# Fintech in Emerging ASEAN

## Trends and Prospects

June 2017

# Fintech trends in emerging ASEAN

- Growth of emerging ASEAN, chiefly Indonesia & Philippines, is underpinned by improving demographic dividend and rapid urbanization.

- ASEAN banks benefit from adequate capital buffers and manageable asset quality concerns. ASEAN banks profitability trends are stabilizing post contraction over the past three years.

- ASEAN still in the nascent stage of evolution of digital banking. Parabolic growth in mobile and internet banking platforms in ASEAN is hindered by lack of trust in sharing information online

- Singapore based fintech companies continue to dominate the ASEAN fintech landscape, followed by Thailand and Indonesia.

- Our media digital sentiment index reveals ASEAN not a monolithic block, significant variations across devices, networks and applications in digital landscape.

- Concerted efforts underway by ASEAN banks to indigenize digital banking. Margin compression has led ASEAN banks to refocus on fee-income, chiefly e-banking related.

# Fintech trends in emerging ASEAN (Contd.)

- **Payment and Mobile** wallet lead fintech offerings in emerging ASEAN, followed by financial comparison services and retail investments.

- **Fintech is still in its incipient stage in emerging ASEAN,** but it is rapidly expanding with more companies securing funding from onshore and offshore sources.

- **Limited number of fintech companies in the core technology space, such as Blockchain, Artificial Intelligence and Biometric,** makes such fintech startups more attractive to investors.

- **ASEAN countries are establishing their own national regulatory sandbox,** which enables regulators to monitor and foster the development of Fintech industry in their respective countries.

- **Mandates to work with regulators or banks,** limits ASEAN Fintech firms in scaling up and expanding outside their home countries.

- **The entry of China's Fintech behemoth, Ant Financial into ASEAN has posed a key challenge for fintech startups** to adapt themselves quickly or perish.
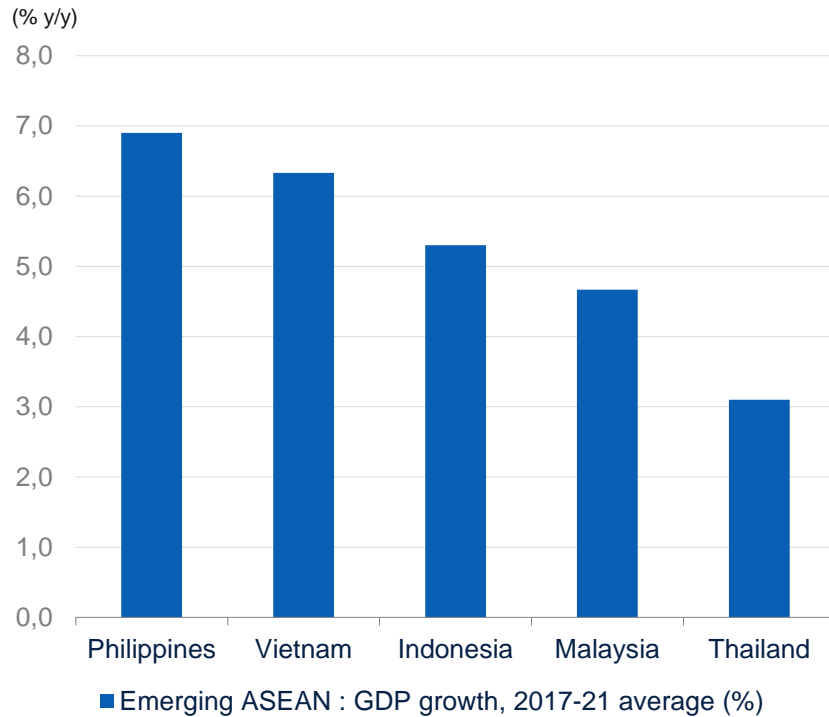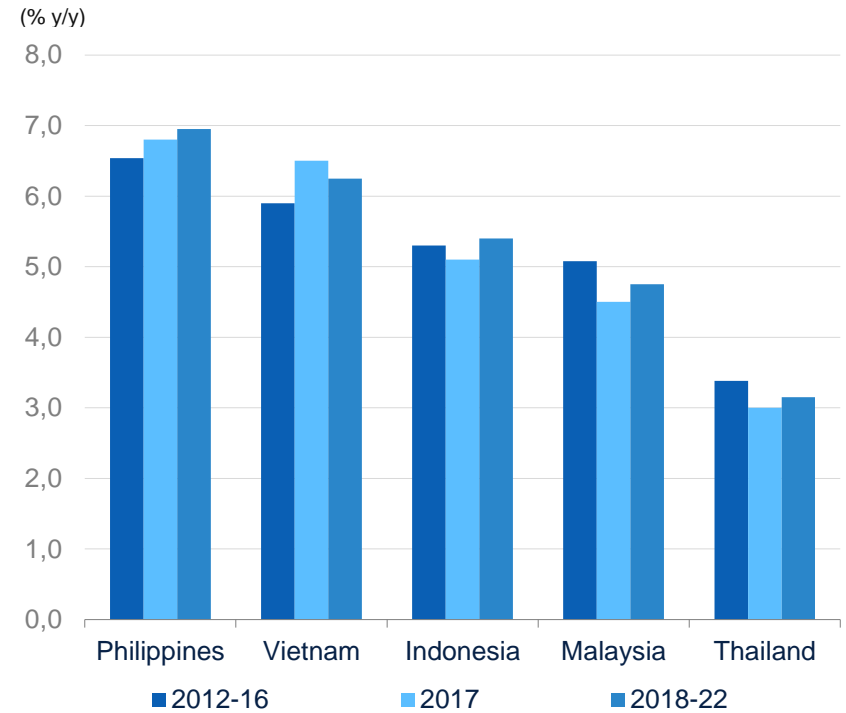
# ASEAN Macro & Banking Trends

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# Philippines leads emerging ASEAN growth

## Annual GDP growth 2017-21 average
(%)

(% y/y)



■ Emerging ASEAN : GDP growth, 2017-21 average (%)

## Emerging ASEAN GDP Growth
(% YoY)

(% y/y)



■ 2012-16    ■ 2017    ■ 2018-22

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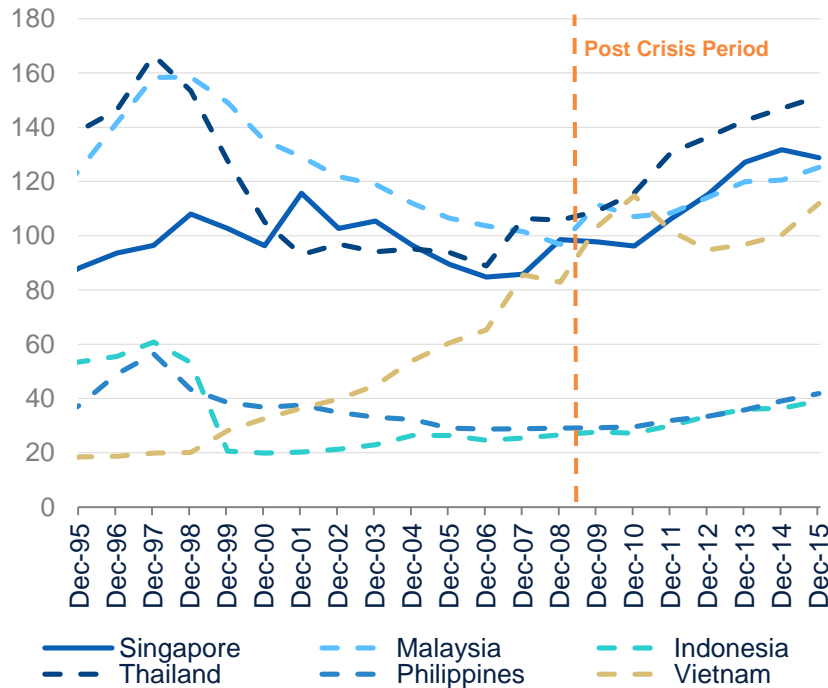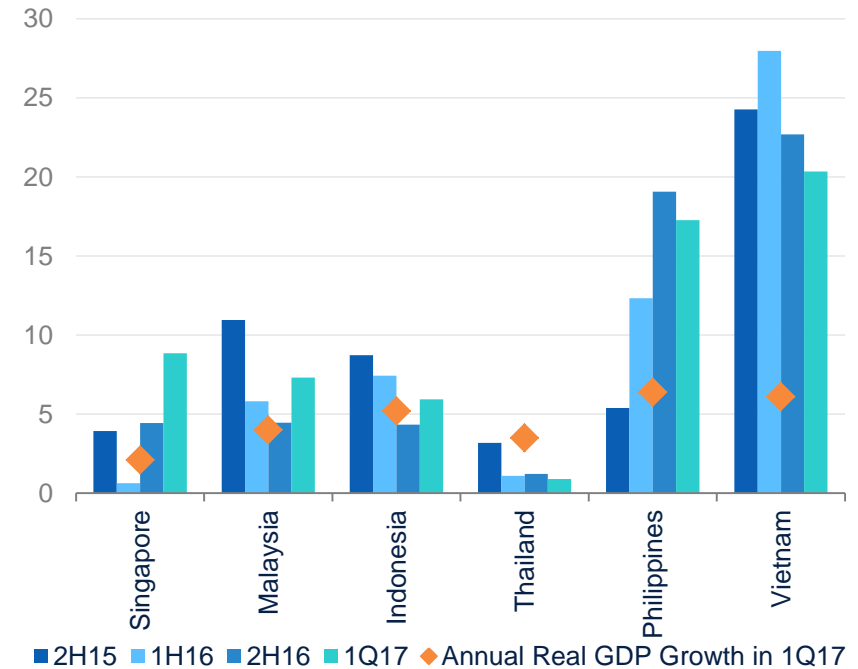
# Credit growth across emerging ASEAN has likely bottomed out

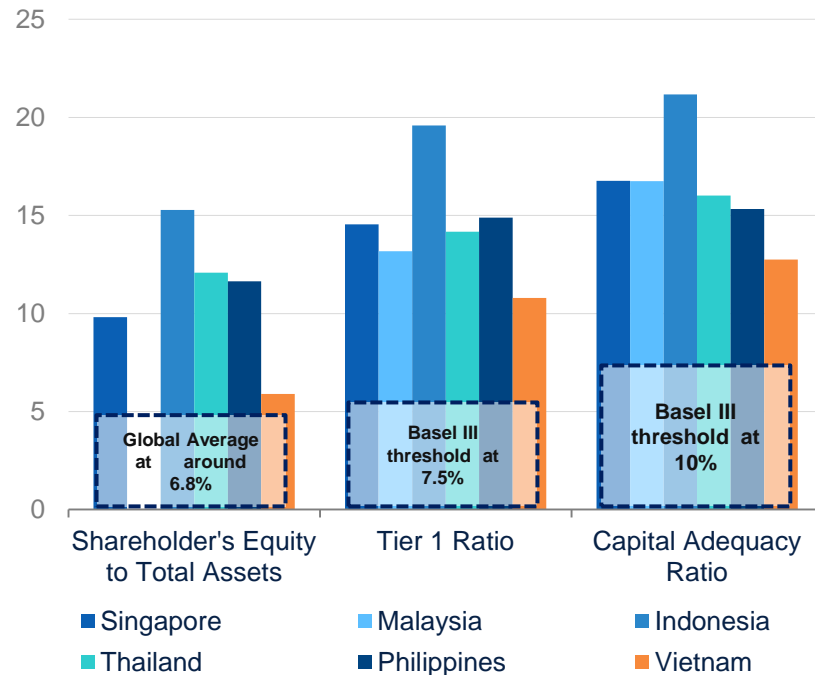## Domestic private sector credit to GDP
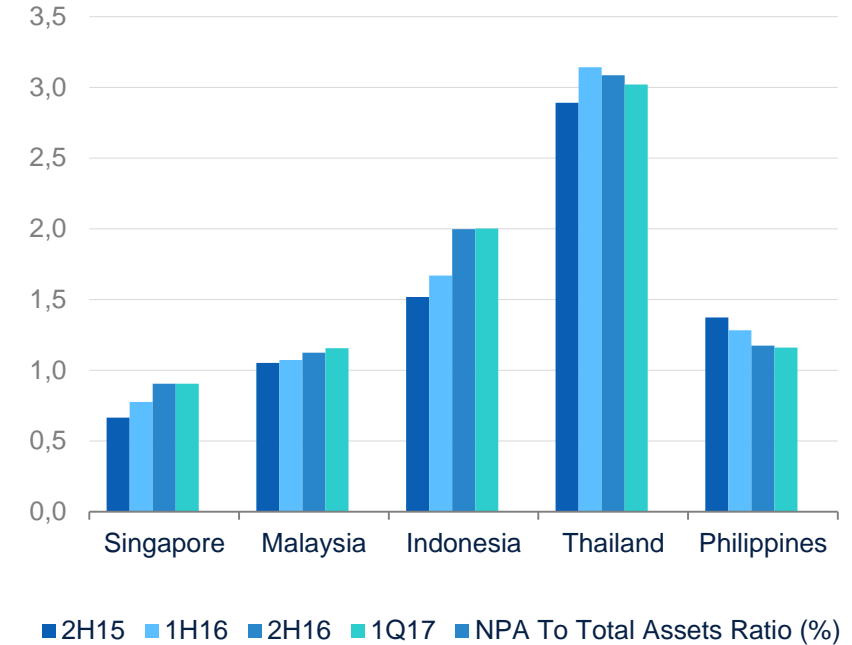(% of GDP)



## Credit growth
(% y/y)

# ASEAN banks benefit from adequate capital buffers and manageable asset quality concerns

## Capital Ratios across banks in ASEAN during Q1 2017
(%)



**Legend:** Singapore, Malaysia, Indonesia, Thailand, Philippines, Vietnam

Categories: Shareholder's Equity to Total Assets, Tier 1 Ratio, Capital Adequacy Ratio

Global Average at around 6.8%

Basel III threshold at 7.5%

Basel III threshold at 10%

## Non-performing Loans to Total Assets Ratio
(%)



**Legend:** 2H15, 1H16, 2H16, 1Q17, NPA To Total Assets Ratio (%)

Categories: Singapore, Malaysia, Indonesia, Thailand, Philippines
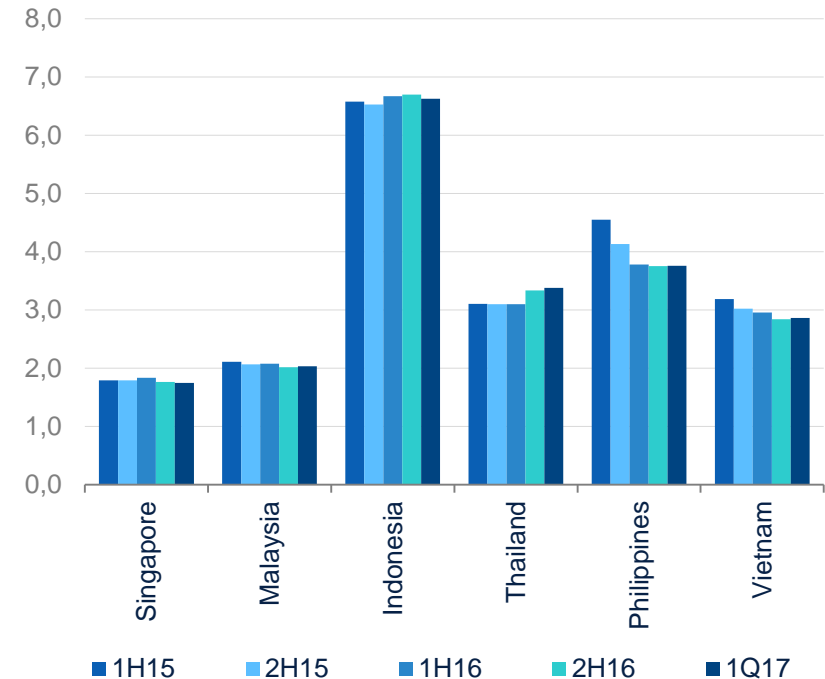
# ASEAN banks profitability trends are stabilizing post contraction over the past three years amid economic slowdown

## Return on Assets across banks in ASEAN during Q1 2017
(%)
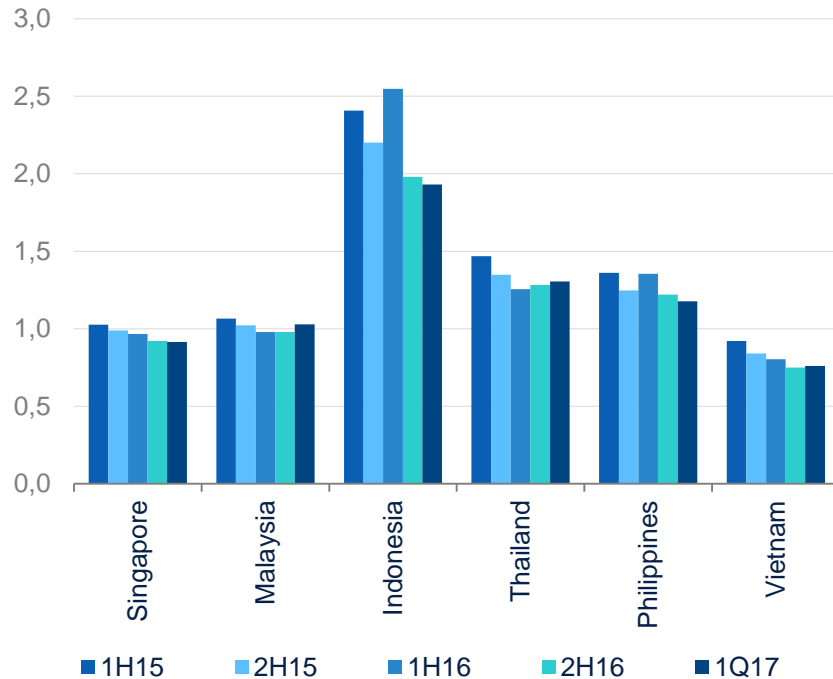


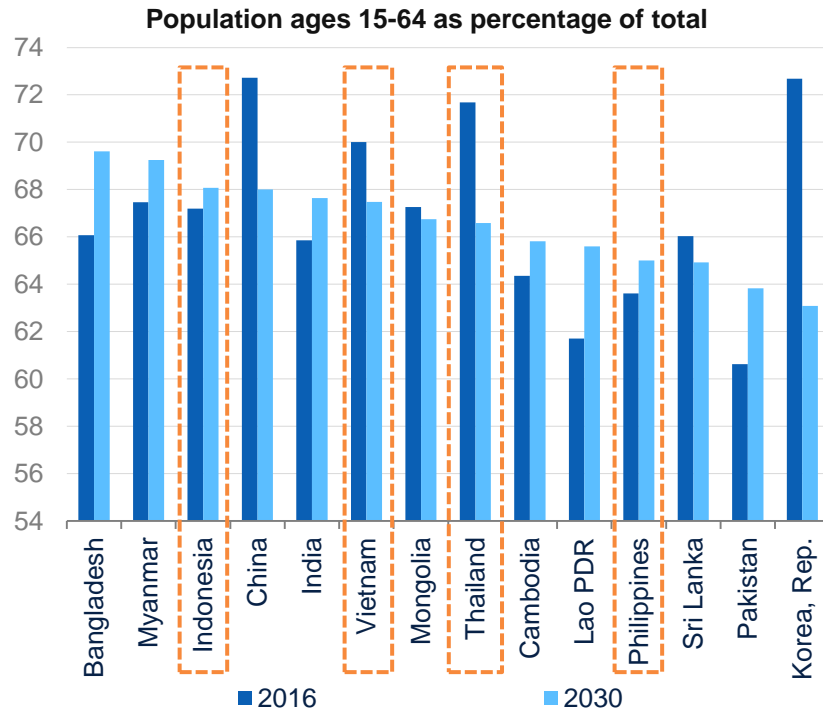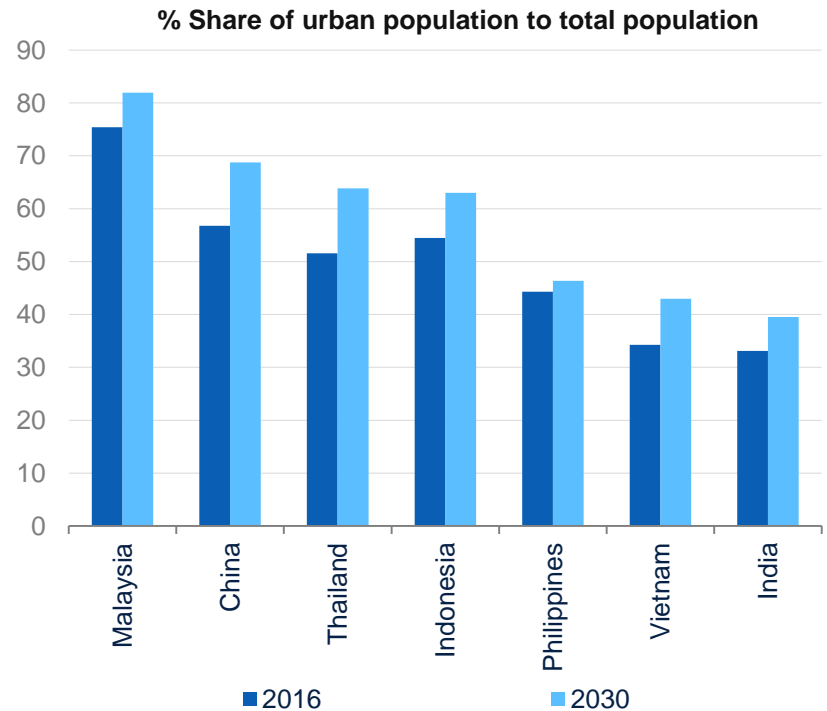## Net Interest Margins across banks in ASEAN during Q1 2017
(%)

# Emerging ASEAN, chiefly Indonesia & Philippines, benefit from improving demographic dividend & rapid urbanization

## Population ages 15-64 as % of total
(%)



Population ages 15-64 as percentage of total

## Share of urban population to total
(%)



% Share of urban population to total population

# Indonesia shines in Moody's ASEAN Banking System Outlook

| Economy | Overall outlook | Operating Environment | Asset Quality | Capital | Funding & Liquidity | Profitability & Efficiency | Government Support |
|---------|-----------------|-----------------------|---------------|---------|---------------------|----------------------------|--------------------|
| Indonesia | Stable | Positive | Positive | Stable | Stable | Positive | Positive |
| Malaysia | Stable | Stable | Stable | Stable | Stable | Stable | Stable |
| Philippines | Stable | Stable | Stable | Stable | Stable | Stable | Stable |
| Vietnam | Stable | Stable | Stable | Deteriorating | Stable | Stable | Stable |
| Thailand | Stable | Stable | Deteriorating | Deteriorating | Stable | Stable | Stable |

Source: BBVA Research, Moody's Investor Service

# ASEAN's Digital Banking Landscape – A bird's eyeview

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# Relative comparison of digital landscape across ASEAN

| | Indonesia | Malaysia | Philippines | Singapore | Thailand | Vietnam |
|---|---|---|---|---|---|---|
| Population (mn) | 258 | 30.2 | 100.1 | 5.5 | 62.2 | 92.5 |
| Online Population (mn) | 93.4 | 21.4 | 42.0 | 4.1 | 21.1 | 44.7 |
| % of Population Online | 36% | 70.9% | 46.5% | 74.5% | 33.9% | 48.3% |
| Broadband Subscriptions (per 100 inhabitants) | 17.1 | 10 | 4.8 | 26.4 | 9.2 | 8.1 |
| Bank Account Penetration | 36% | 81% | 28% | 96.3% | 78% | 30.8% |
| Credit Card Penetration | 1.6% | 20.2% | 3.2% | 35.4% | 5.5% | 1.9% |
| Smartphone Penetration | 24.0% | 35.0% | 15.0% | 85.0% | 37.7% | 36.0% |
| Paying Gamers in million | 19.9 | 6.6 | 11 | 1.1 | 8.3 | 12..3 |

*Data as of 2016, Source: BBVA Research, Moody's Investor Service, Focus Economics

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# ASEAN still in the nascent stage of evolution of digital banking

## ASEAN makes up less than 1% of global retail e-commerce market



Legend: ■ Value (US$ billion)  ■ Share (RHS, %)

Categories: US, EU, China, Japan, ASEAN
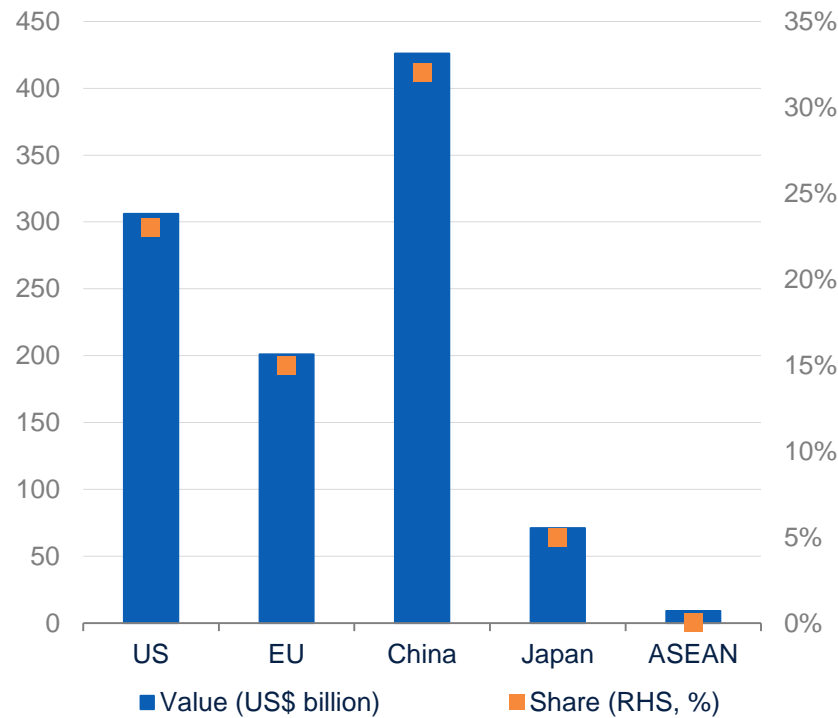
## Share of internet users & digital buyers to total population is relatively low in ASEAN
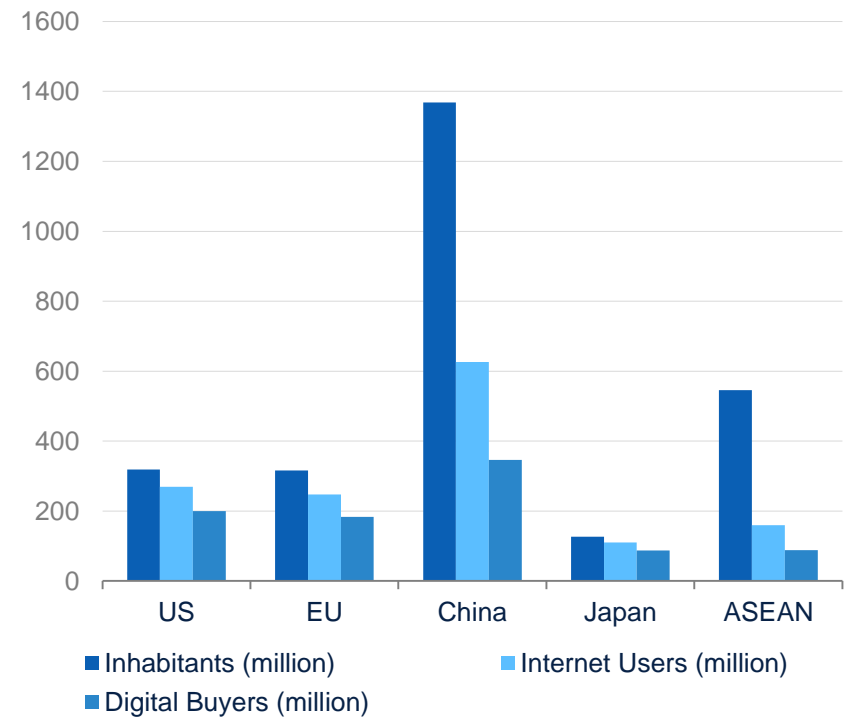


Legend: ■ Inhabitants (million)  ■ Internet Users (million)  ■ Digital Buyers (million)

Categories: US, EU, China, Japan, ASEAN

Source: BBVA Research, Bloomberg

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# Parabolic growth in mobile and internet banking platforms in ASEAN is hindered by lack of trust in sharing information online

## Payment methods breakdown across APAC



■ Asia Pacific 2014    ■ Asia Pacific 2019F    ▲ Globally in 2019
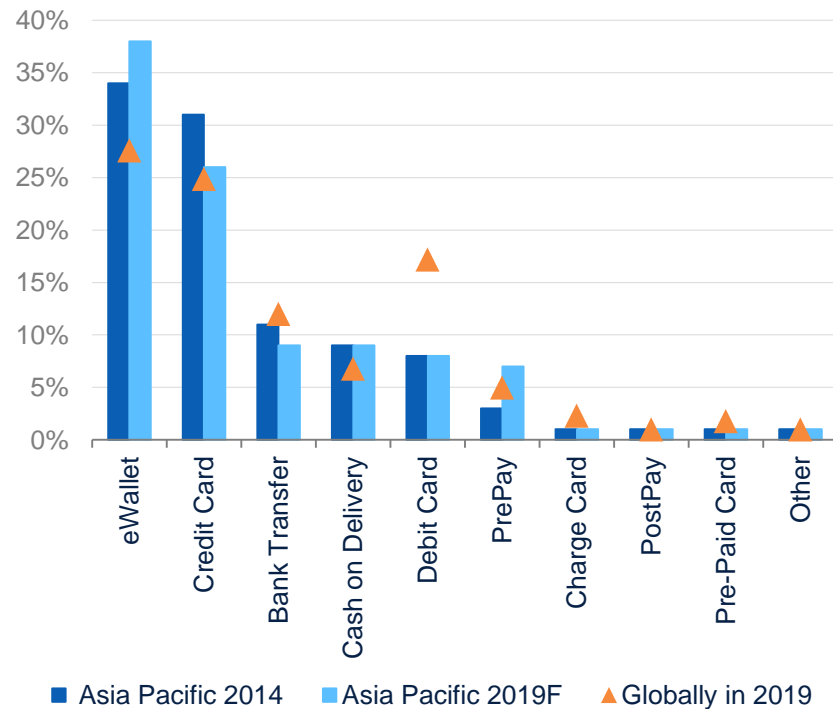
## ASEAN digital buyers are reluctant to share their financial information online



■ % of ASEAN digital buyers reluctant to share their financial information online

Source: BBVA Research, Bloomberg, A.T. Kearney

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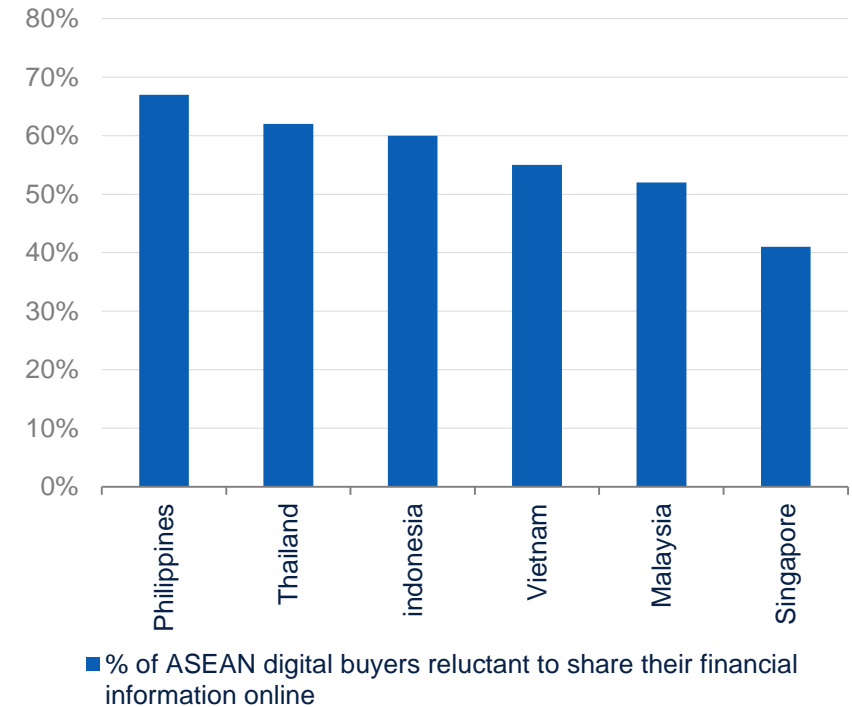
# Density of ASEAN Fintech industry by Category

- ■ Payment/Mobile Wallet
- ■ Financial Comparison
- ■ Retail Investment
- ■ Bitcoin/Blockchain
- ■ Financial Lending
- ■ Financial/Business Tools
- ■ Account Software
- ■ Personal Finance
- ■ Investment Research
- ■ Insurance

43%
15%
11%
8%
8%
5%
4%
4%
1%
1%
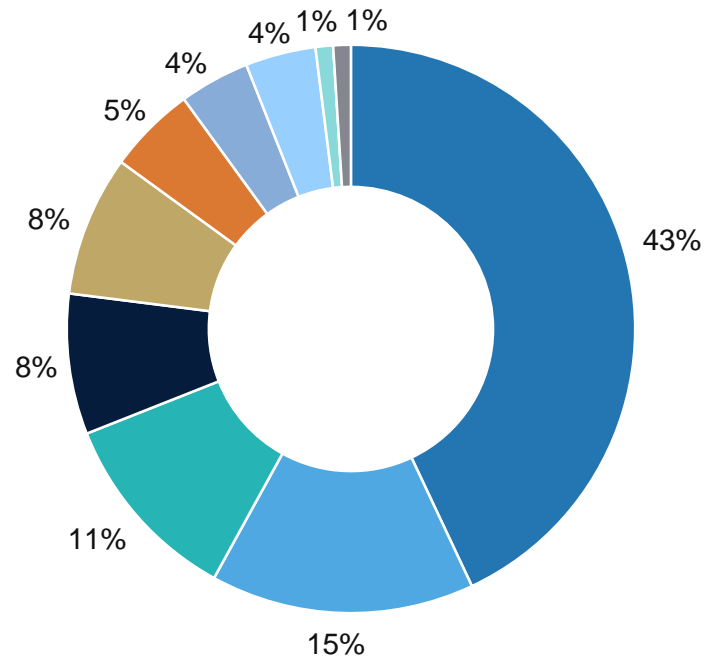
Source: BBVA Research, Techsauce

**Online Payments & Mobile wallets dominate ASEAN fintech industry, followed by financial comparison and retail investment**

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# Singapore based fintech companies continue to dominate the ASEAN fintech landscape, followed by Thailand & Indonesia

- Philippines
- Thailand
- indonesia
- Vietnam
- Malaysia
- Singapore



8%

19%

13%

11%

6%

43%
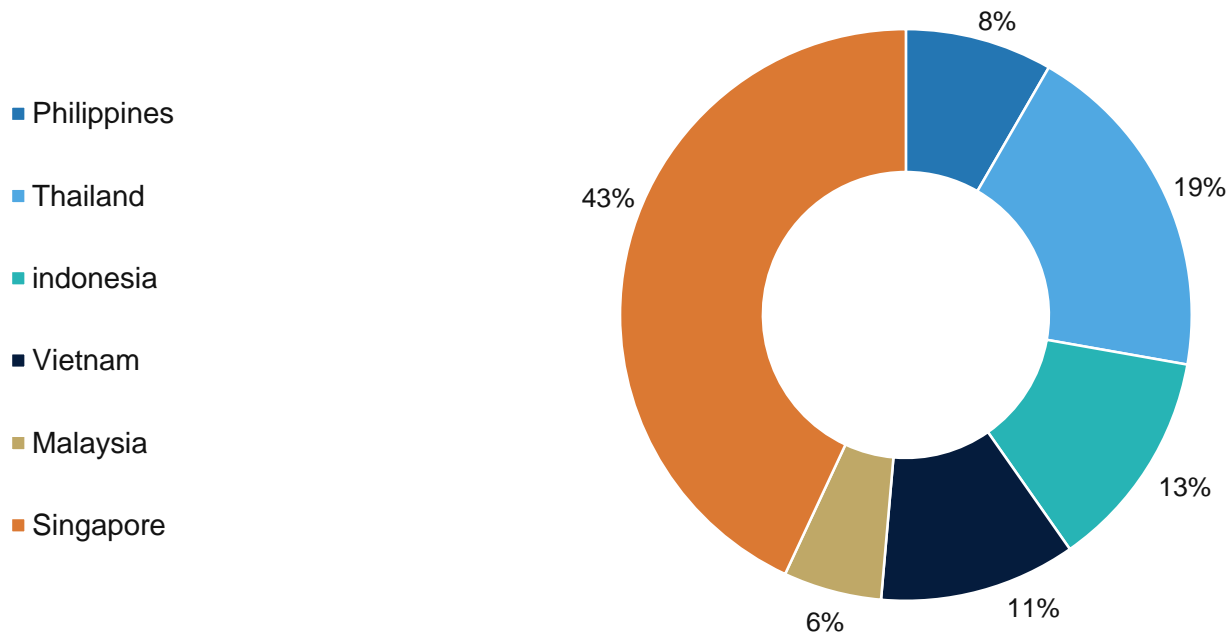
Source: BBVA Research, Techsauce

**The top Singapore based fintech companies with ASEAN presence include payments provider 2C2P, Fastacash, CODAPAY & CoinPip, Blockchain platform BITX, Lending platform CROWDO, & financial metasearch site gobear**

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# Lack of policy harmonization across ASEAN economies undermines support to the digital economy

**Region-wide digital vision**
- E-ASEAN framework consists of high-level guidelines but no defined actions
- Limited ranking and tracking to evaluate progress

**Consumer Protection**
- Only Malaysia, Singapore and Philippines have privacy laws in place

**Development of E-Com**
- Limited ASEAN-wide initiatives to create regional mobile payment system
- Current initiatives are limited to traditional payment systems

**Digital Public Services**
- No monitoring or ranking mechanism to ascertain progress in digital public services

Source: BBVA Research, A.T. Kearney Analysis

**In ASEAN, the policy enablers for a digital economy have lagged those in other regional blocks such as the European Union**

# ASEAN not a monolithic block, significant variations across devices, networks and applications in digital landscape

| | Devices | | Network | | Applications | | |
|---|---|---|---|---|---|---|---|
| | Smartphone penetration | Mobile Broadband penetration | Market Competitiveness | Spectrum availability | Govt use of internet | Regulatory environment | Digital literacy |
| **Indonesia** | Satisfactory | Satisfactory | Underperforming | Underperforming | Satisfactory | Underperforming | Satisfactory |
| **Malaysia** | Outperforming | Outperforming | Outperforming | Above Average | Outperforming | Outperforming | Outperforming |
| **Philippines** | Satisfactory | Satisfactory | Underperforming | Underperforming | Satisfactory | Underperforming | Satisfactory |
| **Vietnam** | Underperforming | Underperforming | Underperforming | Underperforming | Underperforming | Satisfactory | Underperforming |
| **Thailand** | Satisfactory | Satisfactory | Underperforming | Underperforming | Satisfactory | Underperforming | Satisfactory |

**Outperforming**  **Above Average**  **Satisfactory**  **Underperforming**

# Emerging ASEAN's budding e-commerce market requires infrastructure & institutional support to bloom
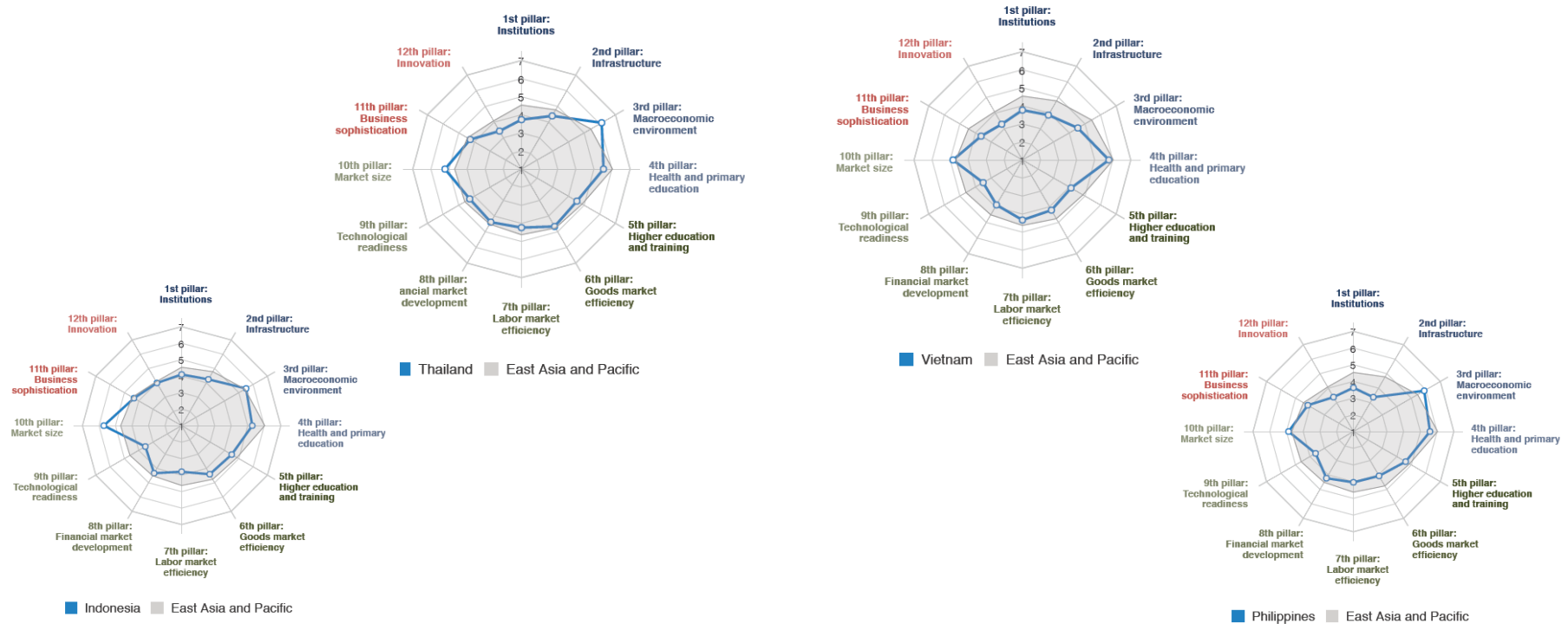


Source: BBVA Research, World Bank

**Lack of quality infrastructure alongside inefficient bureaucracy is a key constraint to improving Indonesia's global competitiveness**

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# The way forward to foster digital revolution in ASEAN

**Broadband Revolution**

- Enhance broadband capacity and spectrum allocation
- Boost infrastructure support to enable broadband revolution
- Provide 100% broadband access in schools and colleges

**Foster innovation**

- Encourage scaling up of up payment solutions
- Built connected smart cities across ASEAN
- Blend technology into the education system, focus on ICT skills

**Enhance trust**

- Create national e-IDs to facilitate digital services
- Ensure national IDs are interoperable across ASEAN
- Harmonize cyber-security, data protection, and privacy laws across ASEAN

**Supportive regulation**

- Establish clear digital payment regulations
- Harmonize digital regulations across ASEAN economies
- Offer tax incentives to proper digital led urbanization

Source: BBVA Research, Bloomberg, A.T. Kearney

# How well are ASEAN banks living up to the Fintech challenge?

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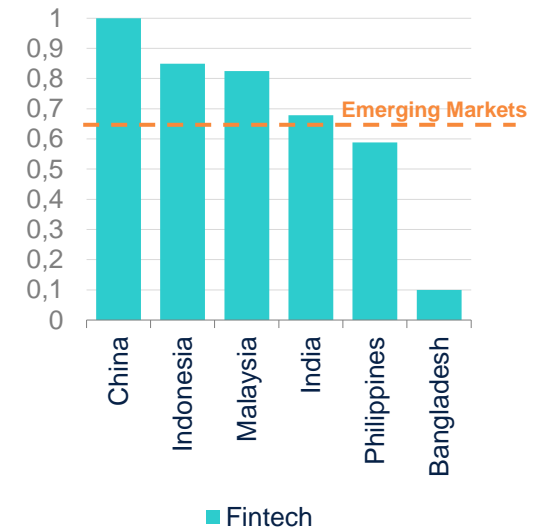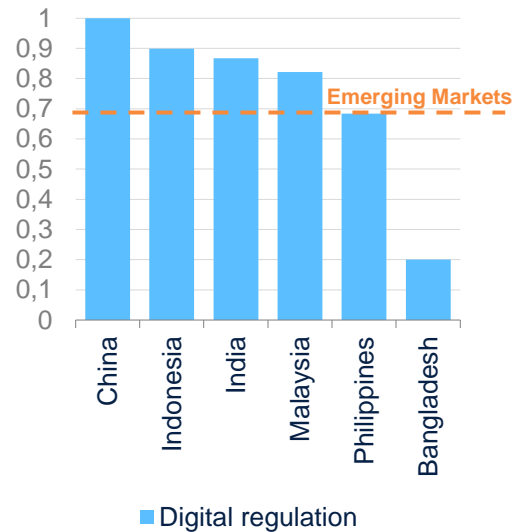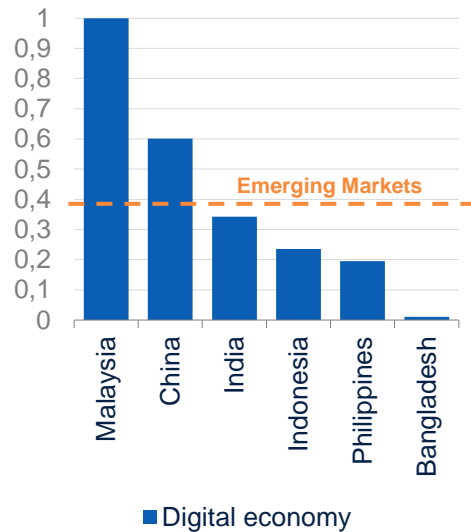# Heterogeneity in the media digital sentiment index across ASEAN countries…

## BBVA Research Media Sentiment Digital Index in some ASEAN countries in 2015-17
(Lower values indicate a less positive media sentiment )



Legend: Emerging Markets conf. bands — China — India — Bangladesh — Indonesia — Malaysia — Philippines

Source: BBVA Research, Haver Analytics
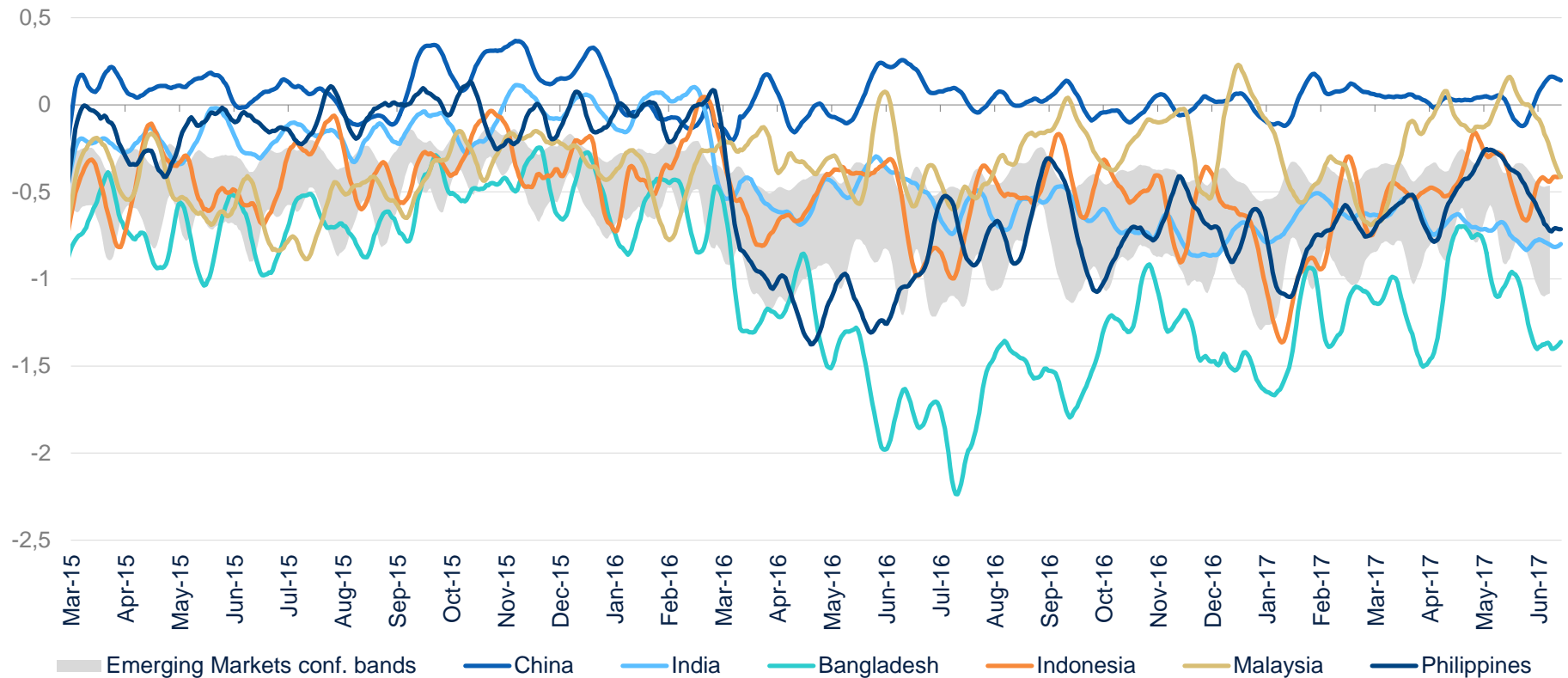
# … also by components

## Media sentiment digital index 2015-16 by components
(From 1 to 0)



Digital economy — Malaysia, China, India, Indonesia, Philippines, Bangladesh. Emerging Markets line at ~0,4.

Digital regulation — China, Indonesia, India, Malaysia, Philippines, Bangladesh. Emerging Markets line at ~0,7.

Fintech — China, Indonesia, Malaysia, India, Philippines, Bangladesh. Emerging Markets line at ~0,65.

Source: BBVA Research, Haver Analytics

**China** is leading the group, followed by **India**, **Malaysia** and **Indonesia**,
while **Philippines** and **Bangladesh** rank as the worst performers

# High potential for digital banking in ASEAN countries

## A comprehensive view: Digital banking prospects in the next ten years
(based on the results of BBVA Research digital banking model)
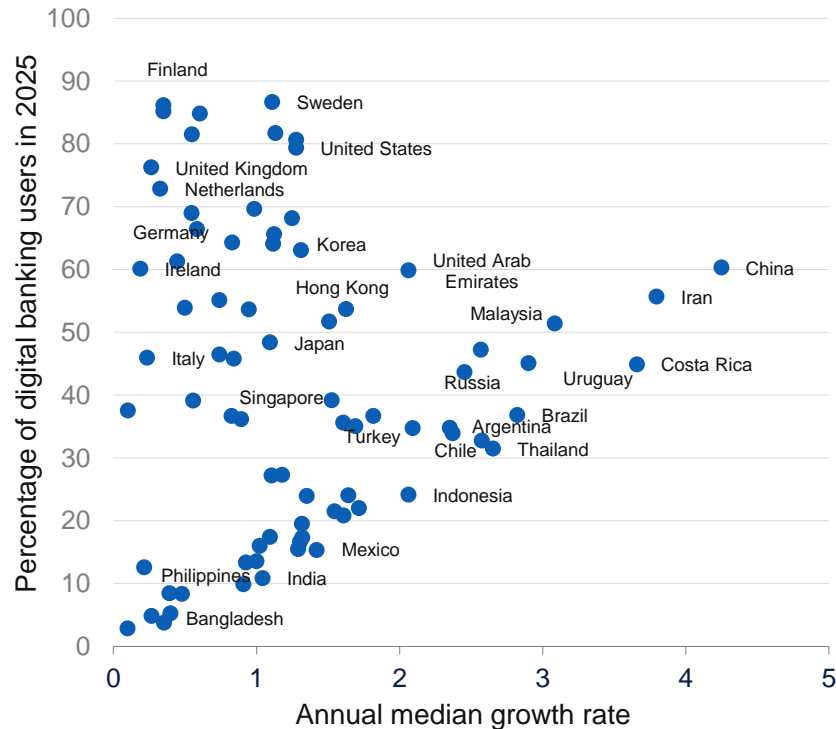


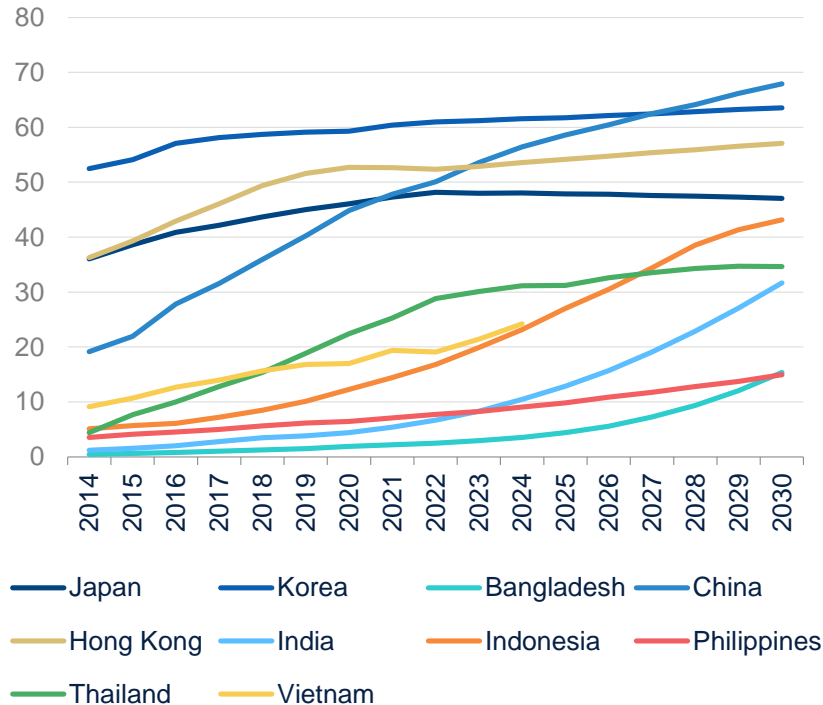## A focus in ASEAN: Digital banking prospects in the next ten years
(size of the bubble represents population size; based on the results of BBVA Research digital banking model)

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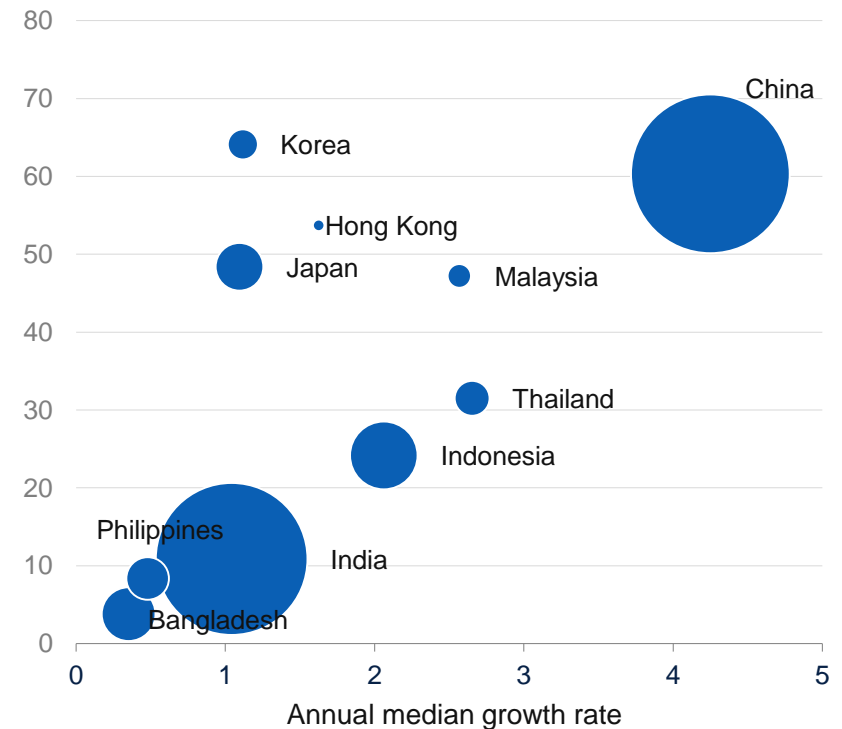
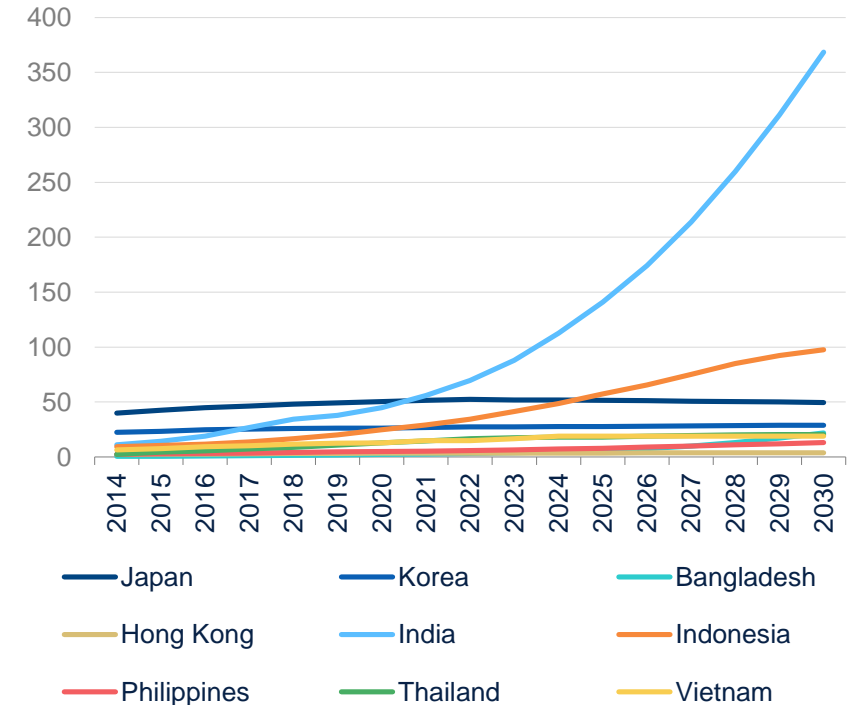# Digital banking will grow sharply in some ASEAN countries

## Digital banking prospects in ASEAN: 2014-2030
(in %, population > 15 years old)



Japan — Korea — Bangladesh — China — Hong Kong — India — Indonesia — Philippines — Thailand — Vietnam

## Digital banking prospects in ASEAN: 2014-2030
(in millions, population > 15 years old)



Japan — Korea — Bangladesh — Hong Kong — India — Indonesia — Philippines — Thailand — Vietnam

# Fixed and mobile broadband adoption rates across ASEAN countries: past and future evolution
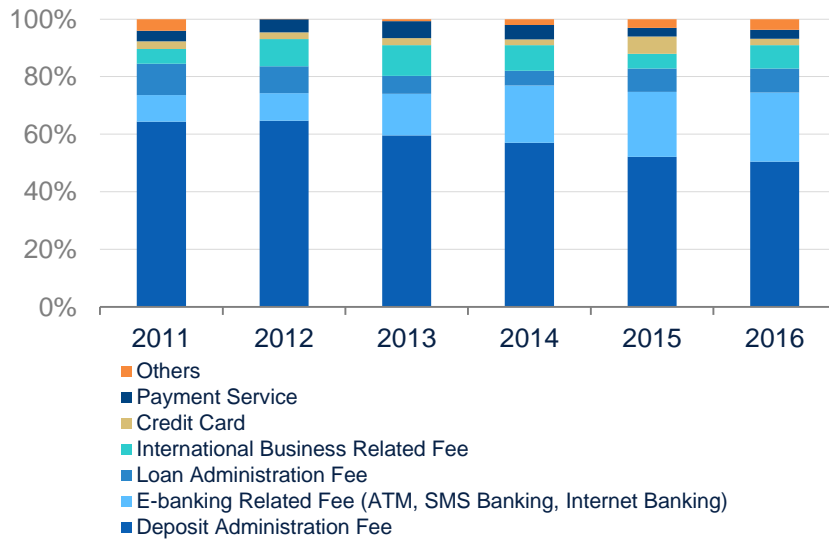
## Evolution of Fixed-Broadband penetration 1998-2024
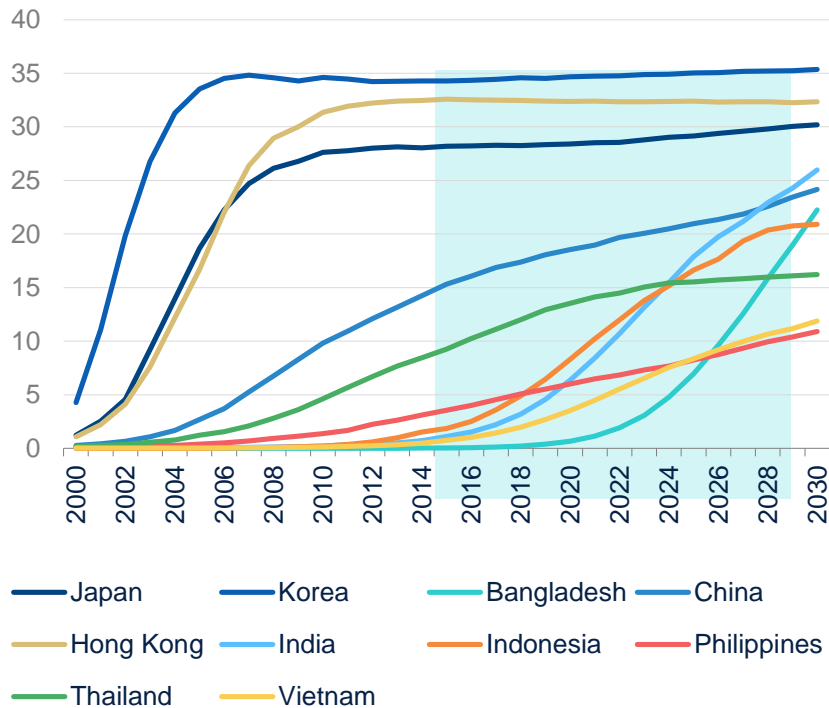


## Evolution of Mobile-Broadband penetration 1998-2024



Source: BBVA Research, Haver Analytics
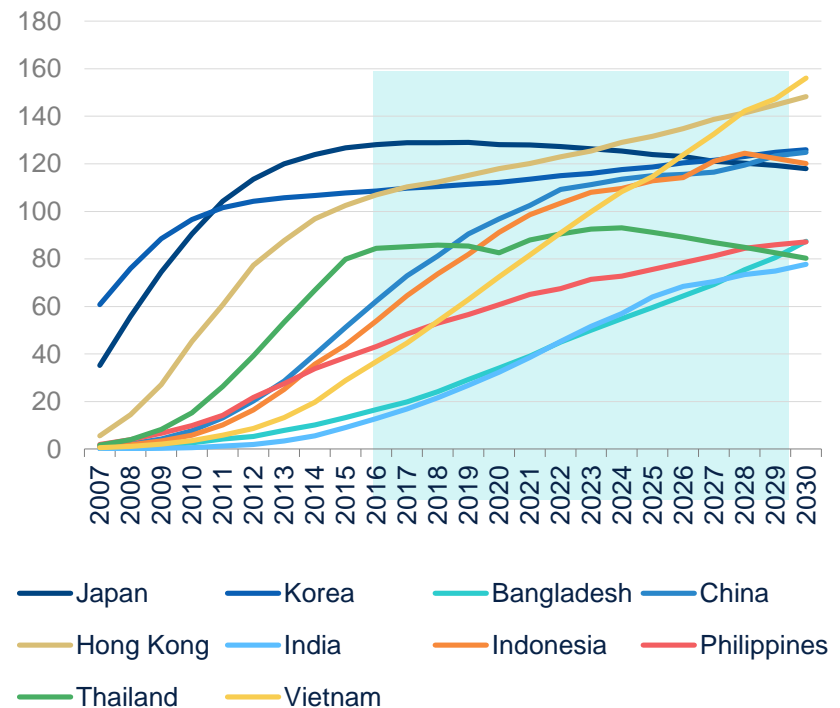
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# Margin compression leading Indonesian banks to refocus on fee-income, chiefly e-banking related

## Composition of Fee Income of major Indonesian banks
(%)



- Others
- Payment Service
- Credit Card
- International Business Related Fee
- Loan Administration Fee
- E-banking Related Fee (ATM, SMS Banking, Internet Banking)
- Deposit Administration Fee

## Total Fee Income Related to E-Banking for two major Indonesian banks
(USD mn)



- Bank BRI
- Bank BNI

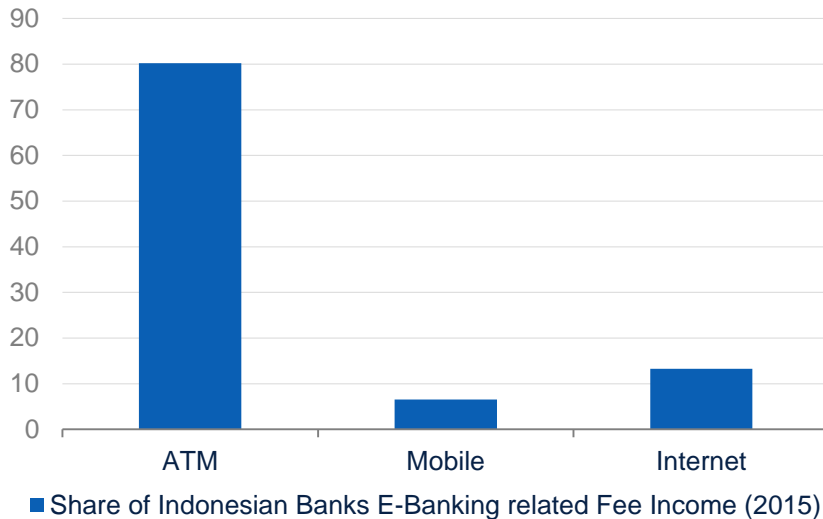Source: BBVA Research, Bloomberg, CEIC, World Bank,
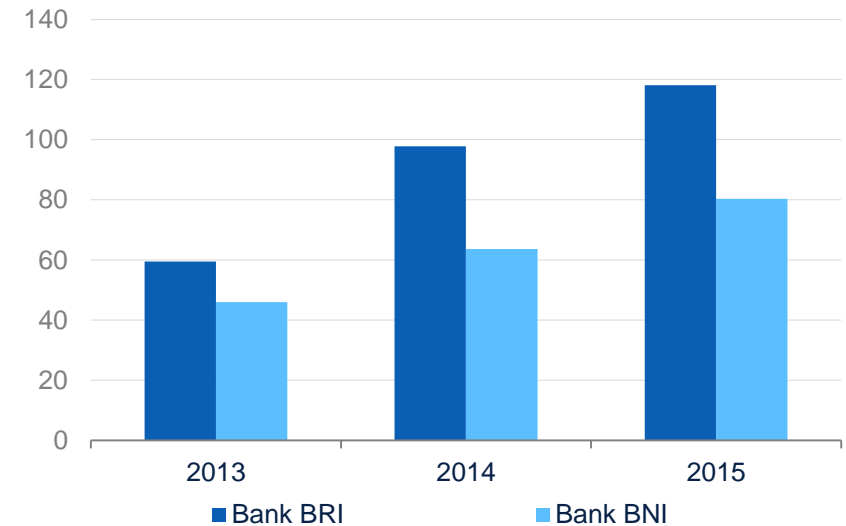
**Fee Income constitutes on average around 60% of Indonesian banks' non-interest income. Significant deposit base with a large number of savings accounts provides ample opportunity for Indonesian banks to boost fee based income**

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# Bulk of e-banking related fees of Indonesian banks comprise ATM, while mobile and internet remain growth leaders

## Share of Indonesian Banks E-Banking related Fee Income in 2015
(%)
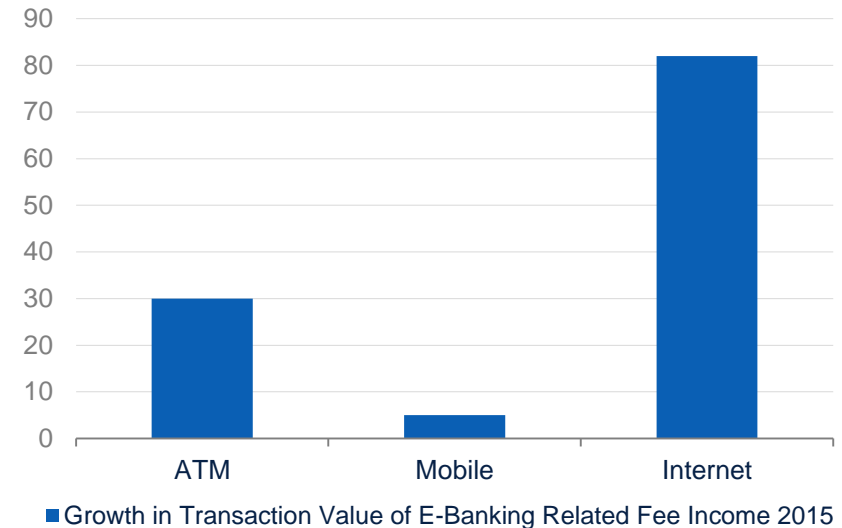


■ Share of Indonesian Banks E-Banking related Fee Income (2015)

## Growth in Transaction Value of E-Banking Related Fee Income in 2015
(% Y/Y)



■ Growth in Transaction Value of E-Banking Related Fee Income 2015

Source: BBVA Research, Bloomberg, CEIC, World Bank,

**Internet banking users have jumped almost two fold for most major banks in Indonesia over the past year while mobile banking users have increased by a relatively modest 30% during the period**

# 'PromptPay' – Thailand's new national digital payment system expected to save commercial banks $2 bn over next 10 years



- While the value of transactions via mobile and Internet banking in Thailand stand at around 3.2 trillion baht, cash remains the dominant medium. Fees for money transfers and payments account for just 2.5% of Thai banking industry revenue.

- To boost e-payments, Thailand launched 'PromptPay' in Q1 2017, a national digital-payment system. Over 30 million registrations for PromptPay are expected by the end of 2017, thus massively curbing the use of cash and saving an estimated $2.2 bn for commercial banks over 10 years.

- While in near term, PromptPay would weigh on banks' fee income, the lower cash transactions will benefit banks in long term given falling costs of transportation and insurance.

- PromptPay users are able to transfer funds using mobile phone or national ID numbers linked to bank accounts.

# timo – Time + Money : Vietnam's fully digital bank

POWERED BY VPBank
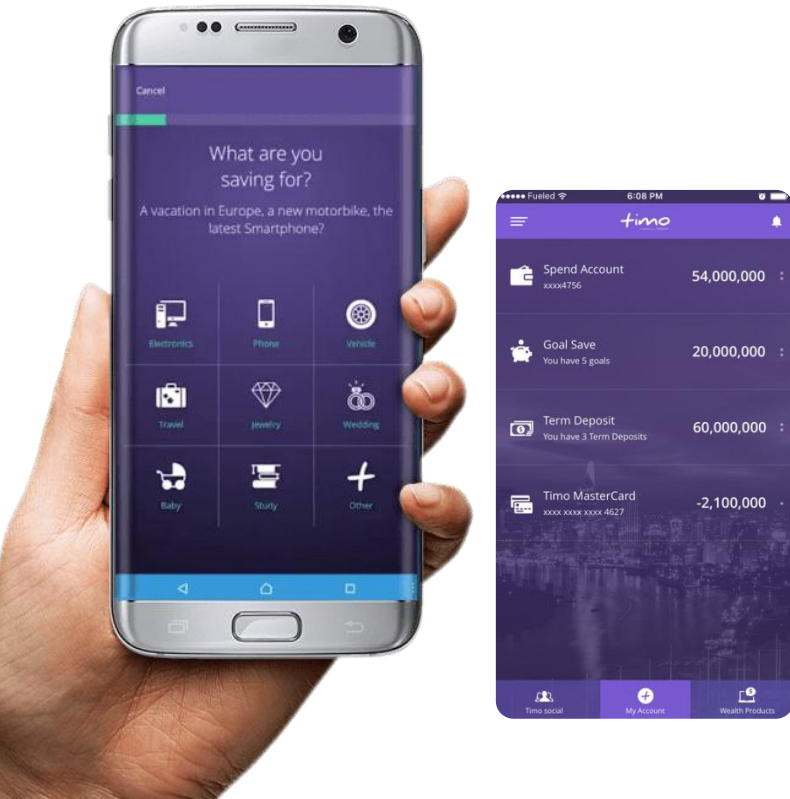
- ◈ **On August 4th, 2015, the National Bank of Vietnam confirmed that Vietnam Prosperity (VP Bank) bank had registered to issue a new debit card and mobile app named TIMO,** which provides customers with an innovative mobile banking experience.

- ◈ **What makes Timo special are its features,** including 1) versatile account management, 2) phone top up, transfer and bill pay, 3) Goal Save, 4) Term Deposit, and 5) Loans,

- ◈ **Timo Hangouts replace the traditional bank branches** with a more laid-back atmosphere. New customers get an appointment at one of these Hangouts to proceeds to the anti-money laundering/know-your-customer requirements.

**In addition to the convenience, Timo's banking services are much cheaper than traditional banks. In fact, most of them are free of charge including cash withdrawal, bank account opening, bank transfers, etc.**

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# Philippines banks catching up on digital transformation despite being late starters

- Despite being late starters, the past 3 years have seen a catch-up by Philippines banks to ensure faster embrace to the digital banking culture.

- Cybersecurity is a key concern amongst the Philippine banks, who see potential risks involved due to a lack of security measures such as two-factor authentication and transaction signing to secure transactions.

- The Bangko Sentral ng Pilipinas (BSP) has put in place a regulatory environment that properly guides banks on how to deal with security risks and ensure consumer protection as they pursue technological advancement.

- Most Philippine banks are still underprepared to deal with Fintech in terms of organizational mindset and policies. A lack of clear evaluation criteria to help banks assess the suitability of a fintech vendor is also a constraint.

- Given the regulatory requirement, banks prefer to work with the larger, more established vendors, limiting the playing space for fintech start-ups.

- Global players are cashing in on the digital growth potential in Philippines. Citi's regional digital partners include Booky, an offline restaurant finder; Zennya, the world's first spa on-demand app; Lazada, the leading online shopping mall in the country; and Grab, Southeast Asia's leading ride-hailing platform, to name a few.

- The Philippines Central Bank (BSP) has proposed the National Retail Payment System (NRPS) framework that will convene financial institutions, banks, and other government agencies to embrace the digital solutions available and craft innovations for better services to the public.

- The major domestic banks have the advantage of in-country expertise and home-grown familiarity with their existing customer base, and are expected to give the global players stiff competition.

# A closer look at Fintech Trends across key emerging ASEAN countries

# Indonesia

**INDONESIA**
# Focus on effective implementation of structural reforms

**LONG TERM TRENDS | 3 Year Averages**

| | 2013-15 | 2016-18 | 2019-21 |
|---|---|---|---|
| **Population (million)** | 252 | 262 | 273 |
| **GDP (USD bn)** | 888 | 1007 | 1296 |
| **GDP per capita (USD)** | 3525 | 3840 | 4750 |
| **GDP Growth (%)** | 5.1 | 5.2 | 5.5 |
| **Fiscal Balance (% of GDP)** | -2.3 | -2.5 | -2.3 |
| **Public Debt (% of GDP)** | 24.6 | 29.4 | 28.6 |
| **Inflation (%)** | 6.4 | 4.0 | 4.1 |
| **Current Account (% of GDP)** | -2.8 | -1.9 | -2.2 |
| **External Debt (% of GDP)** | 32.7 | 32.6 | 27.2 |
| **Central Bank Policy Rate (%, Year End)** | NA | 4.75 | 5.0 |

S&P Sovereign Credit Rating (Long-term/Outlook) : BBB-/Stable

*7-day Reverse Repo Rate introduced as benchmark policy rate in August 2016.
Source : BBVA Research, Bank Indonesia

- **1Q17 GDP growth at 5.0% missed expectations of 5.1%** but edged up from 4.9% in Q4.

- **Exports rebounded strongly in Q1 although** curbs on public spending to keep budget deficit under 3% of GDP is dragging on growth.

- **S&P recently upgraded Indonesia's sovereign rating to investment grade,** citing reduced risks to the country's fiscal position amid improved fundamentals.

- **Indonesia is in a better position than past to withstand capital outflow pressures.** Current account deficit has narrowed under 2% of GDP.

- **Being a domestic demand story and improving policy environment** amid positive fiscal and economic reform policies bodes well for Indonesia. **Effective implementation of structural reforms** is key to sustain growth recovery.

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# Indonesia's untapped digital potential – Data underpins role of technology to bank the unbanked

Population:
258 million
Urban Population:
54%
Population aged
15-64:
67%
Median age:
27.9

Nominal GDP:
USD 888.6 billion
GDP per capita
(US$):
3534
5 year avg real
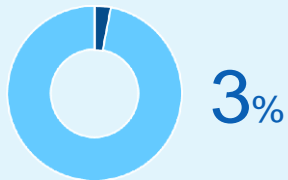GDP growth:
5.5% y/y

Account at a
financial institution
(% age 15+):
36%

Online Population:
93.4 million (36%)
Smartphone
penetration:
24%
Avg hours spent
online per day:
5.1
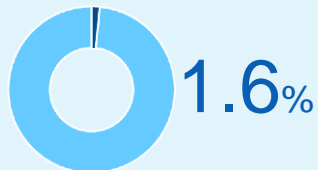
Internet Speed
(Mbps):
4.1
(Compared to
Singapore:
61 Mbps &
ASEAN  Avg:
17.7 Mbps)

**Online *Shoppers* in 2015**
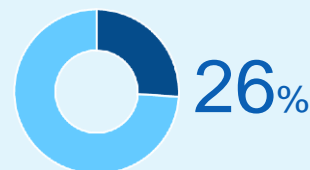
3%

**Credit Card Penetration**

1.6%

**Debit Card Penetration**

26%

**Mobile Phone Penetration**

99.7%

Source: BBVA Research, Bloomberg, CEIC, World Bank, Statistica 2016, Newzoo report 2015

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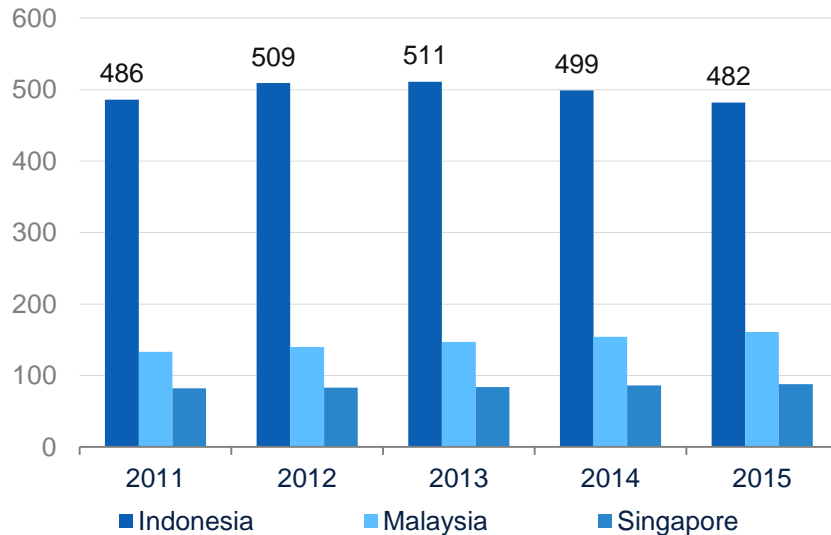
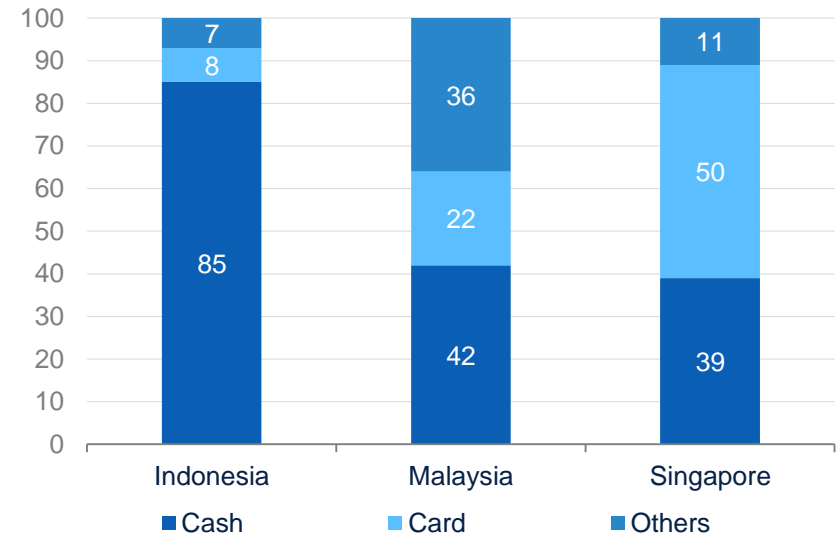# Indonesia's predominantly cash-based economy needs to shift into a cash-lite play

## Annual Household Expenditure
(USD bn)



486 | 509 | 511 | 499 | 482

2011 | 2012 | 2013 | 2014 | 2015

■ Indonesia ■ Malaysia ■ Singapore

## Share of Retail Payment Instruments in 2015
(% Share)



| | Indonesia | Malaysia | Singapore |
|---|---|---|---|
| Others | 7 | 36 | 11 |
| Card | 8 | 22 | 50 |
| Cash | 85 | 42 | 39 |

■ Cash ■ Card ■ Others

Source: BBVA Research, Bloomberg, CEIC, World Bank,

**Banks, other financial entities, technology and telecommunication companies and Fintech startups need to collaborate seamlessly in order to convert Indonesia's predominantly cash-based economy into a cash-lite play**

# Payment gateway fintech in Indonesia - from mere online shopping enablers to fronting a store

**Players**

**Business Model of CodaShop.com – Enabling purchase of online gift cards directly without a credit card**

| Select the gift card | Select voucher denomination – Upto USD 30 | Choose Payment Method | Enter e-mail address for voucher delivery |
|---|---|---|---|

Bank ATM → ATM BERSAMA / ATM BCA

Supermarket → Alfamart

General Store → 7 ELEVEN

Telecom (Charged to mobile bill) → indosat ooredoo / 3
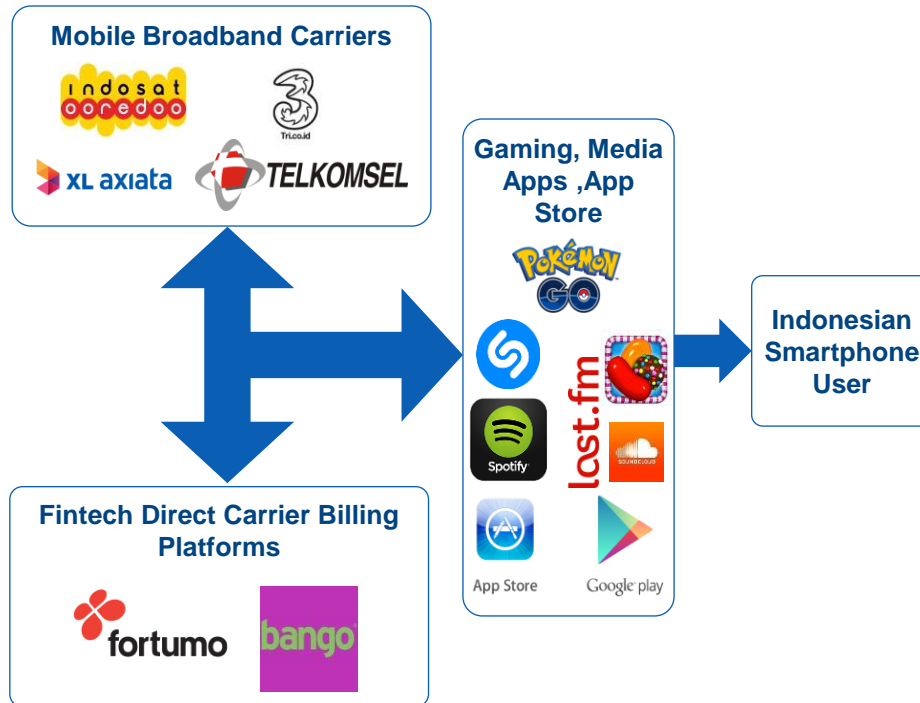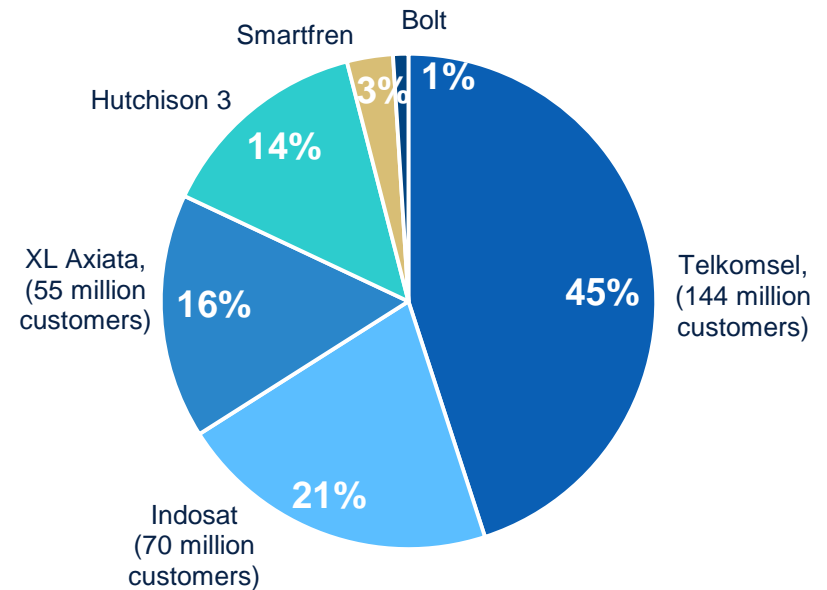
E-Wallet → DOKU Wallet

Bitcoin → bitcoin

**Fintech payment gateways in Indonesia are aiming to aggregate a wide variety of merchants, and transaction volume by assembling myriad payment methods in one**

**BBVA** | Research

# Direct Carrier Billing – Fintech Cos are seizing the digital content payments market in Indonesia

**Mobile Broadband Carriers**

indosat ooredoo  3 Tri.co.id

XL axiata  TELKOMSEL

**Gaming, Media Apps, App Store**

Pokémon GO

last.fm  Spotify  SOUNDCLOUD  App Store  Google play

**Indonesian Smartphone User**

**Fintech Direct Carrier Billing Platforms**

fortumo  bango

## Market Share of Indonesian Mobile Phone network Operators



- Bolt 1%
- Smartfren 3%
- Hutchison 3 14%
- XL Axiata, (55 million customers) 16%
- Indosat (70 million customers) 21%
- Telkomsel, (144 million customers) 45%

# Fintech helping Indonesians compare, apply and invest in financial products
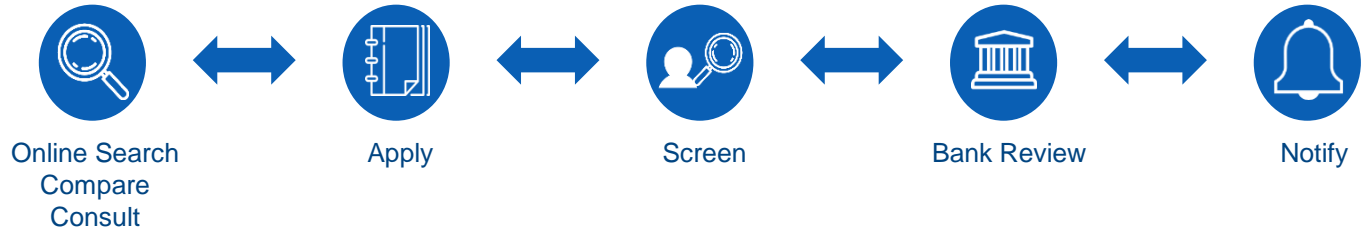
**Players**

**Compare and apply for financial products**

Invest, manage and track financial investments

**Business Model for financial products application websites**

Online Search Compare Consult

Apply

Screen

Bank Review

Notify

Sources of funds : **Investment agencies, referral services from banks, advertisers**

**Product Offerings**

# Indonesia's leading P2P business lending platform's focusing mainly on small businesses

| Players | MODALKU    gandeng**tangan** HELP. EMPOWER. SUSTAIN.    KOIN**WORKS**    **CROWDO**    inves**tree** |
|---|---|

**Industry insights**

◆ Indonesian Financial Services Authority (OJK) has estimated that the actual needs of business financing in the country would be around Rp1,600 trillion (USD 116 billion).

◆ In reality, only Rp600 trillion (USD 43 billion) could be disbursed every year through banking, capital market, and multi finance.

◆ The disparity is further shown in the fact that only 11 million out of 60 million SMEs could get loans from the banks. Sixty per cent of that figure are based in the Java island.

◆ Indonesia is estimated to see a $54 billion small and medium enterprises financing gap by 2020, with more than 57 million potentially bankable micro businesses

**Funding Raised**

◆ Aug 2016 : Modalku and its sister company, Singapore based Funding Society, raised USD 8.37 million from VC Sequoia India and Bank Sinarmas.

◆ July 2016: Investree raised series A funding commitment from VS firm Kejora

# Philippines

**BBVA** | Research

**PHILIPPINES**
# A sustainable growth story

**LONG TERM TRENDS | 3 Year Averages**

| | 2013-15 | 2016-18 | 2019-21 |
|---|---|---|---|
| Population (million) | 101 | 106 | 113 |
| GDP (USD bn) | 283 | 320 | 418 |
| GDP per capita (USD) | 2824 | 3009 | 3704 |
| GDP Growth (%) | 6.4 | 6.6 | 6.5 |
| Fiscal Balance (% of GDP) | -1.8 | -2.6 | -2.6 |
| Public Debt (% of GDP) | 46.4 | 41.3 | 39.7 |
| Inflation (%) | 2.8 | 2.8 | 3.4 |
| Current Account (% of GDP) | 3.5 | 0.3 | 0.4 |
| External Debt (% of GDP) | 27.6 | 24.5 | 20.6 |
| Central Bank Policy Rate (%, Year End) | 4.0 | 3.5 | 3.5 |

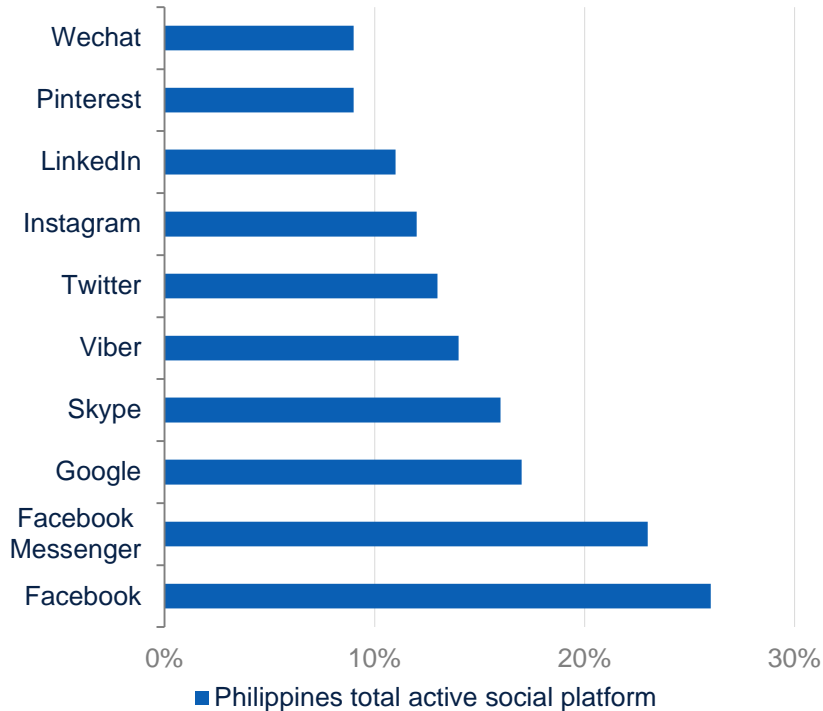S&P Sovereign Credit Rating (Long-term/Outlook) : BBB/Stable

\* Overnight Reverse Repo Rate.
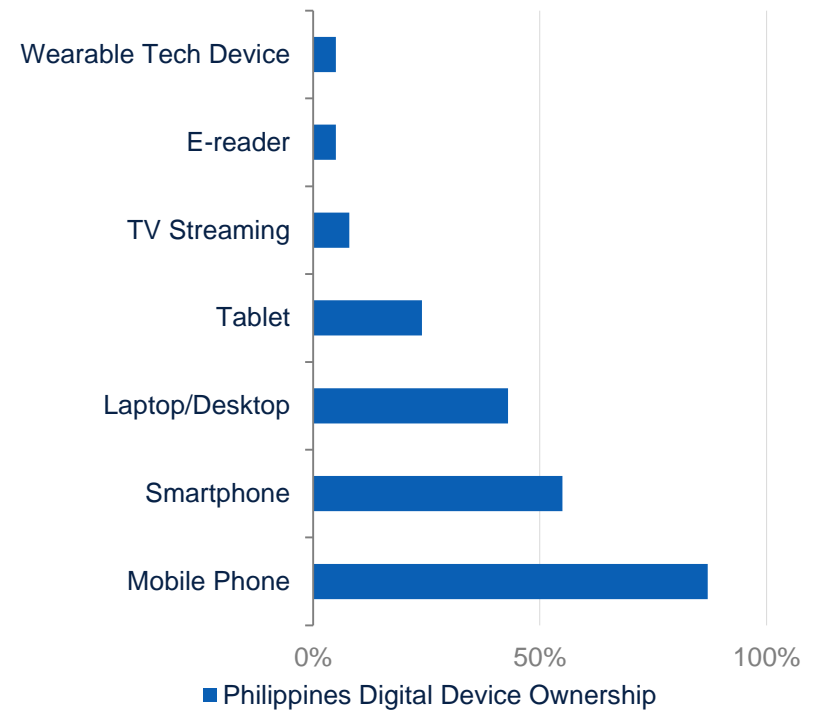Source : BBVA Research, Bangko Sentral ng Pilipnas

- ◈ **Has low beta to global growth and a low export exposure.** Philippines has developed a comparative advantage in Business Process Outsourcing in recent years, a key trigger for job creation and intrinsically driven growth.

- ◈ **Improvement in fiscal accounts** has been another key structural support, which has benefitted funding/investment climate.

- ◈ **Banking sector is doing well** - domestically focused, asset quality relatively healthy. Low exposure to commodities, the very sector responsible to rising Banking sector NPLs in many other Asian economies.

- ◈ **New administrations plan** to boost infra spending ($180 bn) to underpin GDP growth.

- ◈ **To lift infra spending to 6.7% of GDP in 2018 vs. 5.3% currently.** To reduce poverty rate from 21.6% to 14% by 2022.

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# Philippines top active social platform & digital device ownership

## Top active social platforms in Philippines



Wechat
Pinterest
LinkedIn
Instagram
Twitter
Viber
Skype
Google
Facebook Messenger
Facebook

0%   10%   20%   30%

■ Philippines total active social platform

## Digital device ownership in Philippines



Wearable Tech Device
E-reader
TV Streaming
Tablet
Laptop/Desktop
Smartphone
Mobile Phone

0%   50%   100%

■ Philippines Digital Device Ownership

Source: BBVA Research, Bloomberg, A.T. Kearney

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# Top Fintech Startups in the Philippines



**Payment**

ayannah — ayannah
coins.ph — Coins.ph
TAG CASH — TagCash
PayMaya — PayMaya

dragonpay — DragonPay
Qwikwire
SMART MONEY — Smart Money
pesopay — PesoPay
BEAM AND GO — Beam&Go

PITACA™ — Pitaca
GCash
ePeso — ePeso
WeePay
BPI Globe BanKO — BanKO

**Lending**

LoanSolutions — LoanSolutions
Lendr — Lendr
lendme.ph — Lendme.ph
Leverage

**Crowdfunding**

CROPITAL — Cropital

**Comparison Sites**

PaidUp — PaidUp
zap — Zap

**Personal Finance**

Mynt — Mynt

**Blockchain/Bitcoin**

SATOSHI CITADEL INDUSTRIES — SCI

**Online Wealth Management**

Pawnhero
ROBUR — Robur
Acudeen

**Data Management**

SAL — SAL
MyFinB
Lenddo™ — Lenddo

Source: BBVA Research, fintechnews.sg

**Though relatively small and nascent, Philippines fintech industry comprises players engaged in diverse activities such as lending, online wealth management, data management, payments, personal finance, crowd funding and block chain technology**

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# Philippines Fintech Industry Overview and Key Players

◈ Payment remains the most crowded sub-segment with nearly half of all Filipinos fintech startups focusing on this particular area.

◈ Key players in payment space :
- Ayannah, a digital commerce and payment services providers targeting unbanked populations;
- PayMaya, a mobile app that lets you pay online with a virtual payment card; and
- Pitaca, a trademark of Filipino company MobileVentures that delivers on mobile payments.

◈ Key players in lending space :
- LoanSolutions.ph aims at facilitating fast and easy access to credit for different financial needs through the country's largest network lenders.
- Lendr is targeting financial institutions and credit providers with its end-to-end loans origination and loans management platform.

◈ Key players in bitcoin and blockchain technology:
- BuyBitcoin.ph, a platform to sell and buy bitcoins, and Bitmarket.ph, the first bitcoin payment processor in the country with nearly 100 merchants.

◈ Other fintech players :
- Lenddo, a startup that has developed an algorithm that pulls and analyzes social media data to determine credit worthiness;
- Mynt, a startup that aims at addressing financial inclusion through mobile money, micro-loans and technology; and
- Cropital, a crowdfunding platform connecting investors to Filipino farmers.

# '_PASSPORT TO FINTECH' – A program to foster fintech startups in the Philippines



- A new program launched in the Philippines initiated by A SPACE Philippines, a chain of co-working spaces in the country, to build up and foster the development of the Filipino fintech startup community.

- Named "_PASSPORT to Fintech", the program is targeted at fintech entrepreneurs, teams and businesses which are invited to undertake a number of "trips."

- A "trip" is a three-month program consisting of a series of interrelated events designed to educate and connect the community.

- These events include a foundational boot-camp, workshops, a debate, and other activities designed to teach how to launch or grow a fintech business, or understand the impact of fintech on our businesses.

# Thailand

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**THAILAND**

# Government-led infra push driving underpinning growth

**LONG TERM TRENDS | 3 Year Averages**

|  | 2013-15 | 2016-18 | 2019-21 |
|---|---|---|---|
| **Population (million)** | 68.9 | 69.1 | 69.3 |
| **GDP (USD bn)** | 409 | 426 | 499 |
| **GDP per capita (USD)** | 5963 | 6164 | 7203 |
| **GDP Growth (%)** | 2.2 | 3.3 | 3.2 |
| **Fiscal Balance (% of GDP)** | -2.2 | -2.8 | -2.4 |
| **Public Debt (% of GDP)** | 42.9 | 43.8 | 43.3 |
| **Inflation (%)** | 1.1 | 1.2 | 2.1 |
| **Current Account (% of GDP)** | 3.5 | 9.3 | 7.4 |
| **External Debt (% of GDP)** | 33.8 | 32.7 | 30.1 |
| **Central Bank Policy Rate (%, Year End)** | 1.5 | 1.75 | 2.0 |

S&P Sovereign Credit Rating (Long-term/Outlook) : BBB+/Stable

\* One day repurchase rate.
Source : BBVA Research, Bank of Thailand

◆ Government-led investment, particularly in infrastructure projects, a gradual acceleration in global trade and improved sentiment are all expected to be supportive of growth ahead.

◆ The recent acceleration seen in exports has prompted the BoT to upgrade its growth forecast for this year to 3.4% from 3.2% in December.

◆ The economy should benefit from government spending, while higher tourism revenue and income from goods exported will feed through to households and support private consumption.

◆ Given the uncertainty in global political and monetary conditions as well as low inflationary pressures, steady rates are expected to be in store for Thailand this year.

# Thailand Fintech Landscape



Source: BBVA Research, fintechnews.sg

**Thailand is seeing serious progress in categories such as: Mobile Banking Solutions; Wealth Management; SME Banking Solutions; Payments and Collections; Risk Management; Big Data Analytics; and Customer Experience and Management**

# Fintech Club of Thailand – An agency created to foster fintech ecosystem in Thailand
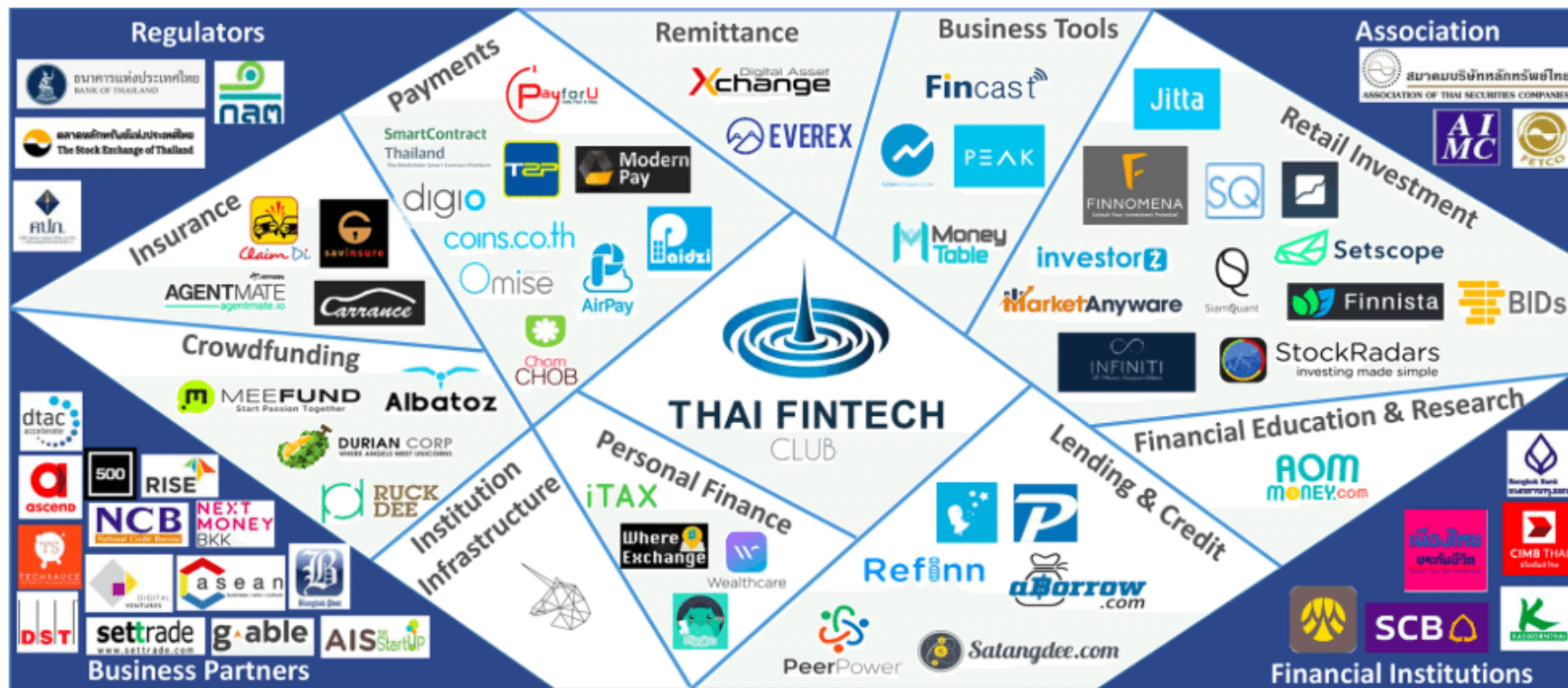


**The Thai Fintech Club comprises fintech operators, financial institutions and regulatory agencies, investors, incubators, business partners and acts as a hub for the exchange of information on fintech ecosystems, thus optimizing the operation of all parties**

# Funding rounds in Thailand Fintech Space per year

| | 2013 | 2014 | 2015 | 2016 | Total # of Deals | Companies |
|---|---|---|---|---|---|---|
| **Ecommerce/Market place** | 3 | 6 | 5 | 5 | 20 | Shopspot, WhatsNew Asia, Priceza, Page365, Pomela, StylHunt, Yogatrail, Blisty, Golfdiff, Buzzcommerce |
| **Fintech** | | 2 | 4 | 2 | 8 | Piggipo, StockRadars, PeakEngine, Finnomena, FlowAccount |
| **E-Logistics** | 1 | 2 | 4 | 2 | 8 | aCommerce, Rushbike, Deliceree, Skaatar, GizTix, Sendit |
| **Payment** | | 2 | 2 | 2 | 7 | 2C2P, Omise, Deep Pocket |
| **Food & Restaurants** | 1 | 1 | 1 | 3 | 6 | Wongnai, eatgo, ginja |

Source: BBVA Research, Techsauce

**Key investments struck by China's Ant Financial, the world's leading digital financial services provider in Thailand's Fintech industry include:**

- **Nov 2016:** Thailand's leading e-payment services and micro-loans provider Ascend Money with a 20% stake for expanding the digital payments business.
- **Sept 2016 :** Partnership with PAYSBUY, a Thailand online and mobile payment platform, with over 15000 online merchants, to expand mobile payment services for Chinese tourists

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# An overview of varied Fintech Players in Thailand

◆ aBorrow.com, an online comparable loan platform, partnering with 10 financials institutions.

◆ Claim di, a mobile app for facilitating communication and claims between drivers & their insurance companies.

◆ DeepPocket, a social e-wallet. Thailand's largest issuer of white-label wallets to leading corporations.

◆ Digio, a Unified Payment Technology Provider for financial institutions. The platform comprises acceptance of all kinds of international, local card schemes & e-wallets.

◆ Finnomena, provides advisory in investing and personal financial planning.

◆ Flowaccount.com, offers easy cloud-based accounting system that is tailored for small businesses in Thailand

◆ Jitta, an intelligent investing solution that simplifies fundamental stock analysis and speeds up value stock discovery.

◆ Omise, facilitates a leading online payments and mobile wallets app based in Thailand with operations also in Japan, Singapore and Indonesia.

◆ Rabbit Finance, a leading provider of passenger services in Thailand and is listed on Thailand Stock Exchange.

◆ Refinn, a platform that aggregates more than 80 promotional schemes for refinancing homes from 15 banks and choose best refinancing package for the customers.

# Vietnam

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## VIETNAM
# Government-led infra push driving underpinning growth

**LONG TERM TRENDS | 3 Year Averages**

| | 2013-15 | 2016-18 | 2019-21 |
|---|---|---|---|
| **Population (million)** | 90.7 | 93.6 | 96.5 |
| **GDP (USD bn)** | 180 | 221 | 287 |
| **GDP per capita (USD)** | 1986 | 2359 | 2974 |
| **GDP Growth (%)** | 6.0 | 6.3 | 6.4 |
| **Fiscal Balance (% of GDP)** | -6.0 | -5.5 | -4.6 |
| **Inflation (%)** | 3.8 | 3.7 | 4.3 |
| **Current Account (% of GDP)** | 3.4 | 2.1 | 0.6 |
| **External Debt (% of GDP)** | 39.9 | 39.4 | 32.5 |
| **Central Bank Policy Rate (%, Year End)** | 6.5 | 6.7 | 6.6 |

S&P Sovereign Credit Rating (Long-term/Outlook) : BB-/Stable

* Refinancing rate.
Source : BBVA Research, Central Bank of Vietnam

- ◆ **The adverse supply chain shock that affected** the manufacturing sector in Q1 and slowed headline growth to 5% from above 6% in 4Q16 will likely be a one-off setback.

- ◆ **New factories are due to open this year** thanks to international financing, underscoring improvements in the business climate and high FDI inflows.

- ◆ **The domestic economy is set to remain resilient** thanks to ongoing strength in key sectors buttressed by healthy FDI inflows, while overseas demand for Vietnamese goods is set to strengthen.

- ◆ **The outlook for Vietnam's manufacturing industry is bright**, reflected by the recent near-record increase in employment as companies maintained optimism that workloads will continue to expand in the near term.

# Vietnam is experiencing rapid mobile phone penetration though mobile banking is yet to pick up significantly

## Online activities Vietnamese people do on mobile phones



Banking
Shopping
Map usage
Product Info
Game
Email
Online Video
Music
Search
Social Networks

0%  10%  20%  30%  40%  50%

■ Online activities Vietnamese people do on mobile devices
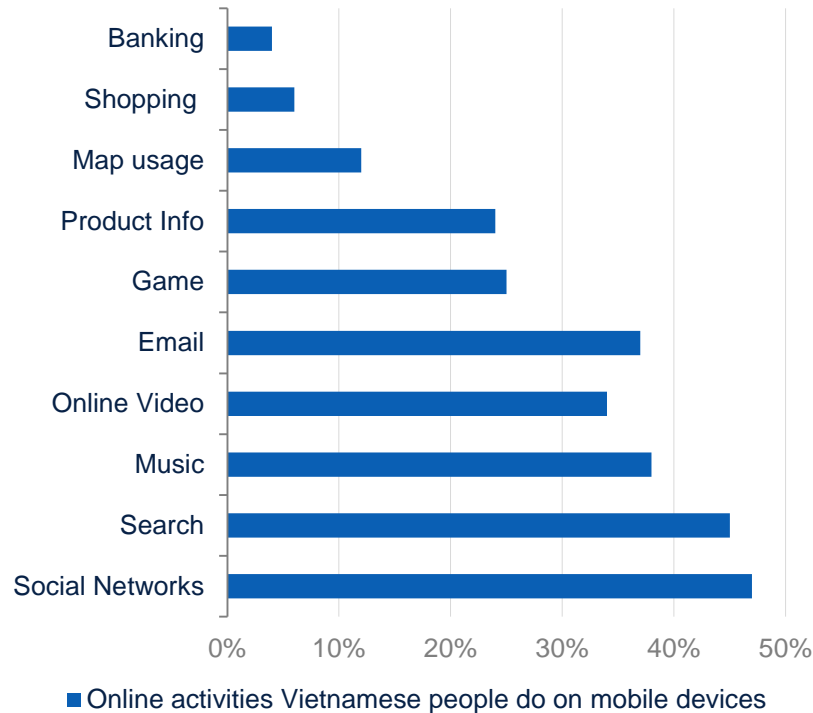
## Rapidly rising internet usage in Vietnam



50
45
40
35
30
25
20
15
10
5
0

2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

■ Vietnam Internet Users (million)

Source: BBVA Research, Bloomberg, A.T. Kearney
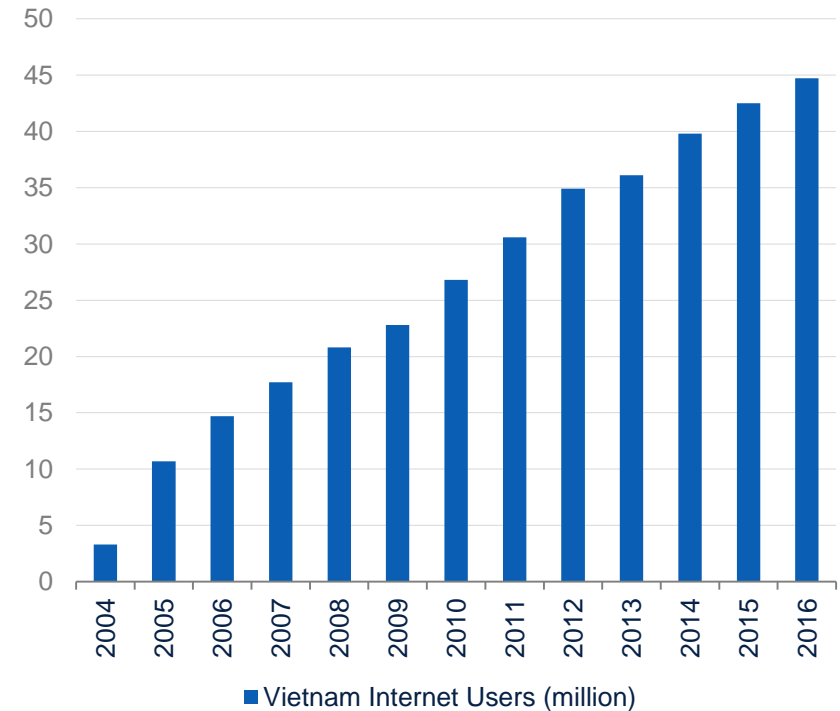
# Overview of Fintech Start-Ups in Vietnam



Source: BBVA Research, fintechnews.sg

**The current fintech industry in Vietnam is dominated by payment solutions. Besides, the USD 14 bn remittance market, mainly from US to Vietnam, presents a big opportunity for fintech. BankGo is the largest financial comparison platform in Vietnam for housing and car loans**

# Vietnam Payment Industry Overview

**Key Players**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 Pay | MoMo | Payoo | Vimo | Moca | VNpay | Ononpay | Vinapay | Bao Kim |
| 123pay | OnePay | SenPay | SohaPay | VTPay | WebMoney VN | | | |

**Industry insights**

◆ Boosted by the rising of Internet and smartphone penetrations, online commerce and m-commerce are expanding their reach in Vietnam.

◆ The e- and m-commerce industry is growing faster than the infrastructure required to serve it, generating unmet demand for software, financial technologies and payments solutions for end-users and merchants.

◆ Brief on top mobile payment providers in Vietnam:

- 1Pay: Based in Hanoi, 1Pay allows users to pay via SMS, online, and via prepaid cards for online shopping. Based in Hanoi, 1Pay allows users to pay via SMS, online, and via prepaid cards for online shopping.

- MoMo: Created by M Service, MoMo is one of Vietnam's leading mobile payment apps that allows users to pay online and make peer-to-peer payments. MoMo is integrated with 24 local Vietnamese banks, as well as international payments networks including Visa, MasterCard and JCB.

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# Vietnam Payment Industry Overview (contd.)

**Industry insights**

◈ Brief on top mobile payment providers in Vietnam (Contd):

- Payoo: A product of VietUnion Online Services Corporation, is a digital wallet designed to serve online businesses and consumers, allowing them to make transactions on e-commerce websites, as well as deposit funds from and to their bank account.

- Vimo: A mobile payment and distribution system that essentially provides users with a m-wallet platform that can handle fund transfers, bill payments, online shopping, top-ups, and cash withdrawal channels.

- Moca: A payment company that allows users to pay online and at brick-and-mortar businesses from their credit or debit card using their smartphone. Merchants on the other hand can simply accept these payments via QR codes.

- VNPAY: Connected and cooperates with 32 banks, 6 telcos partners and more than 40 enterprises to provide simple and convenient payment solutions such as mobile banking, top-up mobile phone services (VnTopup), utility bills payment (VnPayBill)  and e-wallet services (VnMart).

- OnOnPay: An online top-up tool for prepaid mobile users in Vietnam that has the ambition to expand to the wider Southeast Asian region.

# Rapid urbanization and agglomeration to aid digital banking across ASEAN

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# Agglomeration in Asia will become increasingly relevant by 2025…



**1990**

**The world's cities by size classof urban settlement**

**2025**

- ● 10 mill or more
- ● 5 to 10 mill
- ● 1 to 5 mill
- ● 500000 to 1 mill
- ● 300000 to 500000
- ● Less than 300000

Source: BBVA Research, UN
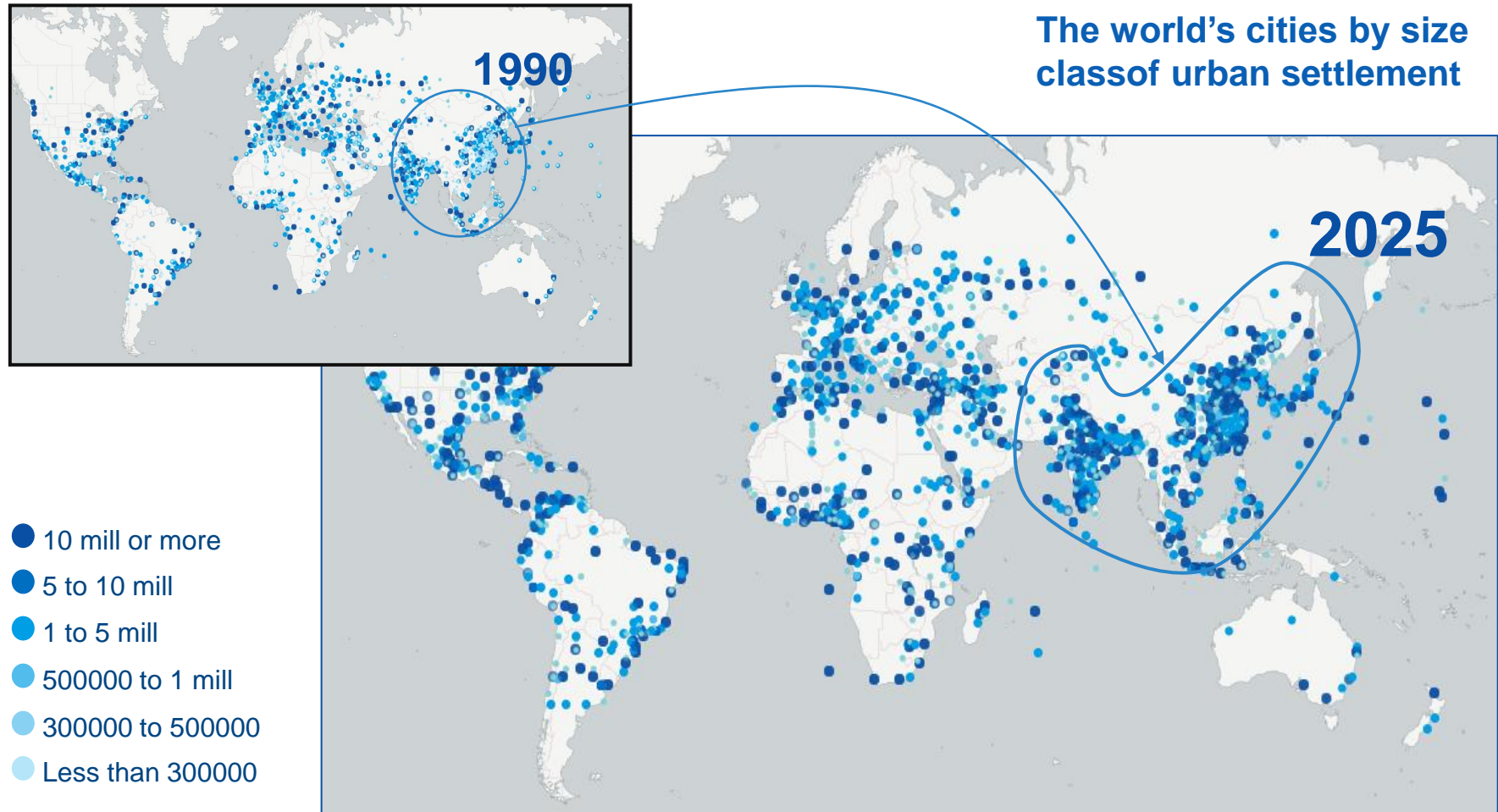
# …and is growing faster than the rest of the world…

**Average annual rate of change of city populations by size class of urban settlement, 1990–2025**



**Growth rate**

● 5%+
● 3-5%
● 1-3%
● <1%

**City size by population**

○ 10 mill or more
○ 5 to 10 mill
○ 1 to 5 mill

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# Asia will concentrate 21/37 world megacities…

**Evolution of cities by size class of urban settlement in the Asia- Pacific region during 1990-2025**
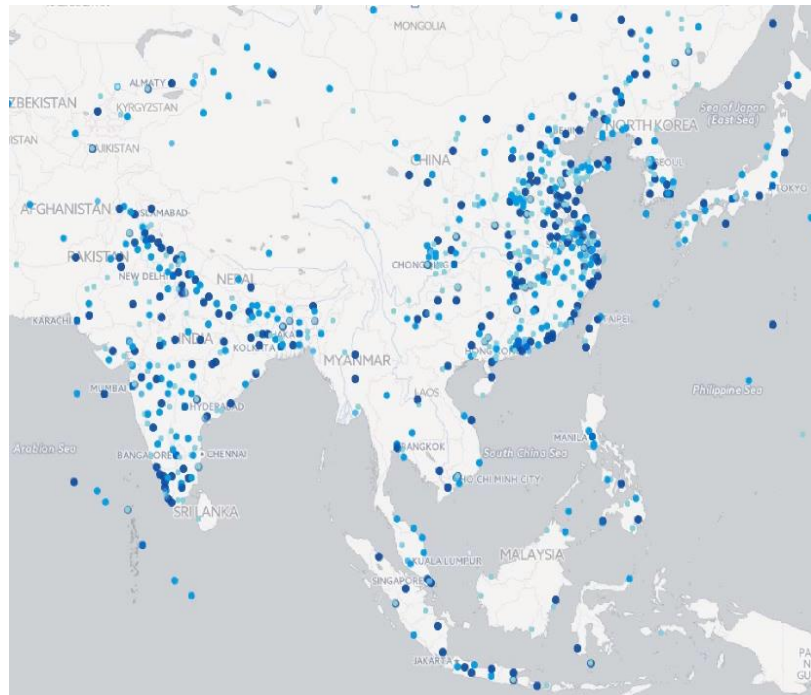


Legend:
- 10 mill or more
- 5 to 10 mill
- 1 to 5 mill
- 500000 to 1 mill
- 300000 to 500000
- Less than 300000

**Average annual rate of change of city populations by size class of urban settlement, 1990–2025 in the Asia- Pacific region**



**Growth rate**
- 5%+
- 1-3%
- 3-5%
- <1%

**City size by population**
- 10 mill or more
- 5 to 10 mill
- 1 to 5 mill

Source: BBVA Research, UN
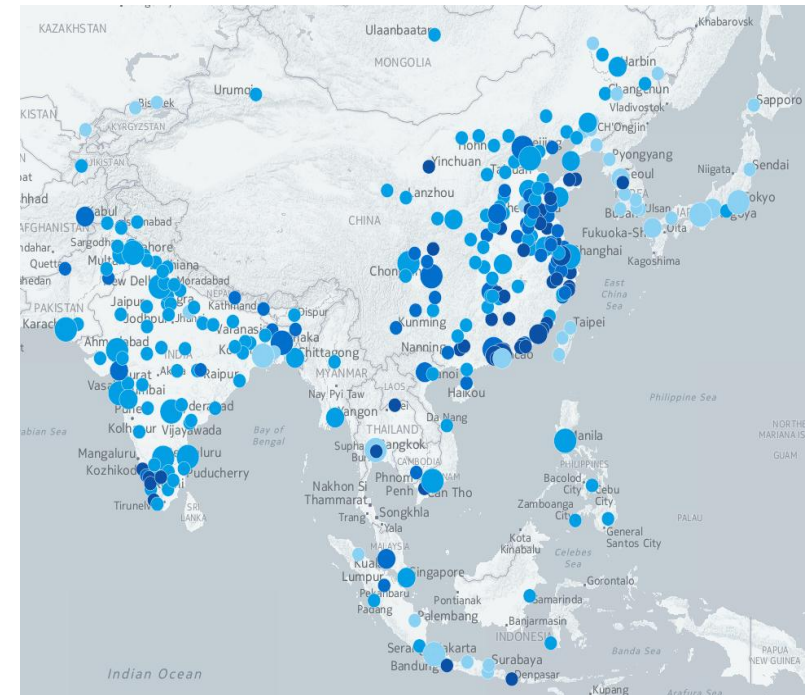
# …with heterogeneities between regions

## Number of Cities Classified by Size Class of Urban Settlement, Region and Country in Emerging Asia, 1990 to 2025



◆1990 ■1995 ▲2000 ■2005 ■2010 ●2015 ■2020 –2025
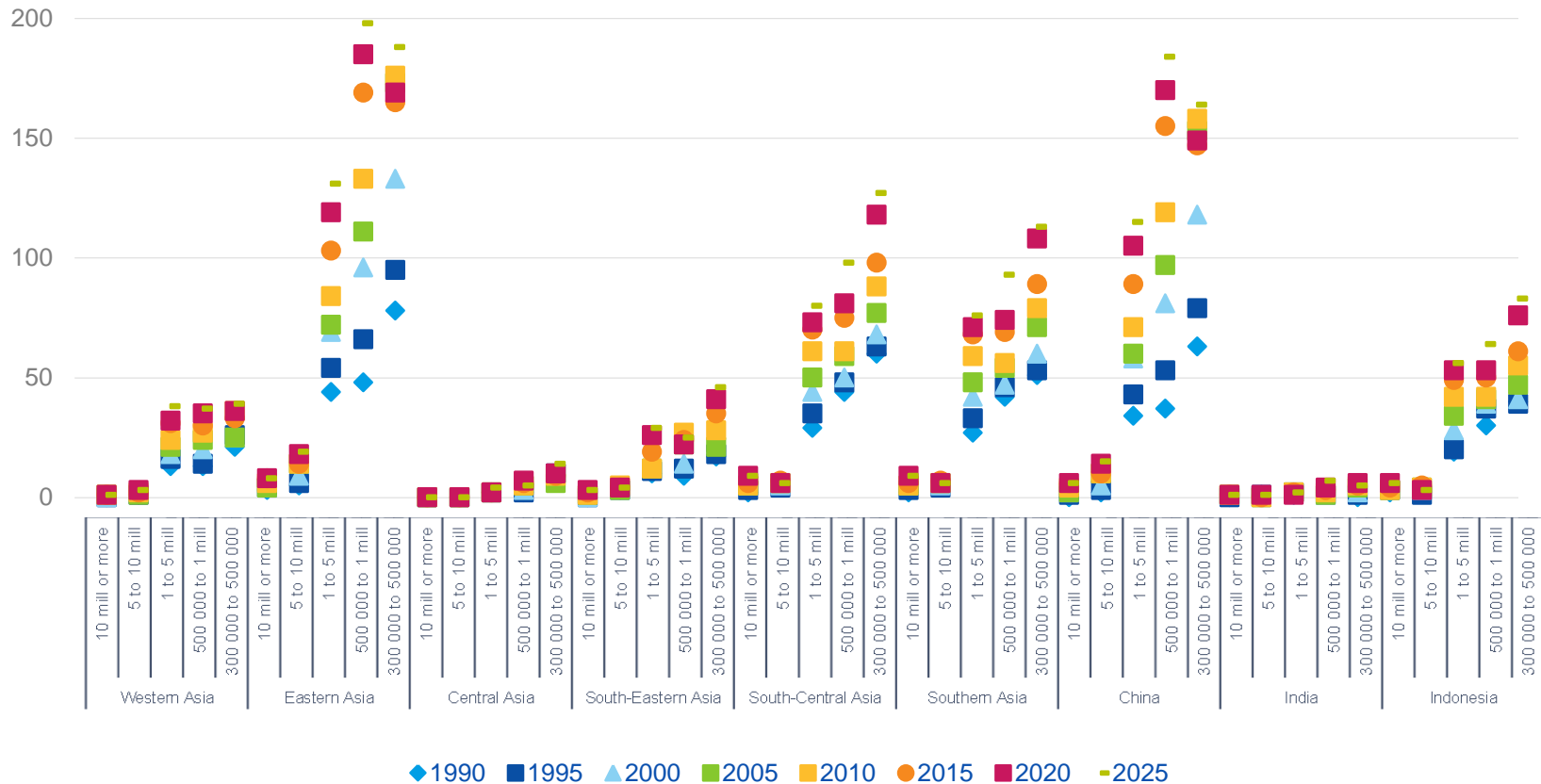
# Urbanization trends will continue…

## Urbanization evolution over time in the Asia-Pacific region, 1990, 2015, 2025



■ 1990　■ 2015　■ 2025
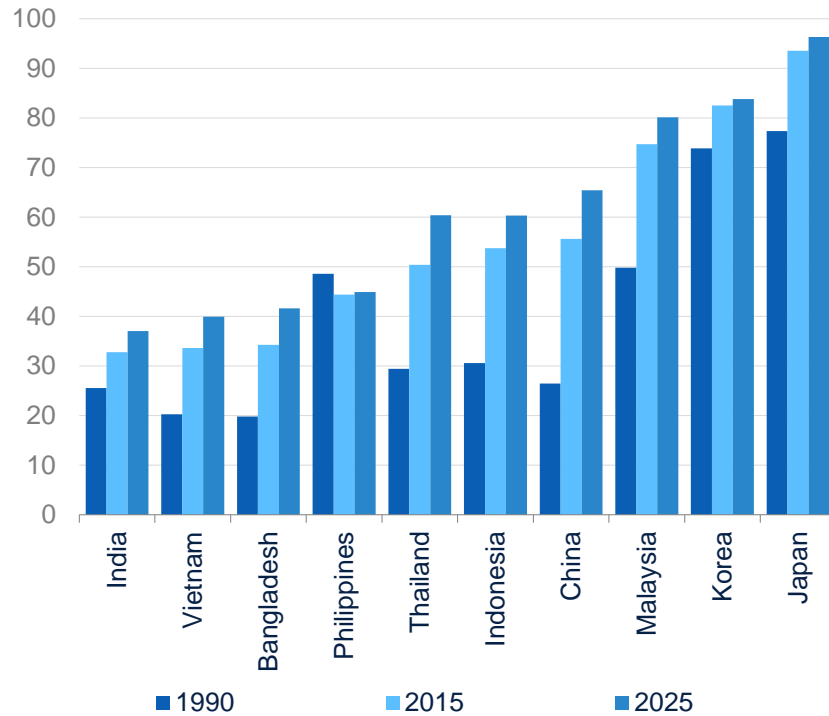
## Percentage of the Population in Urban Areas



Forecast — China ⋯⋯ India
Indonesia — Japan — Malaysia
— Thailand ⋯⋯ world — Korea

Source: BBVA Research, World Bank and UN

Source: BBVA Research, World Bank and UN

64
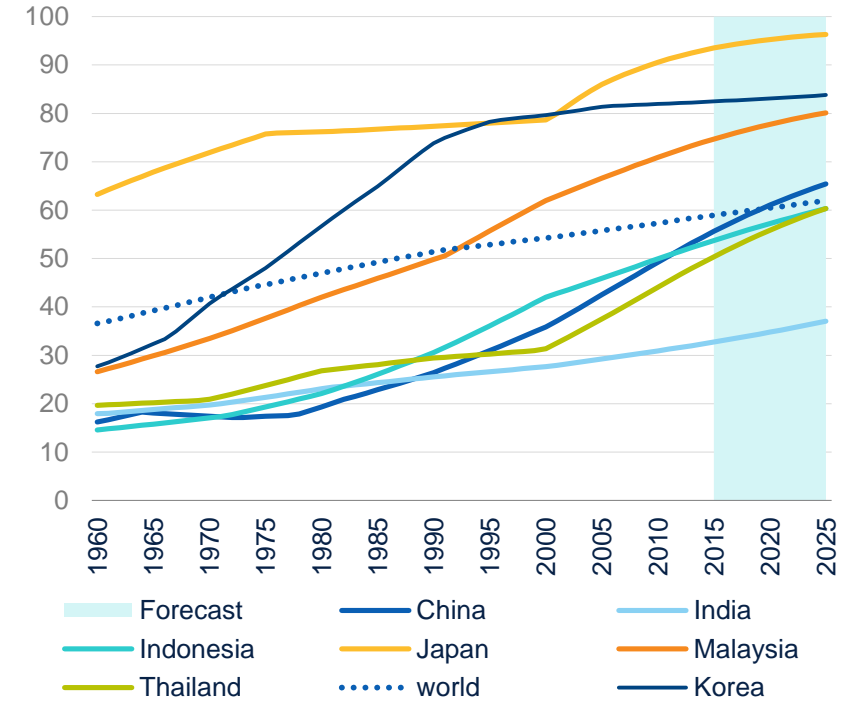
# … but at different peace in each country…

## China' Population distribution by area
### (1960-2025) ('000)
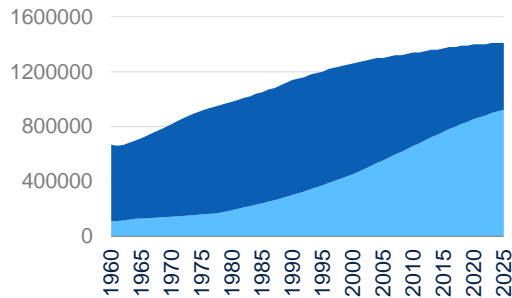


## India' Population distribution by area
### (1960-2025) ('000)
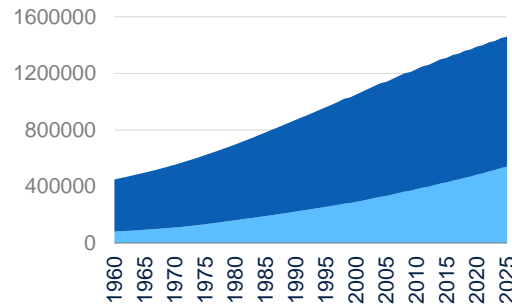


## Indonesia' Population distribution by area
### (1960-2025) ('000)
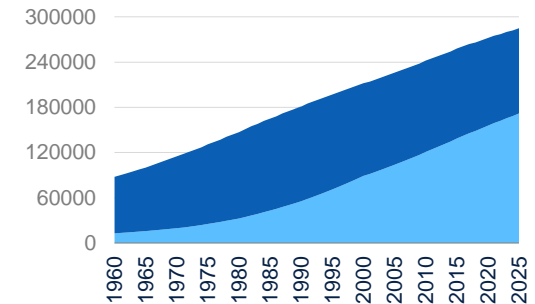


## Thailand' Population distribution by area
### (1960-2025) ('000)
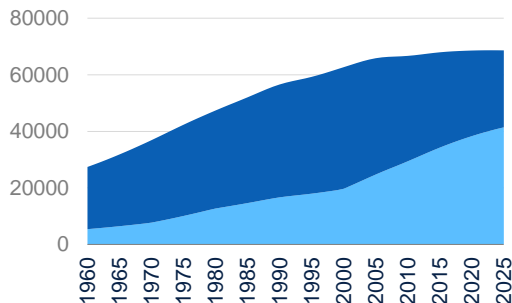


## Malaysia' Population distribution by area
### (1960-2025) ('000)



## Korea' Population distribution by area
### (1960-2025) ('000)



■ Urban area  ■ Rural area

Source: BBVA Research, UN, WB, IMF
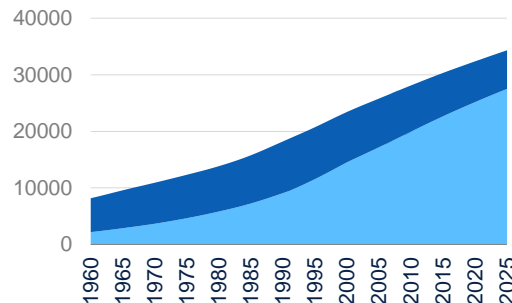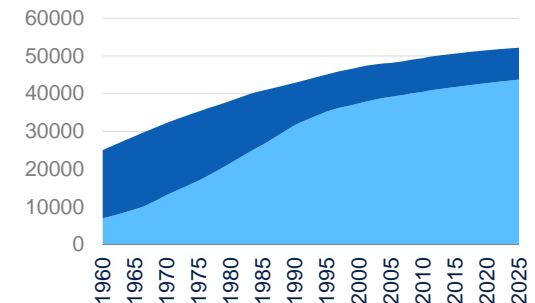
# … and having a positive impact on income growth…

## Level of urbanization and GDP per capita in the Asia- Pacific region in 2000-2015
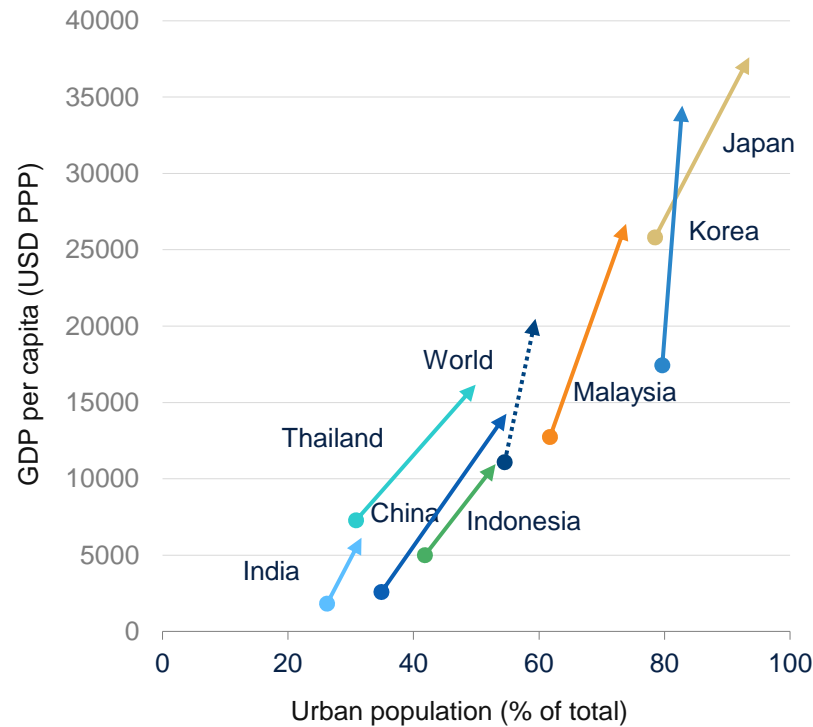


## Level of urbanization and GDP per capita in the Asia- Pacific region in 2015



Source: BBVA Research, World Bank and UN

**BBVA** | Research
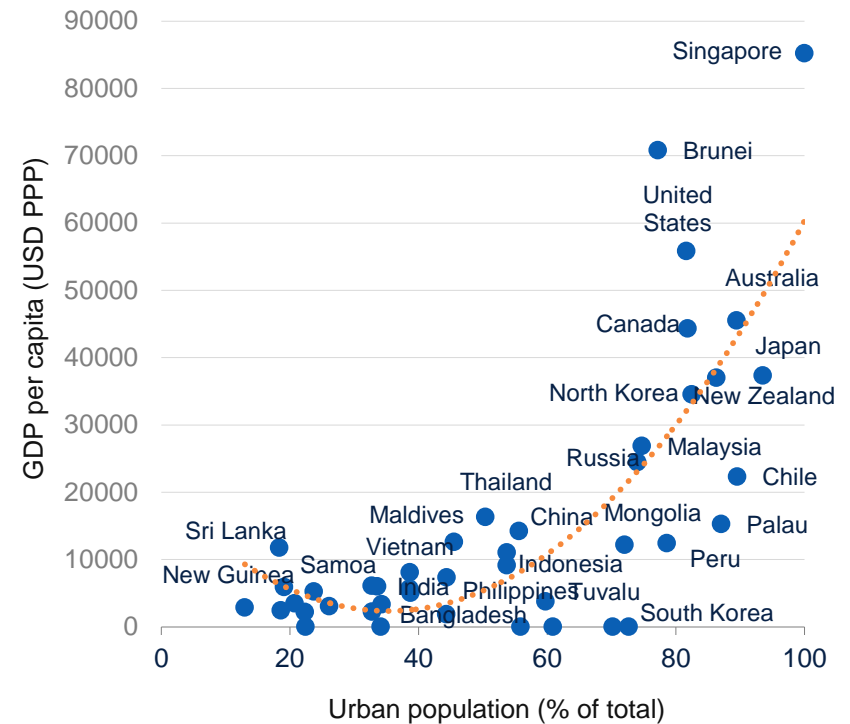
# … labor productivity…

## Level of urbanization and labor productivity in the Asia- Pacific region in 2000-2015
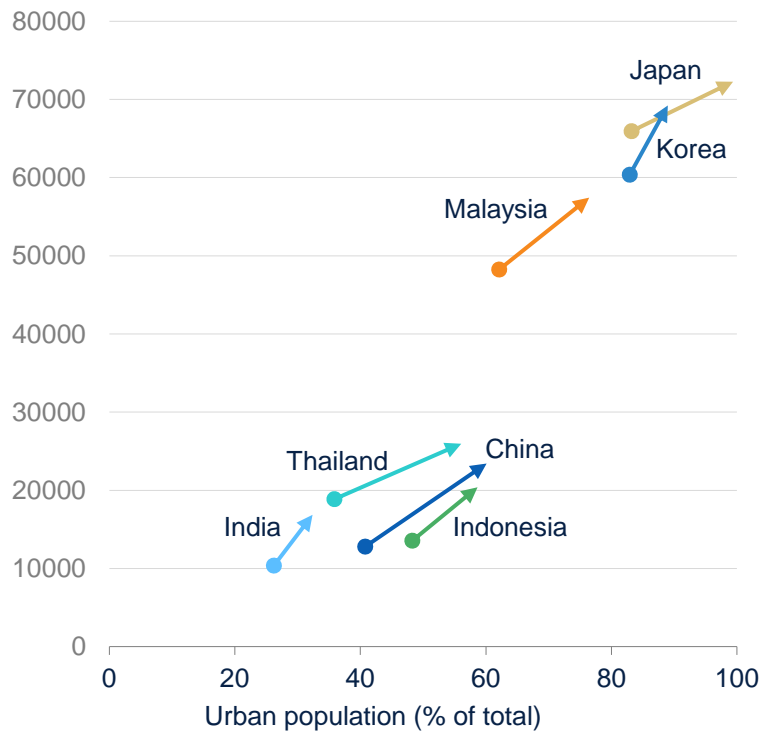


## Level of urbanization and labor productivity in the Asia- Pacific region in 2015



Source: BBVA Research, World Bank and UN
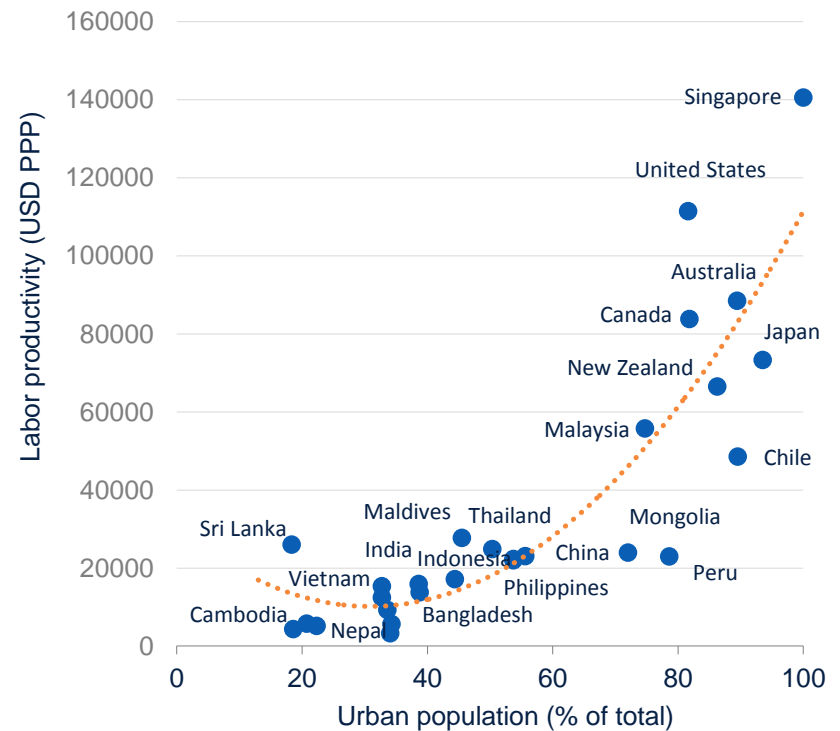
# … and on consumption…

## Level of urbanization and household final consumption expenditure in the Asia- Pacific region in 2015
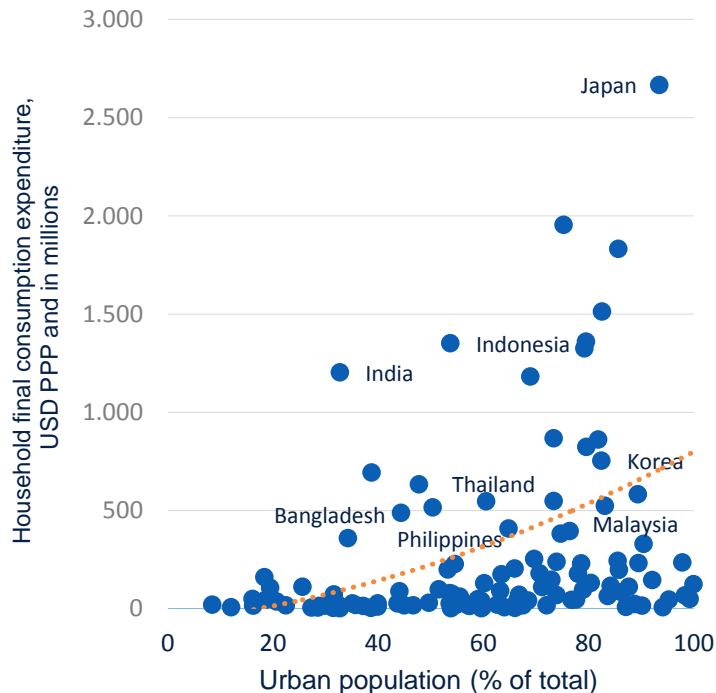


## Population distribution by area in 2010
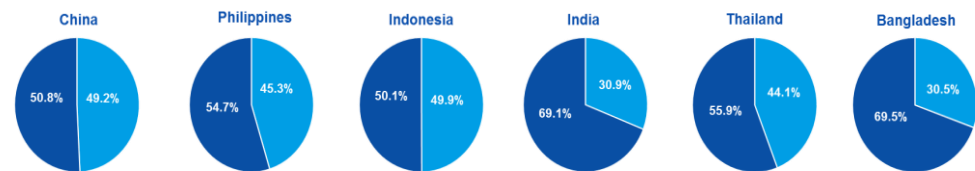


## Household consumption distribution by area in USD PPP in 2010



■ Urban   ■ Rural

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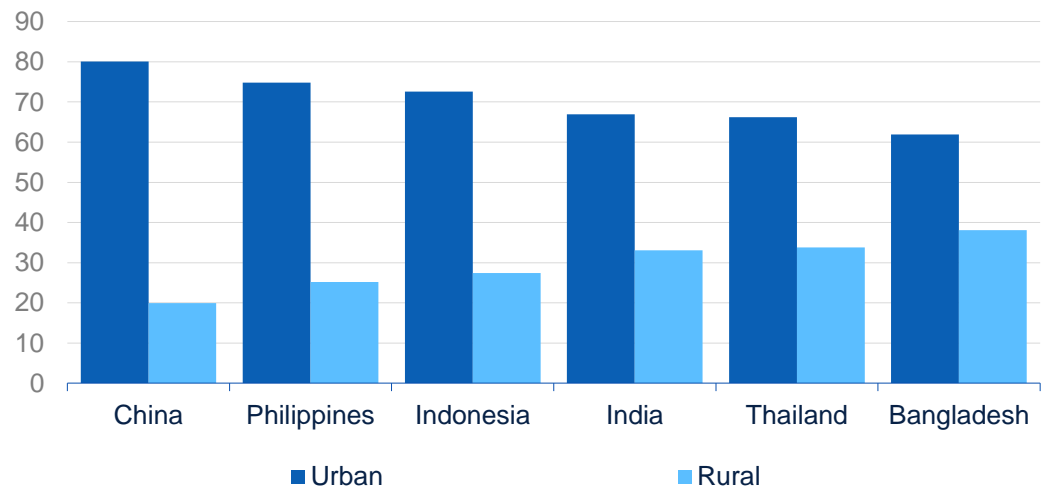
# … leading to a change in the consumption patterns…

## Consumption Pattern by consumption segment in China
(2010)
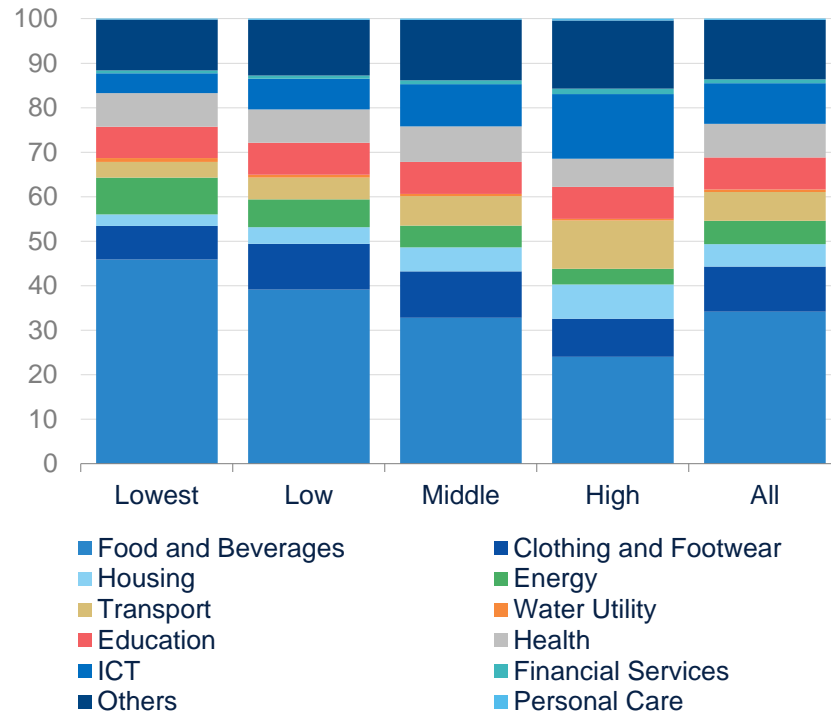


## Urban VS National Consumption Pattern in Asia- Pacific region
(GDP per capita, % en consumer price index basket, 2010)



Source: BBVA Research

Source: BBVA Research & IMF

# BBVA | Research
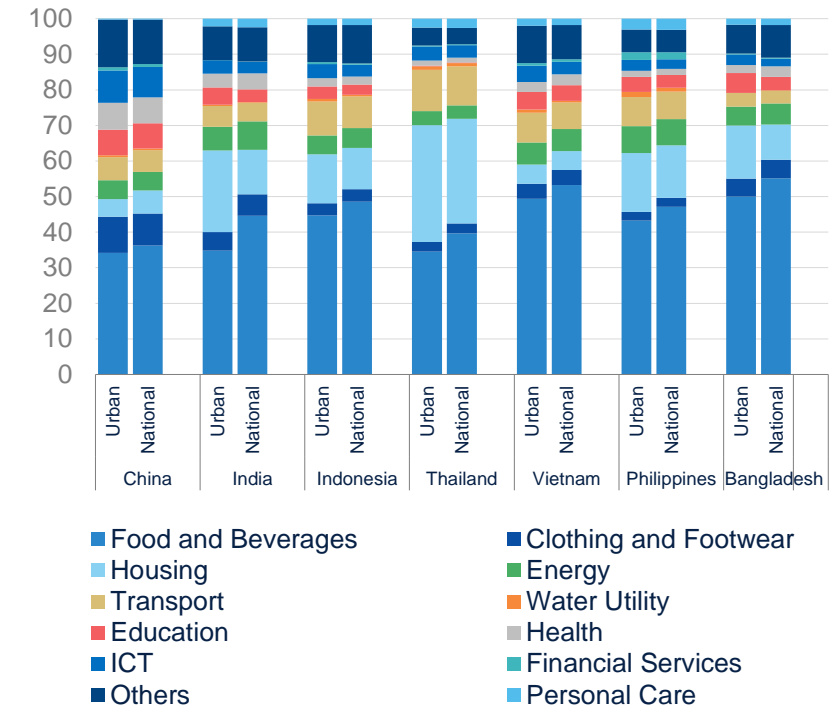
# … and triggering competitiveness…

## Technological adoptions in 2015
(scale ranges from 1 to 7, best)
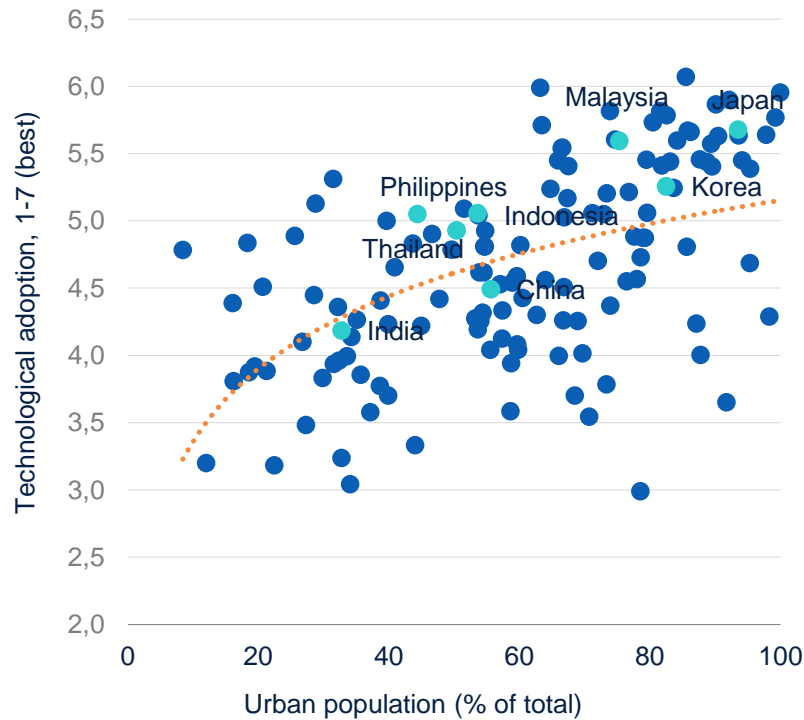


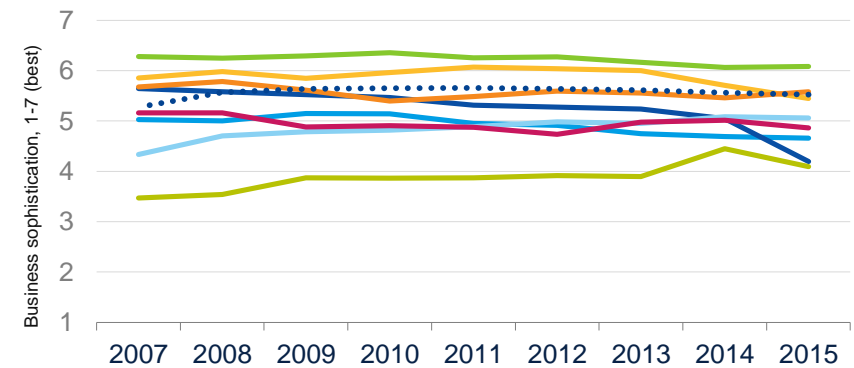## Global Competitivenss Index in 2015
(scale ranges from 1 to 7, best)

**BBVA** | Research
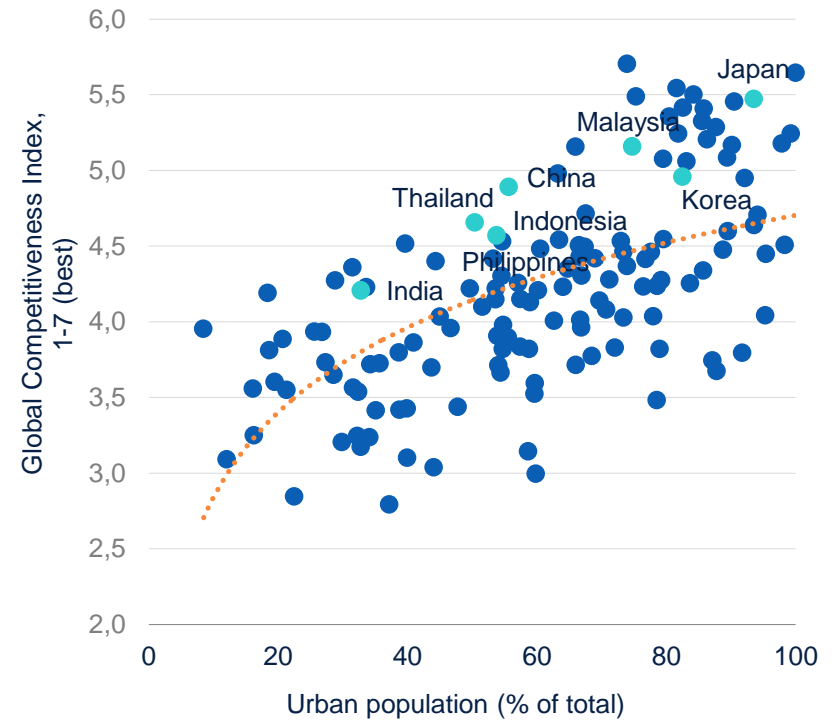
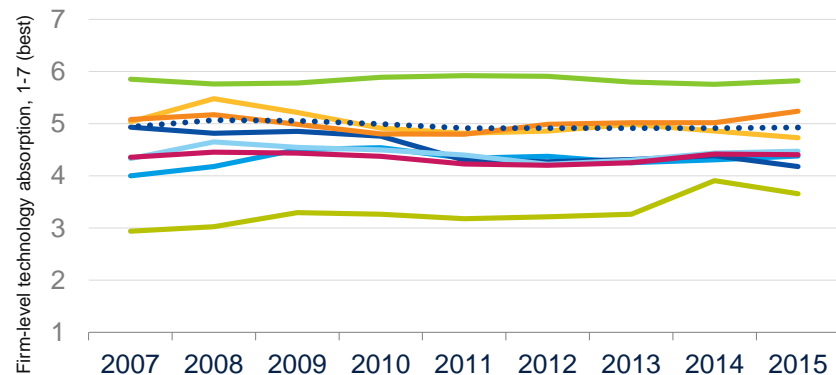# … although there's still room for improvement in some Asian countries
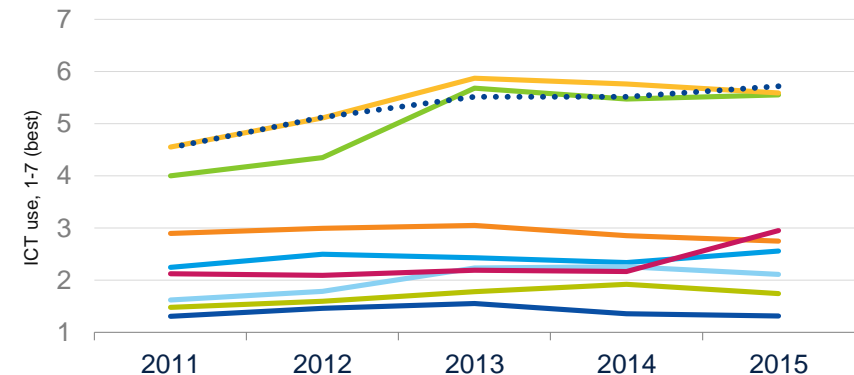
## Availability of latest technologies
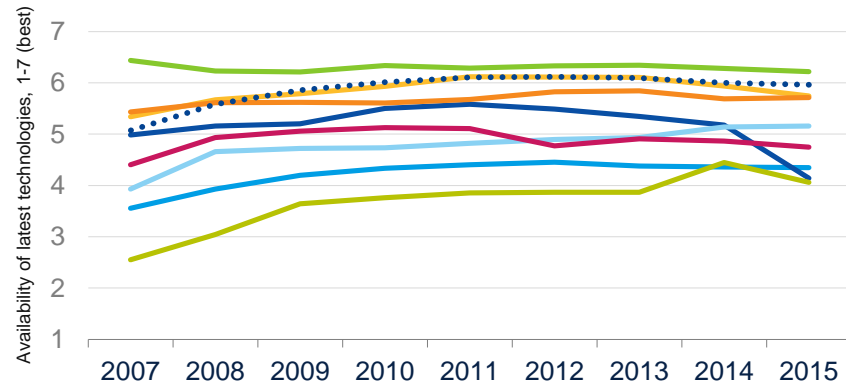


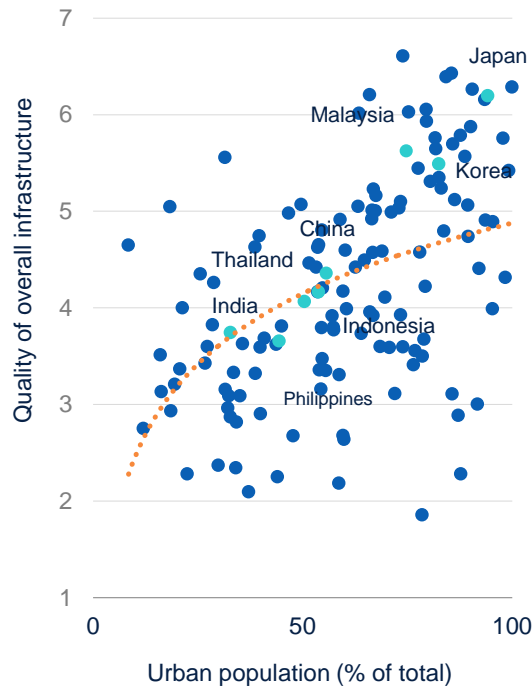## Business sophistication



## Firm-level technology absorption



## ICT use



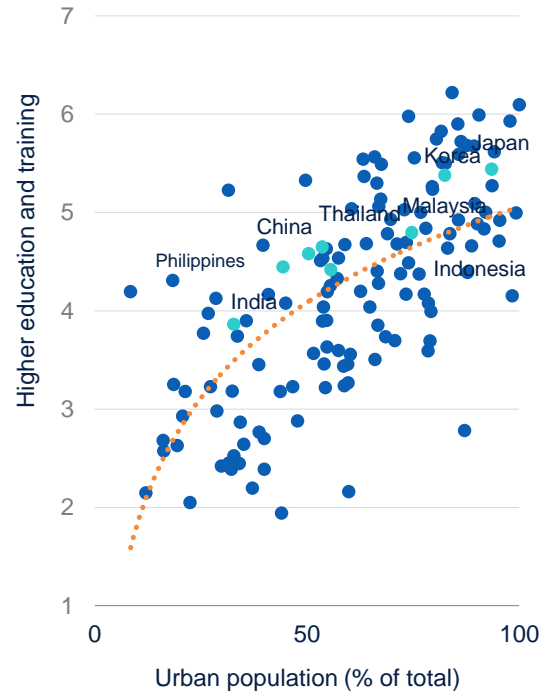Legend: China — India — Indonesia — Japan — Korea — Malaysia — Thailand — Rest of Emerging Asia — Advanced economies

Source: BBVA Research, Weforum

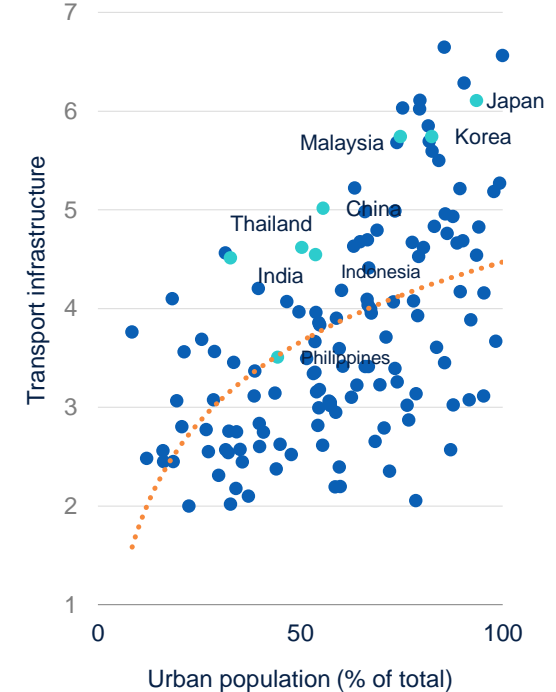# Urbanization also leads to higher quality of infrastructures and workforce

### Global Quality of Infrastructures in 2015
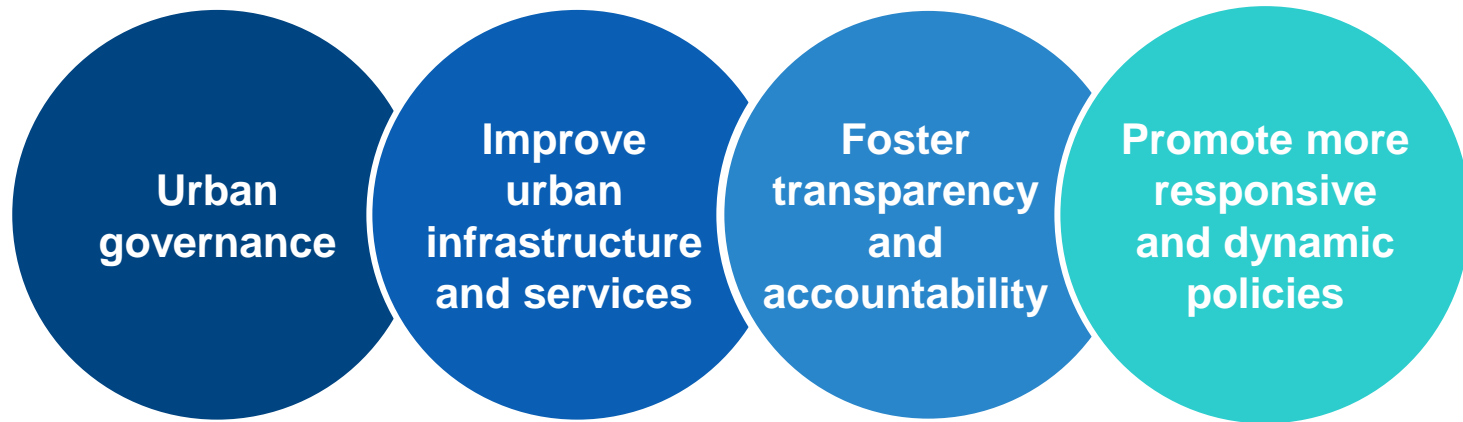(scale ranges from 1 to 7, best)



### Education and training in 2015
(scale ranges from 1 to 7, best)



### Transport infrastructure in 2015
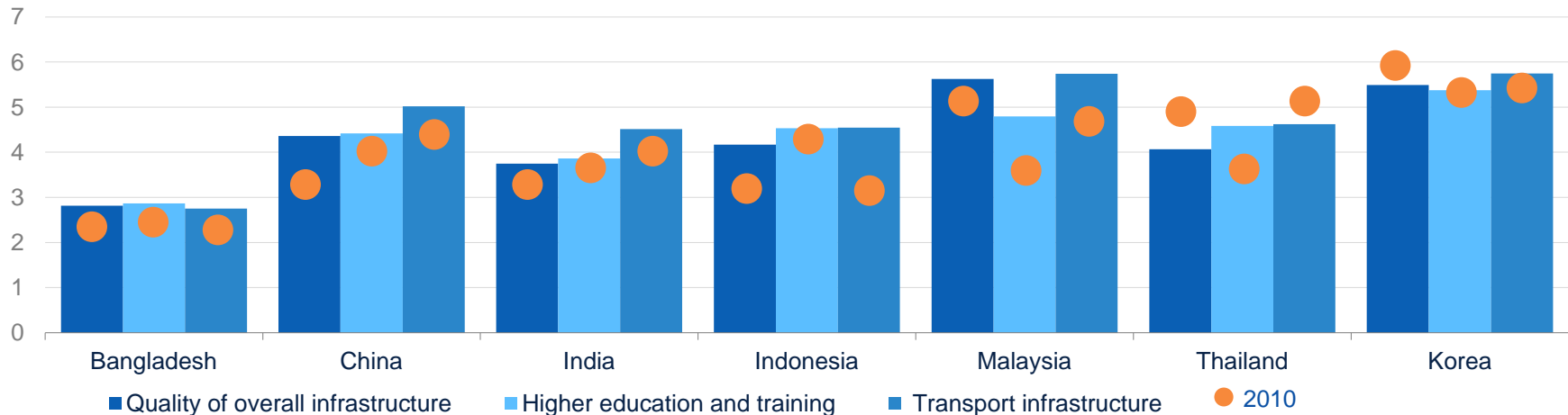(scale ranges from 1 to 7, best)



Source: BBVA Research, Weforum

# It will depend on government policies to take advantage of it

**Urban governance**

**Improve urban infrastructure and services**

**Foster transparency and accountability**

**Promote more responsive and dynamic policies**

## Infraestructure and education indices across Asian countres, 2010-2015
(scale ranges from 1 to 7, best)



- Quality of overall infrastructure
- Higher education and training
- Transport infrastructure
- 2010

Countries: Bangladesh, China, India, Indonesia, Malaysia, Thailand, Korea

# Annex

# Methodological issues: population projections

◆ We use PPP-adjusted real GDP per capita measured in 2010 dollars. GDP values and projections correspond to the October 2014 edition of the IMF/WEO database, while population estimates and forecasts are from the 2012 revision of the UN World Population Prospects. Regarding income distributions, our starting point is the information available in the WDI/World Bank, which includes the two top and bottom deciles and all quintiles. As data are not continuous we interpolate missing data. Projections until 2025 keep distributions constant from the latest observation

◆ We group population according to the following five income ranges: 1/ poor and low-income (up to USD5,000), 2/ low middle class (USD5,000-15,000), 3/ medium middle class (USD15,000-25,000), 4/ high middle class (USD25,000-40,000), and 5/ affluent (over USD40,000)

◆ The number of countries included has been extended to 90 and the current coverage accounts for over 90% of the world population:

• Developed economies: United States, Japan, Germany, France, United, Kingdom, Italy, Korea, Spain, Canada, Australia, Netherlands, Belgium, Greece, Czech Republic, Portugal, Sweden, Austria, Denmark, Finland, Slovak Republic, Ireland, Slovenia, Estonia and Luxembourg

• Emerging economies: China, India, Indonesia, Brazil, Pakistan, Nigeria, Bangladesh, Russia, Mexico, Philippines, Ethiopia, Vietnam, Egypt, Iran, Turkey, DR Congo, Thailand, South Africa, Tanzania, Colombia, Kenya, Ukraine, Argentina, Algeria, Uganda, Poland, Iraq, Sudan, Morocco, Afghanistan, Venezuela, Peru, Malaysia, Uzbekistan, Nepal, Mozambique, Ghana, Yemen, Angola, Madagascar, Cameroon, Syria, Sri Lanka, Romania, Côte d'Ivoire, Niger, Chile, Burkina Faso, Malawi, Paraguay, Mali, Kazakhstan, Guatemala, Ecuador, Cambodia, Zambia, Zimbabwe, Senegal, Hungary, Bulgaria, Croatia, Panama, Qatar, Uruguay, Lithuania and Latvia

# Methodological issues: population proyections by skills

◆ The multi-dimensional cohort-component projections we presented here for the period 2015-2025 by age, sex and educational levels correspond to Wittgenstein Centre projections. They are based on the multi-dimensional demographic model presented in Lutz (2013). It models the dynamics of changing composition of the population over time focusing on educational attainment distributions and using a multi-stage model that describe movements of people that can go back and forth between more than two states. The population is sub-divided according to their demographic characteristics and it allows to model how societies change over time according to the shifting relative sizes of these sub-groups

◆ While internationally consistent data on populations by age and sex are readily available for most countries, data on educational attainment distributions required additional harmonization efforts due to discrepancies across countries, age and time. Due to the variety of nationally distinct educational systems, we use UNESCO's International Standard Classification of Education (ISCED) to make education statistics comparable across countries.  Thus, according to ISCED 1997, the level of education is divided in six categories, which will correspond to different sub-groups in the model: ISCED 0 - pre-primary education; ISCED 1 - primary (elementary/basic) education; ISCED 2 - lower secondary education; ISCED 3 - upper secondary education; ISCED 4 - post-secondary non-postsecondary courses; ISCED 5 - first stage of post-secondary education; ISCED 6 - second stage of post-secondary education (postgraduate)

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