

UOB Group Fixed Income Investor Presentation

Strong Business Performance and Balance Sheet Position

September 2018



Agenda

- 1. Overview of UOB Group
- 2. Strong UOB Fundamentals
- 3. Our Growth Drivers
- 4. Resilience of the Singapore Housing Market & UOB's Cover Pool

Appendix:

- A. Latest Financials
- B. Additional Information on UOB's Covered Bond Program
- C. Macroeconomic Outlook and Banking Regulations



Overview of UOB Group

UOB Overview



Founding

Founded in August 1935 by a group of Chinese businessmen and Datuk Wee Kheng Chiang, grandfather of the present UOB Group CEO, Mr. Wee Ee Cheong

Expansion

UOB has grown over the decades organically and through a series of strategic acquisitions. It is today a leading bank in Asia with an established presence in the Southeast Asia region. The Group has a global network of more than 500 branches and offices in 19 countries and territories.

Note: Financial statistics as at 30 June 2018.

- 1. USD1 = SGD 1.3637 as at 30 June 2018.
- 2. Average for 2Q18.
- Calculated based on profit attributable to equity holders of the Bank, net of perpetual capital securities distributions.
- 4. Computed on an annualised basis.

	Key Statisti	ics for 1H1	8	
	Total assets	: SGD384b	(USD	282b ¹)
	Shareholder's equity	: SGD38b	(USD	28b¹)
	Gross loans	: SGD250b	(USD	183b¹)
	Customer deposits	: SGD287b	(USD	211b ¹)
	Loan/Deposit ratio	: 85.7%		
	Net stable funding ratio	: 110%		
•	Average all-currency liquidity coverage ratio	: 142% ²		
	Common Equity Tier 1 CAR	: 14.5%		
	Leverage ratio	: 7.7%		
	ROE 3, 4	: 11.6%		
	ROA ⁴	: 1.12%		
	RORWA ⁴	: 2.04%		
	NIM ⁴	: 1.83%		
•	Non-interest income/ Total income	: 34.1%		
	Cost / Income	: 43.9%		
	NPL ratio	: 1.7%		
•	Credit Ratings	Moody's	S&P	Fitch
	suer Rating Senior Unsecured)	Aa1	AA-	AA-
0	utlook	Stable	Stable	Stable

P-1

A-1+

F1+

Short Term Debt

A Leading Singapore Bank; Established Franchise in Core Market Segments





Group Retail

- Best Retail Bank in Singapore¹
- Strong player in credit cards and private residential home loan business

Group Wholesale Banking

- Best SME Banking¹
- Seamless access to regional network for our corporate clients

Global Markets

 Strong player in Singapore dollar treasury instruments

UOB Group's recognition in the industry



Year, Singapore, 2015



Excellence in Mobile Banking – Overall, 2018

THE ASIAN BANKER STRATEGIC BUSINESS INTELLIGENCE FOR THE FINANCIAL SERVICES COMMUNITY THE ASIAN BANKER EXCELLENCE IN RETAIL FINANCIAL SERVICES IN TERNATIONAL AWARDS

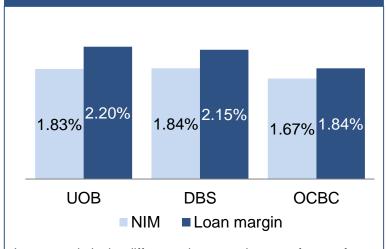
Best Retail Bank¹

SME Bank of the Year¹

Source: Company reports.

 The Asian Banker "Excellence in Retail Financial Service Awards": 2016 & 2017 (SME Bank of the Year), 2014 (Best Retail Bank in Asia Pacific and Singapore).

Higher 1H18 margin than peers



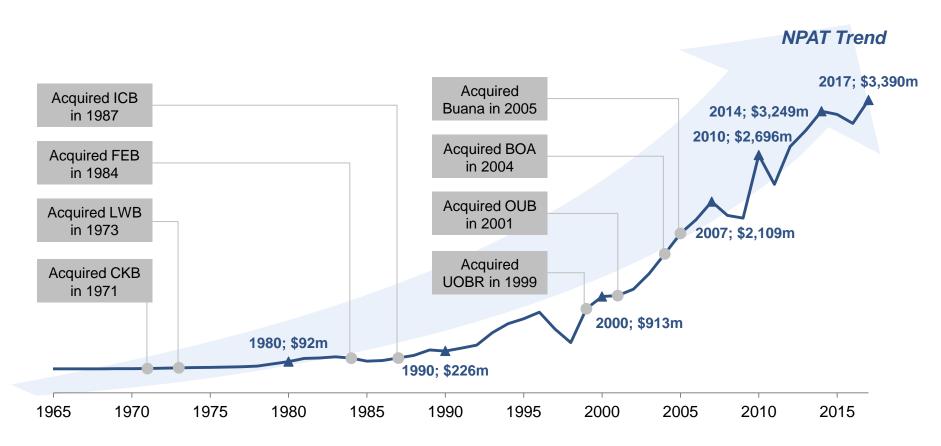
Loan margin is the difference between the rate of return from customer loans and costs of deposits.

Source: Company reports.

Proven Track Record of Execution



- UOB Group's management has a proven track record in steering the Group through various global events and crises.
- Stability of management team ensures consistent execution of strategies
- Disciplined management style which underpins the Group's overall resilience and sustained performance



Note: Bank of Asia Public Company Limited ("BOA"), Chung Khiaw Bank Limited ("CKB"), Far Eastern Bank Limited ("FEB"), Industrial & Commercial Bank Limited ICB ("ICB"), Lee Wah Bank Limited ("LWB"), Overseas Union Bank Limited ("OUB"), Radanasin Bank Thailand "UOBR".

Expanding Regional Banking Franchise

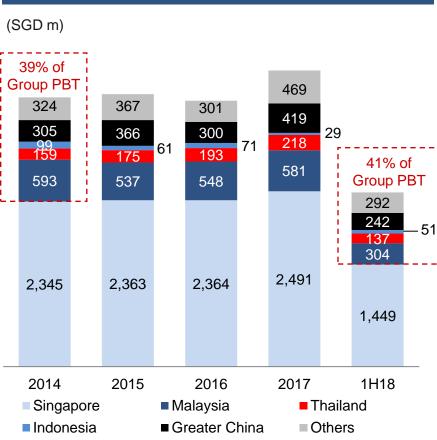


Extensive Regional Footprint with c.500 Offices



- Most diverse regional franchise among Singapore banks; effectively full control of regional subsidiaries
- Integrated regional platform improves operational efficiencies, enhances risk management and provides faster time-to-market and seamless customer service
- Organic growth strategies in emerging/new markets of China and Indo-China

Profit Before Tax by Region



Established regional network with key South East Asian pillars, supporting fast-growing trade, capital and wealth flows

Why UOB?



Stable Management

- Proven track record in steering the bank through various global events and crises
- Stability of management team ensures consistent execution of strategies

Integrated Regional Platform

- Entrenched local presence. Ground resources and integrated regional network allow us to better address the needs of our targeted segments
- Truly regional bank with full ownership and control of regional subsidiaries

Strong Fundamentals

- Sustainable revenue channels as a result of carefully-built core business
- Strong balance sheet, sound capital & liquidity position and resilient asset quality – testament of solid foundation built on the premise of basic banking

Balance Growth with Stability

- Continue to diversify portfolio, strengthen balance sheet, manage risks and build core franchise for the future
- Maintain long-term perspective to growth for sustainable shareholder returns

Proven track record of financial conservatism and strong management committed to the long term



Strong UOB Fundamentals

Strong UOB Fundamentals



Strong Management with Proven Track Record

- Proven track record in steering the bank through various global events and crises
- Stability of management team ensures consistent execution of strategies

Consistent and Focused Financial Management

- Healthy revenue growth, with new highs in both net interest income and fees
- Continue to invest in building long-term capabilities in a disciplined manner
- Total credit costs expected to be below long-term trend of 28bp
- Higher profit supports an increase in interim dividend to 50 cents per share

Disciplined Management of Balance Sheet

- Strong capital base; Common Equity Tier 1 capital adequacy ratio of 14.5% as at 30 June 2018
- Liquid and well diversified funding mix with loan/deposits ratio at 85.7%
- Stable asset quality, with a diversified loan portfolio

Delivering on Regional Strategy

- Holistic regional bank with effectively full control of subsidiaries in key markets
- Focus on profitable niche segments and intra-regional needs of customers
- Entrenched local presence: ground resources and integrated regional network to better address the needs of our targeted segments

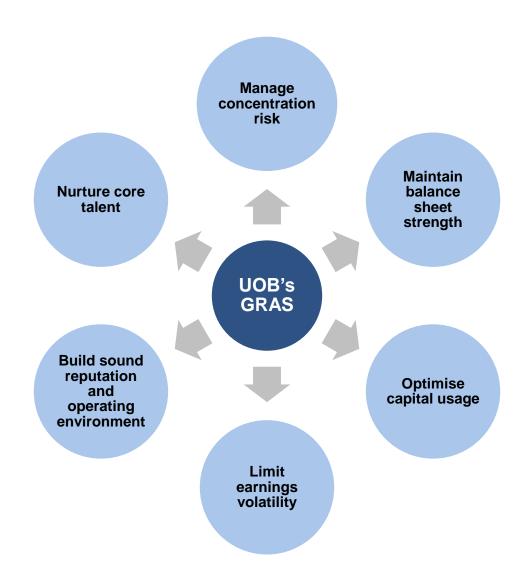
UOB is focused on the basics of banking;
Stable management team with proven execution capabilities

Source: Company's reports.

Managing Risks for Stable Growth



- Prudent approach has been key to delivering sustainable returns over the years
- Institutionalised framework through Group Risk Appetite Statement (GRAS):
 - Outlines risk and return objectives to guide strategic decision-making
 - Comprises 6 dimensions and 14 metrics
 - Entails instilling prudent culture as well as establishing policies and guidelines
 - Invests in capabilities, leverage integrated regional network to ensure effective implementation across key markets and businesses



Competitive Against Peers



				Standalone Strength	Efficient Cost Management	Competitive ROAA ¹	Well-Maintained Liquidity
Moody's	S&P	Fitch		Moody's baseline redit assessment	Costs/income ratio	Return on average assets	Loan/deposit ratio
Aa1	AA–	AA–	UOB	a1	43.9%	1.12%	85.7%
Aa1	AA-	AA-	OCBC	a1	43.0%	1.22%	85.9%
Aa1	AA-	AA-	DBS	a1	42.9%	1.11%	87.2%
						_	
A2	Α	AA-	HSBC	a2	64.3%	0.66%	71.8%
A2	BBB+	A+	SCB	baa1	68.0%	0.47%	68.2%
Baa1	A-	n.r.	CIMB	baa2	49.8%	1.03%	89.7%
А3	A-	A-	MBB	a3	47.6%	0.99%	92.5%
Baa1	BBB+	BBB+	BBL	baa2	41.4%	1.17%	87.9%
Baa3	n.r.	BBB-	BCA	baa3	48.3%	3.60%	77.0%
A-	A-	A+	BOA	baa1	59.0%	1.19%	70.7%
Baa1	BBB+	А	Citi	baa2	57.9%	0.96%	66.1%
Aa3	AA-	AA-	CBA	a2	43.9%	1.01%	117.8%
Aa3	AA-	AA-	NAB	a2	52.2%	0.65%	139.9%

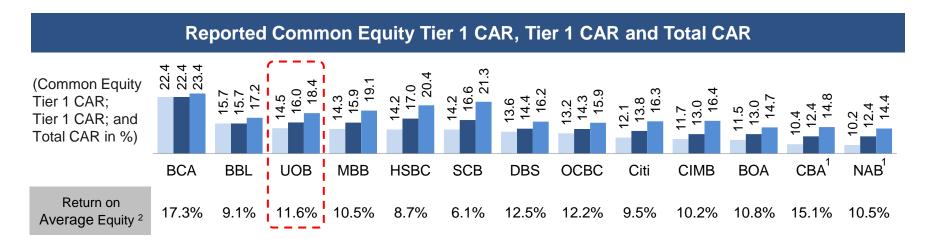
Source: Company reports, Credit rating agencies (updated as of 6 Aug 2018).

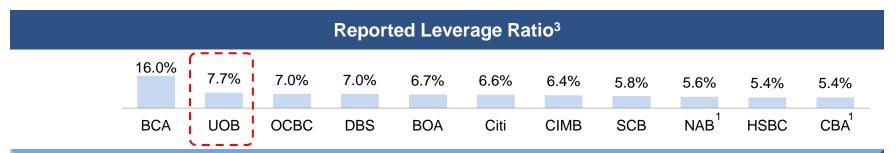
Banks' financials were as of 30 Jun 18, except for those of CIMB, MBB, NAB (which were as of 31 Mar 18) and CBA (which were as of 31 Dec 17).

^{1.} Computed on an annualised year-to-date basis.

Strong Capital and Leverage Ratios







UOB is among the most well-capitalised banks, with capital ratios comfortably above regulatory requirements and high compared with some of the most renowned banks globally

Source: Company reports.

Banks' financials were as of 30 Jun 18, except for those of CIMB, MBB, NAB (which were as of 31 Mar 18) and CBA (which were as of 31 Dec 17).

- 1. NAB's and CBA's CARs are based on APRA's standards. Their internationally comparable CET1 CAR was 14.6% (31 Mar 18) and 16.3% (31 Dec 17), respectively.
- 2. Computed on an annualised year-to-date basis.
- 3. BBL and MBB do not disclose their leverage ratio.

Disciplined Balance Sheet Management



Improved balance sheet efficiency

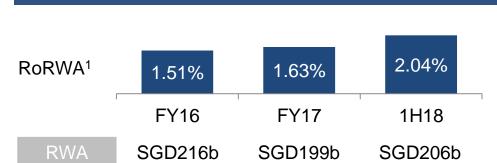
 Stronger RoRWA¹ driven mainly by higher profit

Healthy portfolio quality

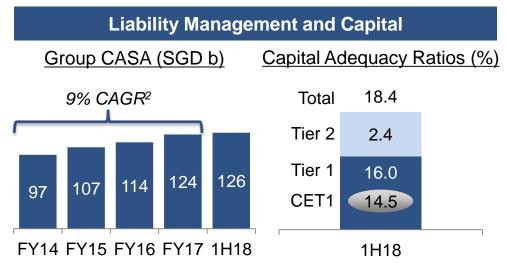
- 11bps credit cost on NPL lower YoY
- NPL ratio stable at 1.7%
- Adequate non-performing assets reserve cover: 89%, or 190% including collateral

Proactive liability management

- Liquidity Coverage Ratios³:
 SGD (206%) and all-currency (142%)
- Net stable funding ratio: 110%, above regulatory requirement
- Robust capital; 14.5% CET1 ratio
- Interim dividend/share raised to 50 cents



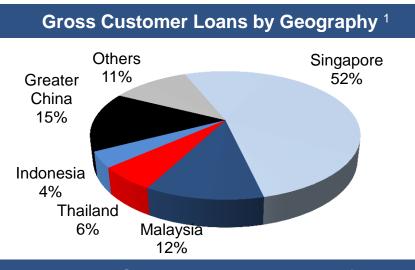
Balance Sheet Efficiency a Key Priority



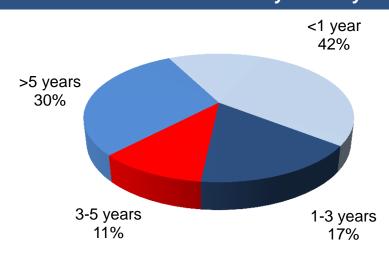
- 1. Return on average risk-weighted assets (RoRWA) is computed on an annualised basis for 1H18.
- 2. Compound annual growth rate (CAGR) computed over 3 years (2014 to 2017).
- 3. Average ratios for second quarter of 2018.

Diversified Loan Portfolio

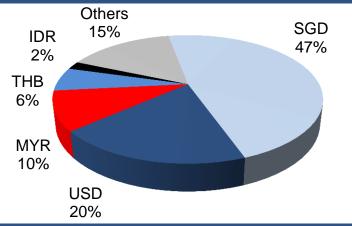




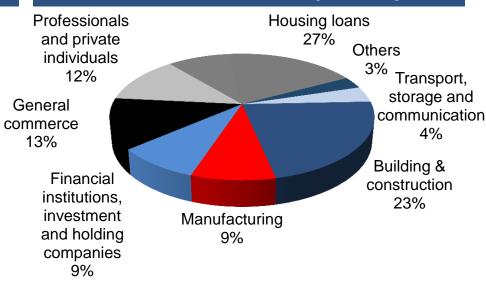
Gross Customer Loans by Maturity



Gross Customer Loans by Currency



Gross Customer Loans by Industry



Note: Financial statistics as at 30 June 2018.

^{1.} Loans by geography are classified according to where credit risks reside, largely represented by the borrower's country of incorporation / operation (for non-individuals) and residence (for individuals).

Strong Investment Grade Credit Ratings



Moody's INVESTORS SERVICE

Aa1 / Stable / P-1

- Capital good by global standards
- Deposit-funded and liquid balance sheet
- Traditional banking presence in Singapore, Malaysia and other markets

STANDARD & POOR'S RATINGS SERVICES AA-/Stable / A-1+

- Well-established market position, strong funding and prudent management record
- Will maintain its capitalisation and asset quality while pursuing regional growth

FitchRatings AA-/Stable/F1+

- Sound capital and high loan-loss buffers
- Disciplined funding strategy, supported by its strong domestic franchise

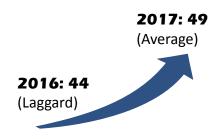
	Debt Issuance History							Debt	Matu	rity Pr	ofile		
Issue Date	Structure	Call	Coupon	Amount	Ratings (M/S/F)	2018	<u>2019</u>	2020	2021	2022	2023	2024	<u>2025</u>
Additio	nal Tier 1					SGDm	SGDm	SGDm	SGDm	SGDm	SGDm	SGDm	SGDm
Oct-17	Perpetual	2023	3.875%	USD650m	Baa1 / - /BBB	-	-	-	-	-	886	-	-
May-16	Perpetual	2021	4.00%	SGD750m	Baa1 / - /BBB	-	-	-	750	-	-	-	-
Nov-13	Perpetual	2019	4.75%	SGD500m	Baa1/BBB-/BBB	-	500	-	-	-	-	-	-
Tier 2													
Feb-17	12NC7	2024	3.50%	SGD750m	A3 / - / A+	-	-	-	-	-	-	750	-
Sep-16	10½NC5½	2022	2.88%	USD600m	A3 / - / A+	-	-	-	-	818	-	-	-
Mar-16	101/2NC51/2	2021	3.50%	USD700m	A3 / - / A+	-	-	-	955	-	-	-	-
May-14	12NC6	2020	3.50%	SGD500m	A3 / BBB+ / A+	-	-	500	-	-	-	-	-
Mar-14	10½NC5½	2019	3.75%	USD800m	A3 / BBB+ / A+	-	1,091	-	-	-	-	-	-
Senior	Unsecured												
Jul-18	3½yr FRN	-	BBSW 3m+0.81%	AUD600m	Aa1 / AA- / AA-	-	-	-	-	604	-	-	-
Apr-18	3yr FRN	-	3m LIBOR+0.48%	USD500m	Aa1 / AA- / AA-	-	-	-	682	-	-	-	-
Apr-18	3yr FXN	-	3.20%	USD700m	Aa1 / AA- / AA-	-	-	-	955	-	-	-	-
Nov-17	1yr FRN	-	BBSW 3m+0.26%	AUD400m	Aa1 / AA- / AA-	403	-	-	-	-	-	-	-
Apr-17	4yr FRN	-	BBSW 3m+0.81%	AUD300m	Aa1 / AA- / AA-	-	-	-	302	-	-	-	-
Sep-14	5½yr FXN	-	2.50%	USD500m	Aa1 / AA- / AA-	-	-	682	-	-	-	-	-
Sep-14	4yr FRN	-	BBSW 3m+0.64%	AUD300m	Aa1 / AA- / AA-	302	-	-	-	-	-	-	-
Covere	d												
Feb-18	5yr FRN	-	3m LIBOR+0.24%	GBP350m	Aaa / AAA / –	-	-	-	-	-	626	-	-
Jan-18	7yr FXN	-	0.500%	EUR500m	Aaa / AAA / –	-	-	-	-	-	-	-	793
Feb-17	3yr FXN	-	2.125%	USD500m	Aaa / AAA / –	-	-	682	-	-	-	-	-
Feb-17	5yr FXN	-	0.125%	EUR500m	Aaa / AAA / –	-	-	-	-	793	-	-	-
Mar-16	5yr FXN	-	0.250%	EUR500m	Aaa / AAA / –	-	-	-	793	-	-	-	-
					Tota	l 705	1,591	1,864	4,436	2,215	1,512	750	793

The table comprises UOB's public rated issues; Maturities shown at first call date for AT1 and FX rates at 30 Jun 2018; USD 1 = SGD 1.36; AUD 1 = SGD 1.01; 1 GBP = SGD 1.79; EUR 1 = SGD 1.59.

Sustainability Reporting a Multi-Year Journey, with Progress Recognised







Sustainalytics is the leading independent global provider of ESG¹ and corporate governance research and ratings to investors.



"... UOB has satisfied the requirements to become a constituent of the FTSE4Good Index Series." Created by the global index provider FTSE Russell, the FTSE4Good Index Series is designed to measure the performance of companies demonstrating strong ESG¹ practices. The FTSE4Good indices are used by a wide variety of market participants to create and assess responsible investment funds and other products.



Singapore Ranking

2017: 5th



CGIO² and SID³ have been appointed by the Monetary Authority of Singapore (MAS) as Singapore's domestic ranking body for the ASEAN Corporate Governance Initiative.

Note: 2016 was a gap year for revision and no assessment was conducted.



Best Inaugural Sustainability Report (Mainboard), 2017 The Singapore Sustainability Reporting Awards was organised by the SID³, and supported by Singapore Exchange.



Leader Award

Organised by SG Enable, the award recognises committed employers who have done well in hiring and integrating persons with disabilities into their workforce.

- 1. ESG: Environmental, Social and Governance
- 2. CGIO: NUS Business School's Centre for Governance, Institutions and Organisations
- 3. SID: Singapore Institute of Directors



Our Growth Drivers

Our Growth Drivers



Realise Full Potential of our Integrated Platform

- Provides us with ability to serve expanding regional needs of our customers
- Improves operational efficiency, enhances risk management, seamless customer experience and faster time to market

Sharpen Regional Focus

- Global macro environment remains uncertain. The region's long-term fundamentals continue to remain strong
- Region is our future engine of growth

Reinforce Fee Income Growth

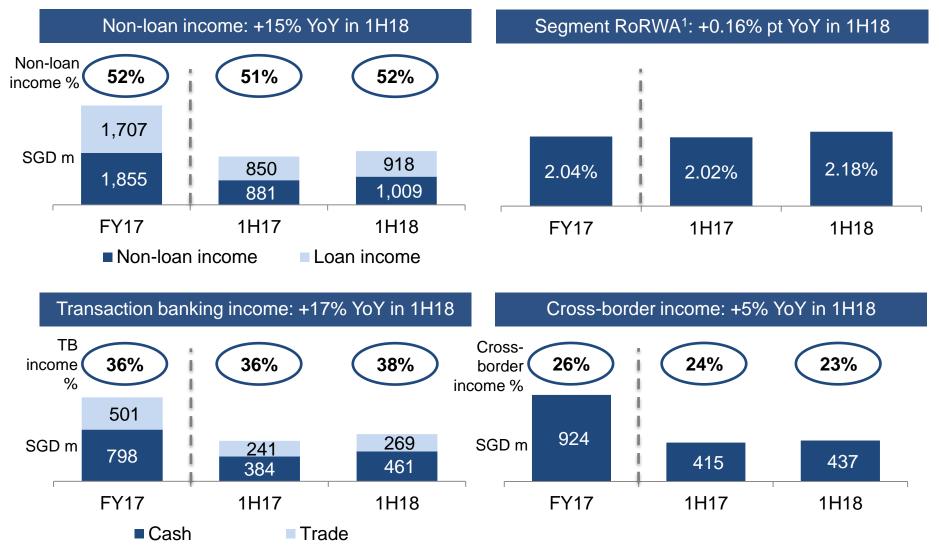
- Grow fee income to offset competitive pressures on loans and improve return on capital
- Increase client wallet share size by intensifying cross-selling efforts, focusing on service quality and expanding range of products and services

Long-term Growth Perspective

- Disciplined approach in executing growth strategy, balancing growth with stability
- Focus on risk adjusted returns; ensure balance sheet strength amidst global volatilities

Wholesale Banking: Income Diversification Remains Key

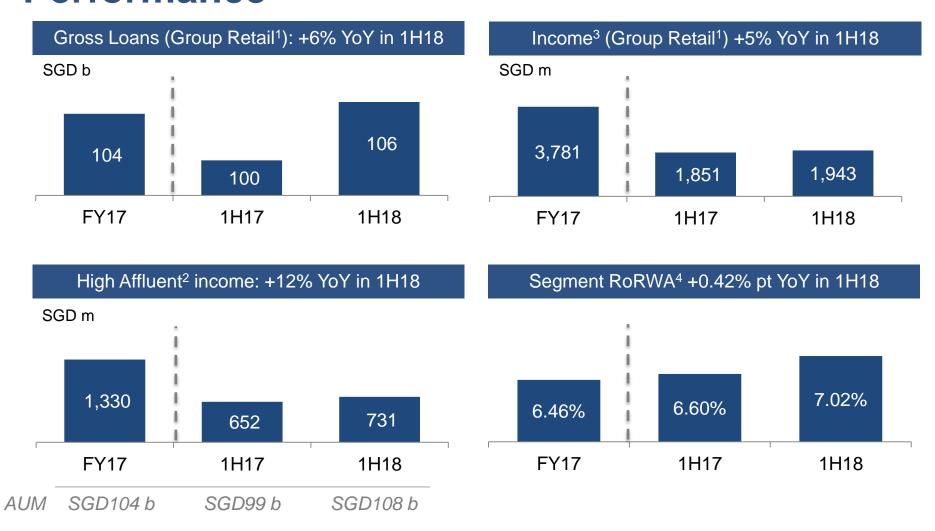




^{1.} RoRWA: Ratio of "Operating profit" to "Average segment RWA"

Retail Banking: Steady Improvement in Performance





- 1. Includes Business Banking
- 2. Wealth management comprises Privilege Banking and High Net Worth (Privilege Reserve + Private Bank) segments.
- 3. Income includes fee and commission income that is net of directly attributable expenses.
- 4. RoRWA: Ratio of "Operating profit" to "Average segment RWA"

Focusing on the Future



The retail banking future

The new business model

The new **Digital Bank**

Digital Banking erand Digital Bank

- Digital banking (omni-channel) and the digital bank (mobile only): distinct and will co-exist
- Data-centric digital banks will drive unprecedented disruption globally
- Opportunities will open for progressive banks, big techs and FinTechs
- Emerging capabilities to power this will accelerate

From "Cross-selling to Engaging"

- The data-centric Digital Bank's advantage: Digital **Engagement**
- A unique business model:

ATGIE

- **A**cquire
- **T**ransact
- **G**enerate data
- Insight
- Engage
- Lower cost-to-serve and increased access will drive large-scale financial inclusion

Making it Simple, Engaging and Transparent

- Simple Intuitive user interface, remembers you, fast and fully digital experience
- Engaging Anticipates your needs and prompts you towards smarter spending and saving habits
- Transparent Promotes openness and engenders trust

Achieving our Goals for Digital Bank







Scaling our regional franchise

Powering the Digital Bank for Engagement

- Fast and modular
- Next-gen credit assessment with Avatec.ai (JV; April 2018)
- Next-gen UI capabilities
- 24/7 fast digital service

Target customers



Mobile savvy

Acquire

Engage

Transact

Engagement



Customer **Engagement** Index

Engagement

- Design and learning
- Holding engaging and meaningful conversations

ATGIE Data

Generate

Real time data

Categorisation

Non-bank data

- lab
- experimental
- Identifies patterns and extracts insights to understand and anticipate

Insight

New cognitive analytics engine by Personetics (Investment and partnership; July 2018)

Steady-state cost/income ratio



Leveraging process redesign & digitisation

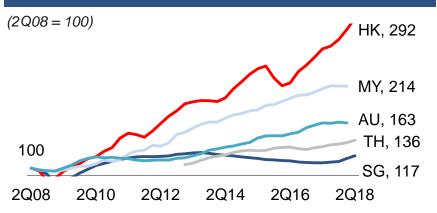


Resilience of the Singapore Housing Market & UOB's Cover Pool

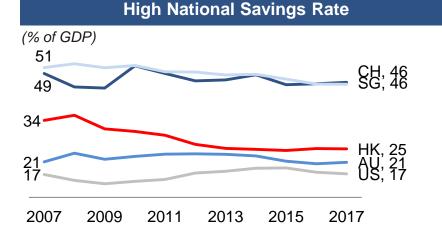
Conducive Macro Conditions Underpin Singapore Property Market



Regional House Price Indices over Last 10 Years

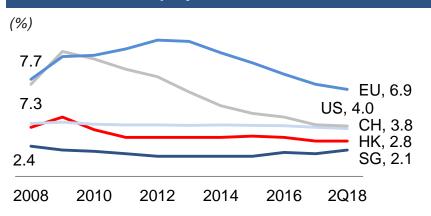


Note: For Thailand (2Q12=100) as no available data prior to that Sources: CEIC, UOB Economic-Treasury Research



Sources: IMF, UOB Economic-Treasury Research

Low Unemployment vs Global Peers



Sources: CEIC, UOB Economic-Treasury Research

SG Household Income in Line with Property Prices

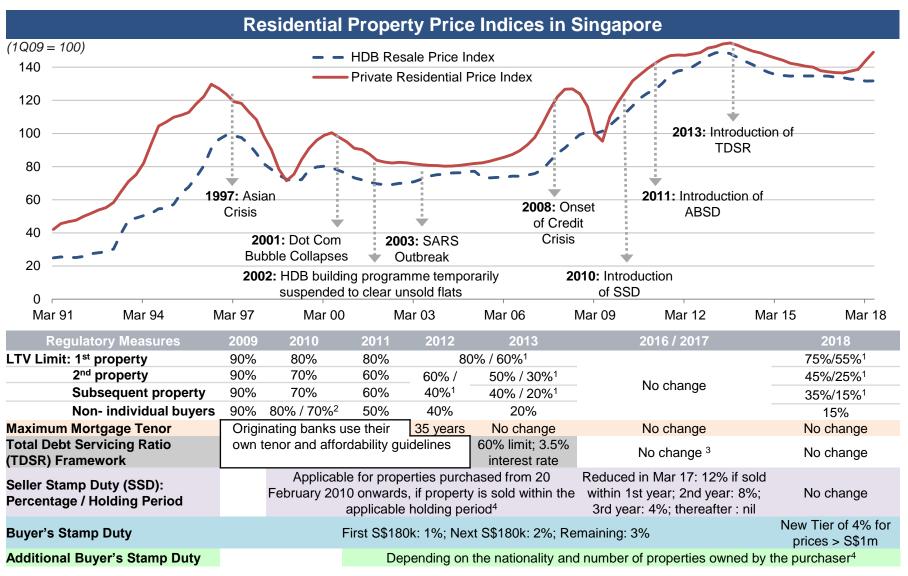
	2007	2Q18	+/(–)
Price ¹ (SGD / sq ft)	940	1,132	+20%
Unit size (sq ft)	1,200	1,200	_
Unit costs (SGD m)	1.13	1.36	+20%
Interest rate (%)	3.72	2.18	
Household income ² (SGD / mth)	11,933	16,826	+41%
Debt servicing ratio ³ (%)	35	24 ⁴	

- 1. Reflects median price of non-landed private residential
- 2. Reflects median of resident households living in private properties
- 3. Based on a 30-year housing loan, with a loan-to-value of 80%
- 4. A housing loan with 5% interest rate would increase DSR to 35%

Sources: URA, CEIC, Singapore Statistics, UOB Economic-Treasury Research

Prudent Policies for Sustainable Prices





^{1.} From 6 October 2012, the higher LTV limit applies if the mortgage tenor ≤30 years and sum of mortgage tenor and age of borrower is ≤65 years old, otherwise lower LTV limit will apply. 2. 80% LTV limit for 1st property and 70% LTV limit for subsequent properties. 3. Exemptions granted to certain borrowers if they meet exemption criteria. 4. Refer to IRAS website for more details. Source: Singapore Department of Statistics

Covered Bond Program Summary



	USD8,000,000,000 Global Covered Bond Programme
Issuer	United Overseas Bank Limited
Issuer Long Term Rating	Aa1 (stable) / AA- (stable) / AA- (stable) (Moody's / S&P / Fitch)
Issuer Short Term Rating	P-1 (stable) / A-1+ (stable) / F1+ (stable) (Moody's / S&P / Fitch)
Programme Limit	USD8,000,000,000
LCR Status / ECB Repo Eligibility	Expected Level 2A Eligible (EU) ¹ / Not Eligible
Programme Rating	Aaa / AAA (Moody's / S&P)
Issuance Structure	Direct issuance covered bond regulated under MAS Notice 648, Senior unsecured claim against the Issuer and
(Dual Recourse)	senior secured claim against the Cover Pool
Covered Bond Guarantor (CBG)	Glacier Eighty Pte. Ltd., a newly set up orphan SPV incorporated in Singapore for the sole purpose of facilitating the activities under the Covered Bond Programme
Covered Bond Guarantee	The CBG has provided a guarantee as to payments of interest and principal under the Covered Bonds
Cover Pool	Eligible 1st ranking SGD-denominated residential mortgages loans originated by UOB in Singapore (and other
Cover Fooi	eligible assets)
Mortgage Loan-to-Value Cap	80% of latest Valuation of the Property, to be adjusted at least quarterly
Over-collateralisation (OC)	Legal minimum OC of 3% and committed OC of 15.90%
	Cover Pool Swap ² to hedge against possible variances between the interest received from the residential
Hedging	mortgage loans to the CBG's SGD interest/swap payments; Covered Bond Swap to hedge against the currency
	risk between the amount received by the CBG against its payment in other currency
Listing	Singapore Stock Exchange (SGX – ST)
Governing Law	English law (bond & swap documents) and Singapore law (asset documents)
Servicer, Cash Manager and Seller	United Overseas Bank Limited
Asset Monitor	Ernst & Young LLP
Trustee	DB International Trust (Singapore) Limited
Issuing and Paying Agent	Deutsche Bank AG, Singapore Branch
Arrangers	BNP Paribas and United Overseas Bank Limited

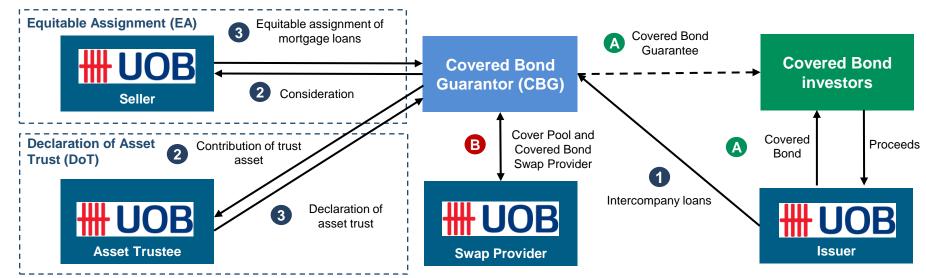
^{1.} Please refer to http://ec.europa.eu/finance/bank/docs/regcapital/acts/delegated/141010_delegated-act-liquidity-coverage_en.pdf and check for details. At the time of this presentation and subject to any relevant matters which are within the control of a relevant EU investor (including its compliance with the transparency requirement referred to in article 129(7) of Regulation (EU) 575/2013) and to the issuer and the covered bonds being regarded to be subject to supervisory and regulatory arrangements regarded to be at least equivalent to those applied in the EU, this bond should satisfy the eligibility criteria for its classification as a Level 2A asset in accordance with Chapter 2 of Regulation (EU) 2015/61 supplementing Regulation (EU) 575/2013. Notwithstanding the foregoing, it should be noted that whether or not a bond is a liquid asset for the purposes of the Liquidity Coverage Ratio under Regulation (EU) 575/2013 is ultimately to be determined by a relevant investor institution and its relevant supervisory authority and neither the issuer nor the manager accept any responsibility in this regard

2. Only entered into if and when required by either Rating Agency in order to ensure that the then current rating of the Covered Bonds would not be downgraded

Covered Bond Structure



Notwithstanding that CPF's consent is required for the transfer or assignment of mortgages relating to CPF Loans, no such consent is required for a declaration of trust over mortgages relating to CPF Loans. The Seller is acting as the Assets Trustee and the CPF Loans are held on trust for the benefit of the Covered Bond Guarantor (CBG). Both EA and DOT mechanisms are permissible under MAS Notice 648 and such hybrid structure has been used in Covered Bond programmes in other jurisdiction



Credit Structure (Dual Recourse)



- Covered Bond issued directly from UOB constitutes direct, unsecured and unsubordinated obligations of the Issuer
- ► CBG guarantees the payment of interest and principal on the Covered Bonds, secured by the Cover Pool

Hedging



- Cover Pool Swap¹ to hedge interest rate risk between the mortgage loans and CBG's SGD interest/swap payments¹
- ▶ Covered Bond Swap (if necessary) to hedge against the currency risk between the amount received by the CBG against its payment in other currency

Segregation of mortgage loans

- 1 UOB provides an intercompany loan to the CBG
- 2 CBG pays UOB consideration for the purchase of the mortgage loans
- A dual ring-fencing structure which uses both equitable assignment (EA) and declaration of assets trust (DOT) mechanisms:
 - ▶ DOT for the sale of DOT loans²
 - ► EA for the sale of EA Loans³ via equitable assignment
- 1. Only entered into if and when required by either Rating Agency to ensure that the then current rating of the Covered Bonds would not be downgraded
- 2. DOT Loans mean: (1) the borrowers had used CPF funds in connection with a residential property (CPF Loan) or (2) the required documentation for the borrowers' use of CPF funds, in connection with a residential property, is prepared
- 3. EA Loans mean a non-CPF Loan and the required documentation for the borrowers' use of CPF funds, in connection with a residential property, is not prepared

UOB's Cover Pool Profile

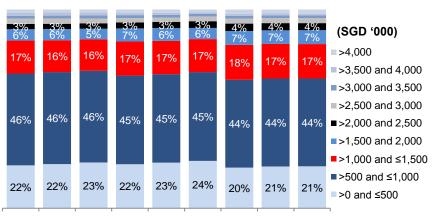


Overview of Cover Pool (as of Jul'18)

=
11,121
7.2 billion
645,862
9,500,976
2.12%
58
257
53%
57%

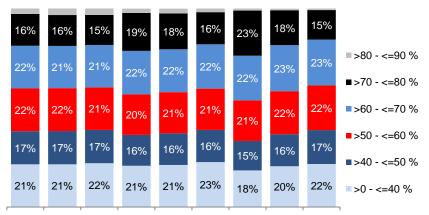
- W.A. represents weighted averages
- Current loan balance divided by the original property value

Current Loan Balances Mainly <S\$1m



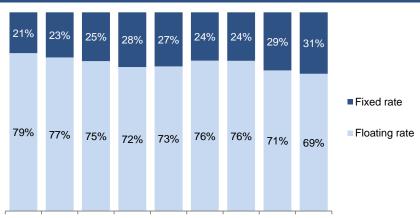
Sep '16Dec '16Mar '17 Jun '17 Sep '17Dec '17Mar '18 Jun '18 Jul '18

Granular LTV Breakdown



Sep '16 Dec '16 Mar '17 Jun '17 Sep '17 Dec '17 Mar '18 Jun '18 Jul '18

Largely Floating Rate Mortgages

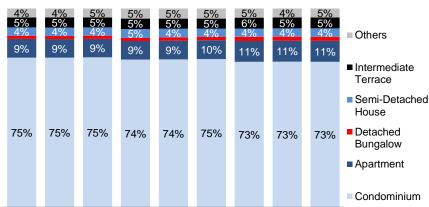


Sep '16Dec '16Mar '17 Jun '17 Sep '17Dec '17Mar '18 Jun '18 Jul '18

Cover Pool has Been Stable

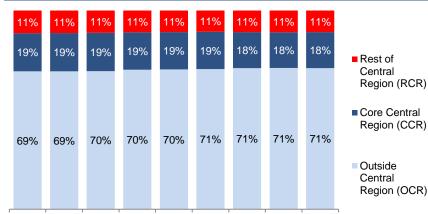






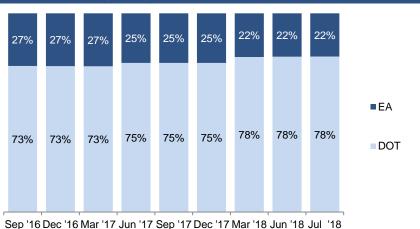
Sep '16 Dec '16 Mar '17 Jun '17 Sep '17 Dec '17 Mar '18 Jun '18 Jul '18

Diversified Geographical Distribution

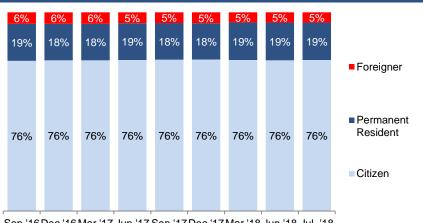


Sep '16Dec '16Mar '17 Jun '17 Sep '17Dec '17Mar '18 Jun '18 Jul '18

Strong Legal Protection by EA / DOT



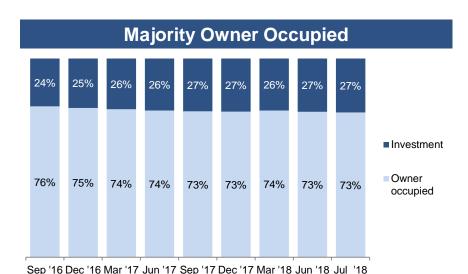
Borrowers mainly Citizens / PRs



Sep '16 Dec '16 Mar '17 Jun '17 Sep '17 Dec '17 Mar '18 Jun '18 Jul '18

Cover Pool has Been Stable

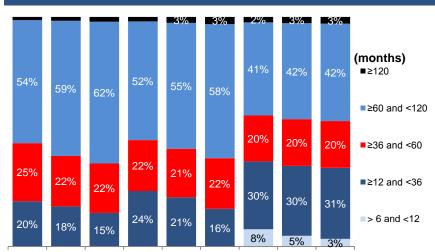




Loans Mainly for Purchases

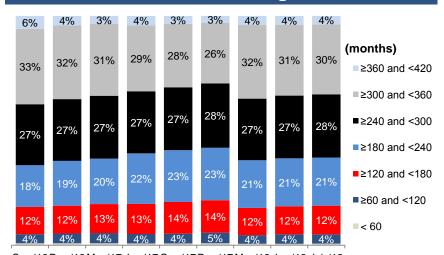


Well Seasoned Portfolio



Sep '16 Dec '16 Mar '17 Jun '17 Sep '17 Dec '17 Mar '18 Jun '18 Jul '18

Stable Profile for Remaining Loan Tenors



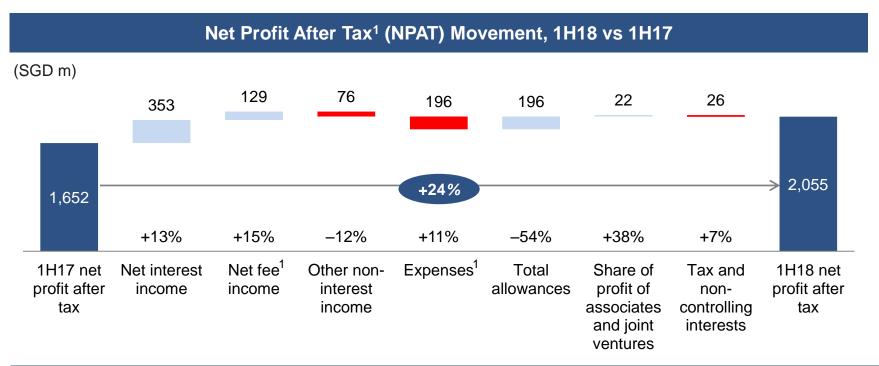
Sep '16 Dec '16 Mar '17 Jun '17 Sep '17 Dec '17 Mar '18 Jun '18 Jul '18



Appendix A: Latest Financials

1H18 Financial Overview





Key Indicators	1H18	1H17	YoY Change
NIM (%)	1.83	1.74	+0.09% pt
Non-NII / Income (%)	34.1	36.2	(2.1) pt
Expense / Income ratio (%)	43.9	43.5	+0.4% pt
ROE (%) ²	11.6	10.2	+1.4% pt
RORWA (%)	2.04	1.56	+0.48% pt

- 1. Fee income and expenses have been restated where expenses directly attributable to fee income are presented net of fee income.
- Calculated based on profit attributable to equity holders of the Bank, net of preference share dividends and perpetual capital securities distributions.

2Q18 Financial Overview

-4%

Net fee

income

+24%

Other non-

interest

income



2Q18 net

profit after

tax

+4%

Expenses

+14%

Total

allowances

+81%

Share of

profit of

associates

and joint

ventures

-5%

Tax and

noncontrolling

interests

Key Indicators	2Q18	1Q18	QoQ Change	2Q17	YoY Change
NIM (%) ¹	1.83	1.84	(0.01) pt	1.75	+0.08% pt
Non-NII / Income (%)	34.2	34.1	+0.1% pt	35.9	(1.7) pt
Expense / Income ratio (%)	43.6	44.2	(0.6) pt	43.8	(0.2) pt
ROE (%) 1, 2	12.1	11.0	+1.1% pt	10.3	+1.8% pt
RORWA (%) 1	2.13	1.95	+0.18% pt	1.61	+0.52% pt

1. Computed on an annualised basis.

+5%

Net interest

income

1Q18 net

profit after

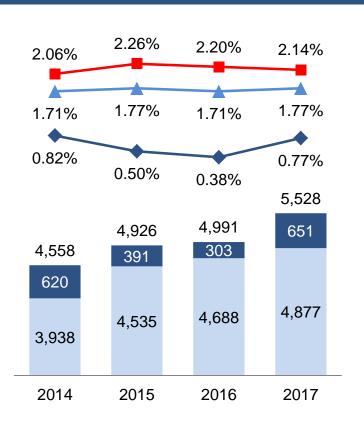
tax

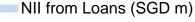
2. Calculated based on profit attributable to equity holders of the Bank, net of perpetual capital securities distributions.

Net Interest Income Rose on Loan Growth and Margin



Net Interest Income (NII) and Net Interest Margin (NIM)





Loan Margin (%) *

→ Net Interest Margin (%) *



NII from Interbank & Securities (SGD m)

→ Interbank & Securities Margin (%) *

^{*} Computed on an annualised basis, where applicable.

Broad-based Increase in Loan Portfolio



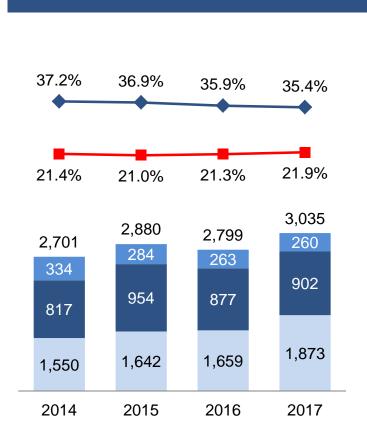
Gross Loans	Jun-18 SGD b	Mar-18 SGD b	QoQ +/(-) %	Jun-17 SGD b	YoY +/(-) %
By Geography					
Singapore	131	129	+2	125	+4
Regional:	94	89	+6	79	+18
Malaysia	29	29	+1	26	+11
Thailand	16	16	+0	14	+13
Indonesia	11	10	+4	12	-6
Greater China	38	34	+13	28	+37
Others	25	24	+8	23	+12
Total	250	241	+4	228	+10
By Industry					
Transport, storage and communication	10	9	+4	9	+1
Building and construction	58	55	+5	53	+9
Manufacturing	22	20	+9	17	+30
Financial institutions, investment & holding companies	22	19	+12	16	+32
General commerce	31	31	+1	30	+4
Professionals and private individuals	29	28	+2	27	+6
Housing loans	67	67	+1	63	+6
Others	12	11	+4	12	-0
Total	250	241	+4	228	+10

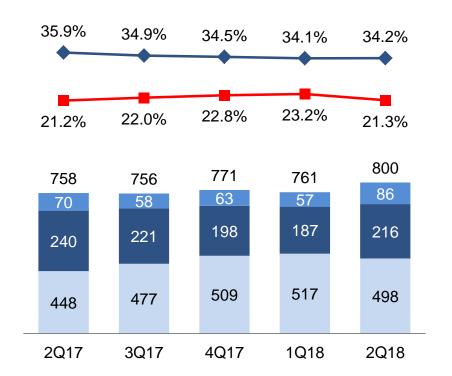
Note: Loans by geography are classified according to where credit risks reside, largely represented by the borrower's country of incorporation / operation (for non-individuals) and residence (for individuals).

Steady Non-Interest Income Mix Underpins Diversity









Net Fee Income (SGD m)

Other Non-Interest Income (SGD m)

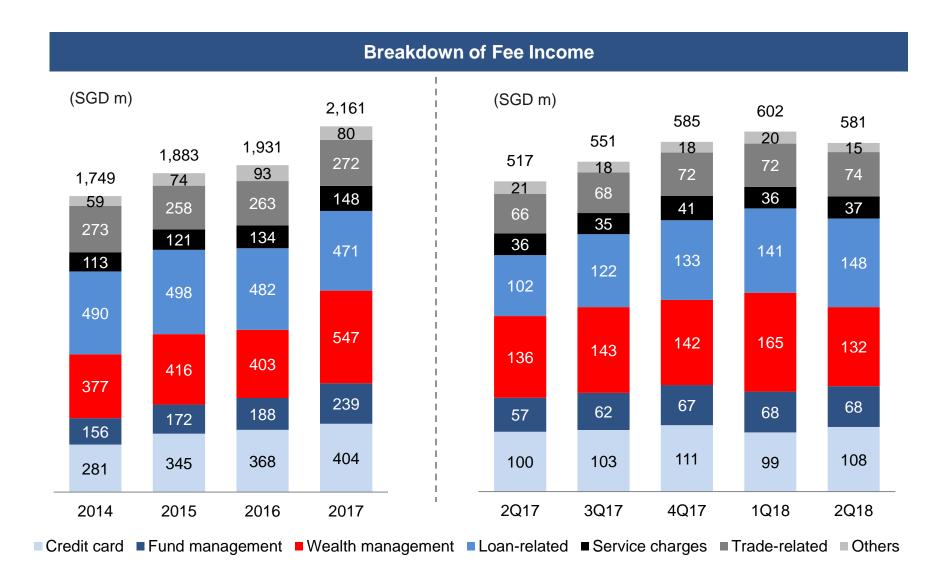
──Net Fee Income / Total Income (%)

Trading and Investment Income (SGD m)

→ Non-Interest Income / Total Income (%)

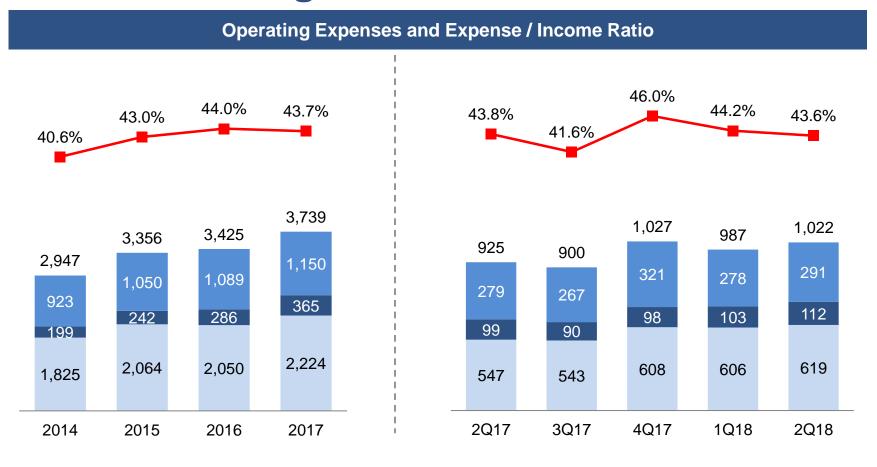
Broad-based Focus in Fee Income





Pacing Growth in Operating Expenses, with Maintaining a Stable CIR





IT-related Expenses (SGD m)

Note: Expenses have been restated where the amounts no longer include expenses directly attributable to fee income.

Staff Costs (SGD m)

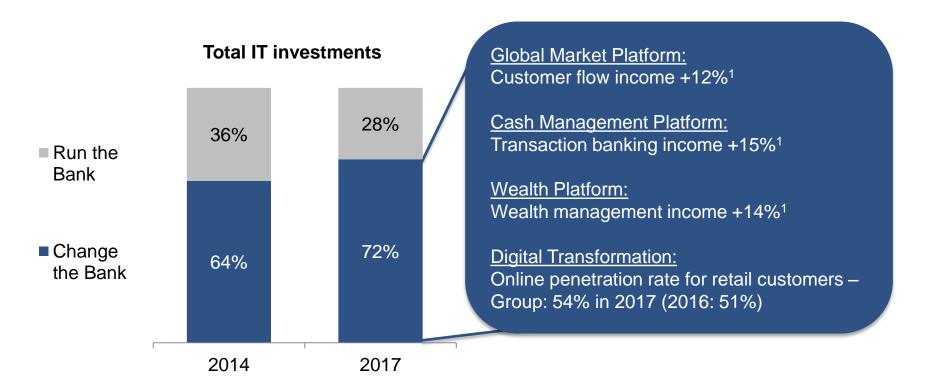
Expense / Income Ratio (%)

Other Operating Expenses (SGD m)

IT Investments Shifting Towards "Changing the Bank"







Exposure to China

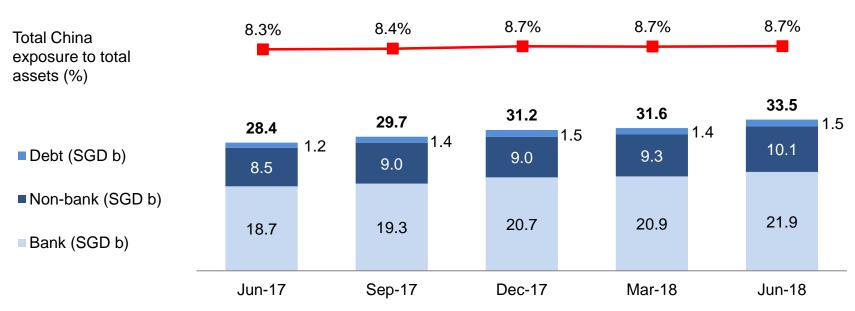


Bank exposure as of 30 June 2018

- Bank exposure accounted for 65% of total exposure to China
- Top 5 domestic banks and 3 policy banks accounted for 70% of total bank exposure
- 99% with <1 year tenor
- Trade exposures mostly with bank counterparties, representing about half of bank exposure

Non-bank exposure as of 30 June 2018

- Target customers include top-tier stateowned enterprises, large local corporates and foreign investment enterprises
- NPL ratio at 0.7%
- 50% denominated in RMB
- 50% with <1 year tenor



Note: Classification is according to where credit risks reside, largely represented by the borrower's country of incorporation / operation (for non-individuals) and residence (for individuals).

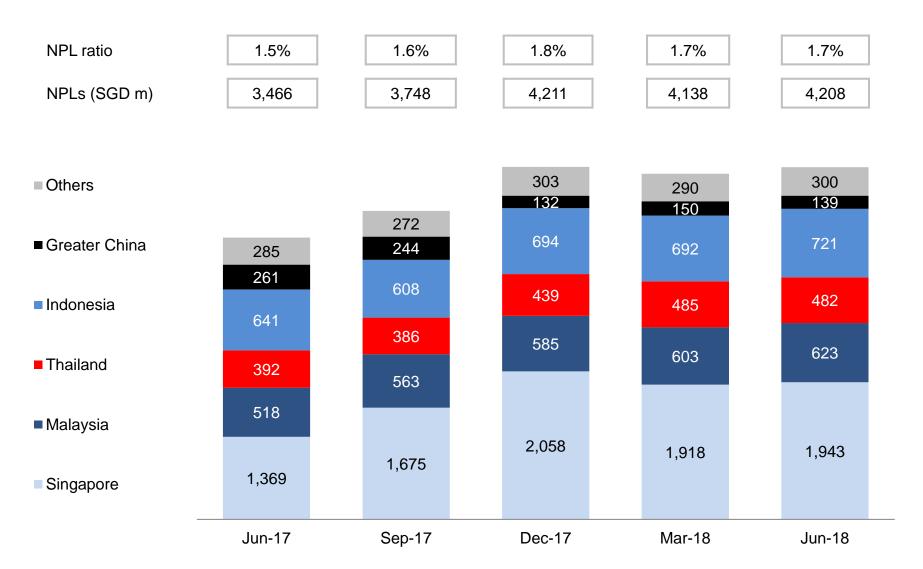
New NPA Formation Remained at Normalised Levels



(SGD m)	2Q16	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18
NPA at start of period	3,106	3,164	3,632	3,480	3,543	3,587	3,919	4,389	4,323
New NPA	802	780	387	424	537	799	1,167	416	436
Upgrades, recoveries and translations	(548)	(201)	(320)	(293)	(255)	(369)	(354)	(310)	(212)
Write-offs	(106)	(111)	(219)	(68)	(238)	(98)	(343)	(172)	(143)
NPA at end of period	3,164	3,632	3,480	3,543	3,587	3,919	4,389	4,323	4,404

NPL Ratio Stable at 1.7%

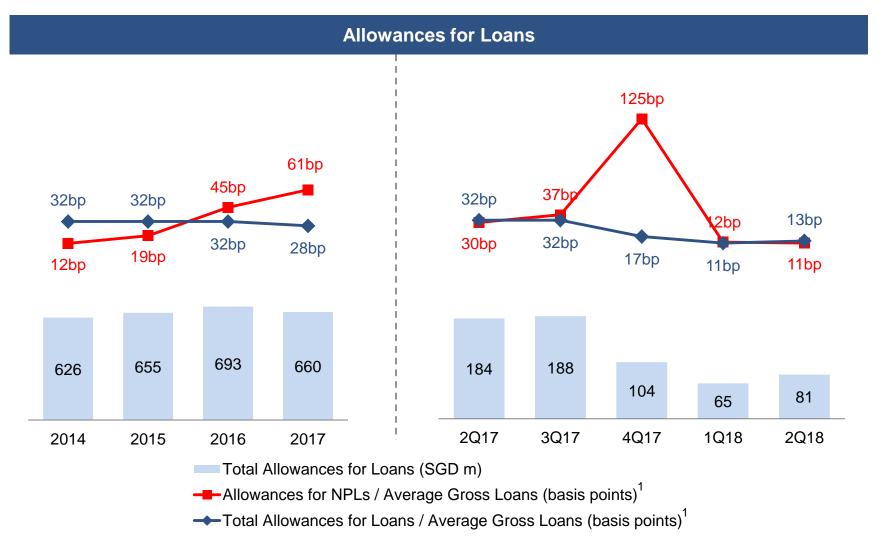




Note: NPLs by geography are classified according to where credit risks reside, largely represented by the borrower's country of incorporation / operation (for non-individuals) and residence (for individuals).

Low Credit Costs amid Benign Credit Conditions

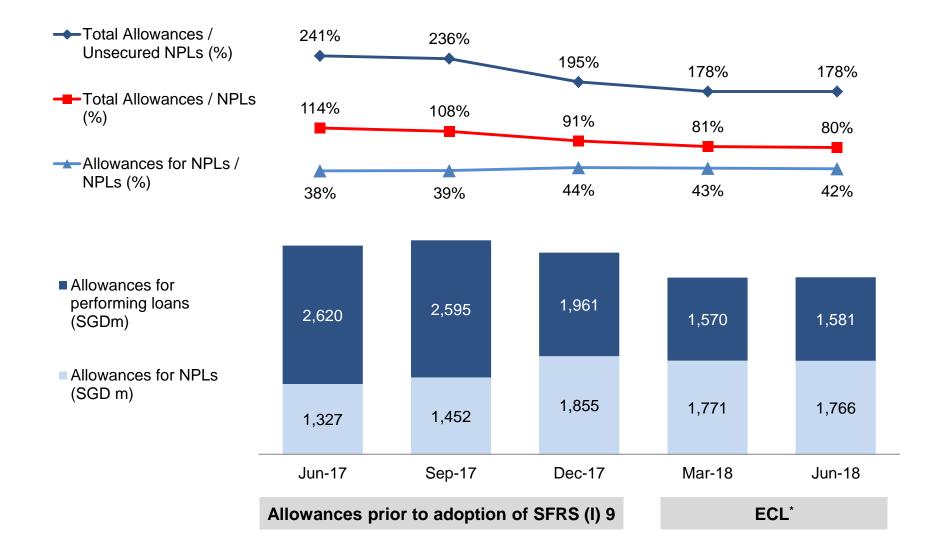




^{1.} Computed on an annualised basis, where applicable.

Adequate NPL Reserve Coverage Ratios

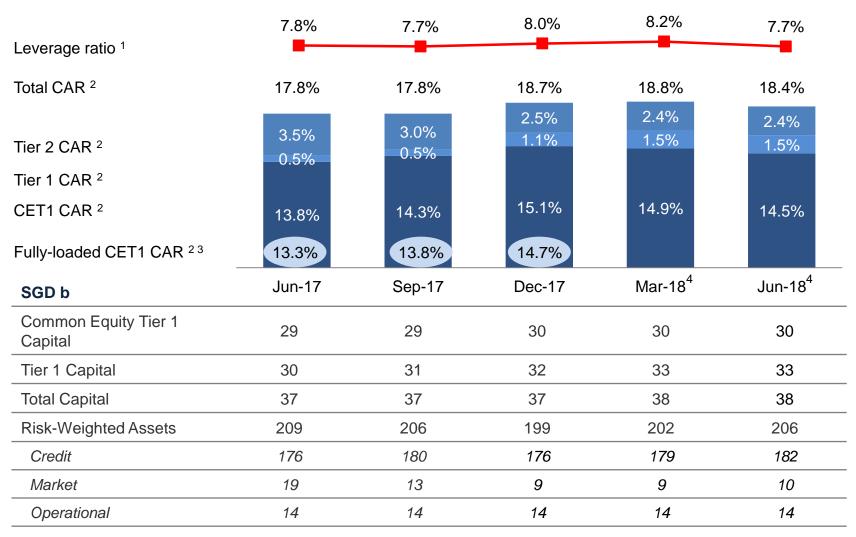




^{*} ECL: Expected credit losses under Singapore Financial Reporting Standards (International) 9: Financial Instruments

Strong Capital and Leverage Ratios

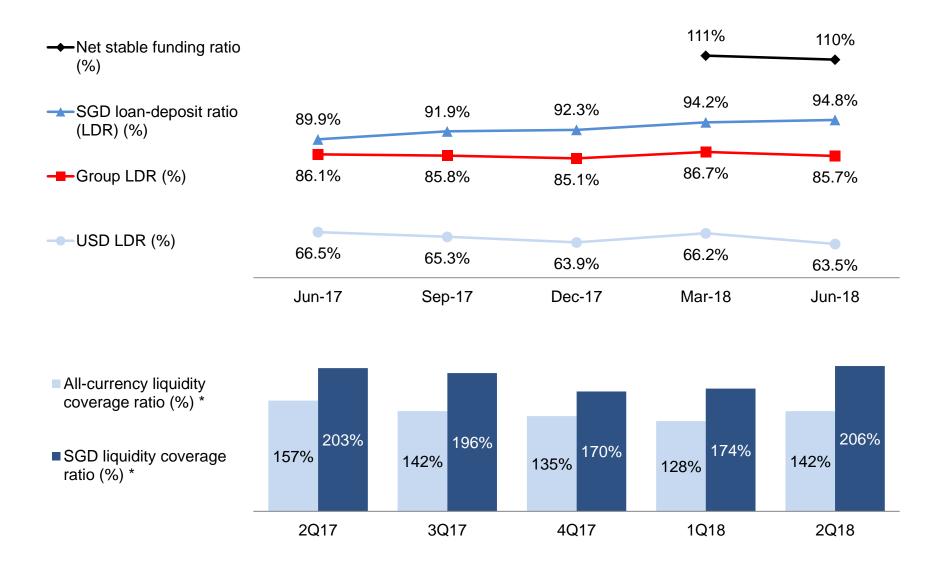




- 1. Leverage ratio is calculated based on the revised MAS Notice 637.
- 2. CAR: Capital adequacy ratio
- 3. Fully phased in, as per Basel III rules.
- 4. All capital ratios are fully-phased in from 2018 onwards.

Stable Liquidity and Funding Position

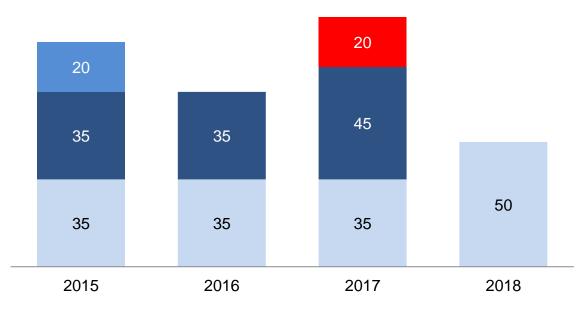




^{*} Liquidity coverage ratios are computed on a quarterly average basis Note: Net stable funding ratio is a new regulatory requirement from 2018 onwards

Higher Interim Dividend for 1H18





Net dividend per ordinary share (¢)	■ Interim	Interim ■ Final		■UOB	80th Anniversary
Payout amount (SGD m)	1,444	1,135		1,661	835
Payout ratio (%)	45	37		49	41
Payout ratio (excluding special/one-off dividends) (%)	35	37		39	41

Note: The Scrip Dividend Scheme was applied to UOB 80th Anniversary dividend for the financial year 2015; interim and final dividends for the financial year 2016; as well as interim, final and special dividends for the financial year 2017. The Scheme provides shareholders with the option to receive Shares in lieu of the cash amount of any dividend declared on their holding of Shares. For more details, please refer to http://www.uobgroup.com/investor/stock/dividend_history.html.



Appendix B: Additional Information on UOB's Covered Bond Program

Key Features – Use of CPF funds in Residential Property Financing



What is CPF (Central Provident Fund)?

- CPF, established in 1955, is a comprehensive savings plan that requires working Singapore citizens and permanent residents to set aside funds for their retirement, healthcare and housing needs.
- Both employees and employers make monthly CPF contributions
- These contributions go into three accounts



Ordinary Account (OA)

For housing, insurance, investment and education



Special Account (SA)

For old age and investment in retirement-related financial products



Medisave Account (MA)

For hospitalisation expenses and approved medical insurance

Use of CPF for housing loan

- CPF Members can use their savings (and future monthly contributions) in the Ordinary Account to finance residential property purchase and/or repay the housing loan in part or whole and/or to service the monthly housing loan instalments
- When CPF money is used for housing, a charge (CPF charge) is created on the residential properties in order to secure the refund of CPF money withdrawn, including interest, when the property is sold
- The CPF charge is to be registered after the bank's mortgage over the property



CPF Board and Priority of Payments

 Under the present regime, if the property is sold (after deducting all costs and expenses incurred directly in connection with the sale), the proceeds will be applied to repay the outstanding housing loan ahead of the CPF money withdrawn



- This order of priority does not apply if the mortgage loans are transferred or assigned by the mortgagee without the CPF Board's consent
- Such consent from the CPF Board has not been obtained at the programme set-up date.
 To mitigate the risk that the CBG may lose its priority against enforcement proceeds, a declaration of asset trust structure is used for the sale of CPF Loan

Structural Features/Enhancements



Credit Structure (Dual Recourse) The Covered Bonds will be direct, unsecured and unsubordinated obligations of the Issuer The Covered Bonds will be direct, unsecured and unsubordinated obligations of the Issuer The Covered Bonds will be direct, unsecured and unsubordinated obligations of the Issuer The Covered Bonds will be direct, unsecured and unsubordinated obligations of the Issuer The Covered Bonds pursuant to the Covered Bond Guarantee and secured by the Cover Pool The Adjusted aggregate principal amount of the Cover Pool must be equal to or in excess of the outstanding nominal amount of all Covered Bonds, as required by MAS Notice 648 and the rating agencies to maintain the ratings of the Covered Bonds The Asset Coverage Test (ACT) Asset Coverage The Asset Coverage Test (ACT) is performed monthly by the Cash Manager to test whether the required over-collateralisation level of Cover Pool is maintained The Amortisation Test (ACT) is performed monthly by the Cash Manager following the service of a Notice to Pay to test that the Amortisation Test Aggregate Loan Amount is at least equal to the nominal amount of all the outstanding covered bonds The Amortisation Test Aggregate Loan Amount is at least equal to the next under the next six months of interest due on the Covered Bonds or Covered Bond Swap payments plus one quarter of senior fees due and payable to Trustee, Cash Manager, Account Bank, Servicer, Asset Monitor Commingling Reserve Fund Deposit Set-off The Covered Bond Swap will, where necessary, convert SGD receipts by the CBG into the required currency and interest rate cash flows to match payment on the covered Bonds. UOB is the Covered Bond Swap provider and will be required to establish a Commingling Reserve Fund equal to the previous three months' or two months? of principal and interest collections from the mortgage loans multiplied by the committed collateralisation in will be provided by the issuer to cover the potential set-off risk Covered Bond Swap(s) Proceed Bond Swap will,		
The CBG guarantees the payment of principal and interest under the Covered Bonds pursuant to the Covered Bond Guarantee and secured by the Cover Pool	Cradit Structure	► The Covered Bonds will be direct, unsecured and unsubordinated obligations of the Issuer
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Reserve Fund Not been pre-funded up to the outstanding nominal amount of Covered Bond maturing within the next six months	Amortisation Test	
months of interest due on the Covered Bonds or Covered Bond Swap payments plus one quarter of senior fees due and payable to Trustee, Cash Manager, Account Bank, Servicer, Asset Monitor Commingling Reserve Fund		
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Covered Bond Swap(s) The Covered Bond Swap will, where necessary, convert SGD receipts by the CBG into the required currency and interest rate cash flows to match payment on the covered bonds. UOB is the Covered Bond Swap provider and will be required to post collateral and/or be replaced subject to ratings triggers Servicer DOB will be the servicer of Loans in the Cover Pool. The servicer role will be transferred to a suitably rated institution if UOB's rating falls below the rating trigger(s) Indexation Value of property included in the ACT is adjusted on a quarterly basis DOB will produce and furnish covered bond investor reports on its website on a monthly basis Following the service of an Asset Coverage Test Breach Notice (not revoked), a Notice to Pay or CBG Acceleration Notice, cash collections from Cover Pool are "trapped" to ensure the asset coverage level is maintained and Covered Bondholders		previous three months ¹ or two months ² of principal and interest collections from the mortgage loans multiplied by the
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UOB's rating falls below the rating trigger(s) Indexation Investor Report UOB's rating falls below the rating trigger(s) Value of property included in the ACT is adjusted on a quarterly basis UOB will produce and furnish covered bond investor reports on its website on a monthly basis Following the service of an Asset Coverage Test Breach Notice (not revoked), a Notice to Pay or CBG Acceleration Notice, cash collections from Cover Pool are "trapped" to ensure the asset coverage level is maintained and Covered Bondholders		rate cash flows to match payment on the covered bonds. UOB is the Covered Bond Swap provider and will be required to
Investor Report ► UOB will produce and furnish covered bond investor reports on its website on a monthly basis Cashflow Waterfall ► Following the service of an Asset Coverage Test Breach Notice (not revoked), a Notice to Pay or CBG Acceleration Notice, cash collections from Cover Pool are "trapped" to ensure the asset coverage level is maintained and Covered Bondholders	Servicer	· ·
Cashflow Waterfall Following the service of an Asset Coverage Test Breach Notice (not revoked), a Notice to Pay or CBG Acceleration Notice, cash collections from Cover Pool are "trapped" to ensure the asset coverage level is maintained and Covered Bondholders	Indexation	➤ Value of property included in the ACT is adjusted on a quarterly basis
Cashflow Waterfall cash collections from Cover Pool are "trapped" to ensure the asset coverage level is maintained and Covered Bondholders	Investor Report	▶ UOB will produce and furnish covered bond investor reports on its website on a monthly basis
	Cashflow Waterfall	cash collections from Cover Pool are "trapped" to ensure the asset coverage level is maintained and Covered Bondholders

- 1. Pre-service of a Notice of Assignment or a Notice of Assets Trust
- 2. Post-service of a Notice of Assignment or a Notice of Assets Trust

Key Programme Rating Triggers



Moody's		Trigger	S	&P	Trigger	
Long- term	Short- term	Events	Long- term	Short- term	Events	
Aaa			AAA			
Aa1			AA+	A-1+		
Aa2	P-1	No import	AA	A-1+	No impost	
Aa3	P-1	No impact	AA-		No impact	
A1			A+	A-1		
A2			А	A-1		
А3		➤ Pre-maturity Test ➤ Reserve Fund	A-	A-2	➤ Pre-maturity Test ➤ Reserve Fund ➤ Transfer of	
Baa1	P-2	Deposit Set-offCollateral Posting for Swap(s)	BBB+		Account Bank Collateral Posting for Swap(s)† Procure a Guarantee/Repla cement for Swap(s) Provider†	
Baa2		► Procure a Guarantee/Replac	BBB	A-3		
Baa3	P-3	ement for Swap(s) Provider	BBB-		➤ Deposit Set-off ➤ Commingling Reserve	
Below Investment Grade		➤ Replacement of Servicer ➤ Perfection of Title/Transfer of Asset Trustee ➤ Transfer of Account Bank	Inves	low stment ade	➤ Replacement of Servicer ➤ Perfection of Title/Transfer of Asset Trustee	

Trigger Event	Descriptions
Pre-Maturity Test	 The Pre-Maturity Test is performed daily for 12 months prior to the Maturity Date in relation to a hard bullet Covered Bond If UOB's unsecured and unsubordinated debt obligations fall below the rating trigger, UOB shall fund the Pre-Maturity Liquidity Ledger in the amount equal to the Required Redemption Amount of the relevant Series of Hard Bullet Covered Bonds
Reserve Fund	► The Cash Manager shall, within 5 calendar days, request UOB to fund the Reserve Ledger with an amount equal to the Reserve Fund Required Amount
Collateral Posting (Swap)	The Swap Provider will be required to provide collateral pursuant to a one-way credit support annex
Account Bank	► If the Account Bank falls below the rating trigger, then its rights and obligations are required to be transferred to another bank
Deposit Set-off	 Additional collateralisation will be provided by the issuer to cover the potential set-off amount against borrowers' deposit
Guarantee/Repla cement for Swap(s) Provider	► The Swap Provider uses commercially reasonable efforts to procure either a guarantee in respect of all present and future obligations or transfer the Cover Pool Swap (if applicable) or Covered Bond Swap
Replacement of Servicer	► The Servicer role will be transferred to a suitably rated institution
Perfection of Title/Transfer of Asset Trustee	 EA structure: Notification to borrowers for legal perfection DoT structure: Appointment of a replacement Assets Trustee
Commingling Reserve	The Cash Manager shall, within 5 calendar days, request UOB to fund the Reserve Ledger with an amount equal to the Commingling Reserve Fund Required Amount

UOB's current rating

Asset Coverage Test (ACT)



Adjusted Aggregate Loan Amount



SGD Equivalent of the Aggregate Outstanding Nominal Amount of all Covered Bonds

- ☐ Tested monthly on every Test Date prior to the service of a Notice to Pay and for so long as any Covered Bonds remain outstanding
- ☐ Failure of meeting the ACT on the Test Date after the service of an ACT Breach Notice will constitute an Issuer Event of Default
- ☐ The formula for calculating the Adjusted Aggregate Loan Amount is as follows:



the lower of:

- (a) the sum of the LTV Adjusted Principal Balance of each Loan
- (b) the sum of the Asset Percentage Adjusted Principal Balance of each Loan
- the aggregate amount of any Principal Receipts in the Portfolio that have not been applied to acquire further Loans and their Related Security
- the aggregate amount of Advances under the Intercompany Loan and Subordinated Advances under the Subordinated Loan Agreement that have not been applied to acquire further Loans and their Related Security

- **D** any Authorised Investments and Substitution Assets standing to the credit of the Transaction Account
- the amount of any Sale Proceeds standing to the credit of the Transaction Account and credited to the Pre-Maturity Liquidity Ledger
 - (i) 0 or (ii) if the long-term, unsecured, unsubordinated and unguaranteed debt obligation rating of the Seller is rated below BBB by S&P or A3 by Moody's, the Set-Off Amount

LTV Adjusted Principal Balance of each Loan means

the lower of:

- i. the actual Principal Balance of the relevant Loan in the Portfolio^
- ii. the aggregate of the Valuation[†] of each Property multiplied by M¹ minus

the deemed reductions

- 1. where, for all Loans that are not Defaulted Loans, 0.80 or such other amount as may be specified under MAS Notice 648; and where, for all Loans that are Defaulted Loans, zero
- [†] Adjusted quarterly via indexation

Asset Percentage Adjusted Principal Balance of each Loan means

the actual Principal Balance of the relevant Loan**

minus

the deemed reductions then multiplied by the Asset Percentage

^Excluding Top-up Loans and Converted Loans

Converted Loans = a non-CPF Loan, in respect of which CPF funds are subsequently drawn by the mortgagor after the sale into the cover pool

Amortisation Test

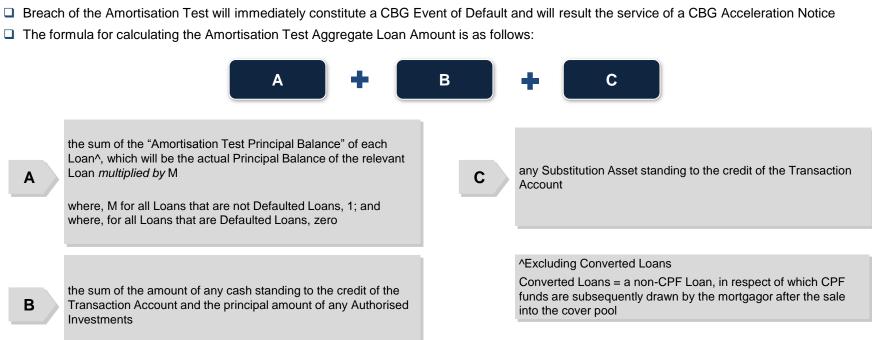


Amortisation Test Aggregate Loan Amount



SGD Equivalent of the Aggregated Outstanding **Nominal Amount of the Covered Bonds**

- ☐ Tested monthly on every Test Date following the service of a Notice to Pay but prior to the service of a CBG Acceleration Notice and for so long as Covered Bonds remain outstanding



Equitable Assignment versus Declarationof Assets Trust Structure



Equitable Assignment (EA)

At inception and Pre-Perfection Event of legal title Method of Sale - By way of equitably assigning its rights in the mortgage loans to CBG

Post-Perfection Event of legal title

- Notice of assignment is sent to borrowers
- CBG becomes the legal owner of the mortgage loans
- Payments from the borrowers will be payable to the CBG

Post Issuer's Event of Default

 The CBG could sell the selected loans directly to a 3rd party in order to meet its obligations under the Covered Bond Guarantee

Declaration of Assets Trust (DOT)

At inception and Pre-Replacement Assets Trustee Event Method of Sale – the Seller will declare an asset trust over the mortgage loans in favour of the CBG

Post-Replacement Assets Trustee Event

- Legal title to the mortgage loans will be transferred to a replacement assets trustee (Note 1)
- The replacement assets trustee becomes the legal owner of the mortgages and the CBG remains the beneficial owner
- Payments from the underlying borrowers will be payable to the CBG¹

Post Issuer's Event of Default

Subject to the approval under Note 2 below, the CBG could sell the mortgage loans directly to a 3rd party in order to meet its obligations under the Covered Bond Guarantee or, alternatively, the CBG may sell its beneficial interest in relation to the mortgage loans

Note 1: The Assets Trustee or the CBG will obtain one of the below three approvals in order for the mortgages relating to the loans under the DOT structure to be transferred to a new trustee unless the consent of the CPF Board is not required:

- 1. prior consent of the CPF Board;
- 2. a Section 55B/C Court Order approving the transfer if the proposed transferee is licensed to carry on banking business;
- a Sections 210/212 Court Order approving the transfer if the proposed transferee is not licensed to carry on banking business and the prior consent of the CPF Board

Note 2: The Assets Trustee or the CBG will obtain any one of the approvals in Note 1 for the transfer to the 3rd party purchaser

Additional Note: Pending transfer to a replacement asset trustee, UOB shall continue to be the Assets Trustee and a sale of the beneficial interest in the assets trust to a 3rd party purchaser could still occur

The purchaser would be able to deal with the borrowers and/or enforce the loans (in the name of the assets trustee) via a power of attorney granted by the Assets Trustee

Covered Bond Legal Frameworks















	Singapore	Australia	Canada	Germany	United Kingdom	Korea
Legal Framework / Regulation	Notice 648 under the Banking Act	Banking Amendment (Covered Bonds) Act 2011	Canadian Covered Bond Law (June 2012)	German Pfandbrief Act	UK Regulated Covered Bond Regulations	Covered Bonds Act of Korea
Regulator	Monetary Authority of Singapore	Australian Prudential Regulation Authority (APRA)	Canada Mortgage and Housing Corporation (CMHC)	Bundesanstalt für Finanzdienstleistungs- aufsicht (BaFin)	Financial Conduct Authority (FCA)	Financial Services Commission of Korea (FSC)
Issuers and Pro	ogram Requirements					
Structure	 Direct Issue Structure (with cover pool security ring-fenced via true sale to Covered Bond Guarantor) 	(with cover pool security	 Direct Issue Structure (with cover pool security ring-fenced via true sale to Covered Bond Guarantor) 	` '	 Direct Issue Structure (with cover pool security ring-fenced via true sale to Covered Bond Guarantor) 	 Direct Issue Structure (with cover pool security registered under the Covered Bond ACT)
Eligible Issuers	 All banks incorporated in Singapore (including Singapore- incorporated subsidiaries of foreign banks) 	► Authorized Deposit- taking Institutions (ADI)	Federal Regulated Financial Institutions, Cooperative Credit Society (subject to successful registration)	Regulated Financial Institutions, including Universal Banks and Specialist Mortgage Banks	Authorised Credit Institutions	 Licensed Banks (min. KRW 100bn equity capital and BIS ratio ≥10%)
Issuance limit	▶ All the assets of the SPV must not exceed 4% of the bank's total assets	 Assets in cover pool must not exceed 8% of issuing ADI's Australian assets" 	▶ Limited to 4% of total adjusted assets	▶ No specific limit	No specific limit, but the FCA can set one on a case-by-case basis	 Principal amount of all covered bonds must not exceed 4% of such issuer's total asset value
Eligible Cover Pool Assets	 Residential mortgages Other loans secured by the same residential property Assets that form part of the security for residential mortgage loans (e.g. guarantees and indemnities) 	► Commercial mortgages	Canadian residential mortgage loans	 Mortgage covered bonds: Any combination of residential and commercial mortgages Public sector covered bonds: Public sector loans Ship and aircraft finance-backed bonds also permitted 	 Public sector credits / guarantees Bank debt Secured first-ranking mortgage / real estate loans Shipping, social housing, secured public-private partnership loans 	 First priority residential mortgages Government / public sector loans and bonds Loans secured by ships or aircraft which are insured by insurance contracts ABS under the ABS Act and MBS under the KHFC Act

Covered Bond Legal Frameworks (Continued)















												0
		Singapore		Australia		Canada		Germany		United Kingdom		Korea
Minimum Standards of Asset Quality	•	Residential mortgages ≤80% LTV	>	Residential mortgages ≤80% LTV Commercial mortgages ≤60% LTV	>	Residential mortgages ≤80% LTV The mortgaged property cannot exceed four residential units	>	60% LTV for both residential and commercial mortgage loans 60% LTV for both ship & aircraft loans		80% LTV for residential mortgage loans 60% LTV for commercial mortgage loans 60% LTV for shipping loans	> > >	70% LTV for residential mortgage loans 70% LTV for loans secured by ships and aircraft Not a loan extended to any person in which an application for bankruptcy or rehabilitation proceedings has been filed or commenced
Substitution Assets	•	Cash/ cash equivalents (Singapore Government Bonds, Treasury Bills, MAS Bills), may not exceed 15% of cover pool, except under certain circumstances	•	Cash/ deposit held with ADI and convertible into cash, Bank accepted bills or CDs (1) Repo eligible and mature within 100 days; (2) not issued by issuer of covered bonds; (3) must not exceed 15% of cover pool Government debt instrument issued by Commonwealth/ State/ Territory	>	Securities issued by Government of Canada May not exceed 10% of cover pool"	•	Up to 10% could be money claims against the European Central Bank, central banks in European Union or suitable credit institutions Derivatives are eligible under certain conditions but may not exceed 12%	>	Sterling ST investments, Bank deposits, Debt securities with min. AA- rating or P-1/A-1+/F1+, AAA-rated RMBS notes, Government debt May not exceed 10% of cover pool		Liquid assets (Cash, CD issued by other FIs <100 days)May not exceed 10% of cover pool Derivatives
Collateralization	•	Minimum of at least 103%	•	Minimum of 103%	* *	No legislative minimum Cover pool assets have to be at least equal to liabilities (nominal basis). Market practice to covenant to maintain overcollateralisation of at least 3.0% and 7.5%		Min. of 102% on a stressed net present value (NPV) basis Min. of 100% on an nominal basis	•	Minimum of 108% (FSA to evaluate each program)	•	Minimum of 105% on a nominal basis



Appendix C: Macroeconomic Outlook and Banking Regulations

Trade Tensions Cloud China's Outlook but Low Risk of Hard Landing



- The Chinese economy has its underlying momentum, supported by rebalancing reforms and steady jobs market.
- Low central government debt underpins China's fiscal capacity, which could help mitigate "black swan" events.
- Base case scenario: 2018 GDP to remain in line with the official target of "about 6.5%" growth, trade tensions with US to pose more downside risk in 2019, this together with US monetary tightening would result in more volatility in capital flows and RMB. PBoC has eased credit conditions and used its fiscal levers to provide targeted support.

Structural Shift of China's Economy

(Average Contribution to GDP growth rate, %)



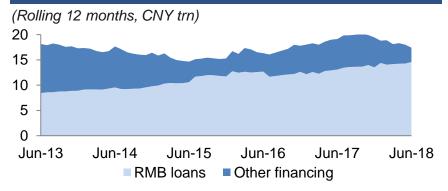
Source: IMF, CEIC, UOB Global Economics & Markets Research

Episodes of Market Volatility Contained



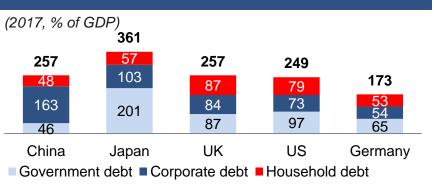
Source: Bloomberg, UOB Global Economics & Markets Research

New Financing Increasingly from Banking Sector



Source: PBOC, UOB Global Economics & Markets Research

Source of China Debt Risk



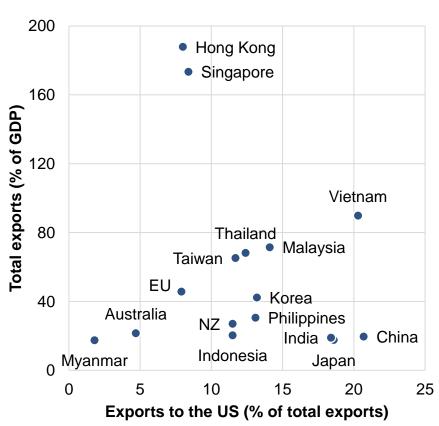
Source: BIS, Macrobond, UOB Global Economics & Markets Research

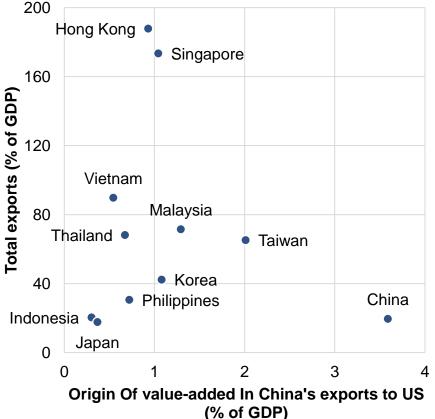
Global Trade Tension Negative for Small Open Economies in Asia



Direct Vulnerability to US Exports: China, Japan, Vietnam and India Stand Out

Indirect Vulnerability to US Exports via China: Taiwan, followed by Korea, Singapore & Malaysia





Sources: CEIC, Bloomberg, UOB Global Economics & Markets Research

Sources: CEIC, OECD (2011 data), UOB Global Economics & Markets Research

Implication on Regional Policy Rates



	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18f	4Q18f
US 10-Year Treasury	1.59	2.44	2.39	2.30	2.33	2.40	2.74	2.86	3.00	3.20
US Fed Funds	0.50	0.75	1.00	1.25	1.25	1.50	1.75	2.00	2.25	2.50
SG 3M SIBOR	0.87	0.97	0.95	1.00	1.12	1.50	1.45	1.52	1.75	1.95
SG 3M SOR	0.67	1.01	0.86	0.75	1.01	1.30	1.48	1.59	1.65	1.85
MY Overnight Policy Rate	3.00	3.00	3.00	3.00	3.00	3.00	3.25	3.25	3.25	3.25
TH 1-Day Repo	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.75
ID 7-Day Reverse Repo	5.00	4.75	4.75	4.75	4.25	4.25	4.25	5.25	5.50	5.75
CH 1-Year Deposit Rate	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50

- Our steeper Fed rate trajectory in 2018 is still intact. After the June rate hike, we expect two more 25bp-hikes in 2H18 (Sep and Dec), bringing the FFTR to 2.50% by end-2018. Balance-sheet reduction which began in October 2017 is set to continue in 2018 and reach its equilibrium level in 2019. A higher degree of convergence in global rates with the US is expected in 2H18, with the exception of Japan.
- Growth in regional economies remains generally firm in 1H18. US-China trade tensions could increase downside risks to growth from 2H18 but our base case remains that parties are likely to work to prevent an all-out trade war. Even as inflation is still very benign, the monetary policy bias remains tilted towards normalisation in 2018, in line with the tightening signals from the G10 central banks. Tariffs and elevated oil prices could add to inflationary pressure ahead.
- Capital flight remains a risk for Asia as the currencies are likely to weaken further in 2H18, and could be worsen if trade tensions escalate. Economies with current account and fiscal deficits could be pressured to tighten their monetary policy.
- Short-term interest rates in Singapore are expected to increase further in 2H18 alongside our expectations for higher Fed rates.

Southeast Asia: Resilient Key Markets



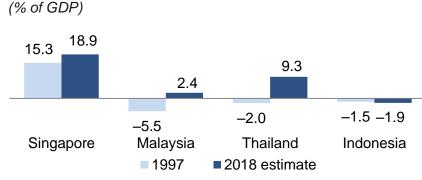


288
213
30
24
123
26
109
Singapore Thailand Indonesia Malaysia
1998 2018 (latest available)

Source: World Bank, IMF

(USD billion)

Healthy Current Account Balances



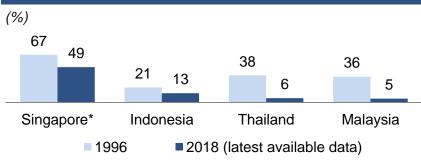
Source: IMF

Lower Debt to Equity Ratio



Total debt to equity ratio = total ST and LT borrowings divided by total equity, multiplied by 100; sources: MSCI data from Bloomberg

Lower Foreign Currency Loan Mix



* Foreign currency loans in 1996 approximated by using total loans of Asia Currency Units; sources: Central banks

Long-term fundamentals and prospects of key Southeast Asia have greatly improved since the 1997 Asian Financial Crisis.

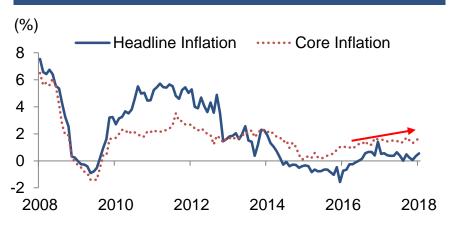
Singapore GDP Growth to Moderate in 2H18



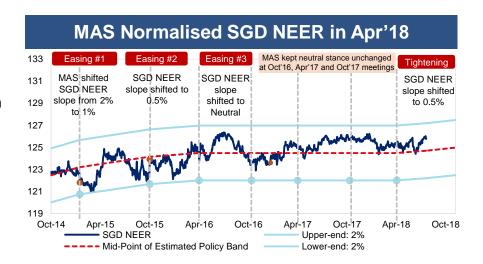
- 2Q18 GDP grew at a slower pace of 3.8% yoy (1Q18: +4.3%), due to a slower expansion in the services and manufacturing sectors. But these sectors are still growing at a healthy clip, leading to positive spillovers into non-trade sectors. Going forward, the slowdown in the tech cycle and global trade tensions may result in slower growth in 2H18.
- Domestically, the MAS had started normalising the SGD NEER policy (exp: 0.5% pa) in Apr'18, due to higher core inflation. The MAS is likely to keep this stance in the upcoming Oct'18 meeting.
- We maintain 2018 GDP growth forecast at 2.8%.

Source: UOB Global Economics & Markets Research

2018 Core Inflation Expected to Average 1.5%

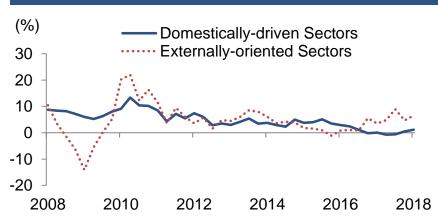


Source: Singapore Department of Statistics



Source: CEIC, UOB Global Economics & Markets Research

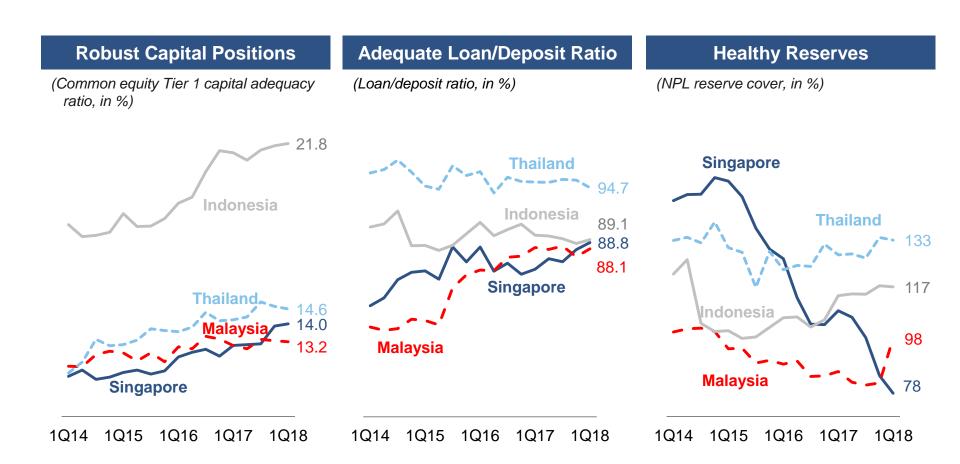
External Spillovers to Domestic Sectors



Source: Singapore Department of Statistics

Southeast Asia Banking Sectors: Strong Fundamentals Remain Intact



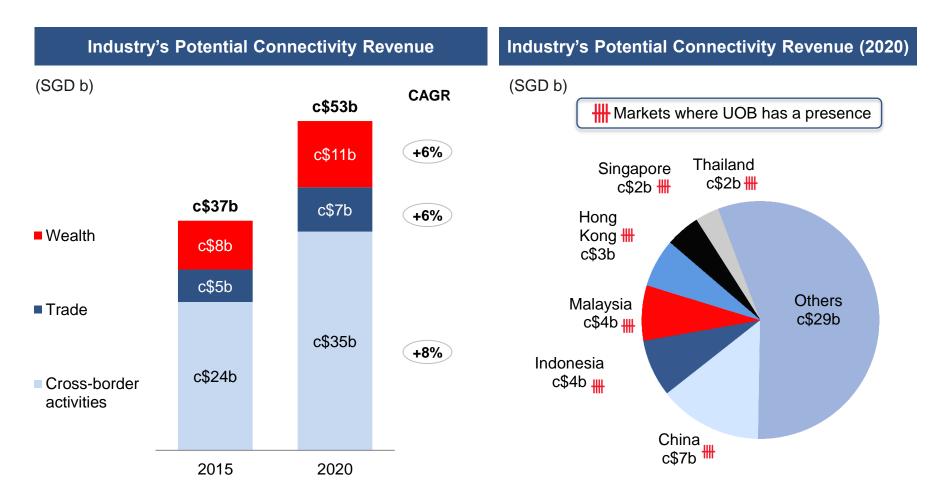


Note: For Singapore, common equity Tier 1 capital adequacy ratio and NPL reserve cover are based on the average of the three Singapore banking groups, while the loans/deposit ratio approximates that of Singapore dollar.

Source: Central banks, banks

Revenue Potential from 'Connecting the Dots' in the Region





Note: 'Trade' and 'cross-border activities' capture both inbound and outbound flows of Southeast Asia, with 'trade' comprising exports and imports while 'cross-border activities' comprising foreign direct investments and M&A. 'Wealth' captures offshore and onshore assets booked in Singapore as a wealth hub. Incorporating BCG analysis, these are converted into banking revenue potential.

Source: Boston Consulting Group's analysis, Boston Consulting Group Global Banking Revenue pool

Basel III across the Region



	BCBS	Singapore	Malaysia	Thailand	Indonesia	Hong Kong	China
Minimum CET1 CAR	4.5%	6.5% ¹	4.5%	4.5%	4.5%	4.5%	5.0%
Minimum Tier 1 CAR	6.0%	8.0% ¹	6.0%	6.0%	6.0%	6.0%	6.0%
Minimum Total CAR	8.0%	10.0% ¹	8.0%	8.5%	8.0%	8.0%	8.0%
Full Compliance	Jan-15	Jan-15	Jan-15	Jan-13	Jan-14	Jan-15	Jan-13
Capital Conservation Buffer	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Full Compliance	Jan-19	Jan-19	Jan-19	Jan-19	Jan-19	Jan-19	Jan-19
Countercyclical Buffer ² 2018 Requirement	Up to 2.5% n/a	Up to 2.5% 0%	Up to 2.5% 0%	Up to 2.5% 0%	Up to 2.5% 0%	Up to 2.5% 1.875%	Up to 2.5% 0%
·					_		
D-SIB	n/a	2.0%	Pending	1.0%	$1.0\% - 3.5\%^3$	1.0%–3.5%	1.0%4
G-SIB	1.0%-3.5%	n/a	n/a	n/a	n/a	n/a	1.0%4
Minimum Leverage Ratio	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	4.0%
Full Compliance	2018	2018	2018	2020	2018	2018	2013
Minimum LCR	100%	100%	100%	100%	100%	100%	100%
Full Compliance	Jan-19	Jan-19	Jan-19	Jan-20	Dec-18	Jan-19	Dec-18
Minimum NSFR	100%	100%	100%	100%	100%	100%	100%
Full Compliance	Jan-18	Jan-18	Jan-19	Jul-18	Jan-18	Jan-18	n/a

% of risk weighted assets 5

- Minimum CET1
- Minimum Tier 1 CAR
- Minimum Total CAR

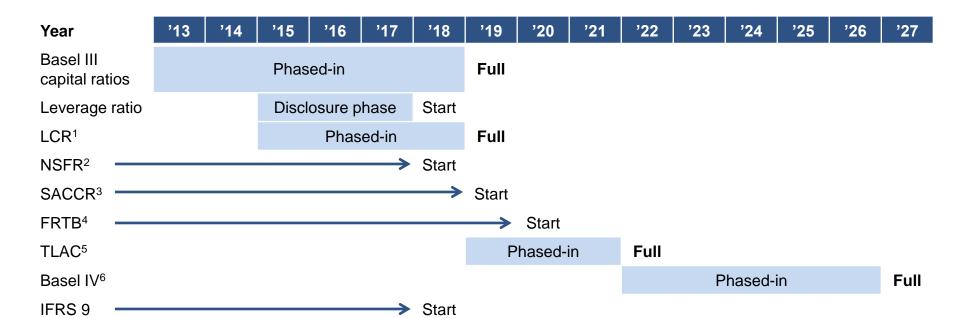


Source: Regulatory notifications.

- 1. Includes 2% for D-SIB buffer for the three Singapore banks.
- 2. Each regulator determines its own level of countercyclical capital buffer.
- 3. According to the regulations, Indonesia D-SIBs will initially be subject to a D-SIB buffer of up to 2.5%.
- 4. In China, G-SIBs are only subject to the higher of G-SIB and D-SIB buffer
- 5. Minimum ratios on fully-loaded basis, including capital conservation buffer and D-SIB surcharge, but excluding countercyclical capital buffer and G-SIB surcharge

Banking Regulations Still Evolving





Banks need to be profitable in order to be strong. Retained earnings are one of the major sources of equity – which is the highest quality capital that banks hold. Banks also need to be profitable to be able to support the real economy. They have to earn a decent return for intermediating credit, otherwise they will do less of it.

Mr Ravi Menon, Managing Director,
 Monetary Authority of Singapore, 20 April 2017

Source: BCBS

- 1. Liquidity Coverage Ratio
- 2. Net Stable Funding Ratio
- 3. Standardised Approach for measuring Counterparty Credit Risk exposure (MAS has not announced implementation date)

...certain liabilities should be excluded from the scope of bail-in because their repayment is necessary to ensure the continuity of essential services and to avoid widespread and disruptive contagion to other parts of the financial system. The proposed scope of bail-in would hence exclude liabilities such as ... senior debt and all deposits.

 Consultation Paper by the Monetary Authority of Singapore, June 2015

- Fundamental Review of the Trading Book (MAS has not announced implementation date)
- 5. Total Loss Absorbing Capacity (not applicable to Singapore banks)
- 6. Basel IV: Reducing variation in credit risk-weighted assets

Impact of Basel IV¹ Likely to be Manageable



Retail credit

Wholesale credit

Others

LGD² floor of Retail Mortgage cut to 5% from 10%

Unsecured corporate FIRB⁵ LGD² cut to 40% from 45%

CCF⁶ for general commitments cut to 40% from 75%

Higher haircuts and lower FIRB⁵ secured LGD

Removal of 1.06 multiplier for IRB⁸ RWA⁷

LGD² and PD³ floors introduced for QRRE⁴ and Other Retail

CCF⁶ for unconditional cancellable commitments raised to 10% from 0%

PD³ floor of bank asset class raised to 5bp from 3bp

RWA⁷ output floor set at 72.5% of that of standardised approach

Fundamental review of the trading book

Lower RWA

Higher RWA



- 1. Basel IV: Reducing variation in risk-weighted assets
- 2. Loss given default
- 3. Probability of default
- 4. Qualifying revolving retail exposures

- 5. Foundation internal rating-based approach
- 6. Credit condition factor
- 7. Risk weighted assets
- 8. Internal rating-based approach

Thank You



