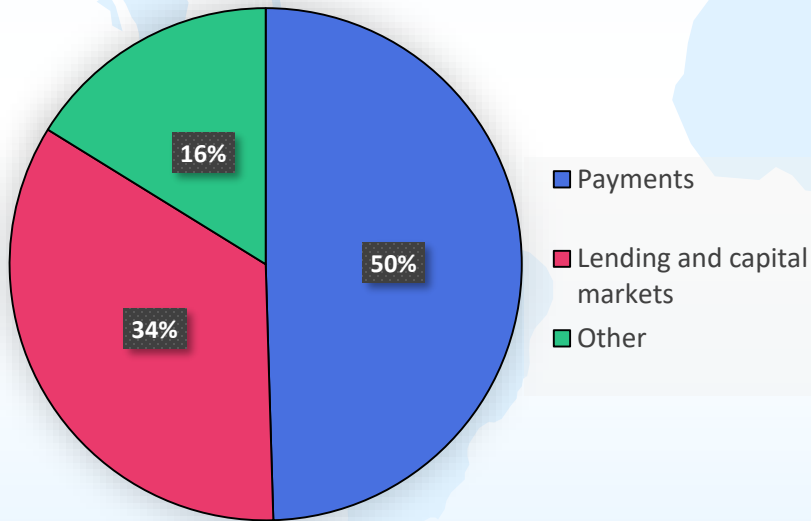
Year	MENAP Countries	Number of Countries (Cumulative)
2008	Afghanistan	1
2009	Pakistan Somalia	3
2010	Tunisia Morocco	5
2011	Qatar Iran	7
2012		7
2013	Mauritania	9
2014	Egypt	9
2015	Iraq	10
2016	Jordan	11

Source: GSMA, MMU tracker 2017.



# Payments dominated initial innovations followed by lending but other segments are picking up...

## Sectoral Distribution of Fintech Startups in MENA

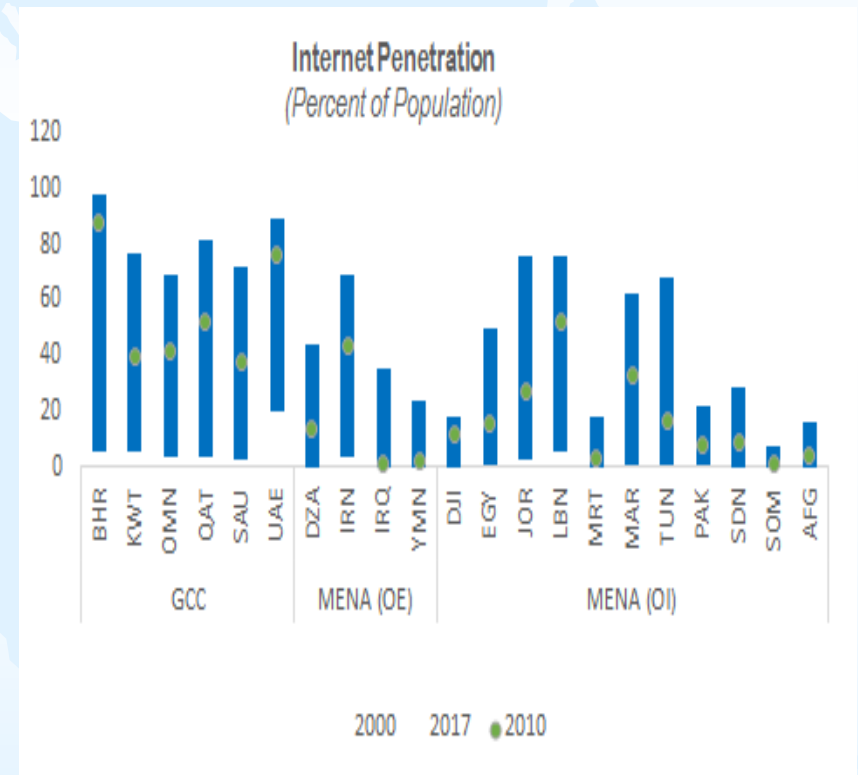
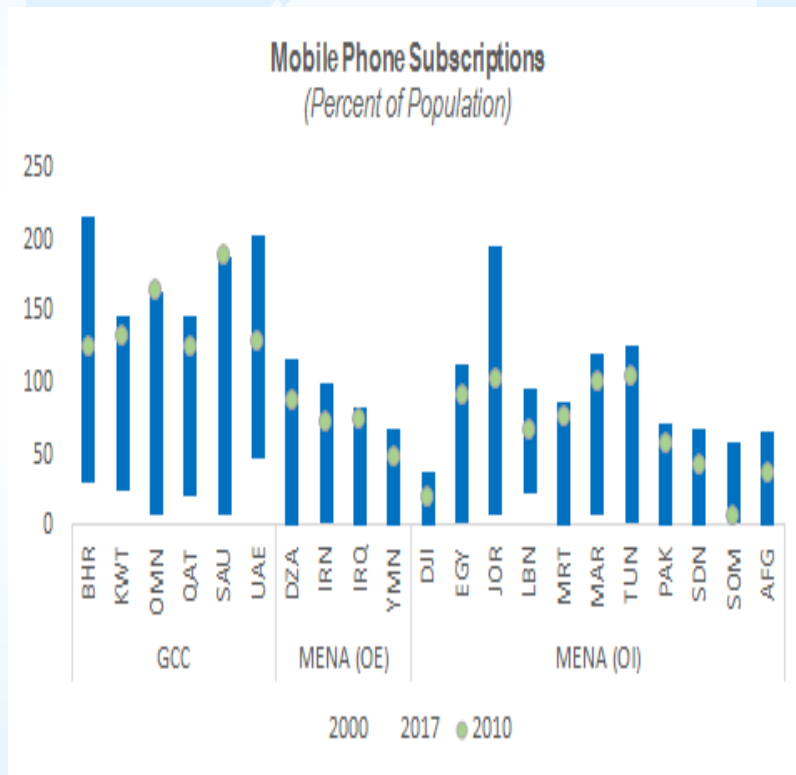




# Growth Drivers



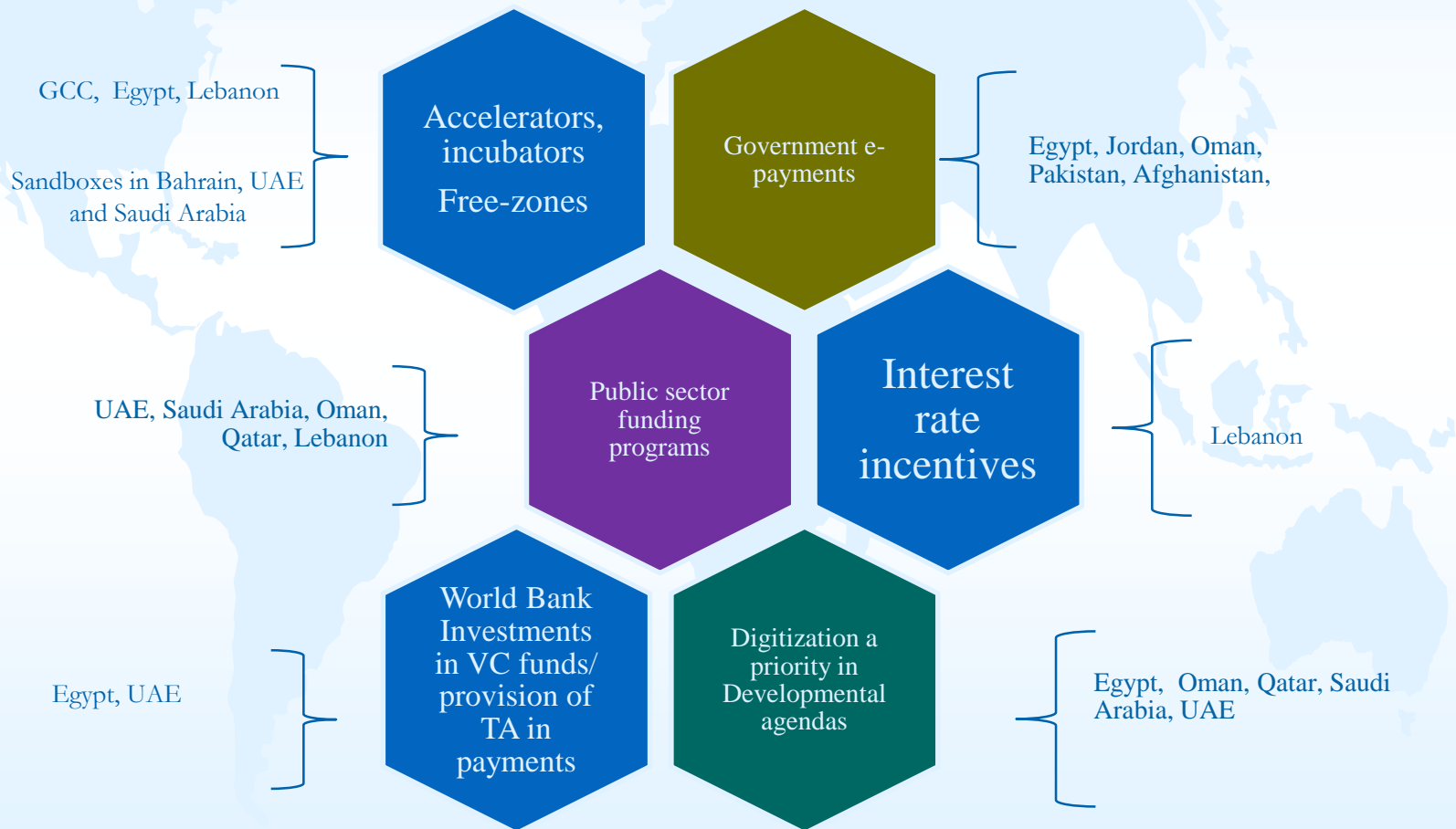
# Improvements in ICT infrastructure has been a key enabler of fintech development



Source: ICTU



# Incentives have played an important role in the differential performance of countries

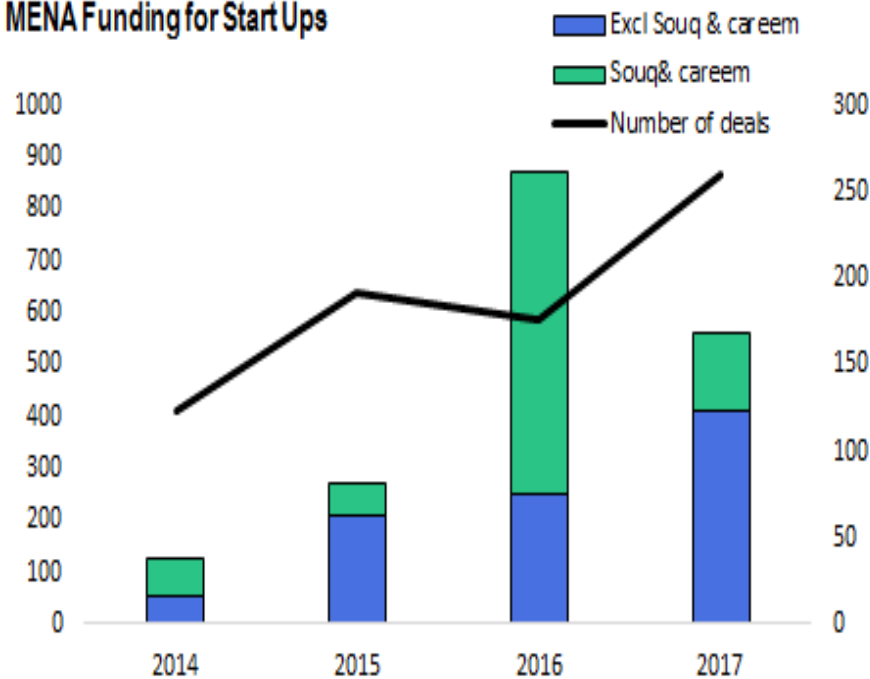




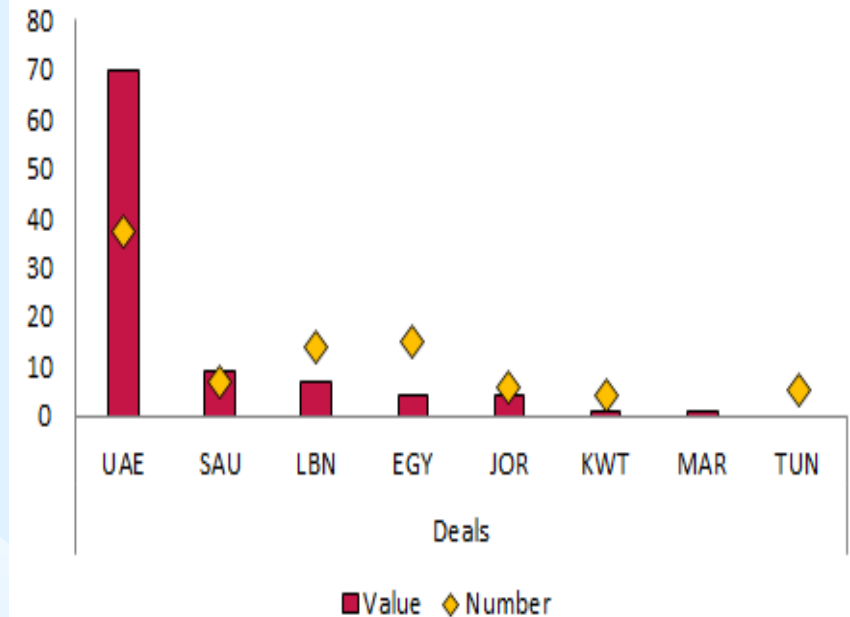


# The comparative stronger performance of the UAE has been underpinned by higher private funding...

MENA Funding for Start Ups



Number of Deals and Amounts Invested (Percentage Share)



Source: Magnit, State of MENA Funding

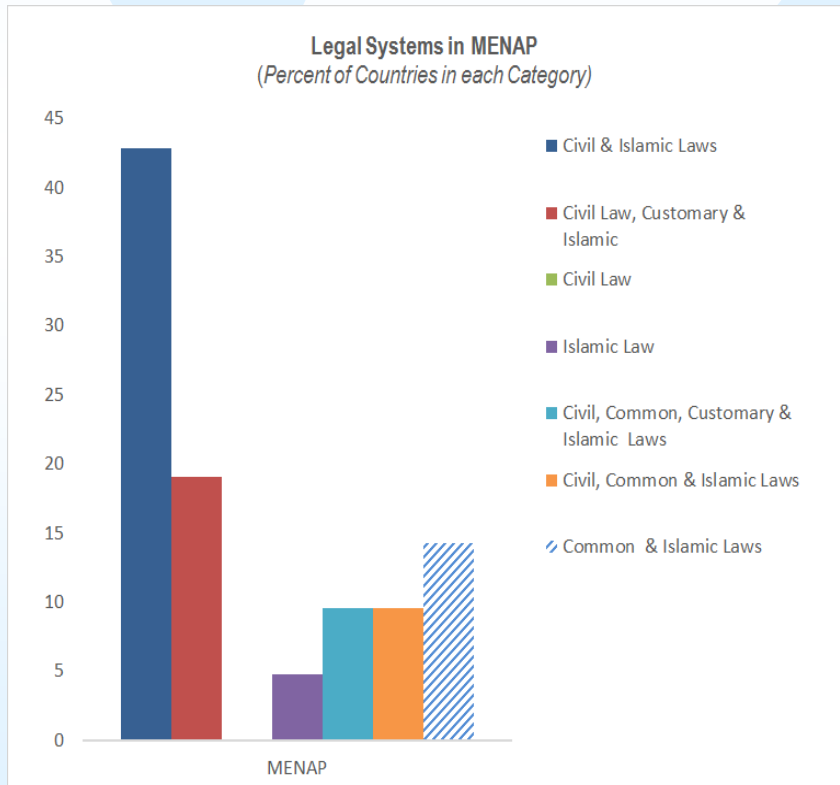


# Current and Emerging Regulatory Infrastructure



# Most MENA countries have mixed legal systems founded on civil law principles...

*Legal certainty is therefore a pre-requisite for fintech to develop*



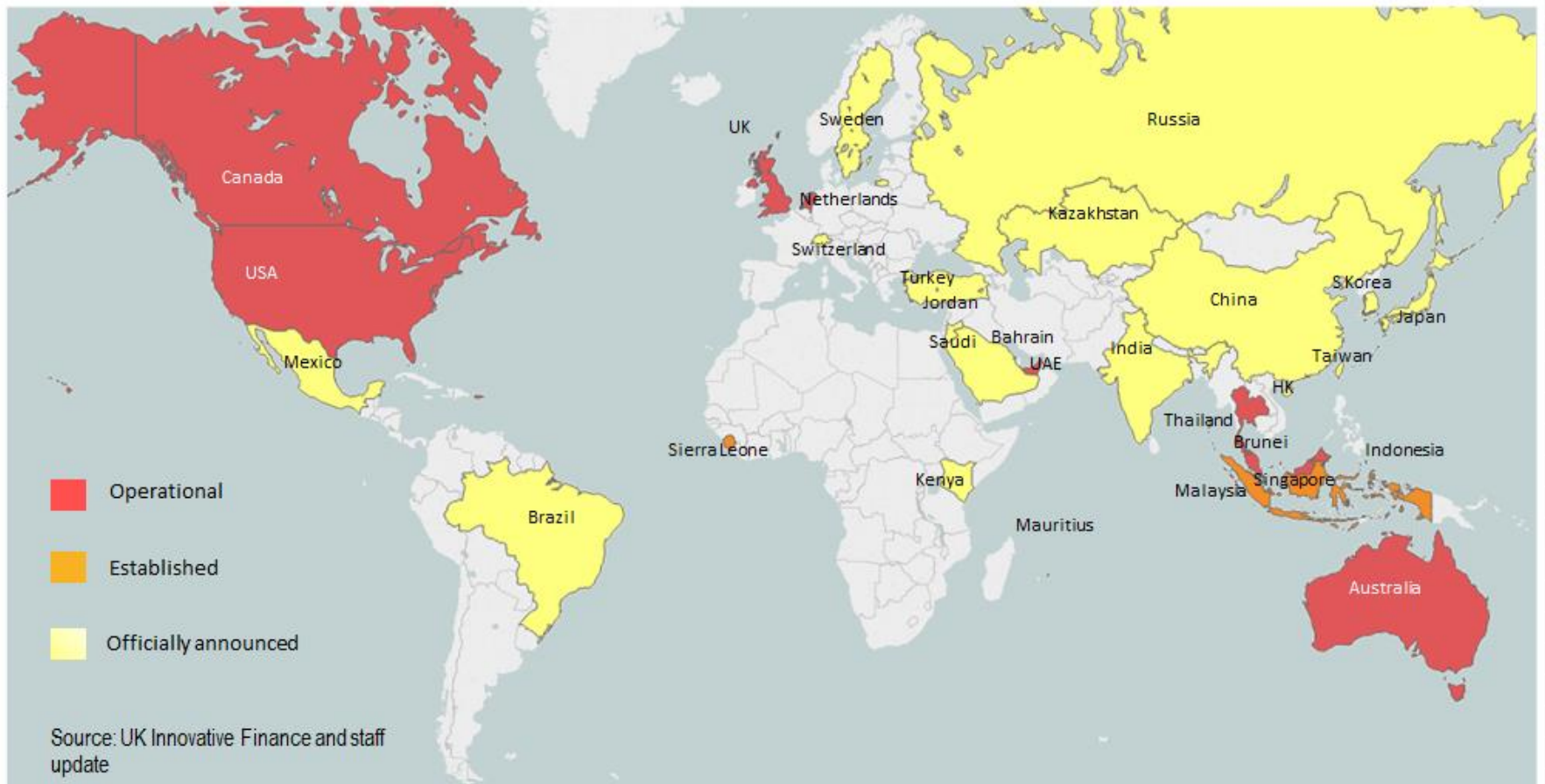
LEGAL SYSTEMS BY COUNTRY							
Mixed Legal Systems							
Civil, Common, Customary & Islamic Law	Civil, Common & Islamic Law	Common & Islamic Law	Civil & Islamic Law	Civil, Customary & Islamic Law	Civil Law	Islamic Law	
Bahrain Yemen	Kuwait Jordan	Oman Pakistan Sudan	Qatar UAE Algeria Iraq Egypt Lebanon Mauritania Morocco Tunisia	Saudi Afghanistan Djibouti Somalia		Iran	
Jurisdictions (	2	2	3	9	4	0	1

Source: United States Central Intelligence Agency, Legal Systems of the World



# Currently, regulatory sandboxes which provide firm specific licenses for fintech exist in a few countries...

Countries With Existing or Proposed Regulatory Sandbox





# With a few exceptions, regulations are yet to be adapted to fintech...

## Prudential regulations

- Payments and transfers
- Crypto currencies
- Crowdfunding
- Outsourcing

## Supervision

- Supervisory arrangements
- Cross sector collaboration
- Cross border collaboration
- Supervisory capacity

## Consumer protection

- Frameworks
- Data protection laws
- Financial stability vs financial inclusion

## AML/CFT

- Simplified consumer due diligence
- Risk based supervision

A light blue silhouette of a world map is centered in the background of the slide.

# Part III

# **Fintech and Inclusive Growth in the MENA**

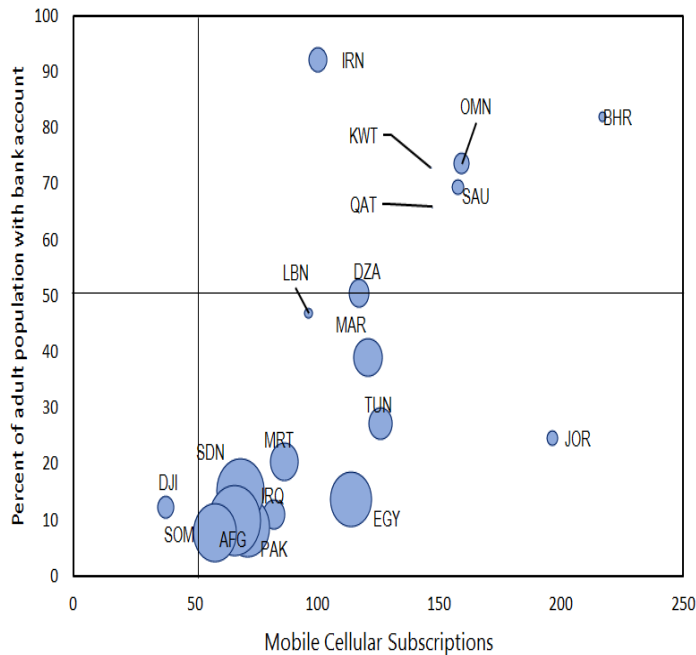


# Fintech presents immense opportunities for financial inclusion in MENA countries...

*Populations with mobile phones exceed those with bank accounts*

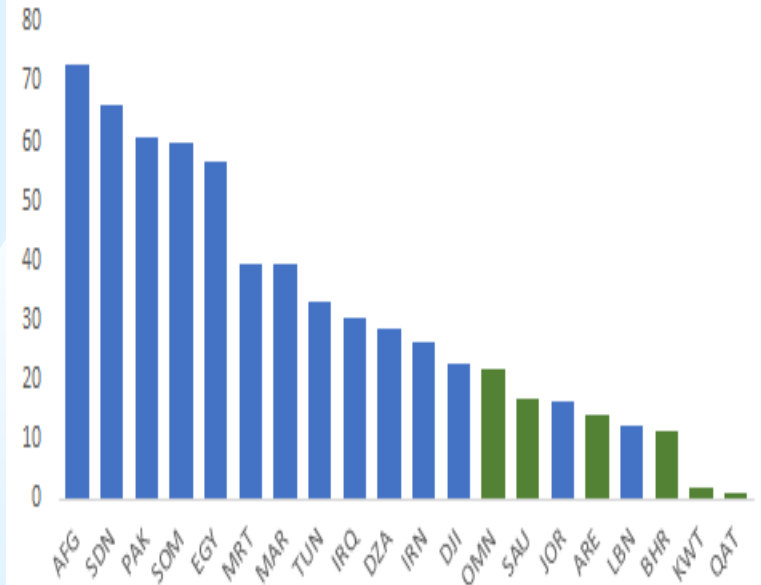
*Large rural populations in many countries render it difficult for banks to reach*

**Financial Inclusion**  
(Percent of population with bank accounts and cellular phones)



*The larger bubbles corresponds to a greater population living in rural areas*

**Populations in Rural Areas**  
(Percent of Total Populations)

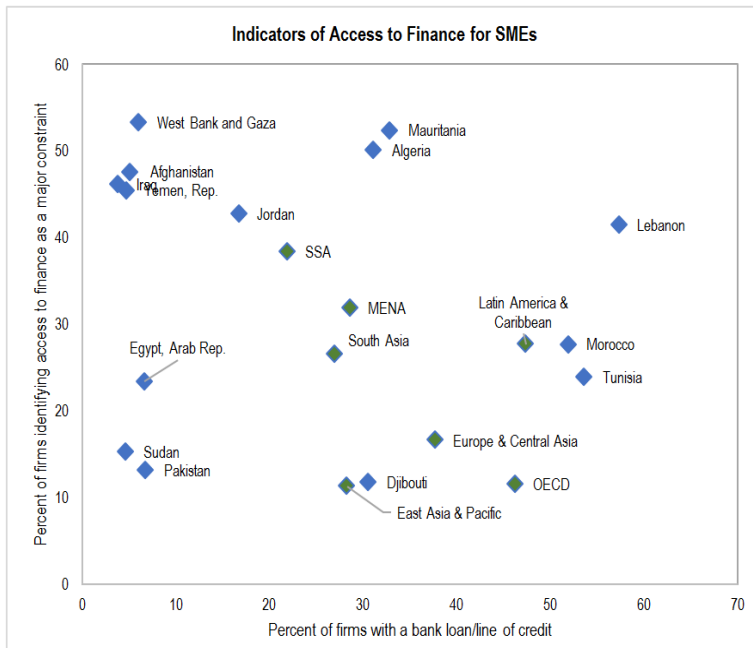




# Fintech can also promote inclusive growth by increasing access to finance for SMEs...

*SMEs in MENA and CCA can be engines of growth and employment, but access to finance constrain their growth...*

*...Fintech can ease the funding constraints for SMEs through a variety of channels*



## Big data analytics

*(Risk evaluation of borrowers, better risk pricing facilitate bank lending)*

## DLT Blockchain

*(Superior record keeping improve collateral management)*

## Digital payments create a digital history

*(Facilitate cash flow lending)*

## Alternative Funding sources

*(P2P, crowdfunding)*





# It can also bring efficiencies and transparency in the remittance market and govt operations ...

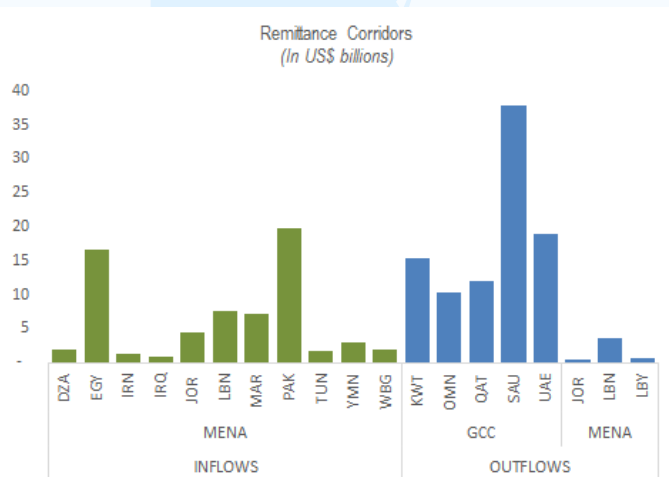
*The MENA has large inward and outward remittance corridors but transfer costs remain high*

## Government operations

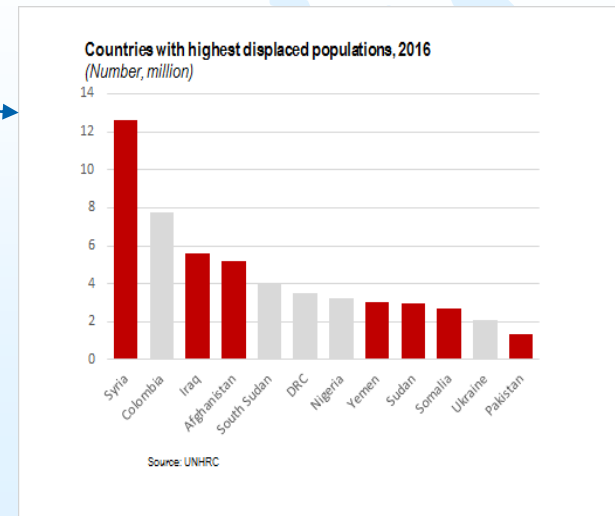
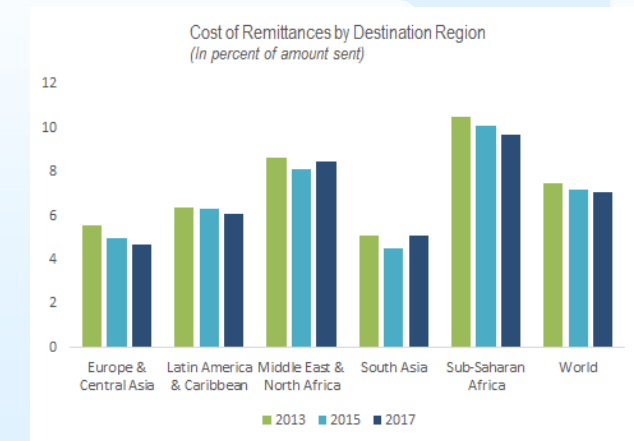
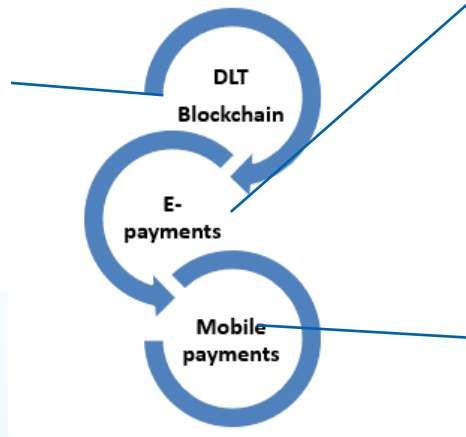
Government Revenue collection and payments

- Salaries
- Social transfers
- - reduce corruption

*Large displaced populations increase humanitarian aid*



Fintech Innovations and Technologies



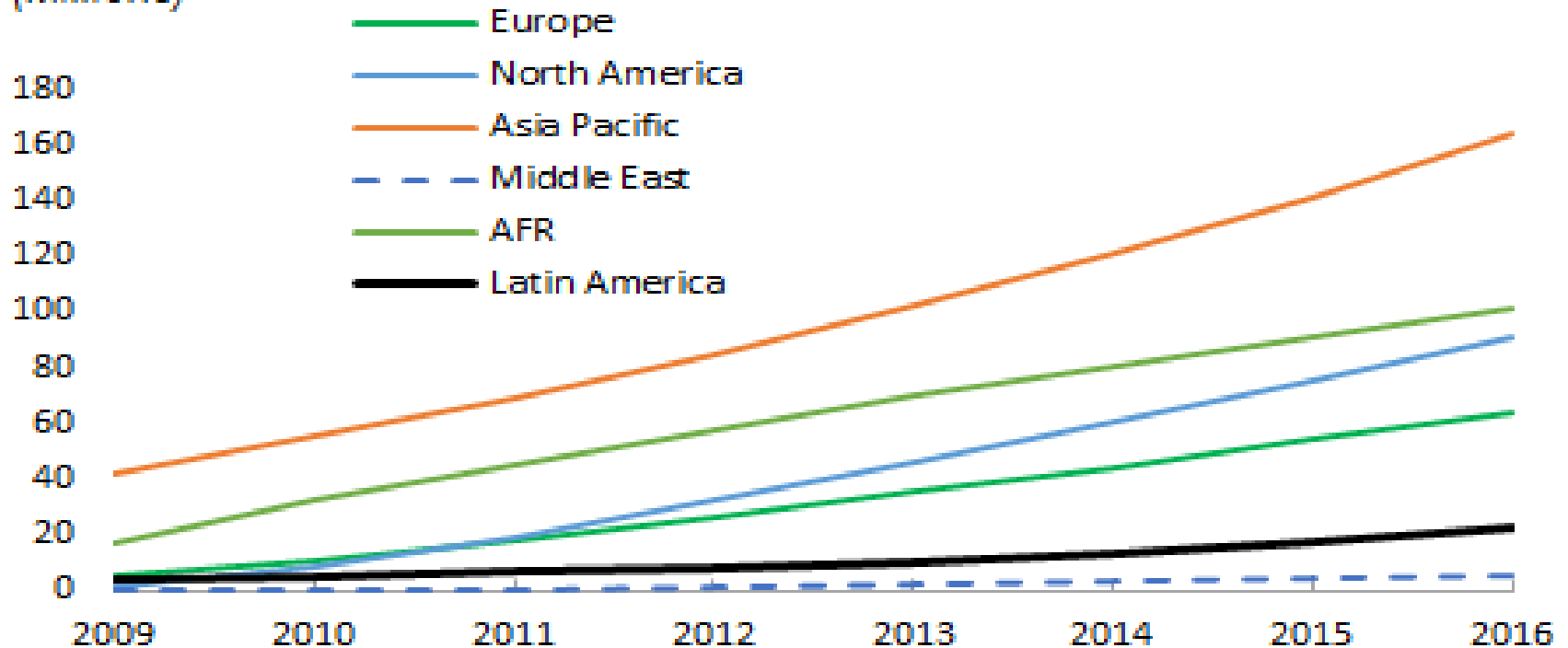


*The impact of fintech on financial inclusion thus far*



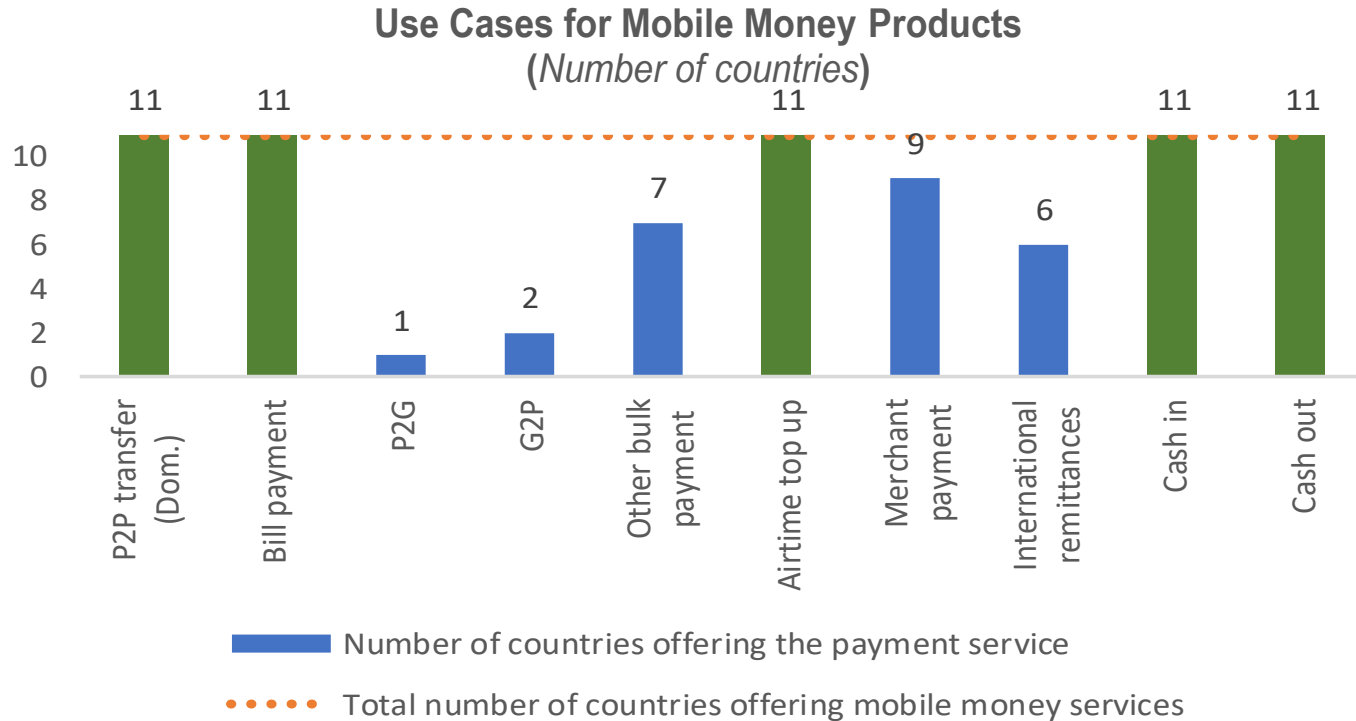
# Impact on financial inclusion is still minimal, as uptake of mobile payments has lagged...

**Number of Mobile Payment Users**  
(Millions)





# But mobile payments use cases are beginning to broaden to include international remittances and govt operations





# Impact on reducing SME funding gaps is also limited, but lending innovations targeting SMEs are picking up

## LENDING INNOVATION BY TYPE

### SOCIAL, CHARITY OR DONATION BASED

Algeria, Qatar, Iran, Iraq, Egypt, Lebanon, Morocco, Tunisia

### CROWDFUNDING (EQUITY)

UAE, Lebanon

### CROWDFUNDING (LOAN BASED)

Jordan, UAE, Bahrain

### NASCENT STAGE OR INEXISTENT

Kuwait, Oman,  
Saudi Arabia

Djibouti, Mauritania, Somalia

### PEER TO PEER (P2P)

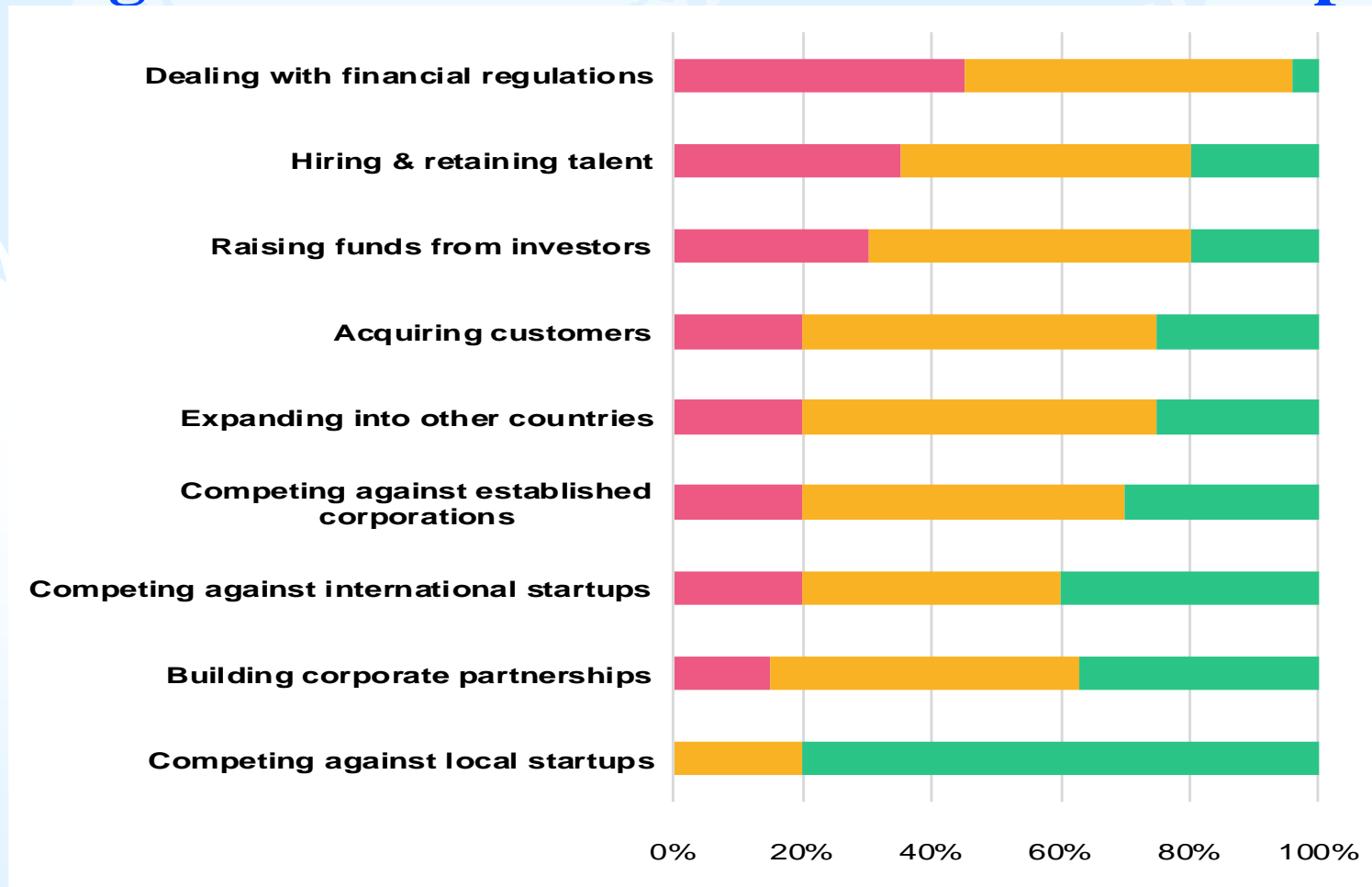
UAE



*What is constraining fintech's  
potential*



# Fintech firms cite several constrains, but regulations are considered to be the top



Source: Surveys of Fintech firms by WAMDA

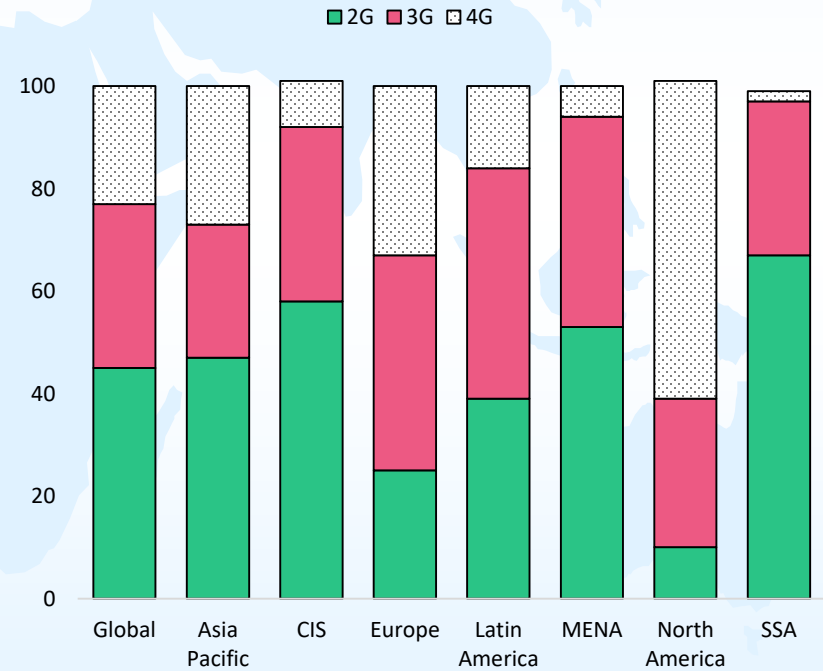
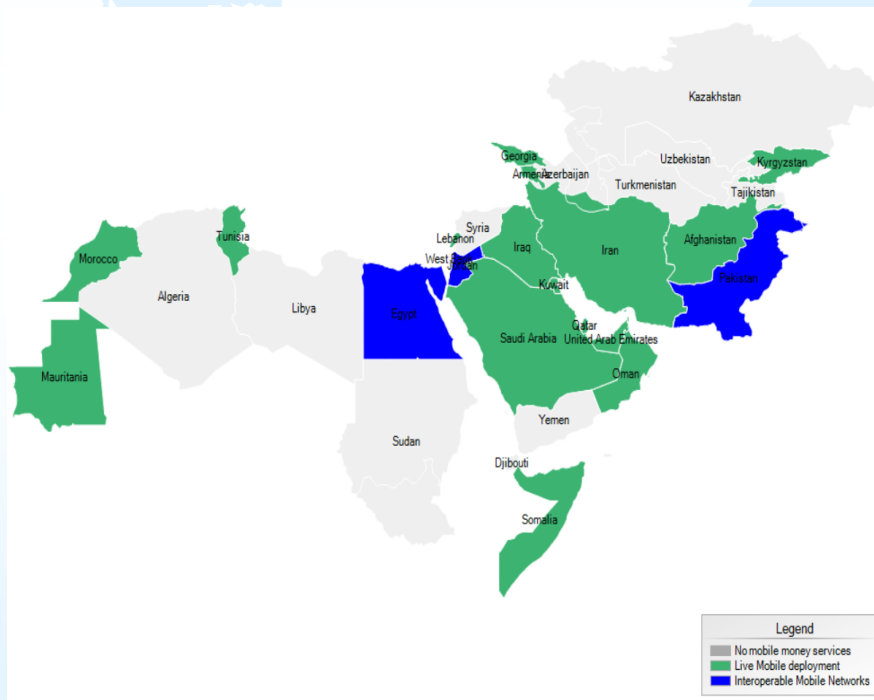


# The quality and cost of mobile and internet services are also limiting in several countries...

*Non interoperability of mobile network operators fragments the market*

*Slow 2G and 3G networks limit adoption of some fintech innovations*

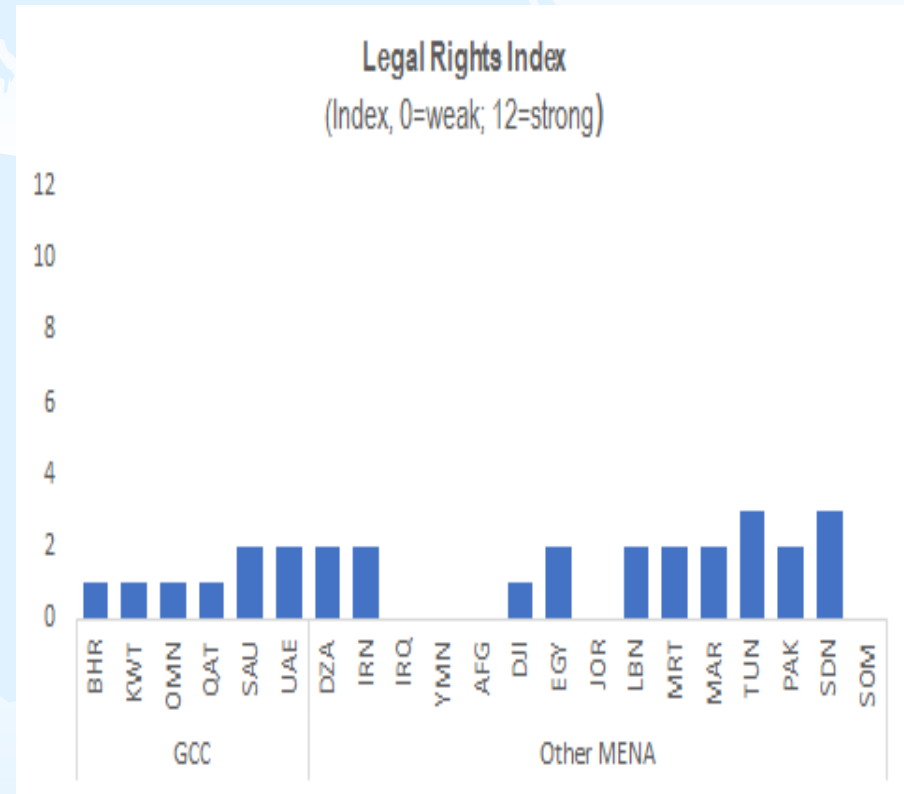
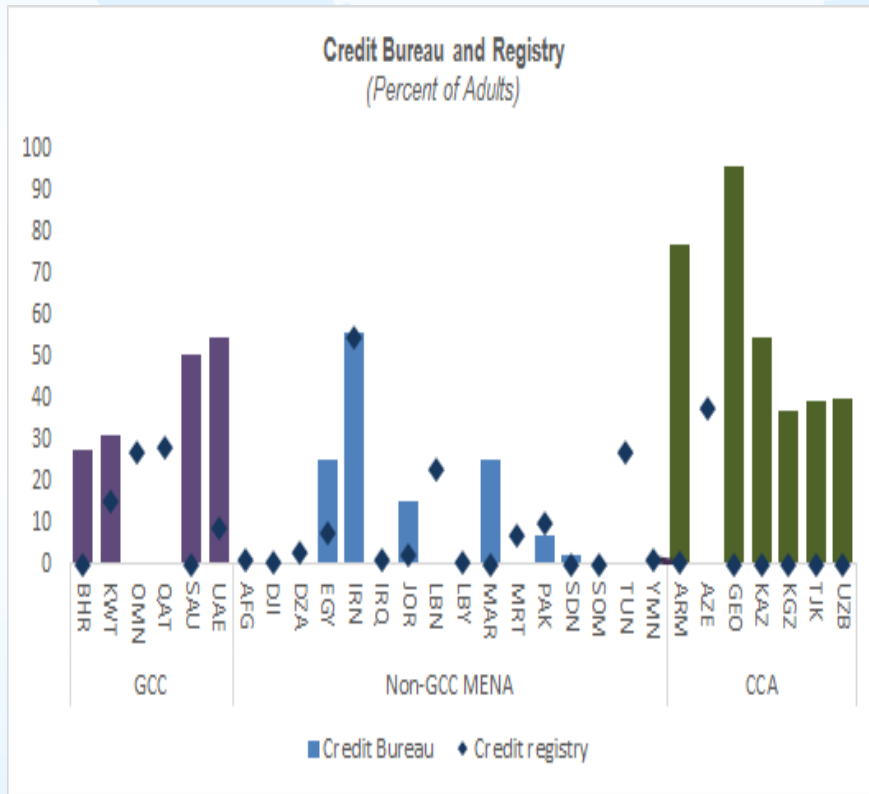
Technology Mix, 2016







# Weak infrastructure for assessing credit risk and for protecting investors hamper lending innovations...



Source: World Bank

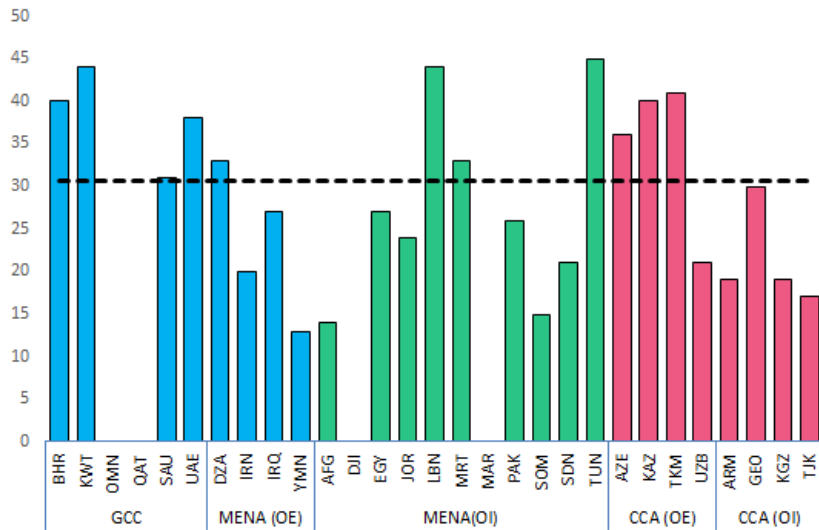


# The trust gap for fintech and, in some cases, low financial literacy constrain demand

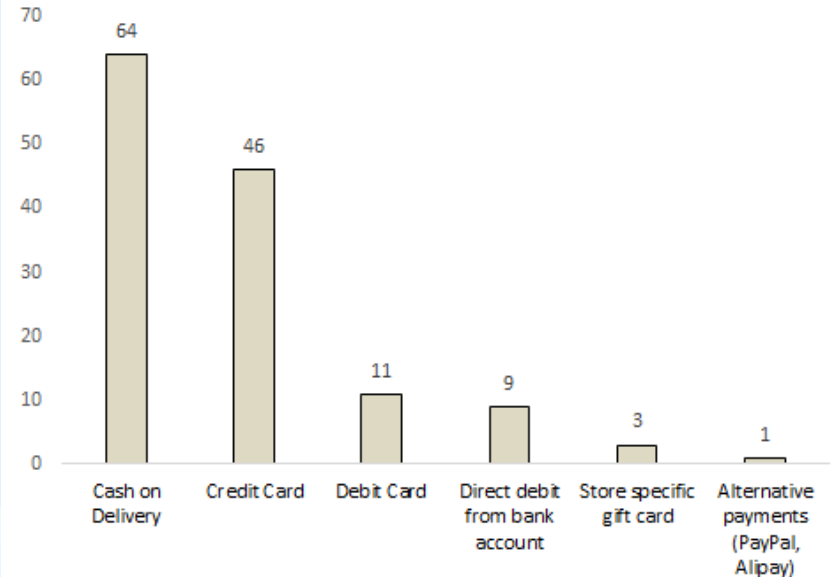
*Financial literacy levels are low in some countries....*

*There is still a lack of trust that leads to greater preference for cash*

Percent of Adults that are Financial Literate



Preferred method of Online Shoppers, 2016



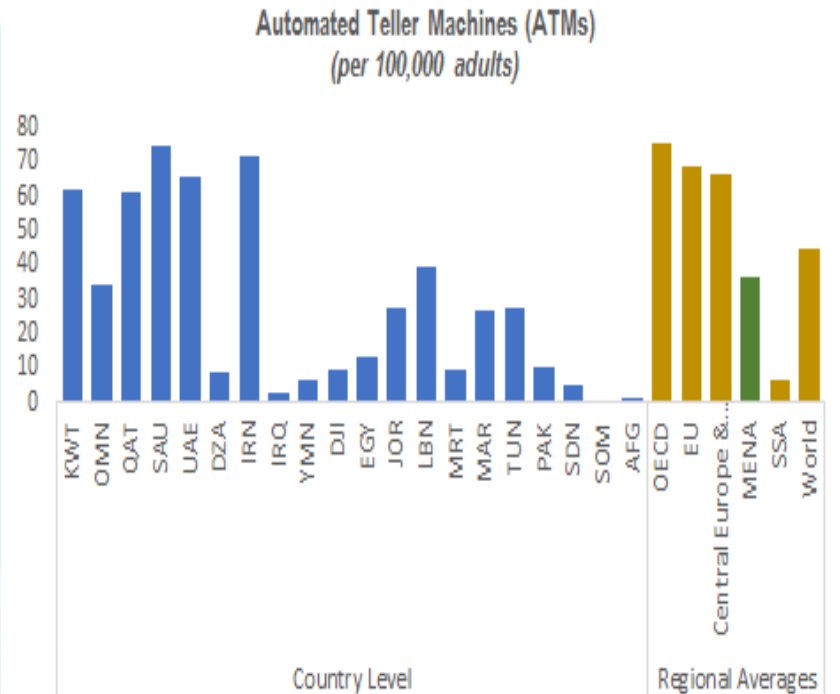
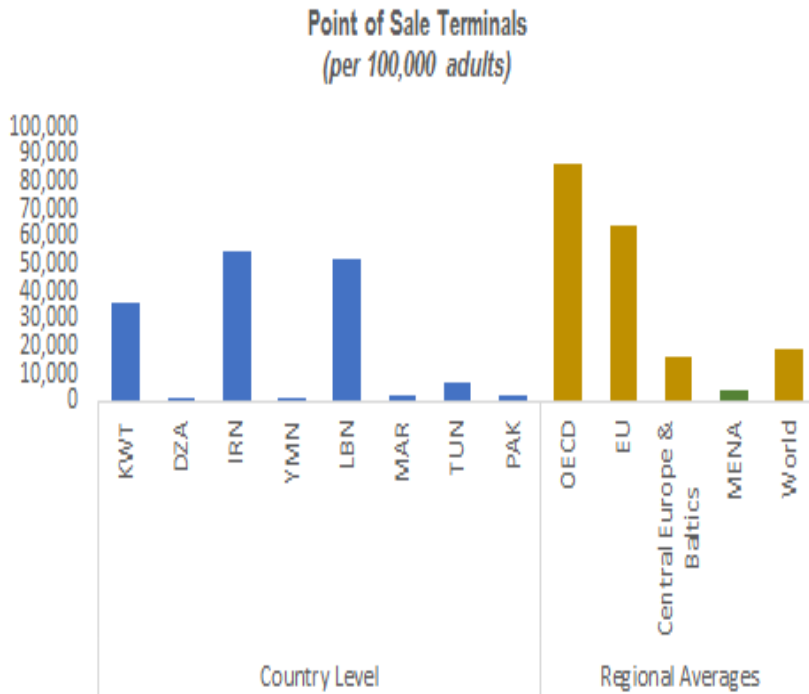
Source: S&P Global Financial Literacy Survey




# Limited POS and ATM availability coupled with entrenched informal transfer systems slow transition to cashless transactions

*Agency networks are underdeveloped in a number of countries*

*ATMs for cashing out are still limited*



Source: World Bank

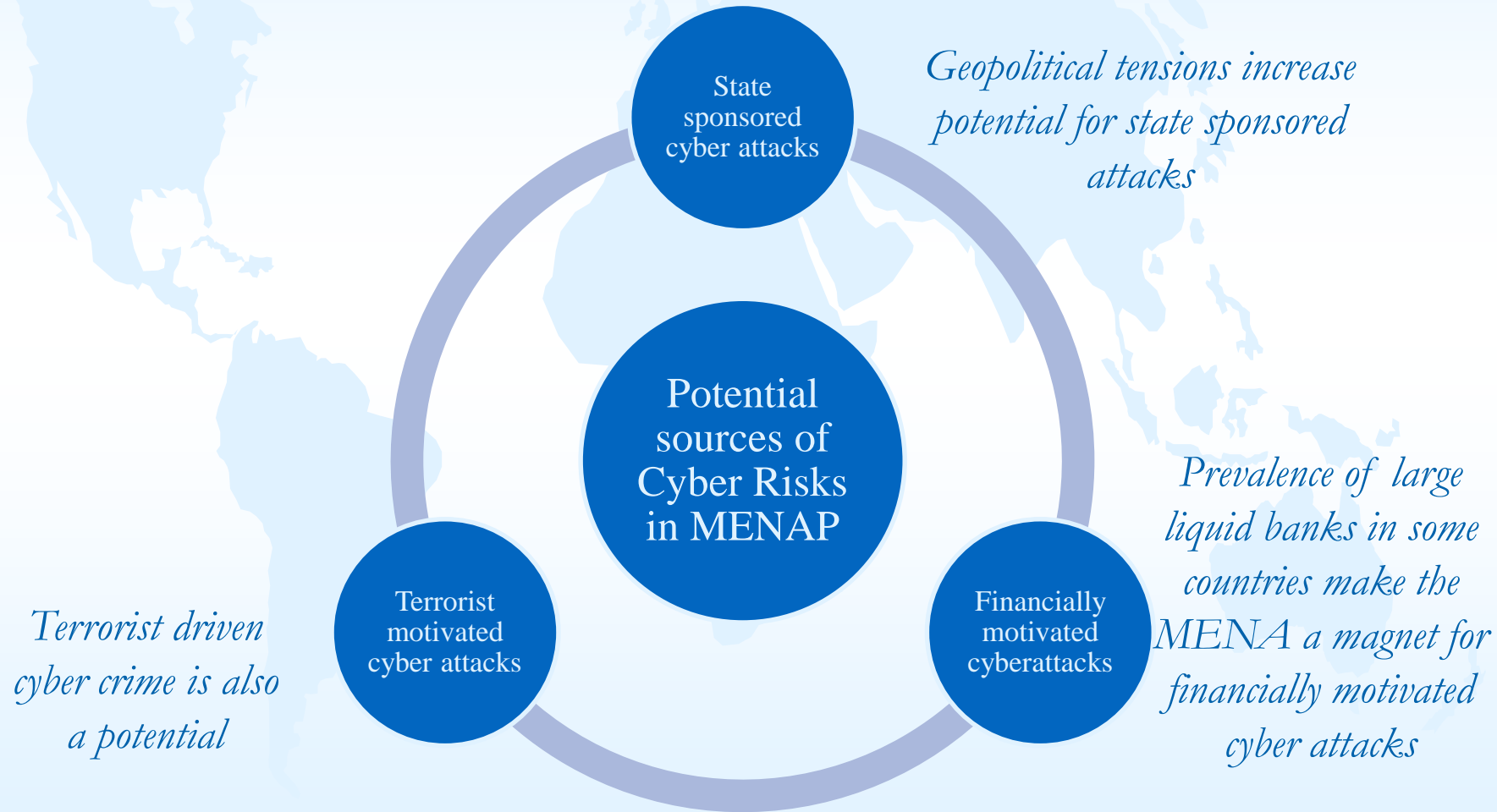
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# Part IV

# Fintech and Cyber Risks



# The cyber risk threat landscape for the MENA is diverse and complex ...

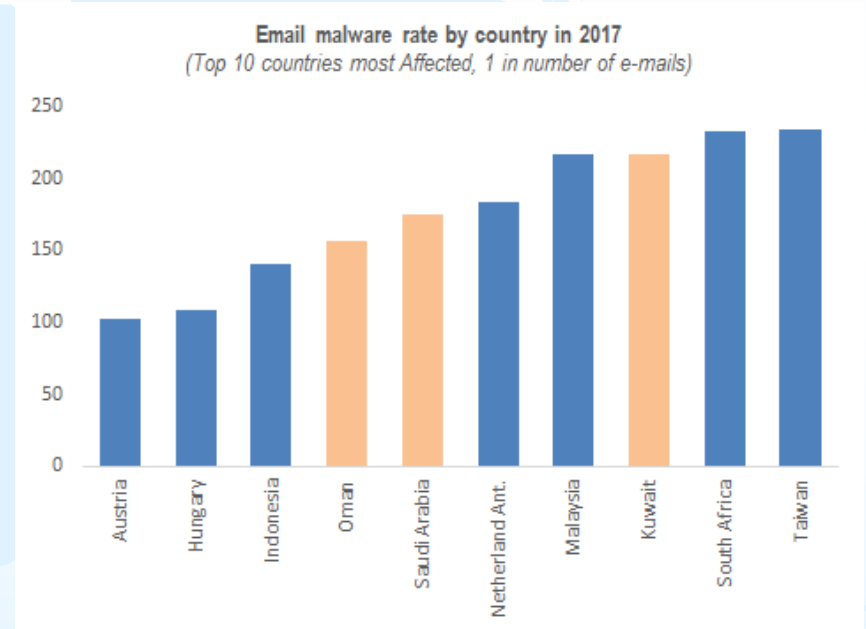
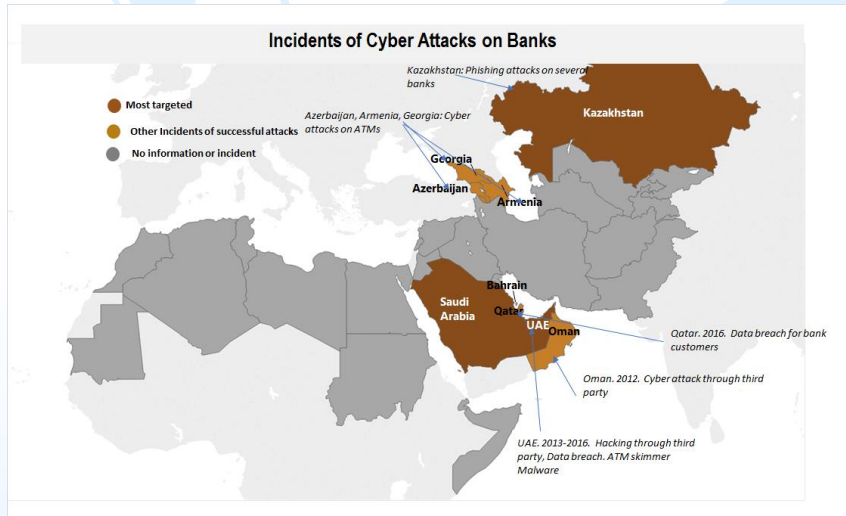




# The MENA has not had high profile attacks, but risks are increasing

*There has been incidences of successful cyber attacks on banks*

*And cyber attacks are increasing*





# Gaps in cyber security frameworks increase potential for attacks to be successful ...

Cybersecurity Scores (Index)	Cybersecurity Scores				
	Legal	Technical	Organisation	Capacity Building	Cooperation
BHR	In place	Absent	Deficient	Absent	Deficient
KWT	Absent	Absent	Absent	Absent	Absent
OMN	In place	In place	Deficient	In place	Deficient
QAT	In place	In place	Deficient	Deficient	Deficient
SAU	In place	In place	Absent	In place	In place
UAE	In place	Deficient	Deficient	Deficient	Deficient
DZA	In place	Absent	Deficient	Deficient	Deficient
IRN	Deficient	Deficient	Deficient	Deficient	Deficient
IRQ	Absent	Absent	Absent	Absent	Absent
AFG	Absent	Absent	Deficient	Absent	Absent
DJI	Absent	Absent	Absent	Absent	Deficient
EGY	In place	In place	Deficient	In place	In place
JOR	Absent	Absent	Deficient	Deficient	Absent
LBN	Absent	Absent	Deficient	Absent	Deficient
MAU	Absent	Absent	Deficient	Absent	Absent
MAR	In place	In place	Deficient	Deficient	Deficient
PAK	Deficient	Deficient	Deficient	Absent	In place
SOM	Absent	Absent	Absent	Absent	Absent
SDN	Deficient	Deficient	Absent	Absent	Absent
TUN	In place	Deficient	Deficient	Deficient	Deficient



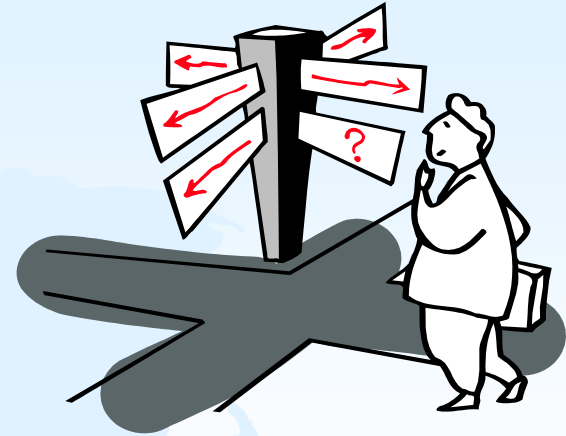
## Part V

# *Insights from the MENA region*





# The Strategy



Fintech holds great promise to foster financial inclusion and the broader objectives of inclusive growth.

But unlocking the potential will require an enabling policy environment that promotes fintech while safeguarding financial stability

There is also a need to reorient incentives towards innovations that are aligned with policy priorities of financial inclusion and inclusive growth.



# Policy considerations to promote innovation while safeguarding financial stability

## Cyber security

- Cyber attacks pose systemic risks and should be a policy priority.
- Cyber security frameworks need to cover prevention, detection, monitoring, technology literacy and recovery plans.

## Legal and institutional framework

- Laws need to provide legal clarity and certainty
- Stock-take of laws is needed to identify gaps and restrictions that impede fintech
- Consider regulatory sandboxes

## Prudential regulations and supervision

- Address gaps in regulations for virtual currencies, crowdfunding and outsourcing in order to provide legal clarity and certainty and to mitigate risks
- Level playing fields
- Enhance supervisory capacity, cross sector and cross border collaboration



# Options to align fintech innovations with policy priorities of financial inclusion and inclusive growth

## Infrastructure

- Further improve ICT infrastructure and promote interoperability of payments
- Create incentives for agency networks and investment in POS infrastructure
- Strengthen digital security and authentication, electricity availability, credit registries, moveable collateral registries, insolvency laws and minority investor protection

## Funding gaps

- Identify factors hampering venture and private equity capital and IPO market and provide an enabling environment for investors.

## Talent gaps

- Align educational content with market demands for a digital economy and finance

## Business environment

- Sustain structural reforms to improve business environment including reducing entry barriers
- Create competitive environment that enables nonbanks to contribute to financial inclusion



*End of Presentation*



*Thank You*