



Finance in Indonesia: Set for a new path?

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KPMG Siddharta Advisory
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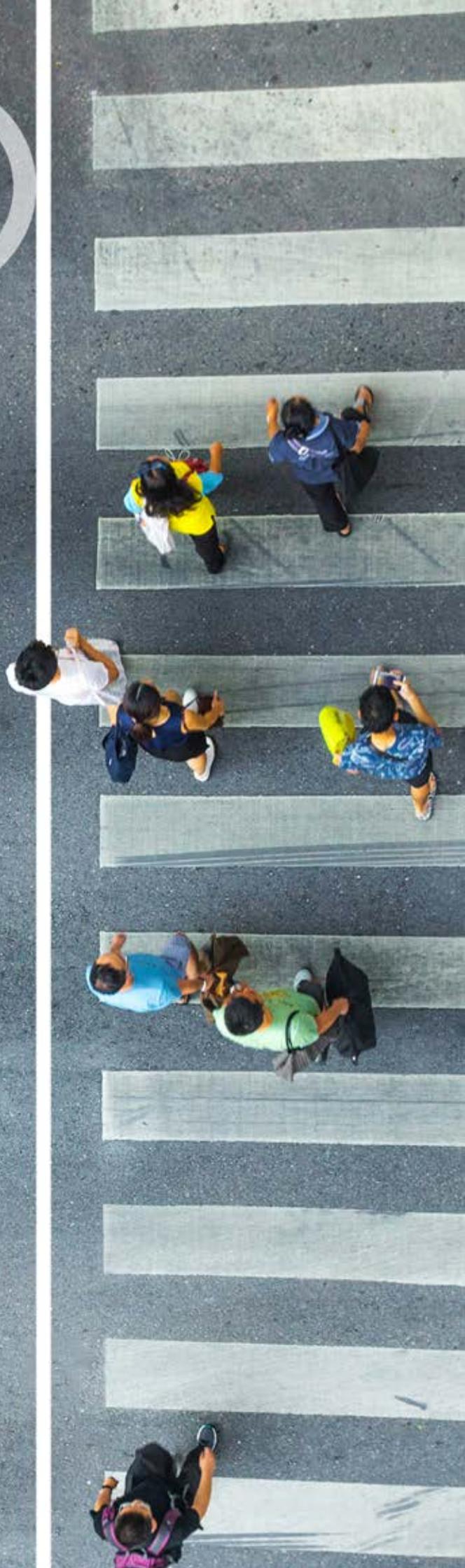




Table of contents

Introduction	1
The financing landscape: <i>institutions, distribution, and access</i>	5
Credit: <i>an end to slowing loan growth and deteriorating asset quality?</i>	12
Deposits: <i>a squeeze on the middle?</i>	19
Profitability: <i>still strong</i>	20
Financial inclusion & Fintech: <i>harnessing the power of positive disruption</i>	25
Islamic banking: <i>a perennially untapped opportunity?</i>	33
Risk and regulation: <i>up to standard?</i>	35
Deal activity: <i>time to double up?</i>	38
Appendices	
1. Finance regulations	42
2. Largest Indonesian banks – peer comparison table	49
3. Bibliography	51
4. Glossary	53
5. How KPMG can help	55
6. Further reading	56



Introduction

Foreward

With USD 500 billion¹ of infrastructure investment planned in the next five years, the emergence of disruptive technology, a political and regulatory push for financial inclusion and consolidation, all components of the finance sector in Indonesia are set for a new path.

Indonesia is home to some of the most profitable and fastest growing banks in the world, with industry average NIMs of 5.7%² and CAGR loan growth of 15%² between 2011 and 2016. Bank Central Asia (“BCA”) became the most valuable bank in ASEAN by market capitalization in May 2017³, and Bank Rakyat Indonesia (“BRI”) had the highest Return on Capital (“ROC”) (49.46%) and Return on Assets (“ROA”) (4.46%) of any major bank in ASEAN in 2015⁴.

It’s no wonder therefore that investment interest in the Indonesian finance sector remains high from both domestic and inbound investors.

Providers of finance in Indonesia face challenges from multiple sources, including:

- Currency volatility
- Cautious monetary policy seeking to balance currency protection with investment stimulation
- Depression in commodity prices. Commodities have long been the backbone of the Indonesian economy
- Deteriorating asset quality and creeping Non-Performing Loan (“NPL”) ratios, particularly in commodity centric sectors
- Rising Loan Deposit Ratios (“LDRs”) and high competition for funding
- Meeting regulatory demand for increased financial inclusion in an archipelago of 17,508 islands with many of the poor geographically as well as economically excluded

- Rising capital requirements
- Emergence of new technologically enabled entrants, particularly the finance arms of emerging eEconomy players
- Rapidly evolving regulatory landscape.

Under foreign investment rules introduced during the 1997/1998 Asian Financial Crisis, foreign investors were allowed to own up to 99%⁵ of a bank’s shares, as part of efforts to recapitalize the economy and local banks. This led to the entry of many international players.

However in 2013, the foreign investment cap for banks was reduced to 40%⁶. We feel this was partly a reflection of growing nationalistic sentiment after a long period of strong growth, and also a response to a perception of little reciprocity in terms of openness of foreign markets to investment by Indonesian owned banks.

The recent growing power of religious conservatives to shape national politics introduces a level of uncertainty and potential volatility in the run up to nationwide regional elections in 2018, and the 2019 presidential elections.

It’s presently unclear how the foreign investment climate will evolve, however we have a positive outlook. The financial services regulators are encouraging consolidation, and the government needs inbound investment to meet growth ambitions.

From the second half of 2015 we saw an opening up of a wide range of industries to foreign ownership, and the approval of majority ownership in banks by foreign investors (China Construction Bank (“CCB”) and Shinhan Bank), provided the investor was prepared to acquire and consolidate more than one bank as part of their investment.



We believe the next few years will see:

- domestic consolidation, as a result of:
 - increased risk based and paid-up capital requirements for commercial banks, rural banks and multifinance companies, and new capital requirements for fintech companies. The introduction of Basel 3 and IFRS 9 (the latter recently delayed till 2020) is also like to reduce capital surplus
 - policy incentives for consolidation of smaller banks by larger banks
 - banking law changes requiring foreign banks operating under branches, to operate through legal entities
 - increased appetite for inbound M&A, following CCB and Shinhan Bank's 2016/2017 approvals for majority ownership of local banks. M&A is currently the only route to obtaining a license and the regulator has been approving majority ownership if two domestic banks are acquired and merged.
- the emergence of loan portfolio deals. Recently the regulator has encouraged the use of Special Purpose Vehicles ("SPVs") to transfer, hold and manage NPLs.
- consolidation across the payments value chain, as the regulator and government create a 'National Payments Gateway', encourages interoperability, while global payments gateways and eWallets look to enter the market through partnering with the leading local eEconomy leaders
- disruption to traditional finance models from new fintech providers, which have been bolstered by improved regulatory certainty from new fintech lending regulations
- corporate restructuring, part disposals, and capital raises as a result of financial conglomerate regulations, which require banks and financial services companies in a conglomerate to consolidate under a single holding entity by 1 January 2019.

This paper pulls together KPMG's in-market insights from working with regulators, state owned and private financial institutions and a range of fintech providers, and sets out what we see as the hot topics for finance in Indonesia. In the paper, we give KPMG's perspectives on opportunities, and recommendations for improving the finance climate. We hope you find this first report on finance in Indonesia useful.



Barnaby Robson
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Introduction

Big in Indonesia - where Indonesia ranks against the rest of the world

1



Size of Muslim population⁷



Crude palm oil production and consumption⁸



Cinnamon, Vanilla and Clove production⁹

2



Length of coast line¹⁰



Natural rubber exporter¹¹



Geothermal power producer¹²

3



Rice production¹³



Level of Biodiversity¹⁴



Number of natural disasters¹⁵

4



Liquefied natural gas exporter¹⁶

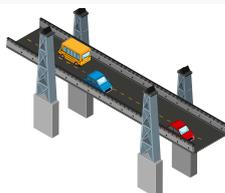


Number of mobile phone subscriptions¹⁷



Population¹⁸

5



Forecast infrastructure spending¹⁹



Production of coal²⁰



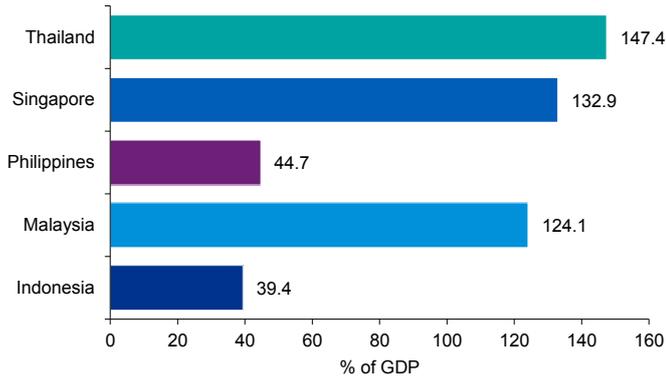
Projected GDP in 2030²¹

Introduction

Indonesian finance – ripe for investment

Loans to private sector as a percentage of GDP

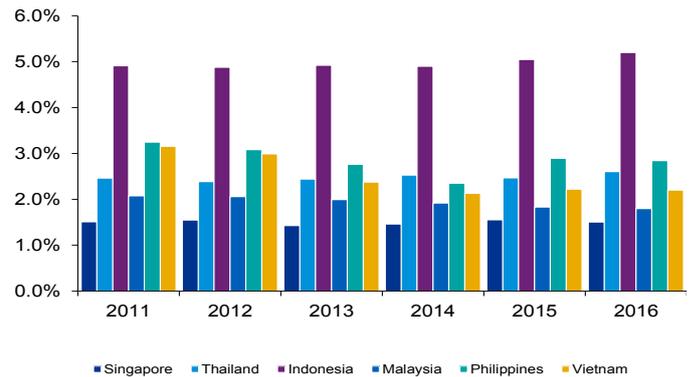
The lowest penetration, ergo the highest growth potential



Notes: Data as of 2016, commercial bank loans
Source: Worldbank, KPMG Analysis

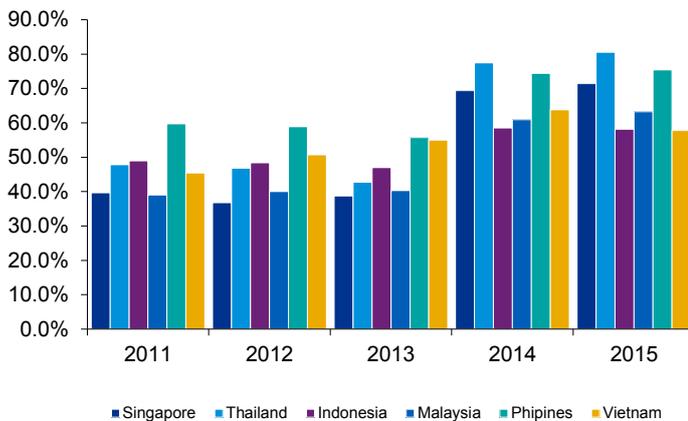
Net interest margins (NIMs)

Regionally (and globally) high NIMs, particularly for the larger banks with cheaper funding



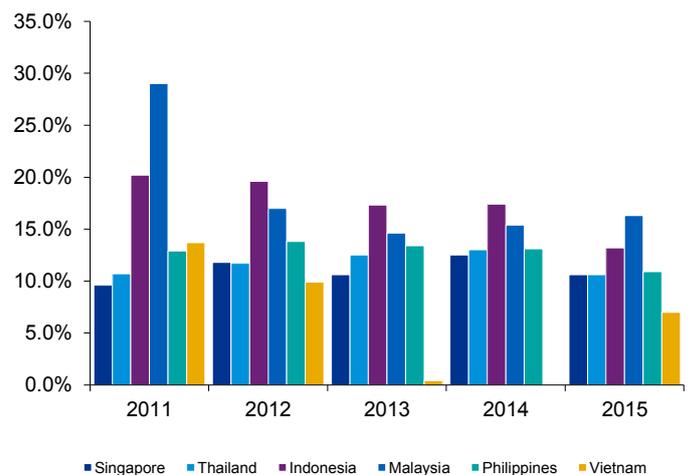
Cost to income ratio (CIR)

CIRs are high, driving a shift away from branch based provision to digital financial services



Return on equity (ROE)

High asset yields outweigh the expensive cost of funds and significant operating costs, allowing Indonesian banks to consistently generate high returns



The financing landscape

The main players

We believe it is helpful to segment the finance landscape into the categories outlined over these two pages, as each category has different funding, lending and performance trends and drivers.



BCA Mandiri BRI BNI

41%

16%

33%

Notes: Percentage represents proportion of lending as at 31 December 2016; Source: Indonesia Banking Statistics.

The Big Four banks

The finance sector is led by three state owned banks:

- Bank Mandiri – established from four banks as part of the post Asian Financial crisis restructuring, it was the second largest bank by lending assets at 31 March 2017. Bank Mandiri has a large corporate loan base and the largest Sharia banking unit
- Bank Rakyat Indonesia (“BRI”) – the largest microfinance lender in the world and since 2015 the largest bank in Indonesia by lending assets. BRI has the widest rural branch network of all Indonesian banks
- BNI - the fourth largest bank in Indonesia by lending assets and largely focused on State Owned Enterprise (“SOE”) and private corporate banking

and one private bank:

- BCA – the largest mortgage lender in Indonesia, BCA is perceived to have the best footprint in the larger cities, and most sophisticated digital capabilities of the Big Four.

Larger commercial banks

Six other sizeable commercial banks with retail and corporate lending presence across the country:

- CIMB Niaga: a new ‘BUKU IV’ (i.e. core capital exceeds IDR 30 trillion) bank in 2017, and a key player in digital financial services
- Danamon: focused on Small – Medium Enterprise (“SME”) lending
- Permata: focused on retail and automotive financing through the Astra Group
- Maybank Indonesia: focused on SME and commercial lending
- BTN: An SOE bank, focused on subsidized mortgage loans. BTN was the largest mortgage lender as of 31 March 2017
- Panin Bank: focussed on SME loans to trading companies.

Other smaller commercial banks

Other smaller commercial banks include:

- 9 branches of foreign owned banks, focused on corporate lending to international clients. The last foreign bank branch license was approved in 2003
- 12 banks created from a joint venture agreement between Indonesian and foreign banks
- 27 regional development banks
- 13 sharia banks, conducting their operations based on sharia principles
- 44 other locally held conventional banks



2%

8%

Notes: Percentage represents proportion of lending as at 31 December 2016. Source: Indonesia Banking Statistics and Indonesia Multifinance Statistics.

Rural banks (“BPRs”) and Micro Finance Institutions (“MFIs”)

The 1,630 rural banks and other micro finance institutions operate within a far more limited scope of activities (regarding deposit taking, investments, payments, etc) compared to commercial banks.

BPRs are restricted to one province and therefore they have limited attractiveness to retail customers (as they cannot open branches outside their region). Consequently, BPRs tend to be much smaller than commercial banks (albeit the largest BPR has total assets of c. seven times the smallest commercial bank).

Multifinance companies

Indonesia has over 200 multifinance companies – which are licensed to offer leasing, consumer financing, credit card financing, factoring and other lending services, but unlike banks are not allowed to accept deposits. Funding typically comes from wholesale borrowing and bond issuances.

The largest financing segment is vehicle financing, and most large multifinance companies are associated with banks or auto lenders, these include:

- Adira Dinamika Finance: focused on new and used car financing, funded through its parent, Bank Danamon
- BFI finance: focused on new and used car financing. Part owned by a private equity (“PE”) consortium
- Clipan finance: provides financing, leasing and factoring services. Part of the Panin Group whose customers it services for factoring
- Astra Sedaya Finance: member of the Astra Group, which owns the largest auto dealership in Indonesia.

New challengers

Crowdfunding and peer to peer (“P2P”) lending and other alternative lenders are at a nascent stage - most platforms are in testing phases or have not yet reached a critical mass.

eWallets are expanding customer use cases rapidly, with significant investments made in the last 18 months by large foreign and local eEconomy players.

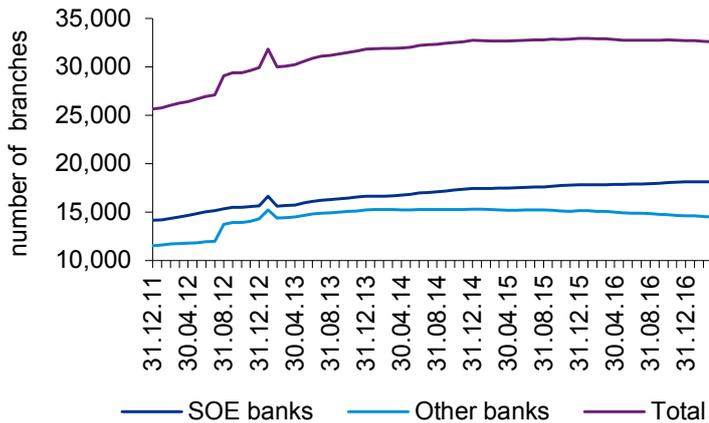
We profile some of the up and coming fintech companies on pages 30 to 31.

The financing landscape

Distribution channels

Banks are cutting back on branch expansion.

Commercial bank outlets



The four SOE banks (Bank Mandiri, BRI, BNI and BTN) own the majority of the commercial bank outlets, and are continuing to expand footprint reaching 18,121 outlets at 31 March 2017.

Meanwhile, the remaining 111 commercial banks, are cutting back from a peak of 15,309 outlets at 31 December 2014 down to 14,498 as of 31 March 2017.

Overall, outlets peaked at 32,619 in March 2017. We suspect this reflects strategic shifts to digital financial services, and attempts to lower cost to income ratios by closing unprofitable outlets.

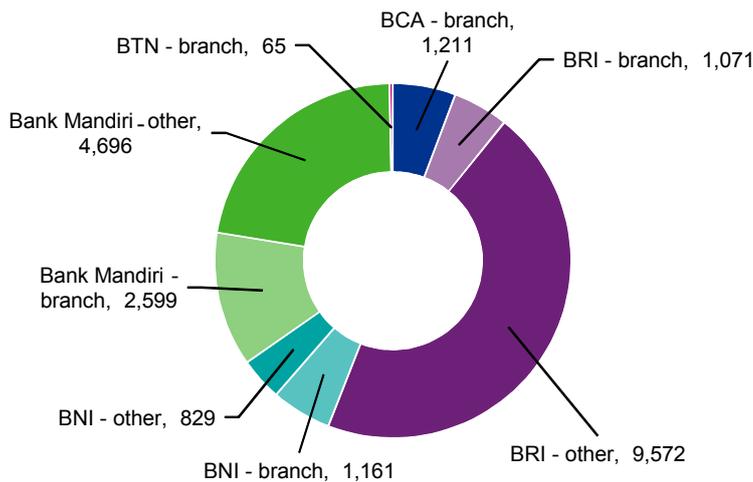
Note:

- a. There appear to be some data inconsistencies in the source data from December 2011 – April 2013
- b. Outlets includes formal bank branches, sub-branches and other physical outlets

Source:

- 1. Indonesia Banking Statistics
- 2. Bank's Annual Reports
- 3. KPMG Analysis

Footprint of the four SOE banks and BCA



The four SOE banks and BCA have more than 21,000 points of presence. This scale, in a market with a high dependence on cash, makes these institutions the deposit banks of choice.

While Bank Mandiri had the largest number of official branches at 31 December 2016, BRI had a 9,572 non-branch outlets which include mobile cash outlets located in vans and boats. BRI also recently launched its only satellite. This additional non-branch network allows BRI to serve the geographically excluded population, a segment in which BRI has a significant lead.

Note : Data as at 31 December 2016

Source : Bank's Annual Reports

The financing landscape

Distribution is moving towards digital channels. Indonesia is a mobile first country with many users discovering the internet via mobile devices. For finance companies, mobile user experience should be at the forefront of strategic investment decisions.

Delivery channels - largest digital banks - peer comparison						
	BCA			Mandiri		
	2015	2016	Var	2015	2016	Var
Branch						
No. of trans. (in million)	174	170	-2%	n.i.	n.i.	n.i.
Trans. value (IDR trillion)	14,495	14,611	1%	n.i.	n.i.	n.i.
ATM						
No. of trans. (in million)	1,782	1,840	3%	1,105	1,193	8%
Trans. value (IDR trillion)	1,847	2,024	10%	906	976	8%
Internet banking						
No. of trans. (in million)	1,400	1,705	22%	439	574	31%
Trans. value (IDR trillion)	5,935	6,801	15%	148	148	0%
Mobile banking						
No. of trans. (in million)	591	786	33%	656	997	52%
Trans. value (IDR trillion)	556	722	30%	156	276	77%

Source:

1. BCA Annual Report 2016
2. Bank Mandiri Investor presentation 2016
3. KPMG Analysis

Indonesian banks have traditionally focused on cash based distribution infrastructure, with branch and Automated Teller Machine (“ATM”) networks historically key to capturing the retail deposit market. This is especially true of BCA, which pioneered commercial banking in Indonesia through investment in an efficient network of banks and ATMs across the archipelago, later building a lead in internet banking.

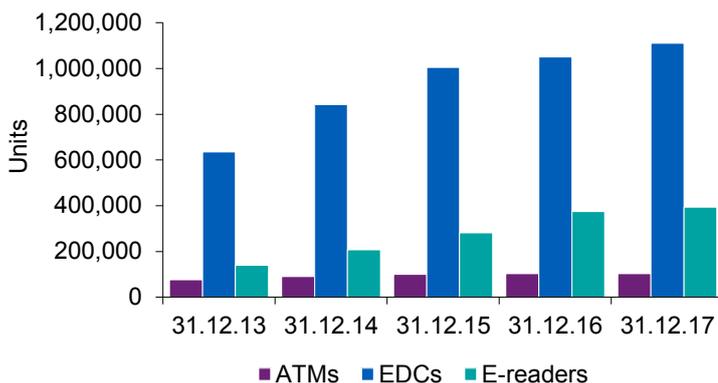
Indonesia is rapidly moving to cashless banking, and Bank Mandiri and BCA are perceived to be the institutional market leaders in digital financial services.

Branch transactions stagnated in volume and value at BCA in 2016, and ATM transaction volumes appear to also be slowing. However, the ATM is still BCA’s (and Bank Mandiri’s) largest channel by transaction volume.

BCA has a significant lead over Bank Mandiri in ATM and Internet banking transaction volumes and value, but Bank Mandiri recently overtook BCA in mobile banking (by volume but not value). Mobile banking was the fastest growing channel in 2016 for BCA and Bank Mandiri.

Most banks have slowed their investment in ATMs and Electronic Data Capture (“EDCs”), with eMoney readers a new focus, in support of prepaid cards.

Digital banking infrastructure



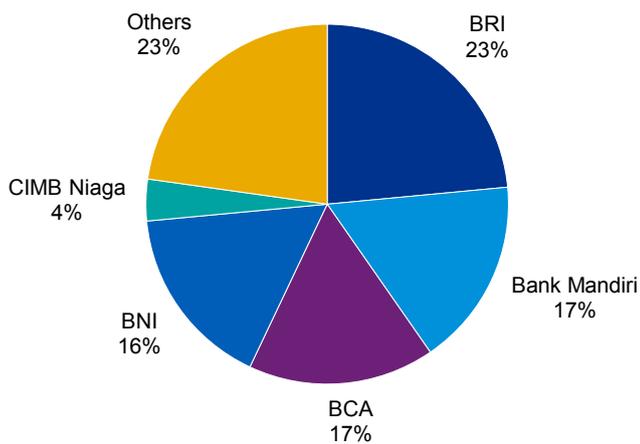
Source:

1. Bank’s Annual Reports
2. KPMG Analysis

The financing landscape

At present the big four banks dominate ATM and EDC infrastructure owning over 73% of ATMs and 92% of EDCs. However, regulatory driven opening up of the payments market including the push for a National Payments Gateway and consolidation of SOE ATM and EDC assets may soon reduce this competitive infrastructure advantage.

ATMs: more than 103,000 across Indonesia



Note: Data as at 31 December 2016

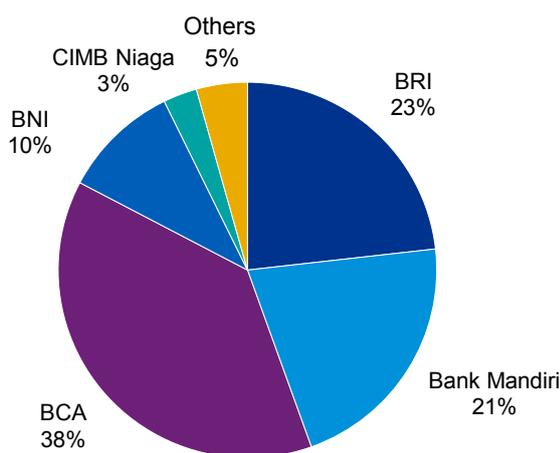
Source:

1. Indonesia Payment System Statistics, Indonesia Financial Services Authority ("OJK")
2. Bank's Annual Reports
3. KPMG Analysis

BRI currently has the largest ATM network in Indonesia.

The four SOE banks are currently consolidating their ATM and EDC networks. The ATMs and EDCs are being transferred to a new holding company which will manage the estate with free standing ATMs being rebranded as "ATM Link". All four SOE banks should benefit from reduced ATM and EDC managed services operating expenses and greater reach.

EDCs: more than 1,050,000 across Indonesia



Note: Data as at 31 December 2016

Source:

1. Indonesia Payment System Statistics, OJK
2. Bank's Annual Reports
3. KPMG Analysis

BCA has a significant lead in EDC deployments, reflecting BCA's focus on provision of EDCs as a tool to capture wider merchant banking relationships.

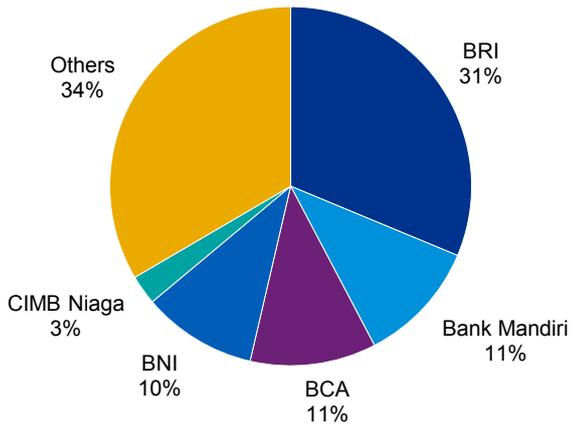
Due to bank competition for enterprise merchants Merchant Discount Rate ("MDRs") have become very competitive. As a result many banks have been exiting acquiring activity, which is having a downwards impact on EDC growth.

The financing landscape

Debit card market share

BRI has the largest share of debit cards reflecting its large rural micro deposit base.

Debit and ATM cards: 127.8 million issued



Note: Data as at 31 December 2016

Source:

1. Indonesia Payment System Statistics, OJK
2. Bank's Annual Reports
3. KPMG Analysis

There were more than 127.8 million²² debit/ATM cards issued as of 31 December 2016 (up from 59.8 million²¹ cards at 31 December 2011).

The banked population tends to have accounts with several banks, reflecting mandated use of certain banks by employers (particularly conglomerates with banking arms or SOEs), and individual selection of current account banking provider chosen based on convenience of branch/ATM access.

The big four banks had issued more than 80 million ATM and debit cards as of 31 December 2016, representing a 63% market share. BRI alone has issued c. 40 million²² debit cards, reflecting its large micro finance customer base.

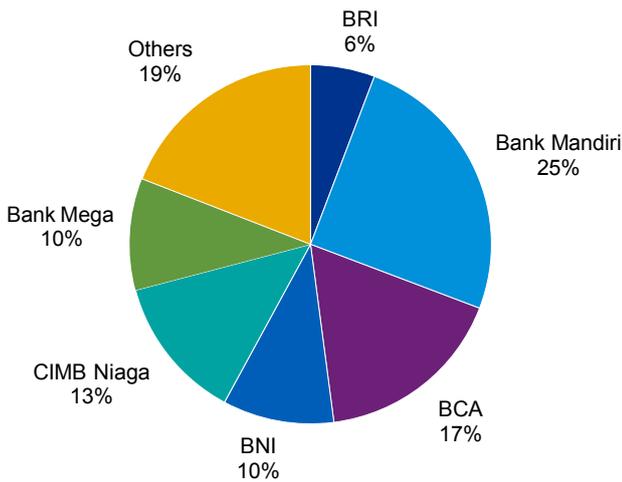


The financing landscape

Credit card market share

BCA and Bank Mandiri lead in credit card issuance reflecting their large affluent urban customer base.

Credit cards: 17.4 million issued



Note: Data as at 31 December 2016

Source:

1. Indonesia Payment System Statistics, OJK
2. Bank's Annual Reports
3. KPMG Analysis

As at 2 June 2017, Indonesia had 26 credit card issuing banks, 13 acquiring parties and 4 principals. The principals are presently all international networks, but the regulator has set a timetable for a domestic principal to take over local credit card switching from June 2019.

As of 31 December 2016, there were 17.4 million²² credit cards issued (up from 14.5 million²² at 31 December 2011). The top 6 issuer banks control over 80% of the credit card market. Bank Mandiri had the largest share with 4.4 million²³ cards as of 31 December 2016.

Bank Mega, a bank owned by CT Corp - one of the largest retail conglomerates in Indonesia (local franchise owner of the Carrefour, Coffee Bean, and other international brands) is a significant credit card player, and has grown this business through pioneering the use of discounts and incentives for credit card purchases at retail outlets.

On 1 January 2015, Bank Indonesia introduced regulations that only allow Indonesians with income between IDR 3 million (approximately USD 220) and IDR 10 million (approximately USD 740) a maximum of two credit cards. This slowed credit card issuance which grew only 4%²² in total between 2011 and 2016.

In 2017, the maximum credit card interest rate was set at 2.25%²⁴ per month (or 30.6% APR) down from a previous level of 2.95%²⁵ per month (or 41.8% APR).



Credit

Lending assets

Overall credit expanded at CAGR 14.3%¹ between 2011 and 2016, but growth rates have declined in recent years.

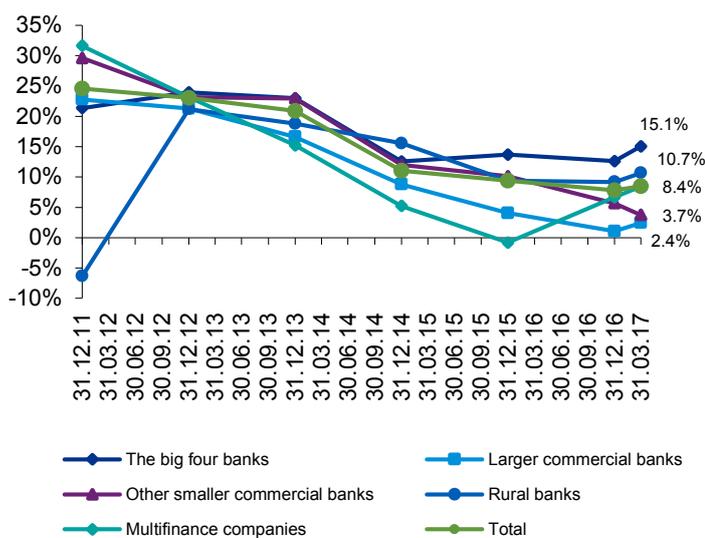
Lending assets									
in billion IDR	31.12.10	31.12.11	31.12.12	31.12.13	31.12.14	31.12.15	31.12.16	31.03.17	CAGR
Big Four banks	756,277	917,982	1,137,936	1,399,344	1,575,217	1,790,792	2,016,874	2,022,120	17.0%
BRI	246,964	283,586	348,232	430,622	490,410	558,447	635,304	653,107	17.5%
Bank Mandiri	219,032	273,962	339,974	416,978	475,267	536,030	592,669	585,052	16.7%
BCA	153,923	202,269	256,714	312,380	346,962	388,008	416,279	408,910	15.5%
BNI	136,357	158,165	193,017	239,363	262,578	308,307	372,621	375,051	18.7%
Larger commercial banks	388,552	477,139	578,640	674,785	734,192	763,895	771,976	757,687	10.1%
CIMB Niaga	103,622	122,961	140,776	149,692	169,381	170,733	174,806	171,102	7.3%
Danamon	75,774	87,698	93,181	105,790	109,575	102,843	95,915	94,084	1.8%
Permata	53,026	68,880	94,095	118,501	131,588	127,442	104,621	95,054	8.7%
Maybank Indonesia	50,182	62,956	76,216	95,505	98,117	103,518	109,886	108,033	11.8%
BTN	48,703	63,564	81,411	100,467	115,916	138,956	164,446	169,687	20.9%
Panin Bank	57,246	71,080	92,961	104,830	109,616	120,403	122,300	119,728	11.5%
Other smaller commercial banks	621,016	804,974	991,286	1,218,745	1,364,899	1,503,218	1,588,345	1,590,159	14.6%
Rural banks	43,877	41,100	49,818	59,176	68,391	74,807	81,684	84,340	14.7%
Multifinance companies	186,354	245,299	302,079	348,026	366,205	363,273	387,505	395,186	9.6%
Total lending assets	1,996,076	2,486,493	3,059,759	3,700,076	4,108,904	4,495,984	4,846,383	4,849,492	14.3%

Note: CAGR shows growth from 2011 - 2016

Source:

1. Indonesia Banking Statistics, OJK
2. Bank's Annual Reports
3. Indonesia Multifinance Statistics
4. KPMG Analysis

Growth in lending assets by category of financing institution



Note: Growth in March 2017 was calculated from year-on-year growth from March 2016 to 2017

Source:

1. Indonesia Banking Statistics, OJK
2. Bank's Annual Reports
3. Indonesia Multifinance Statistics
4. KPMG Analysis

Annual growth in lending assets fell from a rate of 24.5% in 2011, to 7.8% in 2016. The decline in the growth of lending assets shows significant variability:

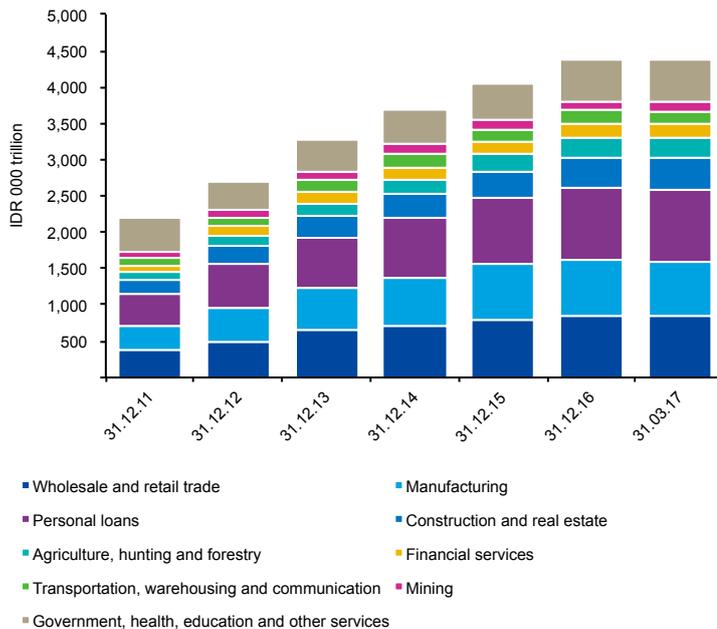
- **The 'big four banks':** which contributed 41.7% of financing at 31 March 2017 have been outperforming the market. They are diversified with strong retail funding bases
- **The 'larger and smaller commercial banks':** are most under pressure, and cut back lending between 2015 and 2016. These banks have more concentrated exposures to manufacturing, wholesale and retail trading and the mining sectors, along with consumer financing – which have all seen rising NPLs
- **Rural banks:** which benefit from the lowest LDRs of all banks with a strong deposit base by virtue of captive audiences in geographically excluded areas. This has allowed them to maintain local SME and retail lending at above market growth rates
- **Multifinance companies:** which have been suffering from expensive cost of funds/tightening liquidity, and have consequently cut loan disbursements.

Credit

Lending by sector

There has been significant variability in the growth in credit by sector, but overall over 60% of credit is allocated to trade, manufacturing and personal loans.

Commercial bank lending by sector



Source:
 1. Indonesia Banking Statistics, OJK
 2. KPMG Analysis

Given rising NPLs, economic headwinds and currency volatility, banks have been more cautious in terms of loan disbursement across most sectors since 2014.

Three market segments received 59% of financing as at 31 March 2017 and had the fastest overall growth in the period from 2011 to 2016:

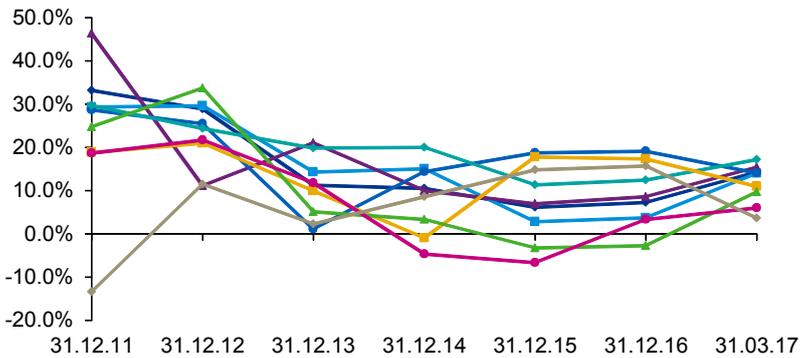
- **Wholesale and retail trade lending:** accounted for 19% of lending at 31 March 2017, and grew at Compound Annual Growth Rate (“CAGR”) 19.1% from 2011 to 2016. This sector receives a disproportionate amount of funding relative to Gross Domestic Product (“GDP”) contribution, and we expect a rebalancing in future years.
- **Manufacturing:** accounted for 17% of all loans at March 2017, with CAGR 17.3% from 2011 to 2016. The manufacturing category includes commodities processing companies which have suffered as a result of the global commodities downturn from 2012 (GDP from manufacture of coal and refined petroleum products increased only 0.7%²⁶ between 2011 to 2016). However, this has been offset by other manufacturing segments which grew significantly from 2011 to 2018 such as: F&B manufacture (80.7%²⁶ GDP growth), tobacco product manufacture (63.3%²⁶ GDP growth), chemicals and pharmaceuticals manufacture (78.5%²⁶ GDP growth) and machinery and equipment manufacture (71.8%²⁶ GDP growth), which has offset commodities processing weakness.
- **Personal loans:** accounted for 23% of all loans at March 2017. In 2012 personal loans grew at 46%. In 2013, a number of policy changes were introduced to avert a possible property bubble, including increasing minimum down payments for property purchases and decreasing Loan-To-Values (“LTVs”) on second homes. Growth in personal loans reduced significantly as a result.

In 2015 and 2016, Bank Indonesia cut minimum down-payment requirements, on first and second homes and auto loans, provided lenders maintain NPLs below minimum threshold, and we anticipate strong growth in personal lending as a result

Credit

Relative to GDP contribution, agriculture, hunting, fishing, transportation and communications appear under-funded.

Year-on-year growth in loans by sector



Notes:

- CAGR derive growth from 2011-March 2017
- Growth in March 2017 is calculated from the lending assets from March 2016 – March 2017

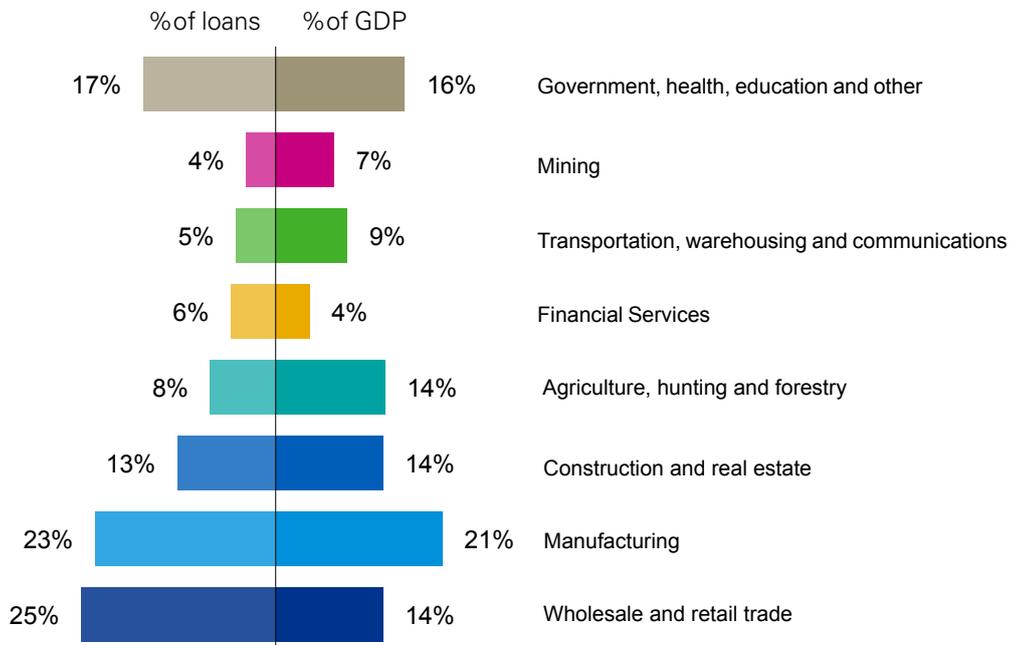
Source:

- Indonesia Banking Statistics, OJK
- KPMG Analysis

Other sectors which are less significant but show high variability in growth rates include:

- Agricultural, Hunting & Forestry lending*: which showed strong growth in 2015 and 2016, perhaps aided by new lending requirements from the OJK requiring micro and SME loans at 5%²⁷ of total loans for 2015, rising to 20%²⁷ of loan portfolios by 2018. This segment is under-funded relative to GDP contribution and we expect above market lending growth to continue in coming years
- Mining and quarrying*: loan growth was negative in 2014 and 2015. Foreign investment in Indonesia's mining sector has been declining since the release of a 2009 mining law which required accelerated divestment of foreign owned mining companies, and required

Dec 2016 loans outstanding versus GDP by sector



Note: Analysis of loans percentage excludes personal loans as this is not a 'sector' in GDP statistics

Source:

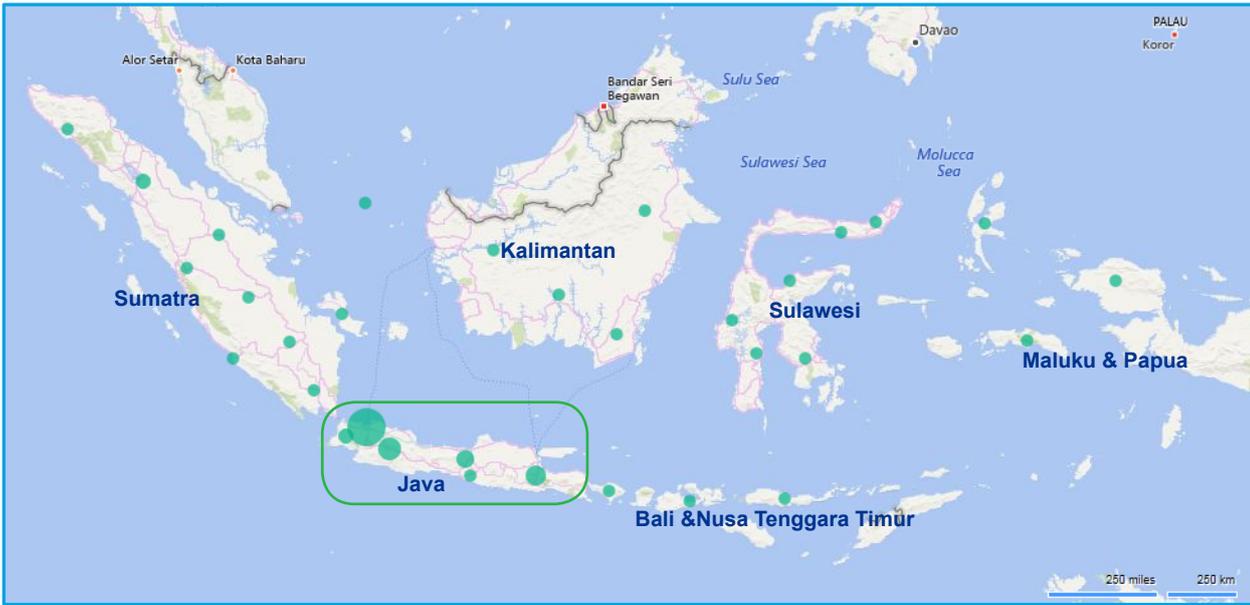
- Indonesia Banking Statistics, OJK
- KPMG Analysis

Credit

Regional access to credit

Relative to regional GDP, a disproportionately high percentage of credit is allocated to Java, while the reverse is true for Sumatra and Kalimantan.

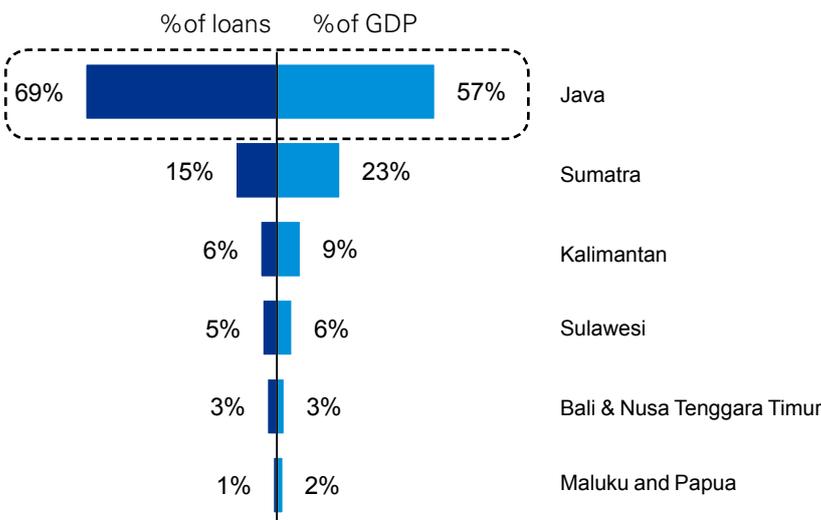
December 2016 loans outstanding by region



Note: Bubble size represents loans outstanding as at 31 December 2016

Source:
 1. Indonesia Banking Statistics, OJK
 2. KPMG Analysis

December 2016 loans outstanding versus GDP by region



We believe Indonesia will develop from two distinct city clusters (Jakarta and Surabaya, both in the Island of Java) to eight in the future – and targeting the regional market will be key to success.

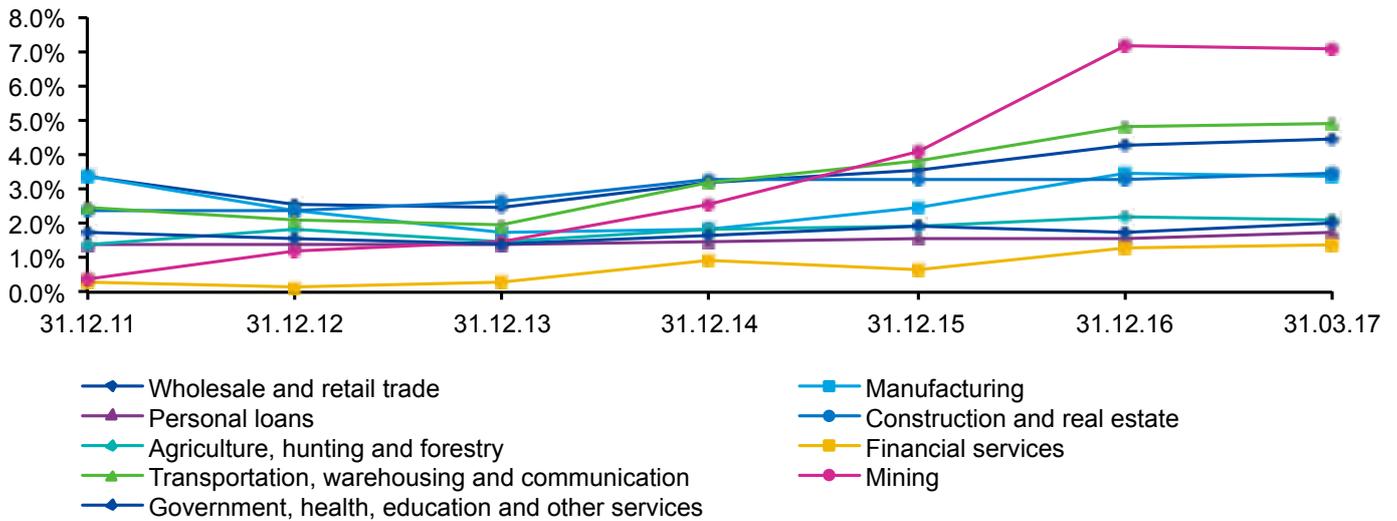
Lending growth potential, particularly to Micro, Small and Medium Enterprises (“MSMEs”), is much higher in Sumatra and Kalimantan – which are currently under-banked relative to their economic contribution – while Java (and Bali) appears relatively saturated.

Credit

Deteriorating asset quality: overcoming the challenge

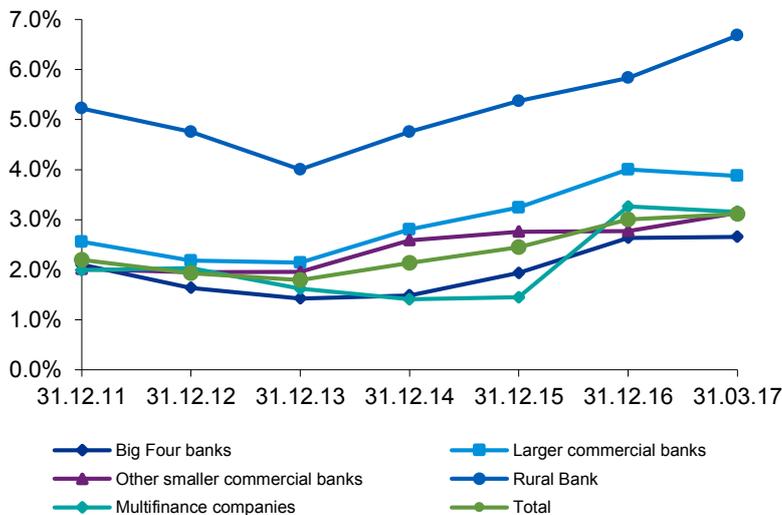
Credit quality has deteriorated since 2013 across most sectors and category of institution.

Commercial bank NPL ratios by sector



Source:
1. Indonesia Banking Statistics, OJK
2. KPMG Analysis

NPL ratio by category of financing institution



Source:
1. Indonesia Banking Statistics, OJK
2. KPMG Analysis

There was a significant uptick in NPLs in 2014, with the mining sector most impacted. As global commodity prices fell, companies operating in natural resources and mining sectors, including related supply chain and servicing companies, suffered financial difficulties.

Credit quality also deteriorated in other sectors following export slow downs due to weaknesses in other economies compounded by a depreciation of the Indonesian Rupiah ("IDR") compared to the United States Dollar ("USD").

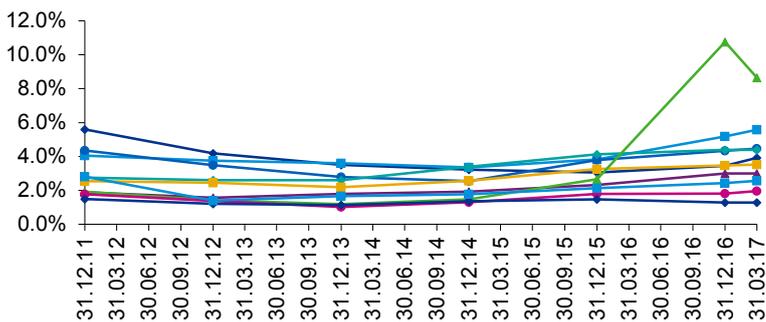
While all institutions saw a deterioration in credit quality, the Big Four were the least impacted.

Credit

Deteriorating asset quality - top 10 banks

Except for BTN, all the Top 10 banks increased their provisions as a percentage of lending assets in 2016.

Top 10 banks - Impairment allowances as a proportion of lending assets

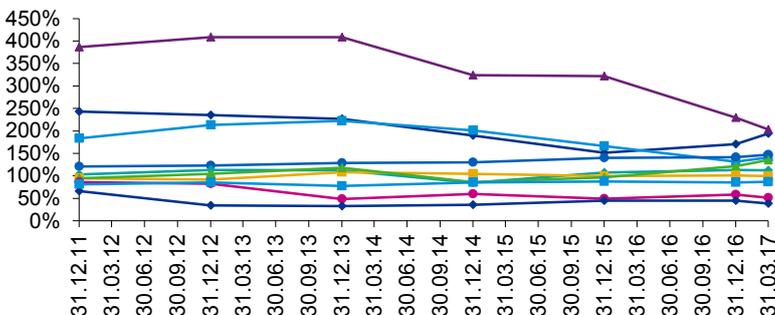


Source:
1. Indonesia Banking Statistics, OJK
2. KPMG Analysis

Bank Permata was most impacted by the 2016 credit deterioration, with an 8.1 percentage point²⁸ ("pp") increase in impairment allowance compared to that booked at 31 December 2015. In December 2016 Bank Permata identified an IDR 9 trillion²⁸ portfolio of impaired loans and plans to liquidate this portfolio in 2017. The portfolio included impaired loans across multi-sectors.

Of the Big Four banks, Bank Mandiri has seen the biggest decline in asset quality with impairment allowances as a percentage of lending assets rising from 3.8%²³ at 31 December 2015 to 5.2%²³ at 31 December 2016. Much of the impairments related to commercial loans to companies in the commodities sector.

Top 10 banks - Impairment allowances as a proportion of NPLs



Source:
1. Indonesia Banking Statistics, OJK
2. KPMG Analysis

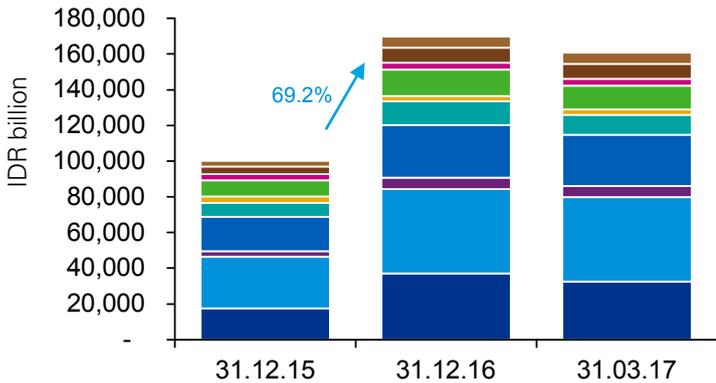
Most of the top 10 banks have booked impairment allowances of over 100% in anticipation of deteriorating quality of 'restructured loans' and 'special mention' loans. BCA is the most prudent on this basis, but has been cutting this buffer in recent periods.



Credit

There was 69.2% increase in restructured loans in 2016.

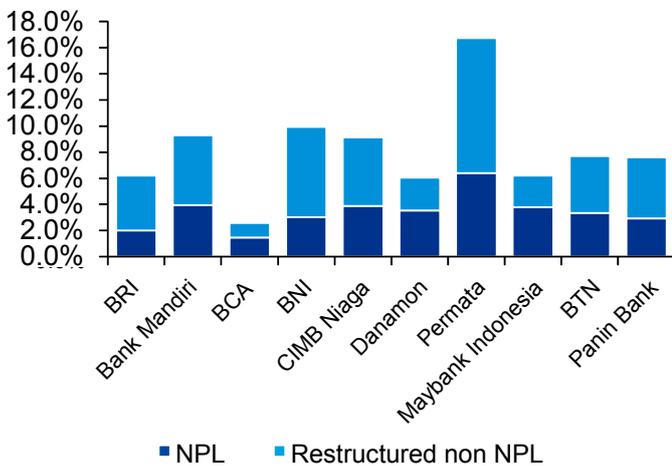
Top 10 banks – restructured loans



Source:

1. Bank's Annual Reports
2. Bank's Quarterly filings
3. KPMG Analysis

Top 10 banks – impaired loans



Note: Impaired loans calculated as NPL and restructured loans as a percentage of gross loans

Source:

1. Bank's Annual Reports
2. Bank's Quarterly filings
3. KPMG Analysis

Banks have been looking ways to manage impaired assets. Solutions taken include:

- Loan restructuring:** the pace of loan restructuring increased significantly in 2016 following a temporary relaxation of loan restructuring regulations in August 2015, which allow banks to extend loan periods, reduce installment amounts or renegotiate interest rates, based on their assessment of a customer's ability to repay the loan only (and not the customer's business prospects or financial condition).

In essence, this is allowing banks to defer recognition of impaired loans. Bank Mandiri recognized 33.7%²³ of its restructured loans as non performing as at 31 March 2017.

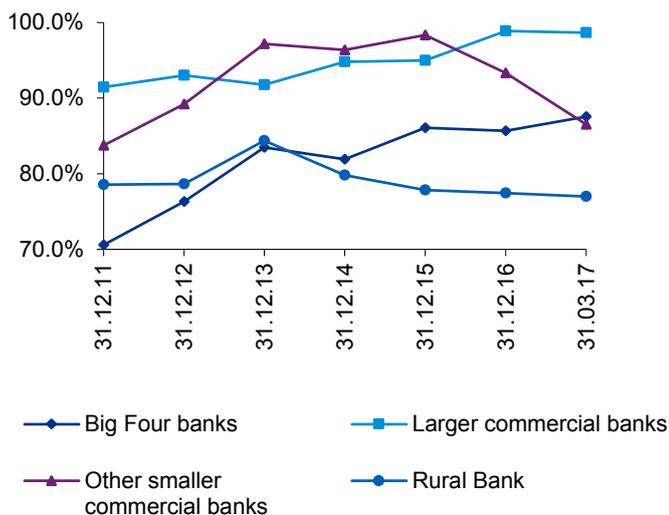
- SPVs:** In 2015 as part of stimulus measures, the OJK also allowed banks with risk rating of 1, 2 and 3, to set up SPVs to take over and restructure their bad assets – provided the bank has a maximum stake of 20 percent stake in the SPV and is not a controlling shareholder.
- Loan portfolio sales:** We are seeing an increasing volume of loan portfolio deals with interest from financial investors across all loan classes.

Deposits

Funding and liquidity:

There has been a tightening of liquidity as evidenced by the upward incline of LDR curves, and notably a squeeze on the 'larger and smaller commercial banks'.

LDR ratios creeping up over time by type of banks



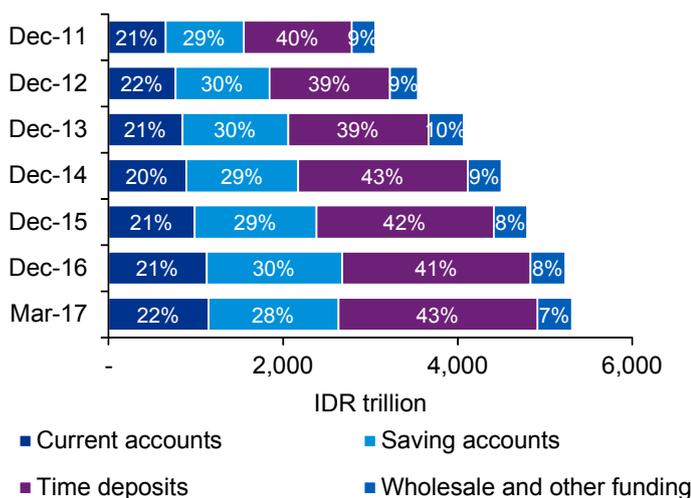
LDRs have been trending upwards from an average of 79% at 31 December 2011 to 88.9% at 31 March 2017.

Overall, the big four and rural banks look sound, with a strong captive deposit bases and Current Account, Saving Account ("CASA") ratios, either due to their large presence, or customer exclusivity in the regions they operate.

Meanwhile, the 'larger' and 'smaller' commercial banks, which are mostly based in urban areas are struggling to compete for CASA, resulting in the need for more expensive funding (time deposits and wholesale loans). Tightening in interbank liquidity means they have had to slow loan growth compared to the big four and rural banks.

Source:
1. Indonesia Banking Statistics, OJK
2. KPMG Analysis

Commercial Bank CASA ratios



Source:
1. Indonesia Banking Statistics, OJK
2. KPMG Analysis

Commercial bank CASA ratios have remained at c. 50% across most of the period, but there is a wide variability in CASA ratios across banks – with BCA enjoying the highest CASA ratio at 75.8% at 31 March 2017.

The majority of other funding is from time deposits. The average interest rate on time deposits trended above 6% from 2011 – third month of 2017 ("3M17"), while the average interest rates on CASA were sub 2% over this period.

Tax Amnesty

On 28 June 2016, the Indonesian parliament approved a Tax Amnesty Law which came into effect on 1 July 2016. The tax amnesty was in three quarters from third quarter of 2016 ("3Q16") to first quarter of 2017 ("1Q17"), and allowed individuals or corporates to declare and repatriate previously undisclosed funds/assets and pay one-off reduced penalties.

The incoming repatriated funds could only be deposited with 18 chosen banks and could only be invested in 8 specific instruments (one of which was time deposits).

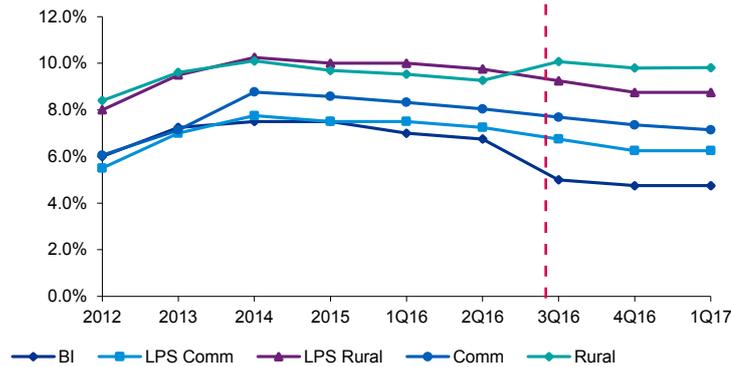
Just under 1 million applications were filed, with assets declared of IDR 4,866 trillion²⁹. As such, the tax amnesty had a one-off beneficial impact on the liquidity of the 18 chosen banks in 2016 and 1Q17.

Profitability

Interest rates

The regulator has taken a number of measures to reduce deposit rates.

Average domestic interest rates



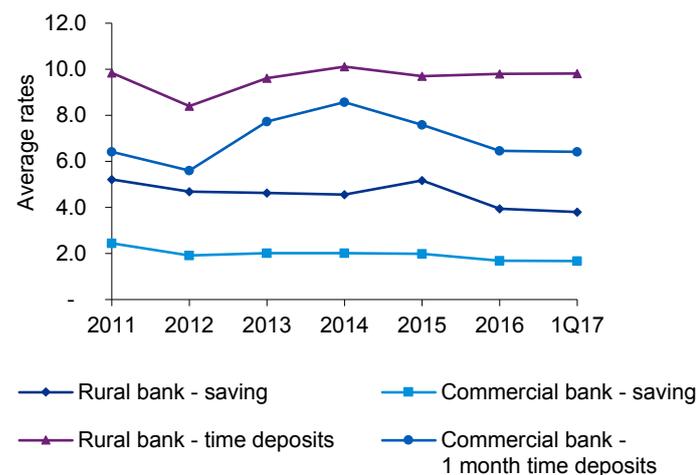
Note:

- Red line shows date at which BI rate changed to 7 day reverse repo rate
- Indonesia deposit underwriter institution ("LPS") Commercial and LPS Rural are the guaranteed deposit rates set by the Indonesian deposit protection scheme in the event of bank default
- Commercial and Rural are the average commercial and rural bank deposit rates

Source:

- Indonesia Banking Statistics, OJK
- BI Rate, BI
- Deposit insurance agency, LPS
- KPMG Analysis

Average deposit rates



Source:

- Indonesia Banking Statistics, OJK
- BI Rate, BI
- Deposit insurance agency, LPS
- KPMG Analysis

In 2013 and 2014, Bank Indonesia ("BI") increased interest rates in response to a weakening IDR.

As the threat of United States of America ("US") Federal Reserve rate hikes decline, the BI rate was subsequently cut from 7.75% in December 2015 to only 4.75% in early 2017, with six rate cuts in 2016. In August 2016, the BI rate was replaced with a 7 day repo rate resulting in a one-off reduction in the central rate.

In 2014, deposit rate caps were introduced which were lowered in March 2016 to a maximum of 75-100 basis points above BI rate. Deposit rate caps are intended to encourage banks to reduce lending rates, as a few corporations and SOE contribute a significant share of the deposit market and could previously demand high rates on deposits.

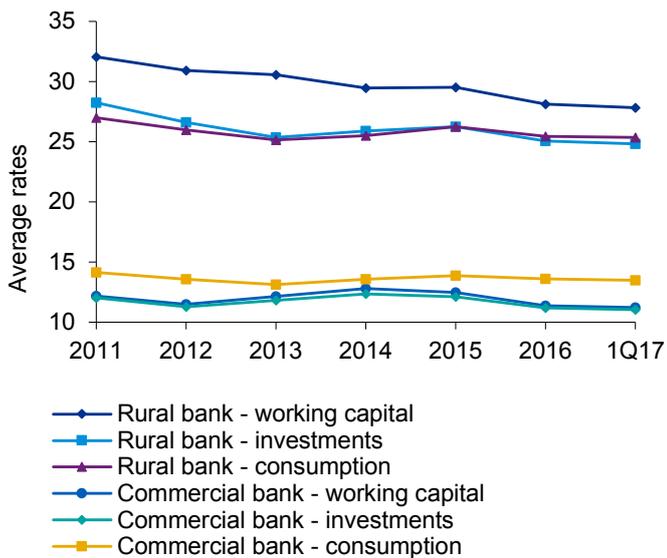
Pressure on deposit rates eased in 2016 following the monetary easing actions described above.

Rural banks have to pay c. 3pp¹ higher deposit rates than commercial banks to attract savings and time deposits.

Profitability

Not all institutions have passed on lower funding costs.

Lending rates by rural/commercial bank and loan type



Note: Above chart shows IDR lending rate

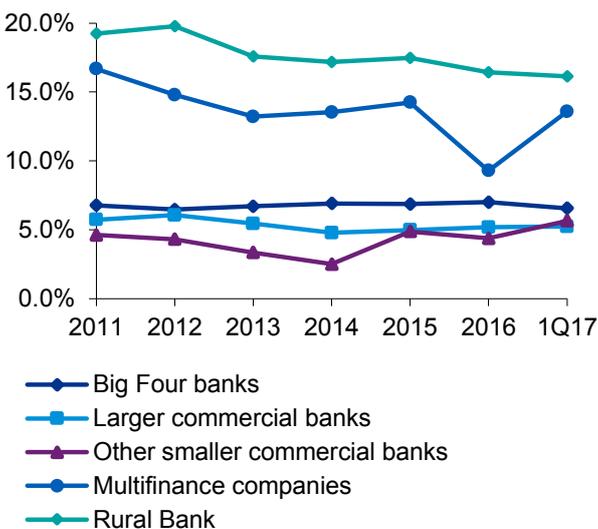
Source:

1. Indonesia Banking Statistics, OJK
2. BI Rate, BI
3. Deposit insurance agency, LPS
4. KPMG Analysis

There is a 11 – 19 pp delta between commercial bank and rural bank lending rates, depending on the type of lending.

Average lending rates for both commercial and rural banks are double digit, and the OJK and BI would like to see lending rates fall to single-digit territory. There is a concern in the future there could be a cap on lending rates, however, such a decision would need to be balanced with the impact of a reduced effectiveness of monetary policy.

Net Interest Margins ("NIMs") by financier category



Source:

1. Indonesia Banking Statistics, OJK
2. Indonesia Multifinance Statistics
3. KPMG Analysis

Rural banks and multifinance companies enjoy double digit net interest margins, but these margins are overall trending downwards.

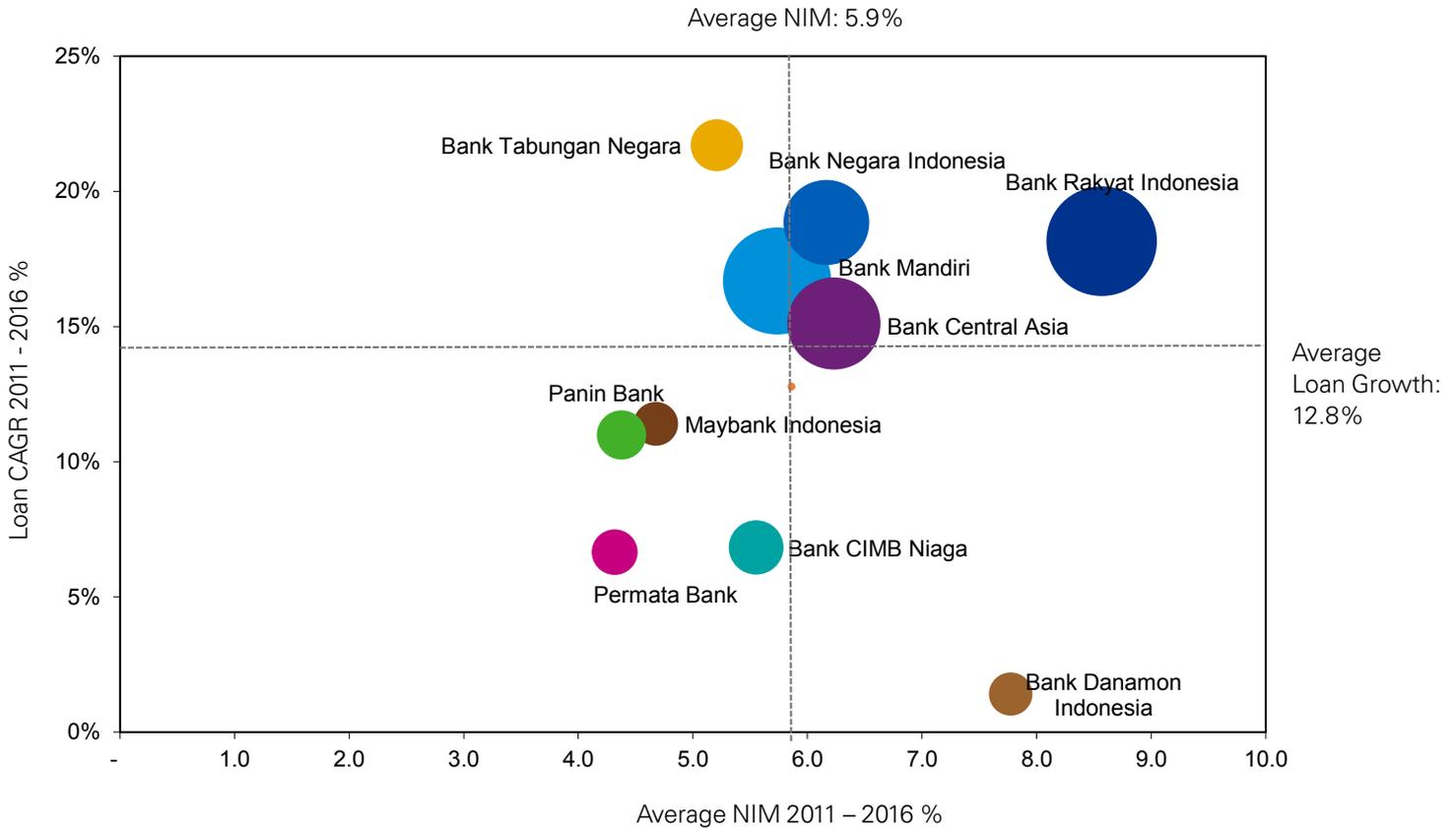
Meanwhile, commercial banking net interest margins improved from 5.0% in 2015 into 5.2% in 2016, and on average are the highest amongst ASEAN peers.

The "big four banks" NIM remained stable at around 6.5%-7.0% between 2011 and March 2017. Their NIMs are higher than other commercial banks due to their stronger CASA funding base.

Profitability

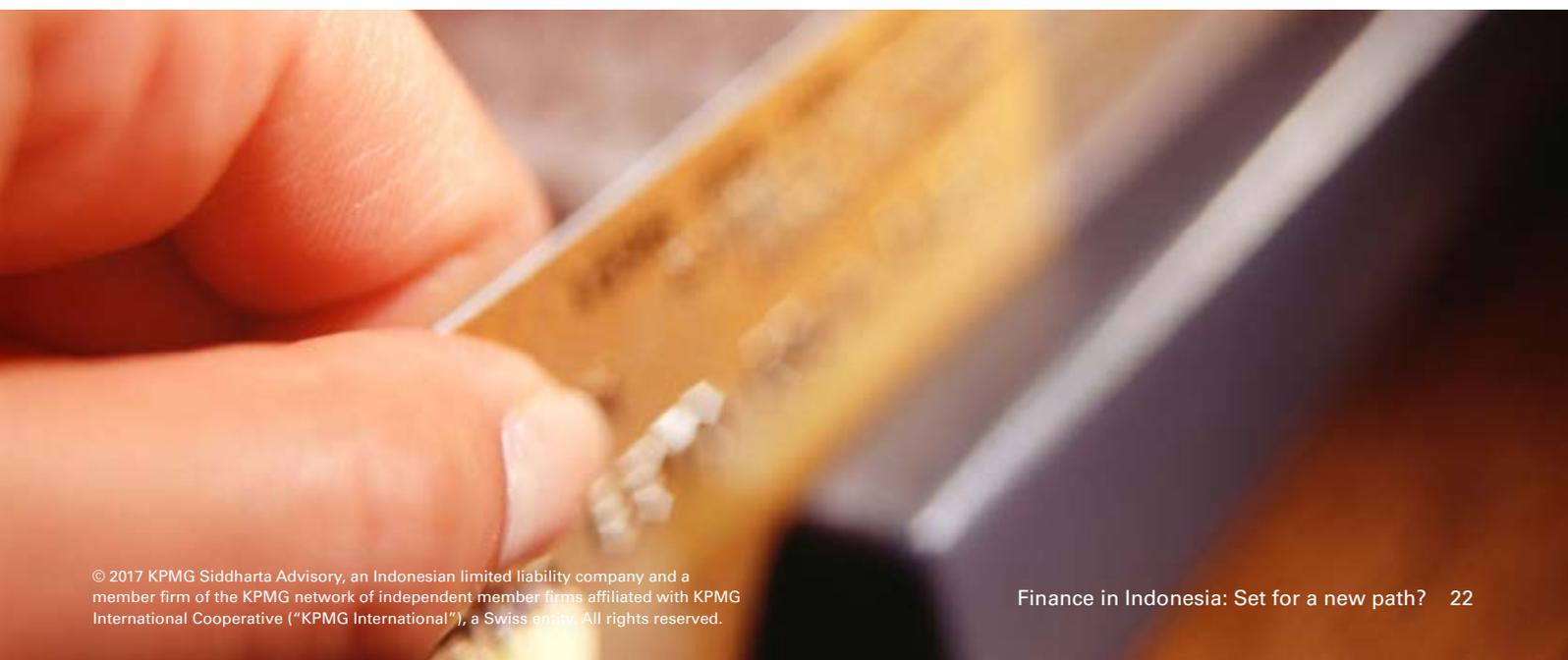
NIMs and loan growth - top 10 banks

All the top 10 banks achieved strong growth during the period 2011 to 2016; 2 of the top 10 banks have suffered reduced profits mainly due to increasing NPLs.



Notes: Bubbles represent total assets at 31 March 2017

Source: Bank's Annual Reports

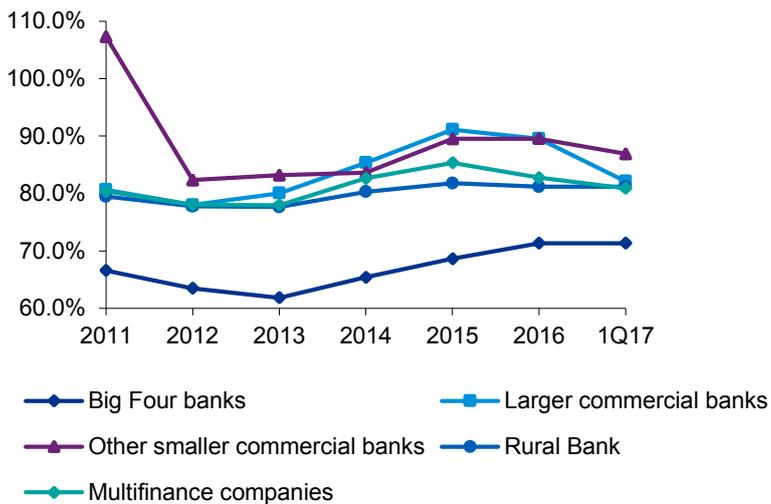


Profitability

Cost to income ratios

CIRs are high and institutions are looking at cost optimization through automation and investment in digital financial services, together with new sources of fee income to offset operating cost inflation – e.g. payments and bancassurance.

Cost to income ratios by financier category



The OJK has set a target CIR of 75% for banks with equity above IDR 5 billion, and 85% for banks with equity lower than IDR 5 billion. Banks who meet these targets will receive core capital allocation discounts for the establishment of branch offices.

All banks, except for the “Big Four banks” are having difficulties in meeting these targets due to increased impairment losses and high wage inflation.

Notes: CIR is calculated as operational expenses (Selling and Administrative (“S&A”) expenses, general expenses, interest expenses and provisions) divided by operational income

Source:

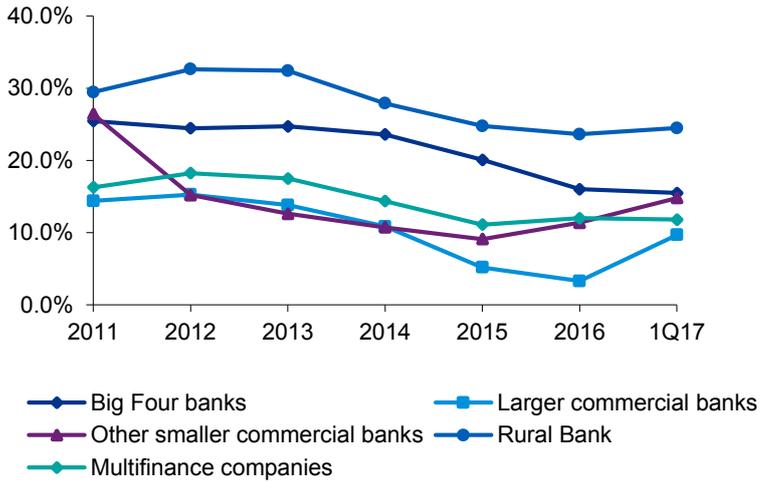
1. Indonesia Banking Statistics, OJK
2. Indonesia Multifinance Statistics
3. KPMG Analysis

Profitability

Return On Equity

Loan impairments and high operating expenses have impacted core profitability.

ROEs by type of financier



Overall, rural banks followed by the Big Four have the highest ROEs, reflecting their higher than average NIMs.

NPL and CIR pressure is impacting profitability, with most categories of financier seeing lower ROEs than 2011 levels.

Source:

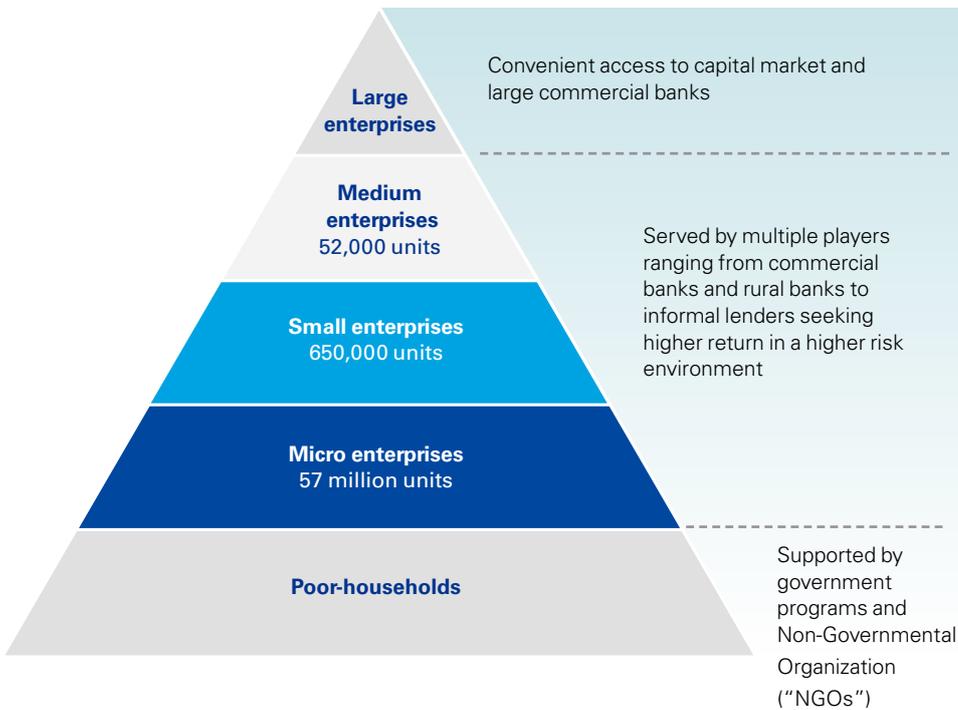
1. Indonesia Banking Statistics, OJK
2. Indonesia Multifinance Statistics
3. KPMG Analysis



Financial inclusion and fintech

MSME financing

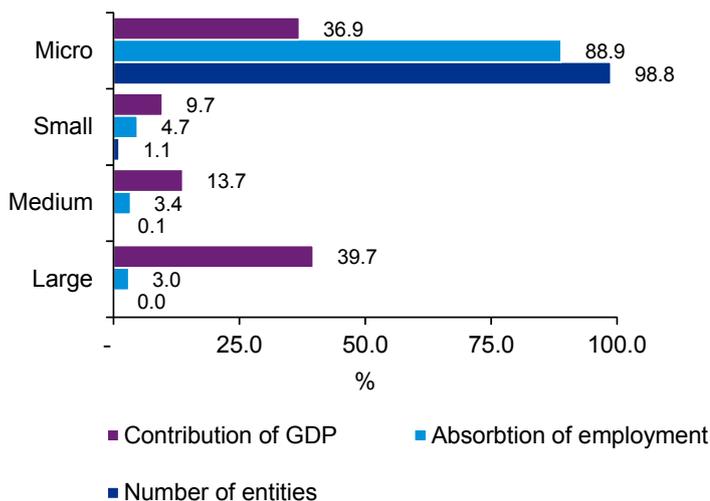
Indonesia has one of the highest unbanked populations in the world. The government's push for financial inclusion is opening up opportunities for traditional finance institutions and new fintech entrants.



There are 58 million³⁰ MSMEs in Indonesia.

It is estimated that only 12% of MSMEs have access to credit due to lack of formal financial statements, credit history or collateral.

Contribution to the private sector



MSMEs play an important role in the Indonesian economy as the sector constitutes 99.99% of the total number of business entities and 96.99% of the total labor force.

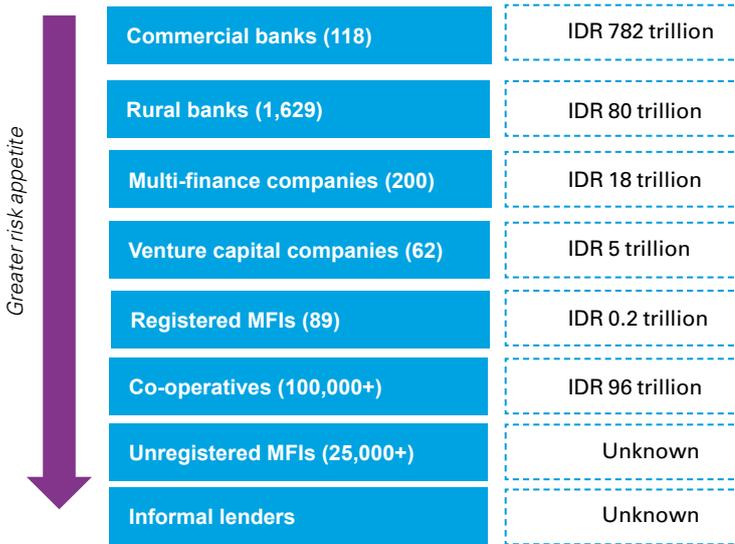
In terms of their share to national output, MSMEs contribute 60.34% of the total GDP.

Note: 2013 data

Source: Ministry of State Owned Enterprises

Financial inclusion and fintech

Indonesia's MSME lenders and their estimated market size

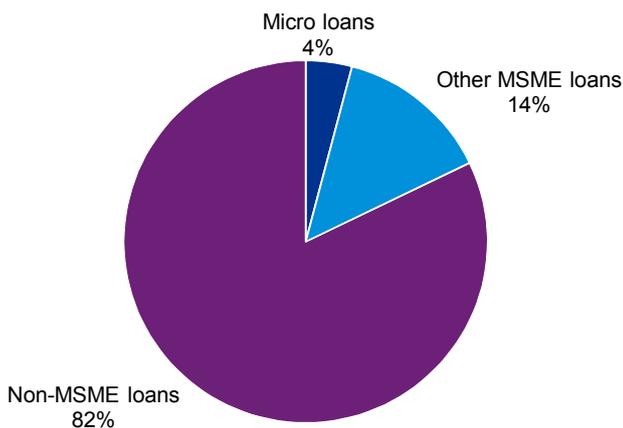


Source:
 1. Indonesia Banking Statistics, OJK
 2. Ministry of Cooperative and MSME

There are more than 125,000 financing institutions in Indonesia with commercial banks being the largest segment providing an estimated total financing of IDR 782 trillion.

There are a large number of informal lenders providing financing to Indonesia MSME due the high level of financial and geographical exclusion.

Commercial bank lending as at 31 March 2017

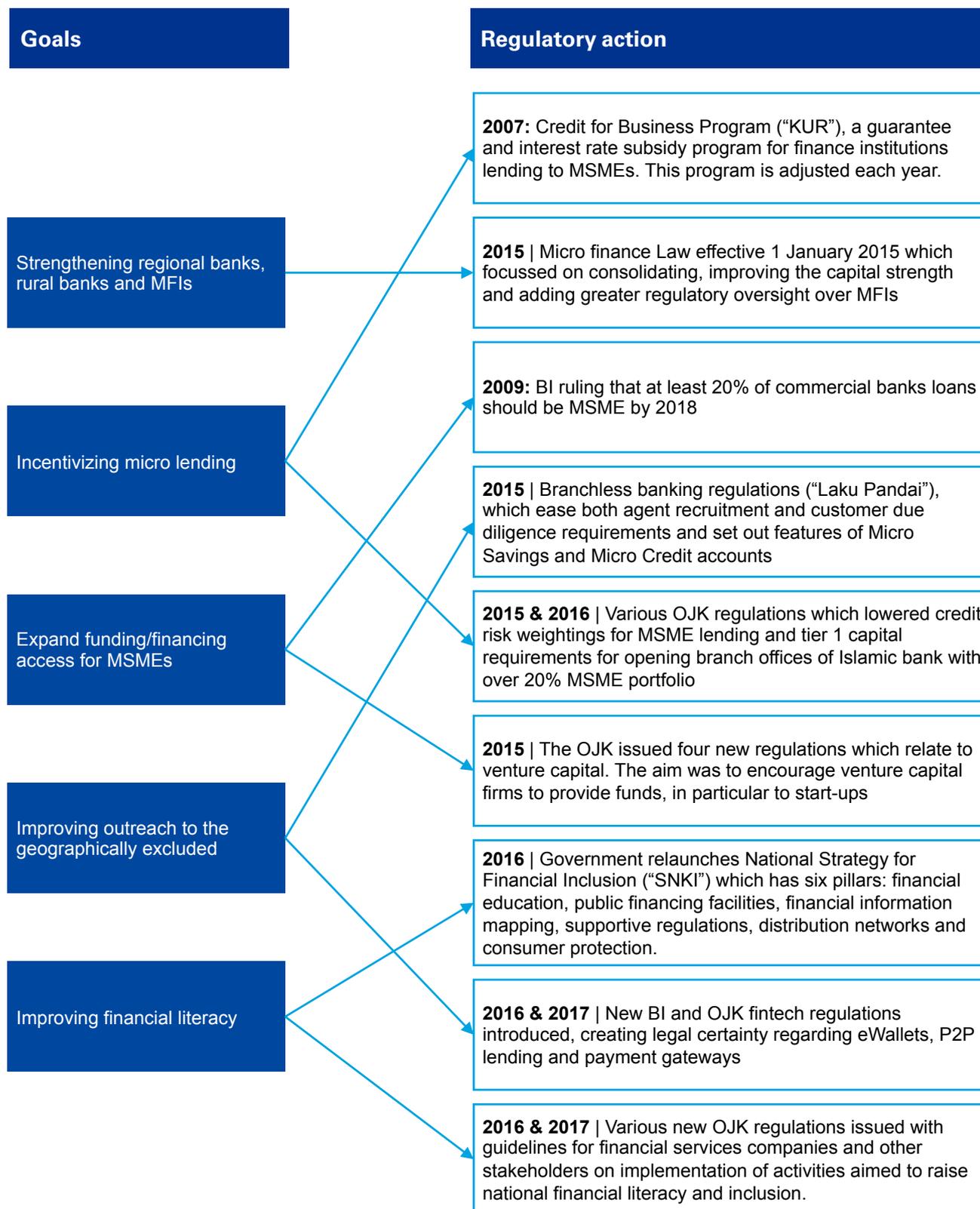


Source:
 1. Indonesia Banking Statistics, OJK
 2. KPMG Analysis

Despite commercial banks being by far the largest lenders to MSMEs, MSME lending represented only 18% of commercial bank lending at 31 March 2017.

Regulatory action

We continue to see significant regulatory developments intended to stimulate financial inclusion.

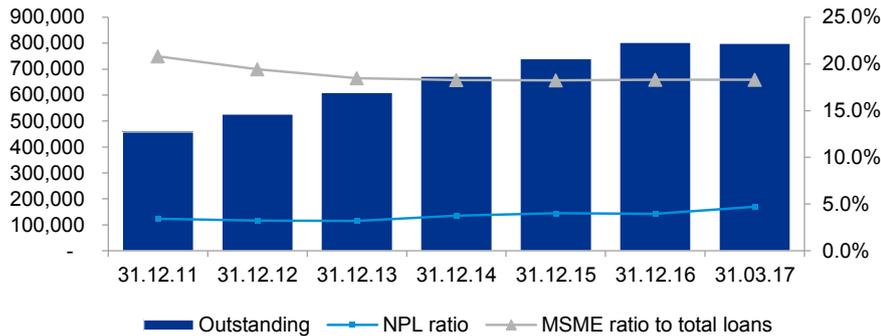


Financial inclusion and fintech

MSME financing

However, despite significant regulatory action and the market opportunity, MSME lending from traditional financial institutions is falling behind other credit.

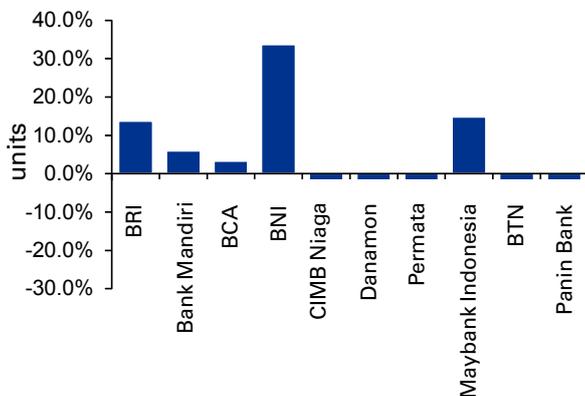
MSME lending



MSME lending as a proportion of total lending fell from 20.8% at 31 December 2011 to 18.3% at 31 March 2017.

Source:
 1. Indonesia Banking Statistics, OJK
 2. KPMG Analysis

2015 to 2016 growth in MSME loans



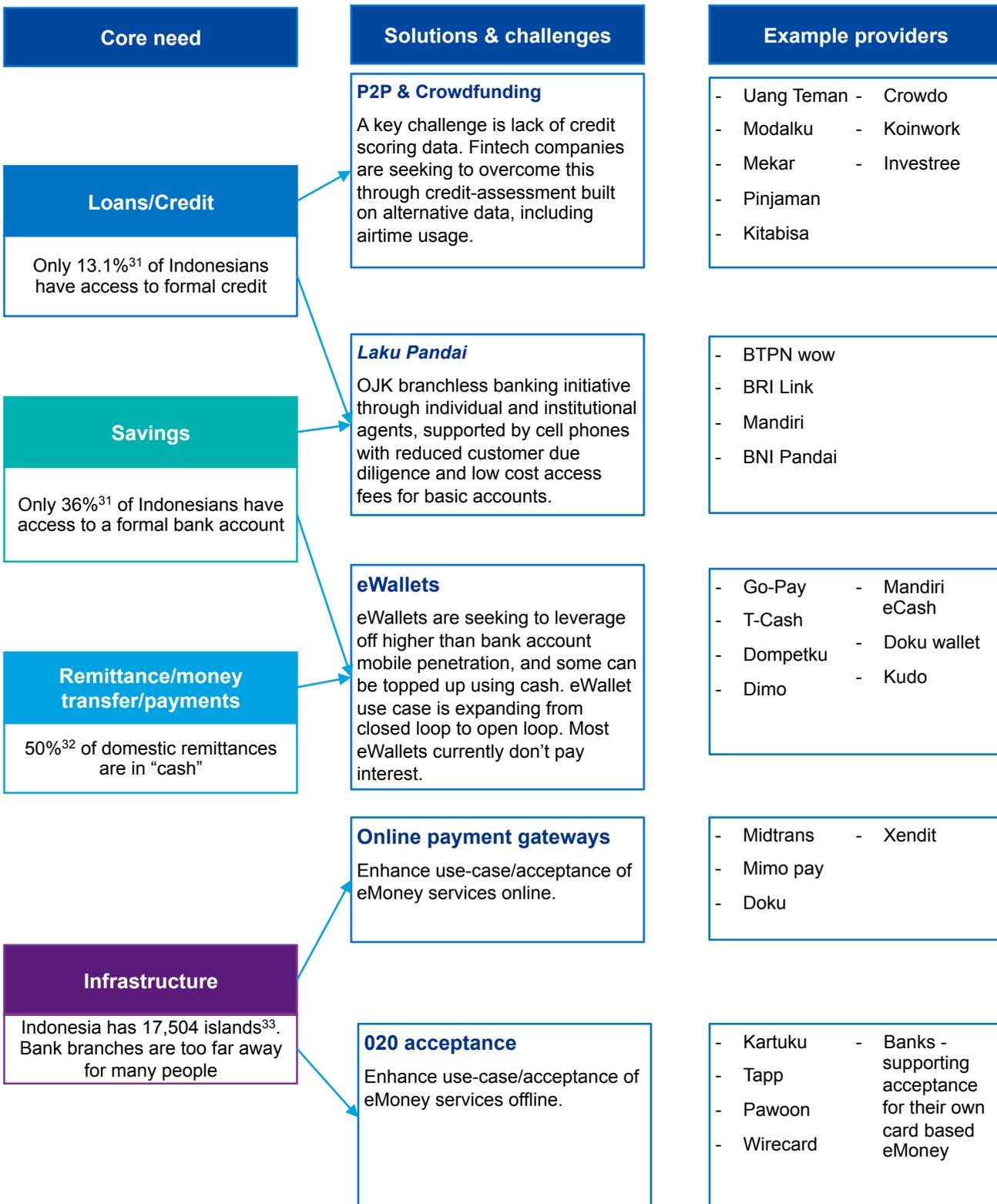
In 2016, with the exception of Maybank, the 'larger commercial banks' all reduced their MSME lending, due in part to declining MSME credit quality. NPL ratios on MSME loans increased from 3.2% in 31 December 2012 to 4.7% as of 31 March 2017.

This leaves an onus on the Big Four, and in particular BRI to widen financial inclusion.

Source:
 1. Indonesia Banking Statistics, OJK
 2. KPMG Analysis

Harnessing fintech to achieve financial inclusion

FinTech has an ability to solve Indonesia’s financial inclusion challenges, which include being an archipelago country with limited infrastructure and a lack of credit information on corporates and individuals.



Financial inclusion and fintech

Spotlight on

The number of Fintech players is expanding rapidly, and was estimated at 140 in November 2016 by the Indonesia FinTech Association (“IFA”). We profile a few on these pages which we feel can contribute to broadening financial inclusion.



Mekar is a P2P platform established in 2010 by Putera Sampoerna under the Sampoerna Foundation.

Products: business loans for SMEs with revenues over IDR 70 million per month. Collateral is required for loans of over IDR 100 million. Interest rates at 2.5% - 3% effective per month.

How it works: Agent based model, with automated approval process. The mobile equipped agent is responsible for collecting loan application data (background, financial information) in electronic form, monitoring performance and collecting payment.

Main selling point: Access to credit for SMEs not eligible for bank loans. Speed of disbursement.



Kartuku is one of Indonesia’s oldest electronic payments companies, and the first payment processor to have developed a unified payment network, which integrates acquiring and issuing banks with e-Money providers at point of sale.

Products: EDC managed services through a network of 59 points of presence across Indonesia, and provision of unified EDC devices which allow payment acceptance from multi bank cards and also multi-eMoney (contactless and QR).

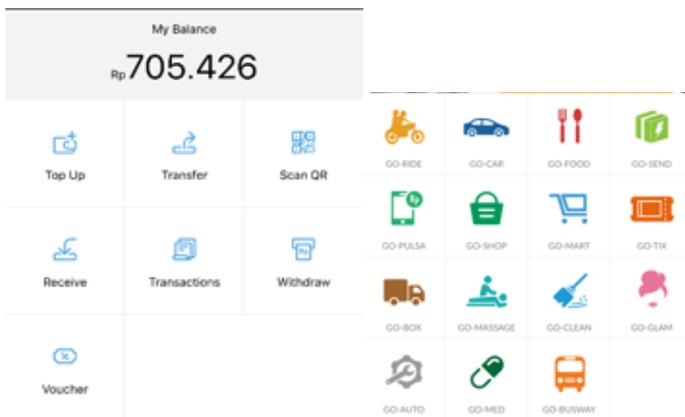
How it works: payment processing over Kartuku’s proprietary network, with acceptance at over 82 of the top 100 merchants in Indonesia.

Main selling point: lower payment processing fees and operating expenses for merchants, banks and eMoney, due to stacking of multiple banks/eWallets on one EDC device. Acceptance of eMoney offline. Rapid footprint expansion at multiple merchants. Stacking/aggregating of multi payment methods should allow Kartuku to expand to smaller merchants, providing improved use case for eMoney.



Financial inclusion and fintech

GO PAY



The eWallet of Indonesia's largest eRide company, Go-Jek. Go-Jek has over 230,000 drivers and over 50,000 merchants on its Go-Food platform, and also offers a growing array of services through its closed ecosystem including cleaning, beautician, massage and auto-servicing.

Products: An eWallet, Go-Pay, which has expanded from closed loop to open loop. Go-Pay has a remittance license and allows mobile transfers between Go-Pay accounts.

How it works: The wallet can be topped-up by bank transfer, ATMs and also handing over cash to Go-Jek's drivers.

Main selling points: Discounted rides, delivery and other services for use of Go-Pay within the Go-Jek ecosystem. No fees. No bank account required for top up - plans are in place to include major convenience-store chains as top-up agents in addition to Go-Jek drivers.

btpn WOW!



PT Bank Tabungan Pensiunan Nasional Tbk ("BTPN") is a listed bank that focuses on MSMEs, headquarter in Jakarta, with branches in more than 300 cities throughout Indonesia.

Products: BTPNWow! is a mass market banking service which operates in accordance with the Branchless Banking Framework of Indonesia's Financial Inclusion Program (commonly known as "Laku Pandai").

How it works: Mobile banking service designed for non-smart phones, which allows simple banking transactions. The Customer may access his or her savings account through a registered mobile phone number and a personal identification number. Customers can use their accounts to top up telephones, pay utility bills, buy train tickets, etc.

Main selling points: The service is supported by over 170,000 agents through 108 cities, most of whom operate their own small grocery stores, who also play the role of a bank teller by facilitating cash transactions. Customers can open an account, as well as deposit and withdraw cash through a bank agent with low charges.

Financial inclusion and fintech

New fintech regulations

The government and regulators appear very supportive of digital financial services, and the OJK and BI set out new fintech regulations in 4Q16 (please refer to the regulations section of this report for summaries). We believe the clarity on licensing requirements will result in an increase in funding for new fintech platforms which will result in improved financial inclusion.

Key fintech regulators

Bank Indonesia

- eWallets
- payment gateways
- principals
- eMoney
- switching companies
- card issuers and acquirers
- clearing houses
- settlement agencies
- cryptocurrency and blockchain
- national payment gateway
- parties that support payment transactions such as card providers, ATM, EDC, and data centers

OJK

- p2p lending
- crowdfunding
- digital banking,
- insurtech,
- fintech in capital markets
- venture capital
- online financing
- data security
- consumer protection

Ministry of communication and informatics

- telecommunications
 - information technology related matters
- (As many aspects of fintech interplay with the above two categories which fall under Ministry of Communications and Information Technology ("MOCIT")'s regulatory remit, it's likely aspects of fintech will fall under MOCIT's purview).

"We want to push so that FinTech grows even faster in Indonesia. OJK's function is not just to monitor, but also to encourage and accelerate the availability of wider financial access for all Indonesians, – so that the financial industry becomes more inclusive... We are looking for breakthroughs."

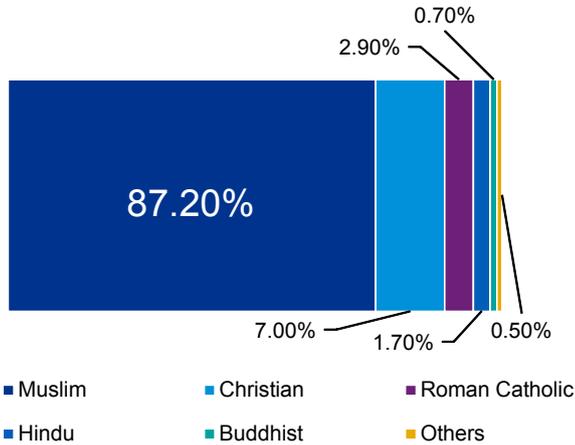
Dr. Muliaman D. Hadad, Chairman of the OJK
(2012-August 2017)

Given there are several regulatory bodies with potential overlap, the evolving regulatory framework is likely to be complex and hence careful consideration will be needed when developing products and platforms. Very broadly the OJK appears to be taking a lead on most areas, with the exception of payments.

Islamic Banking

No longer a perennially untapped opportunity?

Indonesian population by religion



Note: 2010 data
Source: www.bps.go.id 2010 sensus penduduk

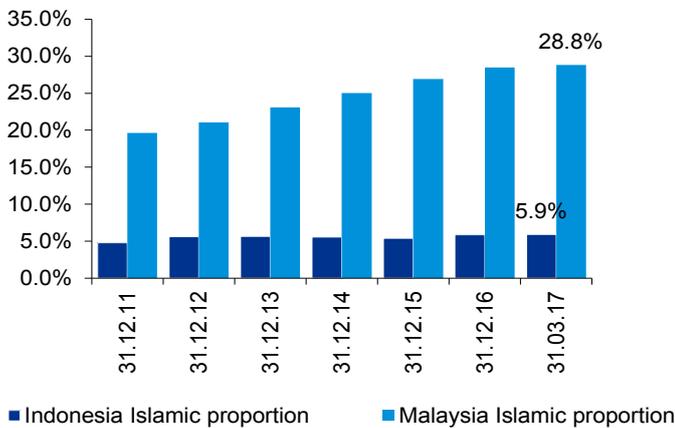
Despite being the country with largest Muslim population in the world, the penetration of Islamic banking is low.

Sharia lending was only 5.9 percent of total lending in 2016, significantly behind Malaysia at 28.8%.

Factors which have slowed Islamic banking growth in Indonesia in the past, compared to other markets, include:

- Lack of product innovation, sharia products tend to be basic
- Relatively limited sharia banking talent. Qualified and high performing bankers tend to choose conventional banks
- Limited sharia compliant investment opportunities.

Islamic lending as a proportion of total lending

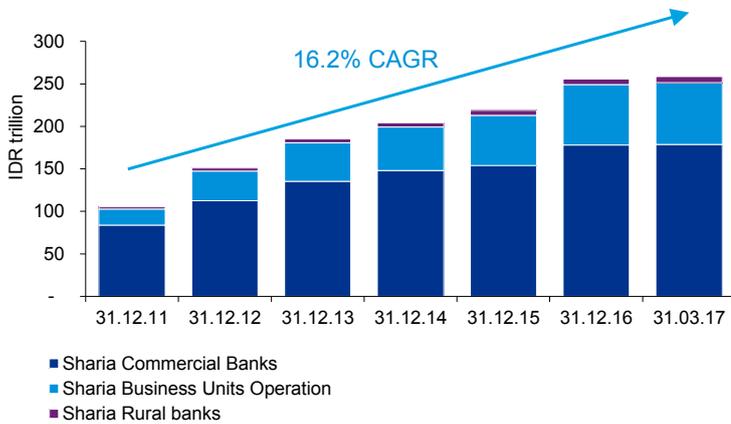


Note: Malaysia data in Malaysian Ringgit ("MYR") is translated using the BI middle rate at June 2016 (IDR3,278.22/MYR)

Source:
1. Indonesia's OJK
2. Malaysia Central Bank

Islamic Banking

Sharia lending by type of institution



Source:
 1. Indonesia Banking Statistics, OJK
 2. KPMG Analysis

In 2016, sharia lending grew 19.67%. This growth was partly due to the conversion of a conventional bank, BPD Aceh, to a sharia bank (now Bank Sharia Aceh). With increasing loan drawdown and lower NPLs in 2016, sharia financing is projected to grow 40% in 2017, with sharia microfinancing a key driver.

Sharia Banking Units of conventional banks are the fastest growing providers of Islamic banking (CAGR 25.2% growth from 2011 to 2016), however, these will need to be spun-off from conventional banks and transferred to licenced sharia banks by 2023.

The Government of Indonesia is planning on establishing a larger sharia banks to better serve the Islamic banking market. Several regional-development banks are being converted into sharia banks.



Basel Updates

As a member of the Basel Committee, OJK, the Indonesia Banking Supervisor, has introduced new regulations as part of the Basel III implementation since 2013 and with the full compliance by 2019. Basel III focuses on the numerator of the minimum required regulatory capital ratio, in the areas of:

- The quality and quantity of the bank's capital, in particular CET1 and overall Tier 1 capital, additional capital buffers, the conservation buffer, the counter-cyclical buffer, and a buffer for systematically important banks;
- The introduction of two new liquidity ratios, the Liquidity Coverage Ratio ("LCR") and Net Stable Funding Ratio ("NSFR"), to help banks focus on short-term and long-term liquidity stresses.

Basel IV, on the other hand, focuses on the denominator of the capital ratio, the calculation of the credit, market and operational risk exposures of a bank, using either a standardized or internal model based approach. The Basel Committee has finalized the revised framework for counterparty credit risk, market risk and interest rate risk in the banking book. The Basel Committee is close to finalizing its standards for the calculation of capital requirements for credit risk (under both the standardized approach and the internal ratings approach) and operational risk; and for the setting of a capital floor to constrain the extent to which banks can use internal models to drive their capital requirements for credit and market risk below the requirements set by the standardized approaches for these types of risk.

The Basel Committee on Banking Supervision ("BCBS") wanted to revisit the transparency and consistency in risk measurements across approaches, jurisdictions and banks. In 2014, BCBS began issuing proposals to revise the standardized approach for credit risk, and simpler approaches for measuring operational risk capital charges. This led to the proposal of a new standardized measurement approach ("SMA") for operational risk in 2016. It also started a discussion on aggregated internal-rating model floors due to concerns about the wide variability in Risk Weighted Assets ("RWA") arising from banks' internal models. BCBS had already begun negotiating a revised market risk framework, the fundamental review of the trading book ("FRTB"), for which the final standard was published in early 2016.

The repercussions will vary, depending on banks' business model, and will require actions tailored to the individual bank's circumstances. Potential phase-in arrangements for implementation are still under discussion. In this report, we consider three key areas of impact:

- **higher capital requirements** – the additional costs of funding will put further downward pressure on banks' profitability;
- **significant operational costs** – the revised standards will introduce significant data and systems requirements; and
- **business models** – this will add to the macro-economic, commercial and other regulatory pressures on banks to change their strategies and business models in an attempt to secure a viable and sustainable future.

While Indonesian banks are generally well capitalized, the last few years of a slow economic growth, lower commodity prices and pockets of high NPL portfolios have driven down the performance of banks. In addition, FinTech has emerged as a significant market force to challenge the banking industry and its regulatory structure. Innovations, such as mobile payments, distributed ledgers, crowdfunding, online marketplace lending, P2P lending and virtual currencies hold the potential to transform financial services into platforms for intermediation by third parties. They also hold the potential to expand intermediation services to the unbanked individuals and communities, still a large population in Indonesia. The new Basel standards which do not apply to these challengers will force banks to take a good hard look at their businesses, given the higher capital and liquidity requirements, and force them to focus on key businesses and segments to continue to hit the targets their shareholders demand at an acceptable risk level. Risk takes centre stage, as it works with the business to partner them in understanding, measuring and taking risk to achieve targets. Increasing the sophistication of Risk Based Pricing ("RBP") and Early Warning Systems ("EWS") will help risk functions help the business spot and manage risks on the horizon. Increased sophistication through the use of technology in the risk and regulatory space, commonly known as Regulatory Technology ("RegTech"), will help banks to focus on key areas of risk. The use of Artificial Intelligence ("AI"), big data analytics, and Robotics Process Automation ("RPA") will help improve the relevance and timeliness of risk data, reduce errors and improve efficiencies to enable more timely and better decision making.

Of note, two further regulatory impacts will be felt most immediately by Indonesian banks, the accounting standard International Financial Reporting Standards ("IFRS") 9 adopted as Indonesian Financial Accounting Standards ("PSAK") 71 locally and the Recovery Plan (RP) requirements of OJK Regulation ("POJK") no. 14/POJK.03/2017 dated 4th April 2017 regarding "*Rencana Aksi (Recovery Plan) Bagi Bank Sistemik*".

Recovery Planning: Implications on Banks

Recovery and Resolution Planning was conceived as part of the global regulator's initiative to ensure that financial institutions are not 'too big to fail', and therefore systematically important financial institutions, including banks, are required to put in place frameworks that address the bank's vulnerabilities in the event of an adverse stress that could threaten its viability.

Within the banking industry, this issue has moved rapidly beyond the existential concerns surrounding the fate of troubled institutions. Recovery Planning is now well understood as a way to protect shareholder value by enhancing and integrating existing risk management frameworks, including capital planning, liquidity management, stress testing, and contingency planning.

At the same time, the regulatory impetus remains strong. Political and societal expectations on financial institutions have changed irreversibly. This has thrown up uncomfortable questions about how a bank would respond and how certain shocks would impact or implicate different business units – particularly within a group structure.

The Domestic Systemically Important Banks ("DSIBs") in the Indonesian banking system are now required to submit their recovery plans to the regulator by December 2017, with required sign offs from the Board of Directors ("BOD"), Board of Commissioners ("BOC") and majority shareholder. The recovery plans should identify credible options to survive a range of severe but plausible stressed scenarios.

Eventhough this is triggered by a mandate from OJK, we believe this should be part of the good management of a bank. The exercise helps a bank to really think very critically which business are core to them, which ones are critical to the banking system and what they are credibly able to do in times of a crisis. It brings together key functions in a bank and forces an outcome that may be controversial but serves to meet the best interest of the bank, its shareholders, the general public and employees. Hence, a recovery plan should be comprehensive, covering governance and decision-making, the continuity of critical economic functions; the specification of trigger points, activity recovery options; and internal and external communications.

In turn, OJK should assess the credibility of the bank's recovery plan and if necessary, require the bank to amend its plan, hold additional capital or liquidity, or restructure its business in order to make the plan sufficiently robust. From the reviews conducted by the European Banking Authority ("EBA"), the following inadequacies were noted:

- Core business lines and critical functions
 - Some banks have not identified the critical functions they provide;

- The analysis of critical functions have not been robust enough and not supported by quantitative information;
- The analysis of critical functions was not effectively linked to other key elements of a bank's recovery plan, such as recovery options, triggers and governance.

- Scenarios

- Some scenarios were vague, with little or no detail on the underlying quantitative assumptions;
- Scenarios were not well linked to core business lines and critical functions;
- The impact of scenarios on a bank's capital, liquidity, profitability, risk profile and operations was not always clear, making it difficult to link each scenario to a set of triggers and a set of corresponding recovery options.

- Governance

- Some banks' recovery plans did not include sufficiently clear and detailed descriptions of the recovery plan development process and the roles and functions of the individuals and committees responsible for developing the recovery plan;
- Half of the recovery plans relied only on general governance for escalation and decision-making, not specific procedures for different options.

- Recovery options

- Many recovery plans lacked a detailed assessment of the feasibility of the recovery options under each scenario;
- While most recovery plans include some consideration of the impact of recovery options on critical functions and core business lines, the plans did not specify whether operational continuity would be achieved when implementing a specific option;
- Half of the banks did not link their recovery options sufficiently closely to their governance and decision-making processes.

It is worth noting that the European banks have had a few years of refining their recovery plans and the findings from the EBA in 2015/2016 reflect a much improved set of recovery plans. Most DSIBs in Indonesia will be submitting their recovery plans this year and would expect their recovery plans to take some time to be refined to a level that is comparable with those of the European banks. However, they will be challenged to put something together that is robust, credible and can stand to scrutiny from their regulator.

Risk and Regulation

IFRS 9 / PSAK 71

The IFRS 9 standard or the equivalent standard in Indonesia, PSAK 71, is going live in most countries from 1 January 2018. Most global banks have spent a good two to three years with project teams as large as 200 staff dedicated to ensuring they will meet the exacting requirements of the standard. The large focus on this standard has been due to the expected impact on the banks' provisions. The local experience thus far has been in the range of 20% to 80% increase in provision.

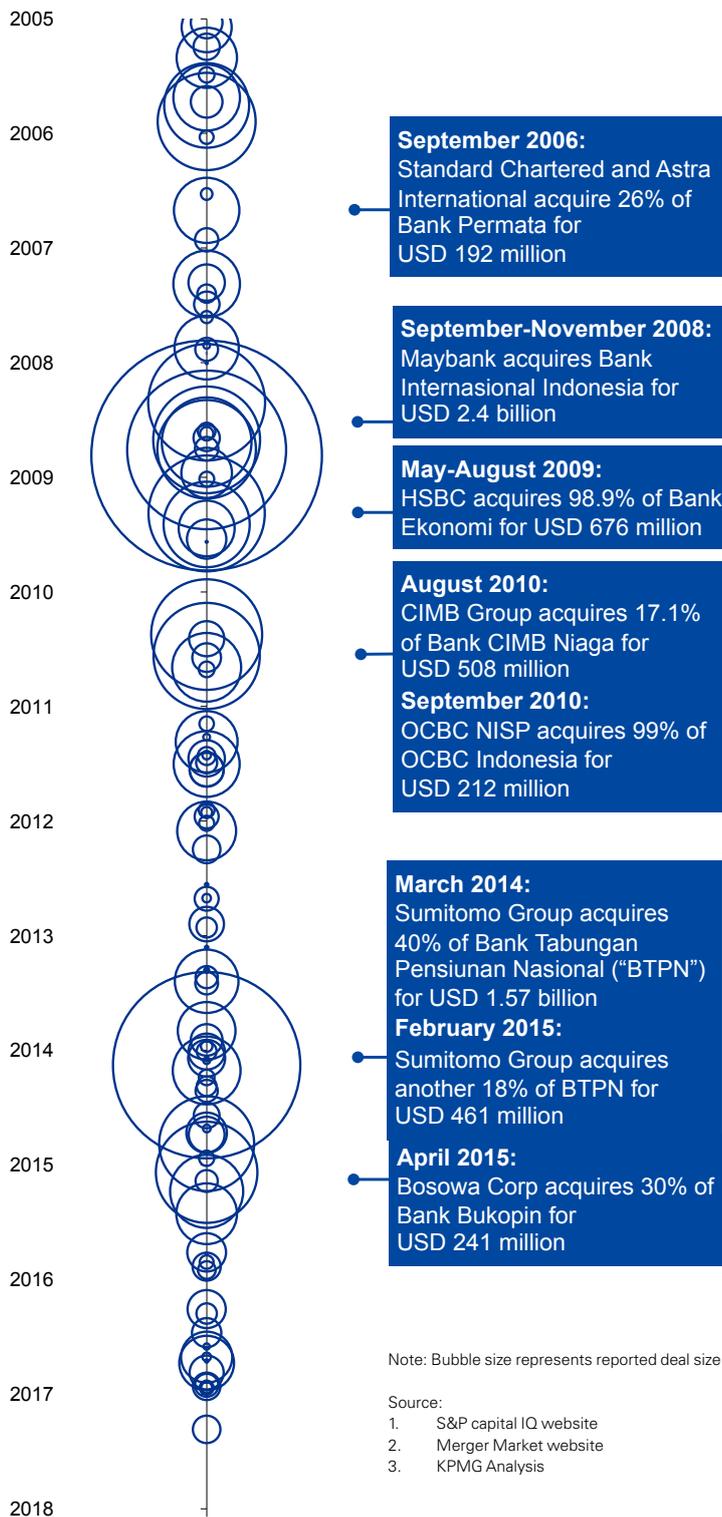
Indonesia will see the adoption of PSAK 71 from 1 January 2020. While this may seem like a long way off, the reality from global experience is it will take the larger, more complex banks, two to three years to design and implement the standard. This means for most banks, they must have at least performed a gap analysis and ready to kick off design and implantation by Q4 2017 or January of 2018. The standard, which is now largely understood, makes the provisioning for credit losses much more complex as it requires forward looking macroeconomic factors when making provisions. The provision known as the Expected Credit Loss (ECL) may be much more volatile hence it is important for banks to give themselves enough time to bed down the new IFRS 9 models.

To assist with the complexity, most banks are implementing new IFRS 9 systems which should help with automating the calculation but should also increase the level of transparency and governance through workflows for approvals. Within these systems, IFRS 9 models need to be built and calibrated to the bank's portfolios and this is where an intimate understanding of IFRS 9 requirements, modelling methodologies and a good understanding of the bank's portfolio play a crucial part to ensure that the models will perform well. Further more, banks will need a new Target Operating Models when performing provision calculations as it will involve a combination of Finance and Risk functions with the new IFRS 9 models much more risk aligned, given their forward looking nature.

Deal Activity

Deal Activity

Finance sector - Size of completed deals



The Merger and Acquisition ("M&A") landscape in recent years been shaped by the following trends:

- Large inbound acquisitions in 2008/2009 – by Maybank and HSBC
- BI regulation introduced in 2012 which capped ownership to 40%. In particular, this prevented DBS from acquiring a majority stake in Bank Danamon in 2013
- A series of smaller mainly minority deals from 2013 – 2016, with the exception of Sumitomo Group's investment in BTPN
- Apro financial, CCB and Bank Shinhan's successful approval for majority acquisition in 2016 following their acquisition and merger of two smaller Indonesian banks.

The importance of Southeast Asia and particular, Indonesia, as a future growth engine for the finance sector has led to some of the highest deal multiples globally, with completed deals for banks averaging at around a 2.4 times price to book value multiple from 2008 - 2016.

Looking ahead, the attractiveness of Indonesia, both from a growth and a margin perspective is continuing to drive M&A activity.

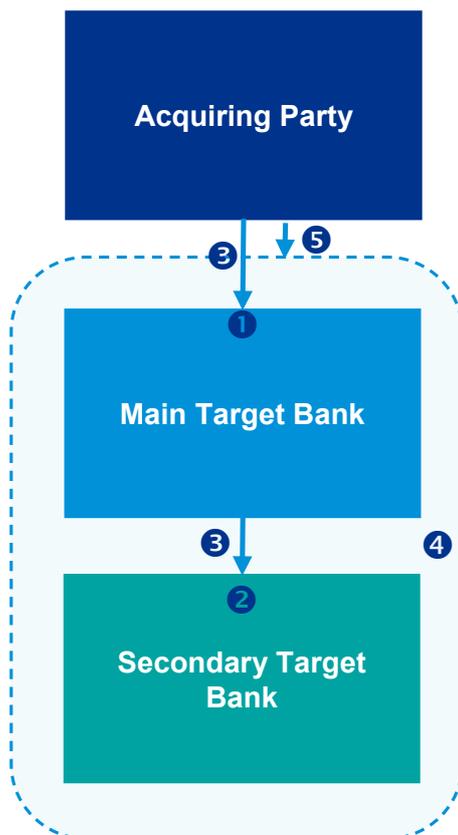
It is becoming increasingly difficult to find large attractive targets, and we are seeing high demand for smaller targets - due to OJK's approval of majority ownership provided two domestic banks are acquired and merged (please refer to the following page).

Deal Activity

Time to double up?

BI regulation from 2012 capped bank ownership at 40%. However the OJK has approved majority investments under certain conditions, one being that the Acquiring Party merges two Indonesian banks.

Acquiring controlling stake of a banking deal



“For consolidation, it’s not enough for them to acquire just one bank”. The CCB deal “should be a lesson for other investors interested in acquiring Indonesian banks. Hopefully with this example, they will know what to do next.”

Irwan Lubis, Deputy Commissioner of Banking Oversight of the OJK (2012 – August 2017)

Transaction steps for a new inbound investor may include:

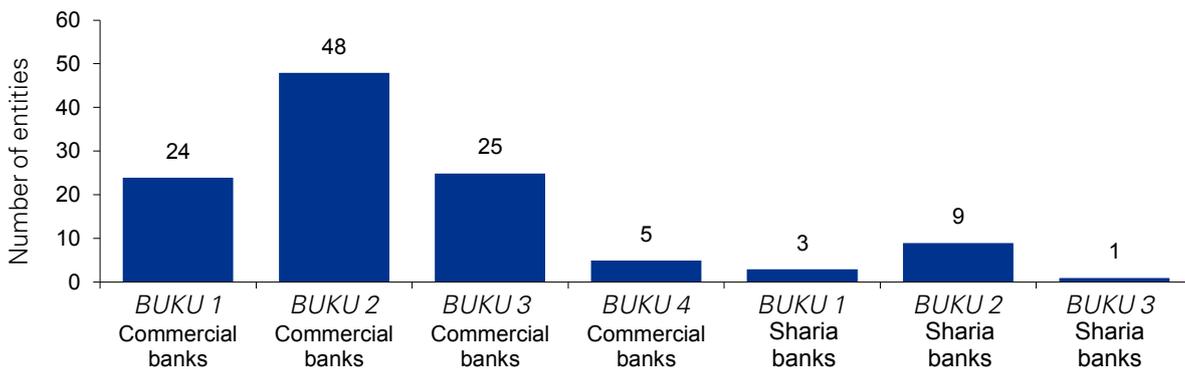
- 1 Acquiring Party identifies and agrees terms with Main Target Bank, and obtains approval from the OJK (and their home regulator, if applicable) for acquisition of 40% of the share capital of Main Target Bank.
- 2 Acquiring Party identifies a smaller Secondary Target Bank. Main Target Bank agrees terms with Secondary Target Bank and obtains OJK approval for the acquisition of 100% of the share capital of the Secondary Target Bank.
- 3 Acquiring Party funds Main Target Bank’s acquisition of Secondary Target Bank through debt.
- 4 Main Target Bank obtains approval from the OJK and other relevant ministries to merge with Secondary Target Bank. This results in one company surviving, with all assets and liabilities of the Secondary Target Bank being transferred to the Main Target Bank and the Secondary Target Bank being dissolved by operation of law, on the merger date.
- 5 Acquiring Party agrees terms with Main Target Bank to acquire additional share capital in the merged entity, and obtains approval from the OJK (and their home regulator, if applicable) to become the controlling shareholder in Main Target Bank.

In our experience, the above steps result in an extended transaction process - given the complexity, potential for three phases of negotiation, and multiple approvals required – which can take as long as 2.5 years from initial deal negotiation.

Deal Activity

There were 115 commercial banks and 173 multifinance companies as at 31 March 2017. The OJK targets to reduce the number of banks by around 50%, and we anticipate significant consolidation of the less well capitalized institutions.

Structure of the commercial banking sector

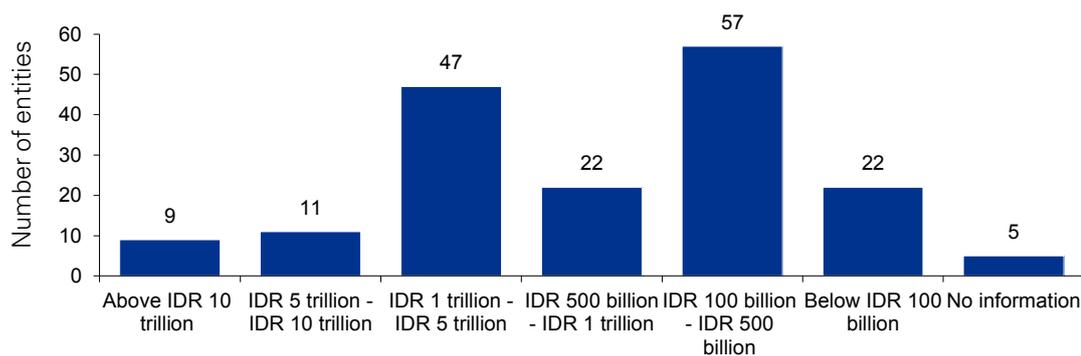


Note:

1. Buku 1: banks with core capital less than IDR 1 trillion
2. Buku 2: banks with core capital between IDR 1 trillion up to less than IDR 5 trillion
3. Buku 3: banks with core capital between IDR 5 trillion up to less than IDR 30 trillion
4. Buku 4: banks with core capital IDR 30 trillion and above

Source: OJK, KPMG Analysis

Structure of the multifinance sector



Source:

1. Indonesia Banking Statistics, OJK
2. KPMG Analysis

Appendices



Appendix 1: Finance regulations

Overview

Effective 31 December 2013, the regulatory and supervisory functions, duties and authority in the banking sector moved from the Central Bank (BI) to the OJK. The OJK now regulates and supervises all financial institutions (banking, insurance, and other non-bank financial institutions). BI is responsible for macroprudential and payments company regulation and supervision. Both BI and the OJK are generally free from interference from the government.

Financial conglomerates

In July 2017, the OJK released draft POJK on Financial Holding Companies (“PIKK”) that requires financial conglomerates to consolidate their financial services companies under one PIKK by 1 January 2019. The PIKK would be responsible for imposing risk management and regulations across all the financial companies in the group.

In the draft POJK, a group of financial services companies will be considered a financial conglomerate if the related companies operate in at least two of the following sectors: banking, insurance and reinsurance, securities companies, and/or financing companies, and have total assets worth IDR 2 trillion or more.

Appendix 1: Finance regulations

Banking

Branches

Banking is the only other sector, in addition to upstream oil & gas, which technically allows foreign investors to invest direct into a local branch. However, no foreign bank branch licences have been issued since 2003, and foreign banks have only been able to enter through acquisition of existing licenced banks.

Single Presence Policy/Sole Ownership

On 12 July 2017 OJK regulation No. 39/POJK.03/2017 replaced BI Regulation No. 14/24/PBI/2012 dated 26 December 2012. This regulation specifies a 'Single Presence Policy' in respect of Indonesian banks, which provides for no single person, entity or group of companies to be a "controlling shareholder" in more than one bank. A controlling shareholder is defined as:

- directly holds 25% or more of the issued shares of the bank (with voting rights); or
- directly holds less than 25% of the issued capital of the bank (with voting rights), but the relevant party can be proven to have exercised either direct or indirect control.

Exceptions to the 'Single Presence Policy' allowing an investor to be a controlling shareholder in more than one Indonesian bank are:

- the investor is a controlling shareholder in one conventional or commercial bank and one Sharia bank
- the investor is a controlling shareholder in two banks and one of the banks is a Joint Venture ("JV") bank

Ownership structures that do not comply with the 'Single Presence Policy' need to be restructured through:

- a. merger/consolidation,
- b. establishment of an investment holding company, or
- c. establishment of a holding function.

Option a or b needs to be performed within one year of acquiring shares, and option c within six months.

Regulation No. 39/POJK.03/2017 also specifies incentives for banks who pursue merger/consolidation, including: time extension for the Legal Lending Limits ("LLL"); greater ease of opening of branch offices and relaxation on implementing Good Corporate Governance ("GCG") principles.

Shareholding thresholds and limitations

OJK Regulation No. 56/POJK.03/2016 replaces BI Regulation No.14/8/PBI/2012 concerning Commercial Bank Share Ownership.

OJK Circular Letter No. 12/SEOJK.03/2017 was the implementation of OJK Regulation No. 56/POJK.03/2016 on the Share Ownership in Commercial Banks. This Circular letter came into effect as of 17 March 2017.

The maximum amount of bank share ownership for a single shareholder depends on the category of shareholder. Shareholders that are related through share ownership or family ties, or that are deemed to be acting in concert with one another, are treated as a single party in determining the overall ownership cap that applies:

- banks or a non-bank financial institutions: 40% of a bank's paid-up capital (subject to OJK approving a higher amount: see below)
- non-financial institutions: 30% of a bank's paid-up capital
- individual shareholders: 20% of a bank's paid-up capital (25% if the bank is a Sharia bank).

In addition:

- for foreign or domestic investors that require a shareholding interest of more than 40% or a "controlling interest", application needs to be made to the OJK for approval. To obtain approval, the bank must:
 - a. have a soundness rating of at least 1 or 2,
 - b. be financially strong - Core tier 1 capital of at least 6%,
 - c. have a recommendation from the bank's home regulator,
 - d. commit to providing additional capital through hybrid debt securities issued by a local lender that are convertible into equity, and
 - e. provide a written commitment to supporting the development of the Indonesian economy (i.e. credit distribution prioritization to specific sectors and regions).
- A bank that receives approval to own more than 40% of a local bank will first be allowed to reach that 40% threshold. To raise its stake further, the local target bank must be assessed by the OJK to be financially strong and well-governed for three consecutive assessment periods within five years from the time the OJK approves the transaction.

Appendix 1: Finance regulations

- only those 'non-bank financial institutions' that are:
 - a. authorized under their constitutional documents to participate in a 'long-term' investment; and
 - b. governed and supervised by a financial regulator/ authority, are permitted to hold up to a 40% stake in an Indonesian bank. A non-bank financial institution which fails to satisfy these two criteria is only allowed to hold up to a 30% stake in an Indonesian bank.
- these regulations only affect future transactions. Pre-existing bank shareholders that exceeded the ownership thresholds are not required to divest unless the bank's GCG or "soundness" rating was below 3, 4 or 5 at the 31 December 2013 cut-off date. GCG ratings range between 1 to 5, with 1 being the best.
- existing shareholders of Indonesian banks that exceed the limits will be assessed on their financial strength and corporate governance. After 31 December 2013, existing bank shareholders need to sell down to the 40% cap within 5 years if GCG ratings are down graded to 3 or worse on three consecutive assessments.

The Central Government is exempted from the limits (as is any agency that is called on to rescue a failing bank). This means the limits do not apply to state-owned banks.

Foreign investor criteria

Any prospective controlling shareholder who is a foreign investor must meet the following additional requirements:

- the investor is committed to support the economic development of Indonesia
- the investor has obtained recommendation from the financial services supervisory authority of the country of origin
- the investor is ranked at least:
 - a. one notch above the lowest investment grade for banks;
 - b. two notches above the lowest investment grade for non-bank financial institutions; and
 - c. three notches above the lowest investment grade for non-financial institutions.

Minimum capital requirements for commercial banks

Indonesia is a member of the Financial Stability Board and the BCBS and is committed to adopting the recommendations generated by these forums, including their framework for standards of bank capitalization.

On 3 February 2016, the OJK issued Regulation No. 6/POJK.03/2016 ("POJK 6"), which replaced BI Regulation No. 14/26/PBI/2012, on Business Activities and Office Network in accordance with Banks' Core Capital. POJK 6 categorizes Banks into four types known as "BUKU":

1. *BUKU 1*: core capital is less than IDR 1 trillion;
2. *BUKU 2*: core capital is at least IDR 1 trillion and less than IDR 5 trillion;
3. *BUKU 3*: core capital is at least IDR 5 trillion and less than IDR 30 trillion; and
4. *BUKU 4*: core capital is at least IDR 30 trillion.

The POJK 6 classification is important as it determines:

- a. the kind of banking business activities can be conducted by a bank (e.g. ability to conduct business in foreign currency)
- b. restrictions on the opening of offices (e.g. ability to invest offshore) and
- c. obligations to provide credit and financing to productive businesses (the detailed permissions for each BUKU classification are beyond the scope of this document).

In 2016, the OJK issued regulations No. 11/POJK.03/2016 and No. 34/POJK.03/2016, which set out minimum capital requirements for commercial banks. Under these regulation, the OJK requires a minimum 8% capital adequacy ratio for banks with the soundest risk profile (rating 1) and up to 14% for banks with the worst risk profiles (rating 5).

To calculate the minimum capital based on risk profile, the OJK requires banks to implement an Internal Capital Adequacy Assessment Process ("ICAAP"). The OJK will perform Supervisory Review and Evaluation Process ("SREP") on the ICAAP, which includes review of the sufficiency of active supervision from the banks' management, capital adequacy assessment, monitoring and reporting as well as internal controls.

Appendix 1: Finance regulations

On top of the 8-14%, banks are required to add a Capital Conservation Buffer (starting from 1 January 2016: 0.625%; 1.25% on 1 January 2017; 1.875% on 1 January 2018 and 2.5% on 1 January 2019). Additionally, from 1 January 2016 the supervisor may impose a Countercyclical Buffer, at a discretionary percentage (in the range of 0% – 2.5%) and a Capital Surcharge for Domestic Systemically Important Banks (“DSIB”) (in the range of 1% – 2.5%).

The full adoption of the Basel III rules is expected by 31 December 2019. Foreign entrants will need to be mindful of the stringent requirements around Basel III which may involve sizeable investment based on what is being seen in other countries: systems and operational modifications, establishment of new risk management and compliance functions and hiring of rare, qualified resources as well as consulting fees and other costs.

Capital Equivalency Maintained Assets (“CEMA”) for foreign branches

For foreign bank branches operating in Indonesia, the OJK requires maintenance of a portfolio of assets called Capital Equivalency Maintained Assets (“CEMA”) which is designed to serve as a liquidity buffer in the event of liquidity/solvency problems (or a “ring fence”). CEMA must be maintained at:

1. a minimum 8% of a bank’s total liabilities every month; and
2. a minimum 8% of a bank’s total liabilities every month and IDR 1 trillion at the minimum.

Foreign branches must comply with the first CEMA requirement by November 2017 and with the second by December 2017.

Micro small and medium business lending

Banks must comply with regulation on provision for loans or financing to micro, small and medium business (“UMKM” or “MSME”), which is by 2015 at least 5% of total financing; by 2016 at least 10% of total financing; by 2017 at least 15% of total financing; and at by 2018 at least 20% of total financing. UMKM financing can include direct financing and indirect financing (executing or channeling by rural banks, sharia banks or non-financial institutions). For joint venture banks and foreign branches, UMKM can include export financing (non-oil & gas).



Appendix 1: Finance regulations

Multifinance

The multi-finance sector was previously regulated under Presidential Regulation No. 9/2009 on Multifinance Institutions and Ministry of Finance ("MOF") Regulation No. 84/PMK.012/2006 on Multifinance Companies.

On 19 November 2014, the OJK issued four regulations which relate to the multi-finance sector:

- OJK regulation No. 29/POJK.05/2014, concerning Arrangement of Multifinance Company Business
- OJK regulation No. 28/POJK.05/2014, concerning Licensing and Organization of Multifinance Companies
- OJK regulation Reg. No. 30/POJK.05/2014, concerning Good Corporate Governance for Multifinance Companies
- OJK regulation No. 31/POJK.05/2014, concerning Arrangement of Sharia Multifinance Business.

These new OJK regulations provide more detailed requirements and definitions around multifinance companies. They define a multifinance company as an entity that finances the procurement of goods or services. Permitted business activities include:

- i. investment financing;
- ii. working capital financing;
- iii. multi-purpose financing; and/or
- iv. any other financing business subject to OJK approval.

Multifinance companies are prohibited from engaging in banking, issuing promissory notes or providing security, and they must maintain financial soundness at all times, including: an equity ratio (comparison of adjusted capital and adjusted assets) of 10%, minimum IDR 100 billion equity, and at least 50% of equity must be paid-up capital.

Any party wishing to engage in multifinance activities must apply for a multifinance business license from the OJK. The application review period is 30 days. Upon issuance of the OJK License, the company must commence operations within two months.

The maximum foreign shareholding (either direct or indirect) is 85% of the paid-up capital. Multifinance companies having foreign ownership (whether direct or indirect) must have at least 50% Indonesian-citizen directors. In the event there is an odd number of directors, the number of Indonesian-citizen directors must be greater than the number of foreign-citizen directors.

Appendix 1: Finance regulations

Venture capital companies

On 28 December 2015, the OJK issued four new regulations which relate to venture capital business:

- OJK regulation No. 35/POJK.05/2015, concerning Arrangement of Venture Capital Company Business
- OJK regulation No. 34/POJK.05/2015, concerning Licensing and Organization of Venture Capital Companies
- OJK regulation No. 36/POJK.05/2015, concerning Good Corporate Governance for Venture Capital Companies
- OJK regulation No. 37/POJK.05/2015, concerning Direct Inspection of Venture Capital Companies.

These new OJK regulations allow venture capital companies to invest in:

- a. equity,
- b. convertible bonds,
- c. debt securities of start-up enterprises, and
- d. financing of 'productive activities'.

The investments can be made as part of joint venture contracts with other venture capital companies and custodian banks.

The business activities of venture capital companies are defined as:

- the development of a new inventions
- development companies or business people individuals in the early stages of their business experiencing financial difficulties
- the development of MSMEs and co-operatives
- helping companies or business people individuals who are at a stage of development or decline of business
- taking over the company or business persons who are at a stage of development or decline of business
- project development and engineering research
- development of the use of technology and transfer new technologies from both inside Indonesia and overseas; and/or
- helping the transfer of ownership of companies.

The new regulations also allow venture capital companies to conduct: (a) fee based services, and (b) "other business activities", with the approval of the OJK.

The venture capital entities, and their investments can be structured as conventional or sharia. The minimum capital requirements are:

- conventional limited liability company: IDR50 billion
- conventional co-operative or limited partnership: IDR25 billion
- sharia limited liability company: IDR20 billion
- sharia co-operative or limited partnership: IDR10 billion.

In addition, several other investment hurdles must be met:

- equity or convertible bond investments to be at least 15% of total investments within three years of the date of the business licence
- Investing assets (including receivables from operating activities) to be at least 40% of total assets, within three years of the date of the business licence
- equity to paid-up capital ratio to be at least 30%.

Any party wishing to engage in venture capital activities must apply for a venture capital licence from the OJK.

The maximum foreign shareholding is 85% of a limited liability venture capital company. Co-operatives and limited partnerships are restricted to Indonesian investment only.



Appendix 1: Finance regulations

FinTech

P2P lending

On 29 December 2016, the OJK released regulation No. 77/POJK.01/2016, concerning Information Technology-Based Lending Services (or P2P lending).

Key points include:

- minimum capital of IDR 1 billion at registration and IDR 2.5 billion at license request
- maximum foreign ownership of 85%
- legal lending limit: IDR 2 billion
- borrowers must be Indonesian while lenders can be foreign-based or Indonesian
- risk management, governance and IT security frameworks need to be introduced (but no specific implementation guidance provided).

Payments

BI regulates Payment System Services Providers (“PSSPs”), including: principals, switching companies, issuers, acquirers, clearing houses and settlement agencies, eWallets, and payment gateways.

BI regulations on payments include:

- 11/11/PBI/2009 and 14/2/PBI/2012, concerning card based payments
- 11/12/PBI/2009 and 16/8/PBI/2014, concerning eMoney
- 14/23/PBI/2012, concerning Conduct of Fund Transfers and
- 18/40/PBI/2016 (“BI Regulation 18”), concerning Implementation of payment transaction processing.

BI Regulation 18 became effective on 9 November 2016 and impacts all PSSPs. Notable provisions include:

- principals, switching, clearing and settlement agencies have a foreign ownership limit of 20%
- eWallets and payment gateways now require licenses (eWallets only require a license if they exceed 300,000 active users)
- eWallet balances capped at IDR 10 million
- no foreign ownership limits on eWallets and Payment gateways
- the use of virtual currencies is prohibited.



Appendix 2

Largest Indonesian banks: peer comparison table

IDR tn / %	Total assets	Total loans	Total deposits	LDR	NIM	CIR	ROE	CAR
BANK BRI	954	653	701	93.2%	8.1%	71.7%	18.8%	20.9%
mandiri	910	585	654	89.2%	5.7%	76.0%	13.4%	21.1%
BCA	674	409	535	75.1%	6.3%	65.2%	17.1%	23.1%
BNI	578	375	420	89.3%	5.6%	70.5%	16.0%	19.0%
CIMB NIAGA	233	171	167	98.5%	7.5%	86.3%	7.8%	18.2%
Bank BTN	214	170	146	107.8%	4.3%	84.1%	14.6%	18.9%
PaninBank	191	120	138	90.7%	4.6%	79.7%	9.2%	21.2%
PermataBank	164	95	114	74.6%	3.5%	87.3%	12.9%	17.0%
Maybank	153	108	106	88.4%	4.5%	85.6%	10.4%	17.0%
Danamon	147	94	98	42.0%	7.5%	69.8%	12.0%	23.2%
MUFG	147	92	43	214.5%	3.2%	83.8%	2.9%	82.5%
OCBC NISP	144	94	107	85.9%	4.3%	75.4%	11.5%	18.2%
BANK BUKOPIN	106	67	89	75.9%	3.1%	86.7%	13.3%	17.0%
HSBC	93	44	50	87.8%	4.8%	82.5%	11.7%	28.3%
bank bjb	98	63	78	80.2%	6.5%	79.1%	22.3%	17.0%
UOB	94	66	75	88.8%	3.9%	91.3%	1.6%	16.4%
btpn	86	60	63	94.3%	9.9%	82.1%	13.0%	23.9%
mandiri syariah	80	55	71	77.8%	6.3%	93.8%	5.8%	14.4%
citi	74	38	51	73.7%	6.9%	80.9%	17.1%	29.9%
DBS	68	41	43	96.1%	5.3%	80.4%	13.5%	20.0%

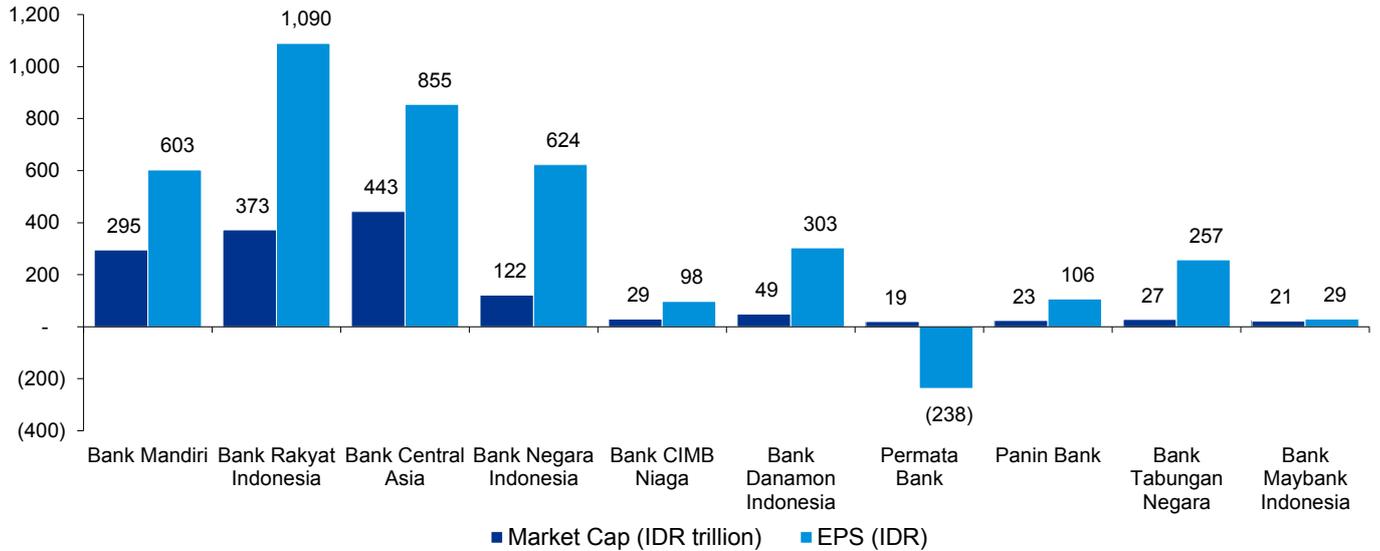
Note: Data as at 31 March 2017

Source:

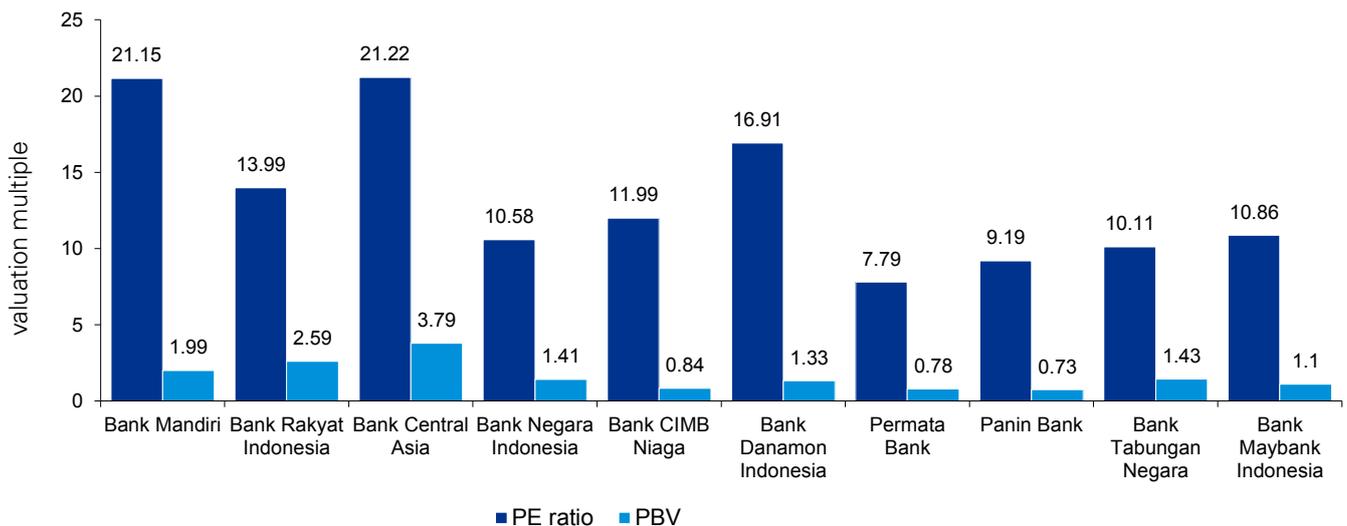
1. Bank's Publications at 31 March 2017
2. KPMG Analysis

Appendix 2

Market capitalization and EPS – 30 June 2017



Valuation analysis – 30 June 2017



Source: www.reuters.com, as of 30 June 2017

Appendix 3

Bibliography

1. "Global Business Guide website", www.gbgindonesia.com, 2012
2. "Indonesia Banking Statistics", www.ojk.go.id, 2017
3. "Bank Central Asia Now Largest Company on Indonesia Stock Exchange", www.indonesia-investments.com,
4. "Bank Rakyat Indonesia website", www.bri.co.id
5. "Bank Indonesia Regulations", www.bi.go.id, 2017
6. "Bank Indonesia Regulation No.14/ 8 /PBI/2012 dated 13 July 2012", www.bi.go.id, 2012
7. "The World Factbook", www.cia.gov, 2016
8. "Indonesia Investments", www.indonesia-investments.com, 2016
9. "Top 10 Cinnamon Producing Countries", www.mapsofworld.com, 2016
10. "Top 10 Countries by Length of Coastline", www.mapsofworld.com, 2016
11. "Natural Rubber Exports by Country", www.worldstopexports.com, 2016
12. "Indonesia Set to Become World's 2nd Largest Geothermal Power Producer", www.jakartaglobe.beritasatu.com, 2016"
13. "10 Largest Rice Producing Countries", www.worldatlas.com, 2016
14. "Biodiversity", www.en.wikipedia.org/wiki/Indonesia, 2016
15. "Countries With The Most Natural Disasters", www.worldatlas.com, 2016
16. "Natural Gas", www.indonesia-investments.com, 2016
17. "Telephones - mobile cellular subscription", www.cia.gov, 2016
18. "The World Factbook: Indonesia", www.cia.gov, 2016
19. "Projected Infrastructure Spending From 2016 to 2030, by Region or Country (in trillion U.S. dollars)", www.statista.com, 2016
20. "The Top 10 Coal Producers Worldwide", www.worldatlas.com, 2016
21. "A prediction: The world's most powerful economies in 2030", www.weforum.org, 2017
22. "Statistik System Pembayaran - Alat Pembayaran Dengan Menggunakan Kartu (APMK)", Bank Indonesia website, www.bi.go.id
23. "Bank Mandiri website", www.bankmandiri.co.id
24. "SE BI No.18/33/DKSP dated 2 December 2016", Bank Indonesia website, www.bi.go.id, 2016
25. "SE BI No.17/51/DKSP dated 30 December 2015", Bank Indonesia website, www.bi.go.id, 2015

Appendix 3

26. "Gross Domestic Product Indonesia", *Badan Pusat Statistik* website, www.bps.go.id
27. "Bank Indonesia Regulation No.17/12/PBI/2015 dated 26 June 2015", Bank Indonesia website, www.bi.go.id, 2015
28. "Permata Bank website", www.permatabank.com
29. "Indonesia's tax amnesty fails to bring money home", asia.nikkei.com, 2017
30. "In Five Years, Sandiaga Called Number of SMEs Can Translucent 60 Million", www.cnnindonesia.com, 2017
31. "World Bank website", www.data.worldbank.org
32. "Gallup survey website", www.gallup.com, 2016
33. "Indonesia Geography", www.id.wikipedia.org, 2004



Appendix 4

Glossary

Adira Dinamika Finance	PT Adira Dinamika Multi Finance Tbk	CEMA	Capital Equivalency Maintained Assets
AI	Artificial Intelligence	CET	Common Equity Tier
AML	Anti Money Laundering	CIMB Niaga	PT Bank CIMB Niaga Tbk
APR	Annual Percentage Rate	CIR	Cost to Income Ratio
Astra Sedaya Finance	PT Astra Sedaya Finance	Clipan finance	PT Clipan Finance Indonesia Tbk
ASEAN	The Association of Southeast Asian Nations	Coffee Bean	PT Trans Coffee
ATM	Automated Teller Machine	CT Corp	PT CT Corp
Bank Bukopin	PT Bank Bukopin Tbk	Danamon	PT Bank Danamon Indonesia Tbk
Bank Mandiri	PT Bank Mandiri (Persero) Tbk	DBS	PT Bank DBS Indonesia
Bank Mega	PT Bank Mega Tbk	DSIB	Domestic Systematically Important Banks
BCA	PT Bank Central Asia Tbk	EBA	European Banking Authority
BCBS	Basel Committee on Banking Supervision	ECL	Expected Credit Loss
BFI Finance	PT BFI Finance Indonesia Tbk	EDC	Electronic Data Capture
BI	Bank Indonesia	EWS	Early Warning Systems
BNI	PT Bank Negara Indonesia (Persero) Tbk	e.g.	example
BOC	Board of Commissioners	FinTech	Financial Technology
BOD	Board of Directors	FRTB	Fundamental Review of the Trading Book
BPD	Regional Development Banks	F&B	Food and Beverages
BPR	Rural banks	GCG	Good Corporate Governance
BRI	PT Bank Rakyat Indonesia (Persero) Tbk	GDP	Gross Domestic Product
BTN	PT Bank Tabungan Negara (Persero) Tbk	Govt.	Government
BTPN	PT Bank Tabungan Pensiunan Nasional Tbk	Go-Jek	PT Go-Jek Indonesia
c.	circa	HSBC	PT HSBC Indonesia Tbk
CAGR	Compound Annual Growth Rate	ICAAP	Internal Capital Adequacy Assessment Process
Carrefour	PT Trans Retail Indonesia, previously PT Carrefour Indonesia	IDR	Indonesian Rupiah
CASA	Current Account, Savings Account	IFA	Indonesia FinTech Association
CCB	PT Bank China Construction Bank Indonesia Tbk	IFRS	International Financial Reporting Standards

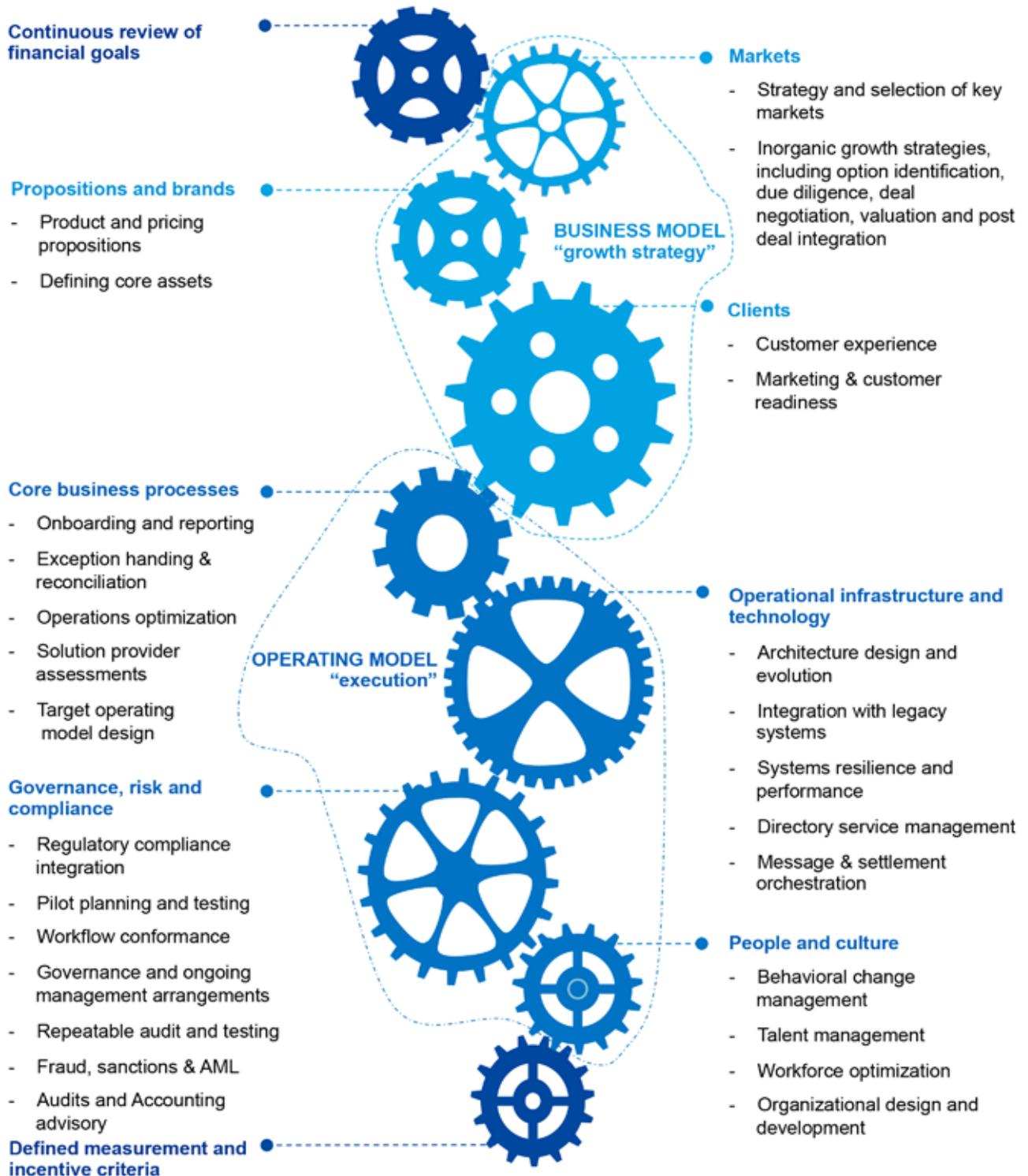
Appendix 4

i.e.	in explanation	Permata	PT Bank Permata Tbk
JV	Joint Venture	PIKK	Financial holding companies
Kartuku	PT Multi Adiprakarsa Manunggal	POJK	OJK regulation
KPMG	PT KPMG Siddharta Advisory, an Indonesian limited liability company and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity	PSAK	<i>Pernyataan Standar Akutansi Keuangan</i> (Statement of Financial Accounting Standards)
KUR	Credit for Business Program	pp	percentage point
LCR	Liquidity Coverage Ratio	p.a	per annum
LDR	Loan Deposit Ratio	P2P	Peer-to-Peer
LLL	Legal Lending Limits	RBP	Risk Based Pricing
LPS	<i>Lembaga Penjamin Simpanan</i> (Indonesia Deposit Underwriter Institution)	RegTech	Regulatory Technology
LTV	Loan-to-Value	ROA	Return on Assets
Maybank	PT Bank Maybank Indonesia Tbk	ROC	Return on Capital
MDR	Merchant Discount Rate	ROE	Return on Equity
Mekar	PT Sampoerna Wirausaha	RP	Recovery Plan
MFI	Micro Finance Institutions	RPA	Robotics Process Automation
MOCIT	Ministry of Communications and Information Technology	RWA	Risk Weighted Assets
MOF	Ministry of Finance	Shinhan Bank	PT Shinhan Bank Indonesia
MSME/UMKM	Micro, Small and Medium Enterprises (<i>Usaha Mikro, Kecil dan Menengah</i>)	SMA	Standardized Measurement Approach
MYR	Malaysian Ringgit	SME	Small-Medium Enterprises
M&A	Merger and Acquisition	SNKI	National Strategy for Financial Inclusion
NGO	Non-Governmental Organization	SOE	State-Owned Enterprise
NIM	Net Interest Margin	SPV	Special Purpose Vehicle
NPL	Non-Performing Loan	SREP	Supervisory Review and Evaluation Process
NSFR	Net Stable Funding Ratio	S&A	Selling and Administrative
n.i.	no information	US	United States of America
OJK	Indonesia Financial Services Authority	USD	United States Dollar
Panin	PT Bank Panin Tbk	1Q17	First quarter of 2017
PBI	Bank Indonesia Regulation	3M17	Third month of 2017
PE	Private Equity	3Q16	Third quarter of 2016
		4Q16	Fourth quarter of 2016

Appendix 5

How KPMG Financial Services can help

KPMG member firms are working with many of the leading financial institutions to plan, execute and implement their growth strategies and optimize their operating models, leveraging a comprehensive range of services. A selection of the services we can offer to help you meet your objectives are set out below.



Nine levers of value

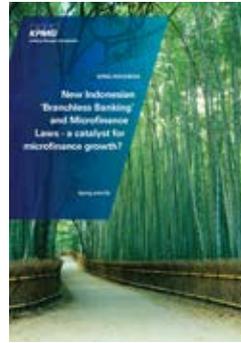
Appendix 6

Further reading



Investing in Indonesia

This publication is intended as a general guide to investing and doing business in Indonesia, primarily for new foreign investors looking to enter the Indonesian market, but also as a useful reference document for established, experienced foreign and local players



Financial Inclusion in Indonesia

This publication looks at the microfinance landscape and implications of new Branchless Banking regulations (*Laku Pandai*) and Microfinance Laws. It suggests the larger domestic institutions are set to benefit over the smaller rural microfinance institutions, with opportunities opening up for larger conglomerates with banking and insurance arms attached.



Insurance in Indonesia

This report brings together our insights on the insurance market, and profiles of the key players; together with our views on where to play and the likely evolution of the distribution landscape.



Retail Payments in Indonesia

This publication is an attempt to capture the ePayments landscape, regulatory developments and an early view on which players may prevail.



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