

UOB Group Fixed Income Investor Presentation

Sound Operating Performance, supported by Healthy
Balance Sheet

September 2017

Agenda

1. Overview of UOB Group
 2. Strong UOB Fundamentals
 3. Regulatory Developments
 4. Macroeconomic Outlook
- Appendix:
- a. Latest Financials
 - b. Our Growth Drivers
 - c. Resilience of the Singapore Housing Market
 - d. Overview of our Covered Bond Programme



Overview of UOB Group

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 2017.

1. USD1 = SGD1.3769 as at 30 June 2017.
2. Based on final rules effective 1 January 2018.
3. Leverage ratio is calculated based on the revised MAS Notice 637.
4. Computed on an annualised basis.
5. Calculated based on profit attributable to equity holders of the Bank net of capital securities distributions.
6. Average for 2Q17.

Key Statistics for 1H17

■ Total assets	: SGD344b	(USD250.1b ¹)
■ Shareholder's equity	: SGD35b	(USD25.2b ¹)
■ Gross loans	: SGD228b	(USD165.4b ¹)
■ Customer deposits	: SGD260b	(USD188.8b ¹)
■ Fully-loaded Common Equity Tier 1 CAR ²	: 13.3%	
■ Leverage ratio ³	: 7.8%	
■ ROA ⁴	: 0.97%	
■ ROE ^{4 5}	: 10.2%	
■ NIM ⁴	: 1.74%	
■ Non-interest income/ Total income	: 38.2%	
■ NPL ratio	: 1.5%	
■ Loan/Deposit ratio	: 86.1%	
■ Average all-currency liquidity coverage ratio	: 157% ⁶	
■ Cost / Income	: 45.3%	
■ Credit Ratings	:	

	Moody's	S&P	Fitch
Issuer Rating (Senior Unsecured)	Aa1	AA-	AA-
Outlook	Stable	Stable	Stable
Short Term Debt	P-1	A-1+	F1+

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

The Banker
GLOBAL FINANCIAL INTELLIGENCE SINCE 1986

Bank of the Year, Singapore, 2015

RETAIL BANKER INTERNATIONAL
Asia Trailblazer Awards 2017
Excellence in Mobile Banking - Overall

Excellence in Mobile Banking – Overall, 2017

THE ASIAN BANKER®
STRATEGIC BUSINESS INTELLIGENCE FOR THE FINANCIAL SERVICES COMMUNITY

EXCELLENCE IN RETAIL FINANCIAL SERVICES INTERNATIONAL AWARDS

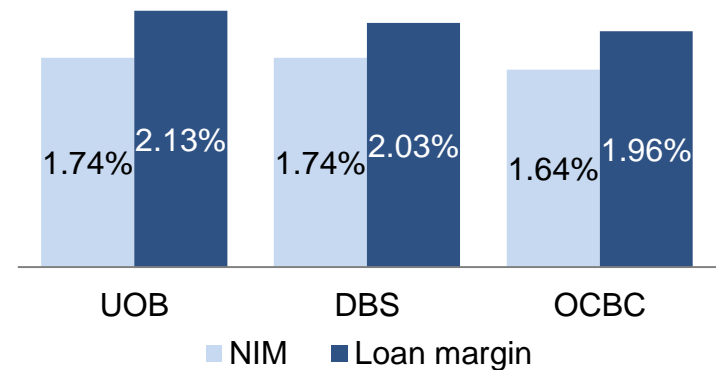
Best Retail Bank¹

SME Bank of the Year¹

Source: Company reports.

1. 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 1H17 loan margin than local peers

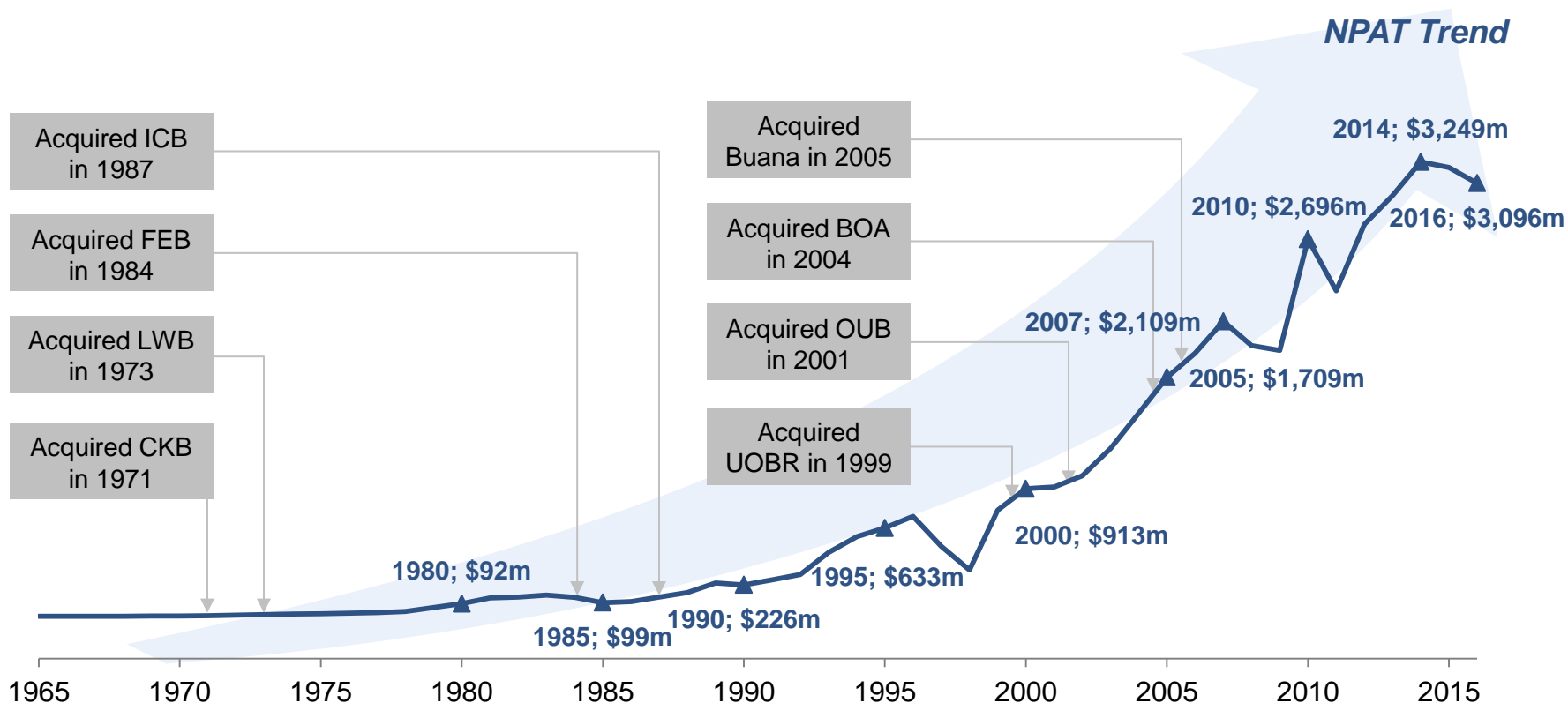


Loan margin is the difference between the rate of return from customer loans and costs of deposits.

Source: Company reports.

Proven Track Record of Execution

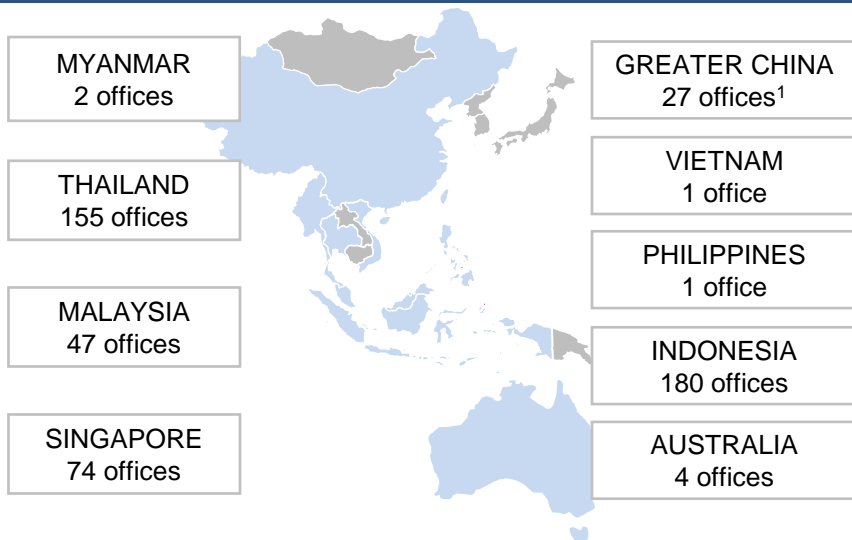
- UOB Group’s management has a proven track record in steering the Group through various global events and crises.
- Stability of management team ensures consistent execution of strategies
- Disciplined management style which underpins the Group’s overall resilience and sustained performance



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

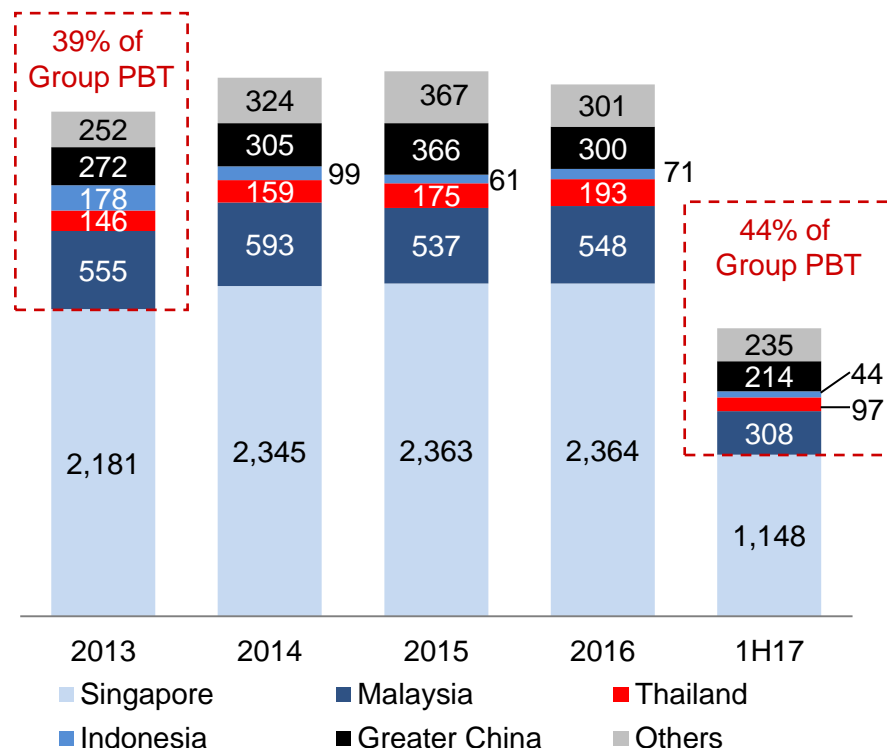
Extensive Regional Footprint with c.500 Offices



- 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

(SGD m)

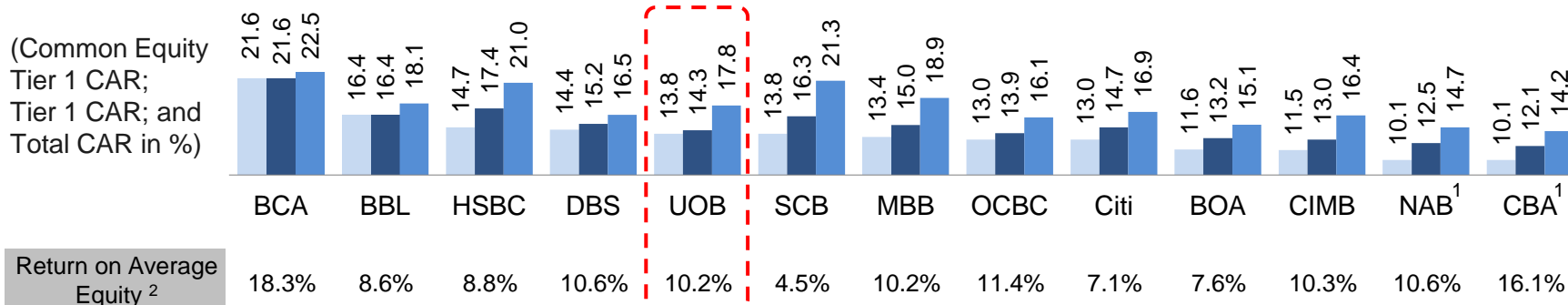


Established regional network with key South East Asian pillars, supporting fast-growing trade, capital and wealth flows

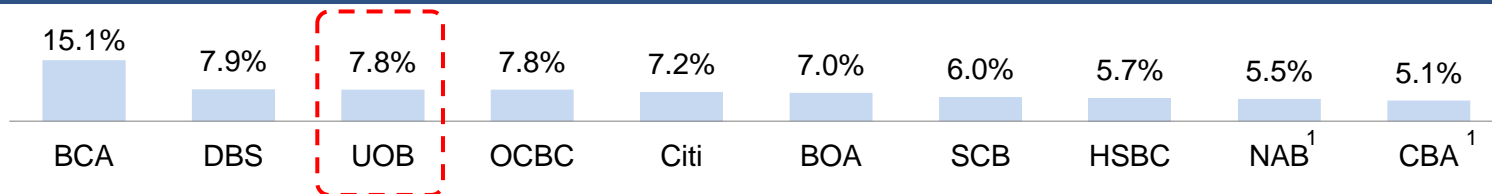
1. UOB owns c13% in Evergrowing Bank in China.

Strong Capital and Leverage Ratios

Reported Common Equity Tier 1 CAR, Tier 1 CAR, Total CAR



Reported Leverage Ratio³



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.

The financials of banks were as of 30 June 2017, except for those of CIMB, MBB and NAB (which were as of 31 March 2017).

1. NAB's and CBA's CARs are based on APRA's standards. Their internationally comparable CET1 CAR was 14.5% and 15.6%, respectively.
2. Computed on an annualised basis.
3. BBL, MBB and CIMB do not disclose their leverage ratio.

Competitive Against Peers

				Standalone Strength	Efficient Cost Management	Competitive ROAA ¹	Well-Maintained Liquidity
Moody's	S&P	Fitch		Moody's baseline credit assessment	Costs/income ratio	Return on average assets	Loan/deposit ratio
Aa1	AA-	AA-	UOB	a1	45.3%	0.97%	86.1%
Aa1	AA-	AA-	OCBC	a1	42.3%	1.16%	85.2%
Aa1	AA-	AA-	DBS	a1	43.3%	0.99%	88.4%
A1	A	AA-	HSBC	a3	62.8%	0.66%	70.1%
A2	BBB+	A+	SCB	baa1	67.4%	0.37%	67.5%
Baa1	A-	n.r.	CIMB	baa2	52.6%	0.95%	91.7%
A3	A-	A-	MBB	a3	50.3%	0.94%	94.7%
Baa1	BBB+	BBB+	BBL	baa2	43.3%	1.10%	86.1%
Baa3	n.r.	BBB-	BCA	baa3	48.6%	3.70%	74.5%
Baa1	BBB+	A	BOA	baa2	62.8%	0.91%	71.7%
Baa1	BBB+	A	Citi	baa2	58.0%	0.87%	66.0%
Aa3	AA-	AA-	CBA	a2	42.7%	1.00%	116.8%
Aa3	AA-	AA-	NAB	a2	42.7%	0.65%	138.9%

Source: Company reports, Credit rating agencies (updated as of 10 August 2017).

The financials of banks were as of 30 June 2017, except for those of CIMB, MBB and NAB (which were as of 31 March 2017).

1. Computed on an annualised YTD basis.

Strong Investment Grade Credit Ratings



MOODY'S
INVESTORS SERVICE

Aa1/Stable/P-1

- 'Very strong buffers of capital, loan loss provisions and pre-provision income'
- 'Funding and liquidity profiles are robust'
- 'Diversified Singaporean and Malaysian consumer banking and services to SMEs'

STANDARD & POOR'S
RATINGS SERVICES
McGRAW HILL FINANCIAL

AA- /Stable/A-1+

- 'Prudent management team...emphasis on funding and capitalisation to buffer against global volatility'
- 'UOB will maintain its earnings, asset quality and capitalisation while pursuing regional growth.'
- 'Above average funding and strong liquidity'

FitchRatings

AA- /Stable/F1+

- 'Ratings reflect its strong domestic franchise, prudent management, robust balance sheet...'
- 'Stable funding profile and liquid balance sheet...'
- 'Notable credit strengths...core capitalisation, local funding franchises and regulatory oversight.'

Debt Issuance History

Issue Date	Type	Structure	Call	Coupon	Amount	Issue Rating (M / S&P / F)
Tier 1						
May-16	B3 AT1	Perpetual	2021	4.00%	SGD750m	Baa1 / - / BBB
Nov-13	B3 AT1	Perpetual	2019	4.75%	SGD500m	Baa1 / BBB- / BBB
Jul-13	B3 AT1	Perpetual	2018	4.90%	SGD850m	Baa1 / BBB- / BBB
Tier 2						
Feb-17	B3 T2	12NC7	2024	3.50%	SGD750m	A3 / - / A+
Sep-16	B3 T2	10½NC5½	2022	2.88%	USD600m	A3 / - / A+
Mar-16	B3 T2	10½NC5½	2021	3.50%	USD700m	A3 / - / A+
May-14	B3 T2	12NC6	2020	3.50%	SGD500m	A3 / BBB+ / A+
Mar-14	B3 T2	10½NC5½	2019	3.75%	USD800m	A3 / BBB+ / A+
Oct-12	B2 LT2	10NC5	2017	2.88%	USD500m	A1 / A+ / A+
Senior Unsecured						
Apr-17	-	4yr FRN	-	BBSW 3m+0.81%	AUD300m	Aa1 / AA- / AA-
Sep-14	-	5½yr FXN	-	2.50%	USD500m	Aa1 / AA- / AA-
Sep-14	-	4yr FRN	-	BBSW 3m+0.64%	AUD300m	Aa1 / AA- / AA-
Covered						
Feb-17	Covered	3yr FXN	-	2.125%	USD500m	Aaa / AAA / -
Feb-17	Covered	5yr FXN	-	0.125%	EUR500m	Aaa / AAA / -
Mar-16	Covered	5yr FXN	-	0.25%	EUR500m	Aaa / AAA / -

Debt Maturity Profile

	2017	2018	2019	2020	2021	2022	2023	2024
	SGDm	SGDm	SGDm	SGDm	SGDm	SGDm	SGDm	SGDm
May-16	-	-	-	-	750	-	-	-
Nov-13	-	-	500	-	-	-	-	-
Jul-13	-	850	-	-	-	-	-	-
Feb-17	-	-	-	-	-	-	-	750
Sep-16	-	-	-	-	-	826	-	-
Mar-16	-	-	-	-	964	-	-	-
May-14	-	-	-	500	-	-	-	-
Mar-14	-	-	1,102	-	-	-	-	-
Oct-12	688	-	-	-	-	-	-	-
Apr-17	-	-	-	-	317	-	-	-
Sep-14	-	-	-	688	-	-	-	-
Sep-14	-	317	-	-	-	-	-	-
Feb-17	-	-	-	688	-	-	-	-
Feb-17	-	-	-	-	-	786	-	-
Mar-16	-	-	-	-	786	-	-	-
Total	688	1,167	1,602	1,877	2,817	1,612	-	750

B2: Basel II, B3: Basel III, AT1: Additional Tier 1, T2: Tier 2, LT2: Lower Tier 2; FXN: Fixed Rate Notes; FRN: Floating Rate Notes; the table comprises public rated issues of UOB; updated as of 31 July 2017.

Note: Maturities shown at first call date for Capital Securities
FX rates as at 30 June 2017: USD 1 = SGD 1.38; SGD 1 = MYR 3.12; SGD 1 = HKD 5.67; SGD 1.06 = AUD 1; SGD 1 = CNY 4.93; 1 GBP = SGD 1.79; EUR 1 = SGD 1.57.

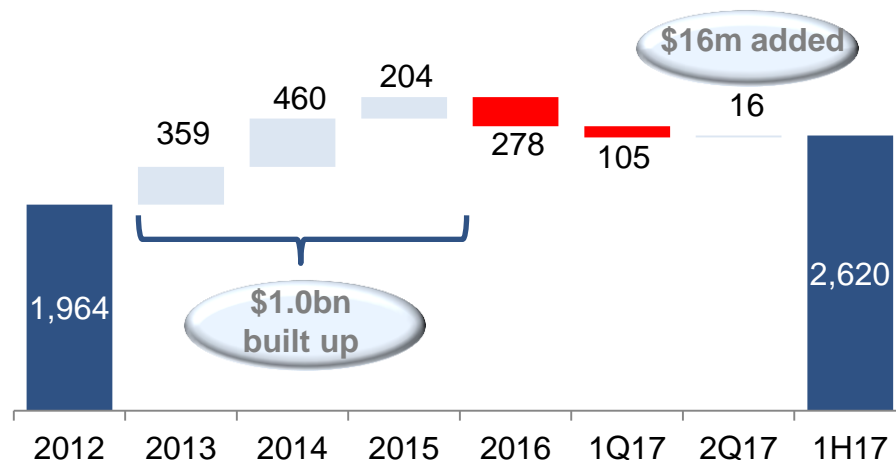


Strong UOB Fundamentals

Disciplined Balance Sheet Management

- **Portfolio quality broadly stable**
 - NPL ratio stable at 1.5%
 - High general allowances-to-loans ratio of 1.2%
 - Begin to build up general allowances, when possible
 - 32bps total credit costs maintained

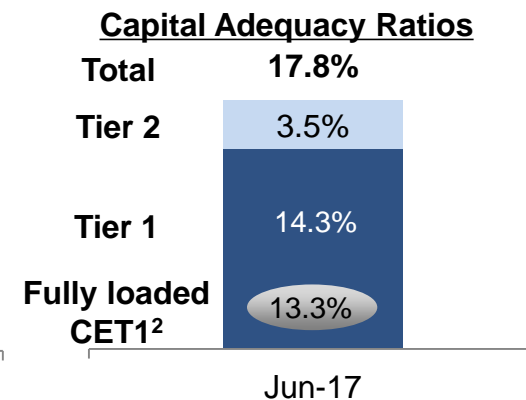
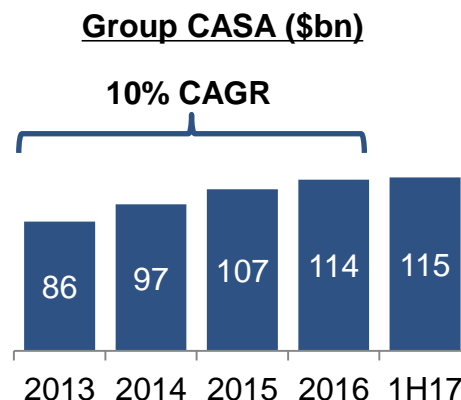
Countercyclical Approach to General Allowances (\$m)



- **Proactive liability management**
 - Liquidity Coverage Ratios¹: S\$ (203%) and all-currency (157%)

Liability Management and Capital

- **Robust capital position**
 - 13.3% fully-loaded CET1 ratio²
- **Interim dividend of 35 cents/share**
 - Scrip dividend scheme applied

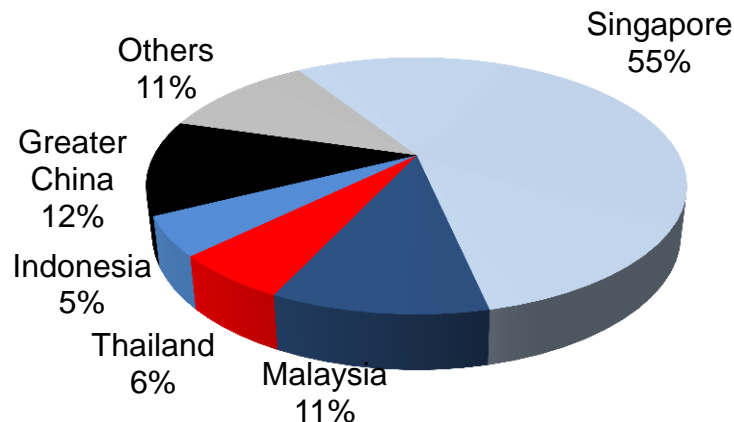


1. Average ratios for second quarter of 2017.

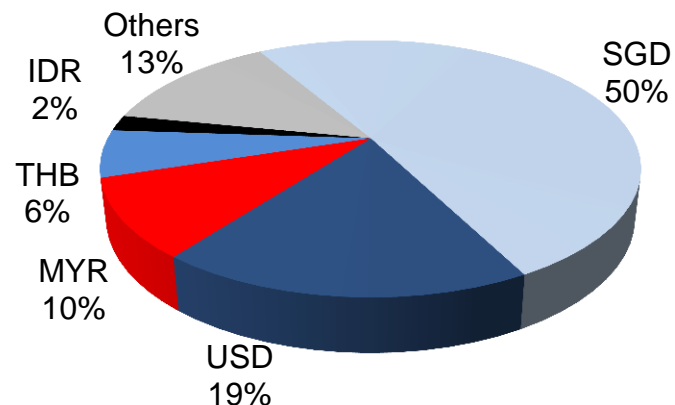
2. Proforma CET1 ratio (based on final rules effective 1 January 2018).

Diversified Loan Portfolio

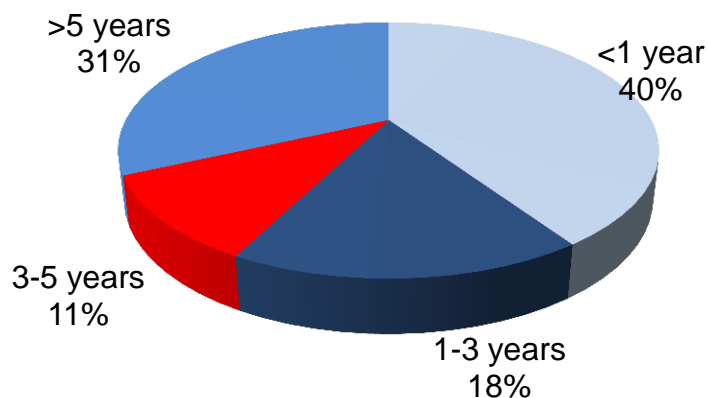
Gross Customer Loans by Geography ¹



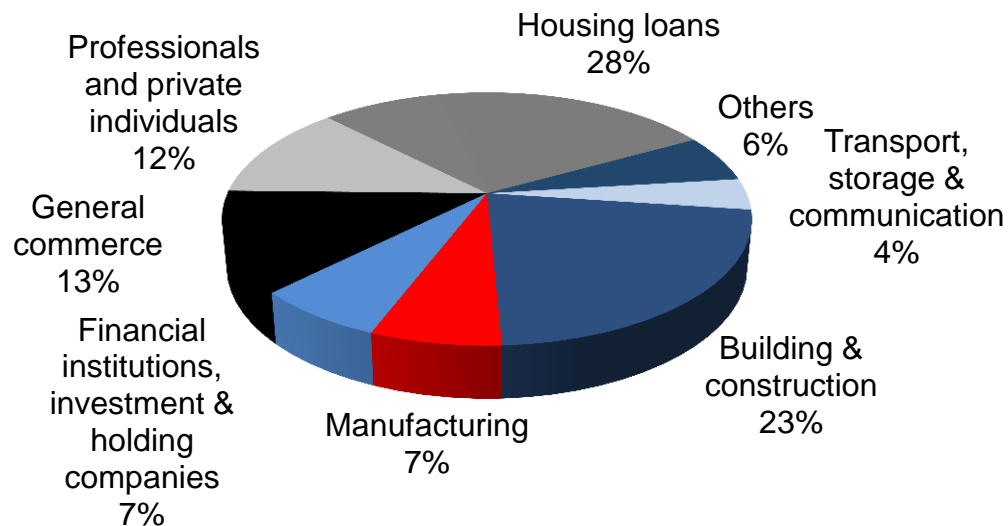
Gross Customer Loans by Currency



Gross Customer Loans by Maturity



Gross Customer Loans by Industry

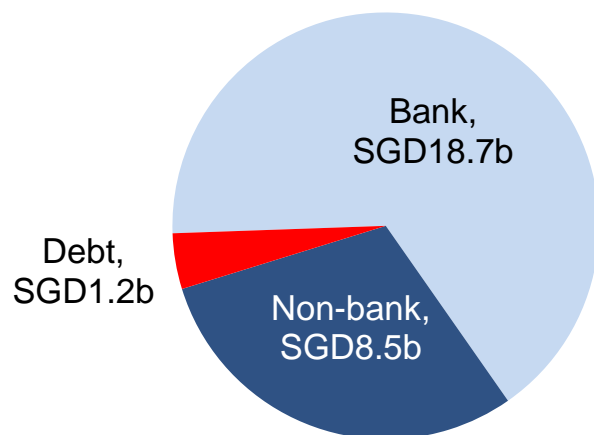


Note: Financial statistics as at 30 June 2017.

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).

Total as of 30 Jun
2017 = SGD28.4b

or 8.3% of total assets



Bank exposure in China

- 99% with <1 year tenor
- Around 80% accounted for by top 5 domestic banks and policy banks
- Trade exposures mostly with bank counterparties, representing close to half of bank exposure


Non-bank exposure in China

- Target customers include top-tier state-owned enterprises, large local corporates and foreign investment enterprises
- NPL ratio around 0.9%
- Around half of loans denominated in RMB
- Around 42% of the loans has tenor within a year
- Minimal exposure to stockbroking companies linked to China's stock market
- No exposure to Qingdao fraud and local government financing vehicles

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).

Exposure to Commodities

As of 30 Jun 2017	Oil and gas		Other commodity segments	Total
	Upstream industries ²	Traders/ downstream industries		
Total exposure ¹	SGD4.3b	SGD10.1b	SGD9.2b	SGD23.6b
Outstanding loans	SGD3.7b	SGD5.8b	SGD7.0b	SGD16.5b

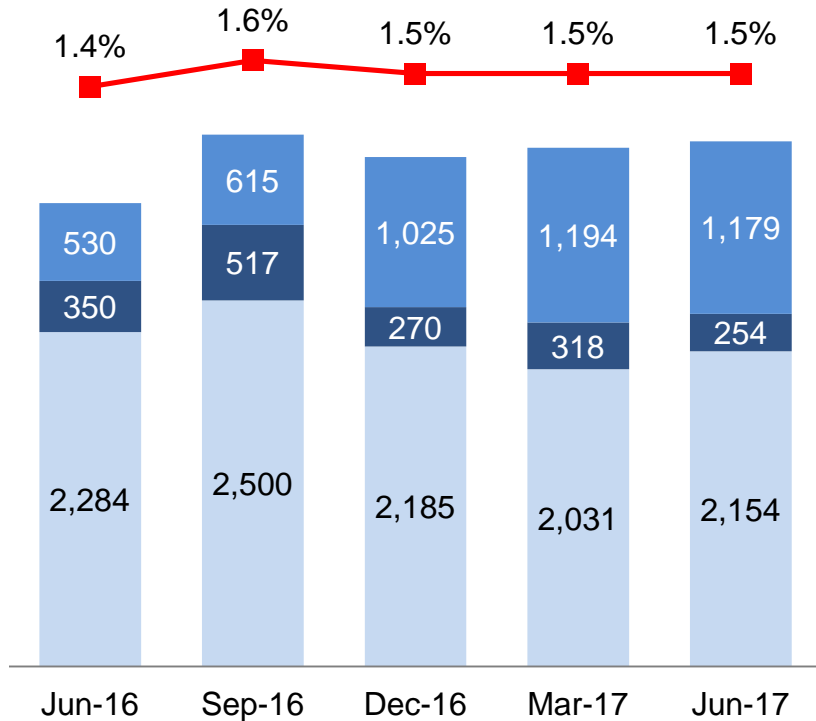

4% of total loans
7% of total loans

- Total exposure, including off-balance sheet items, stood at SGD23.6b as of 30 June 2017
- Mainly to traders and downstream segments
- Proactive monitoring, limit management and collateral enhancement

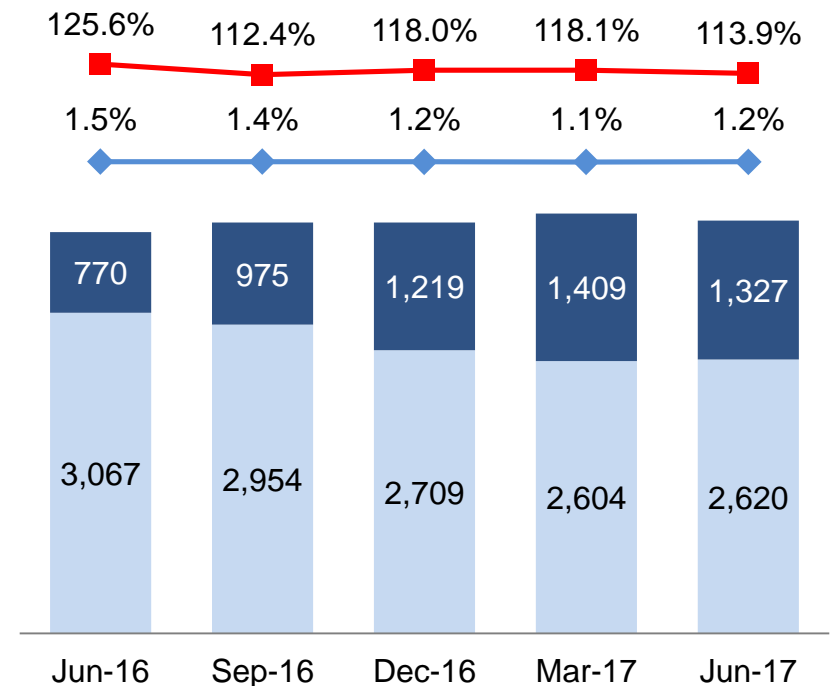
1. Total exposure comprises outstanding loans and contingent liabilities
 2. Oil and gas upstream industries include offshore service companies.

Stable Asset Quality; High Allowances Coverage

Largely Stable NPL Ratio



High Allowances Coverage

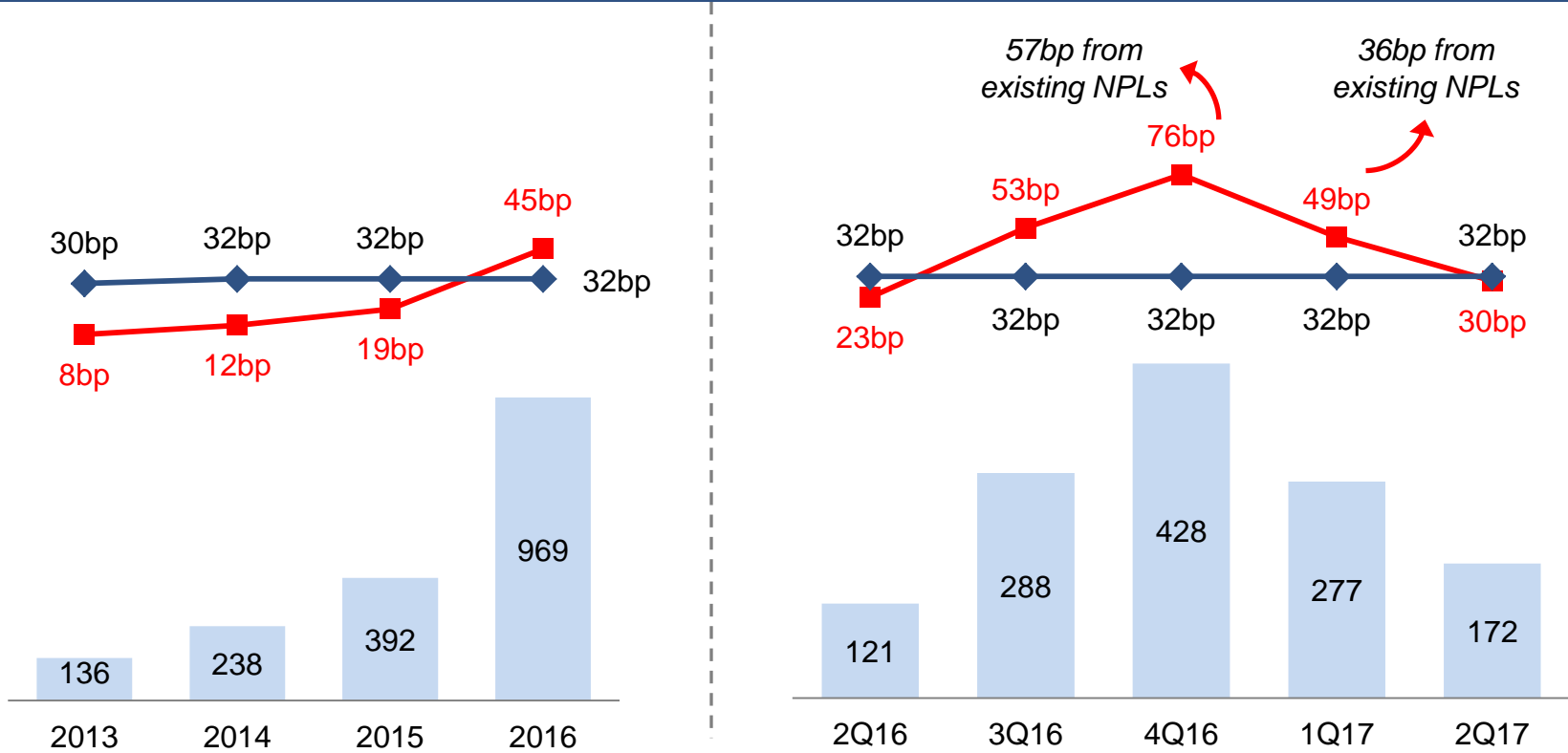


- Substandard NPA (SGD m)
- Doubtful NPA (SGD m)
- Loss NPA (SGD m)
- NPL Ratio (%)

- Specific Allowances (SGD m)
- General Allowances (SGD m)
- Total Allowances / Total NPL (%)
- ◆ General Allowances / Gross Loans net of Specific Allowances (%)

Easing Specific Allowances; Total Credit Costs Stable

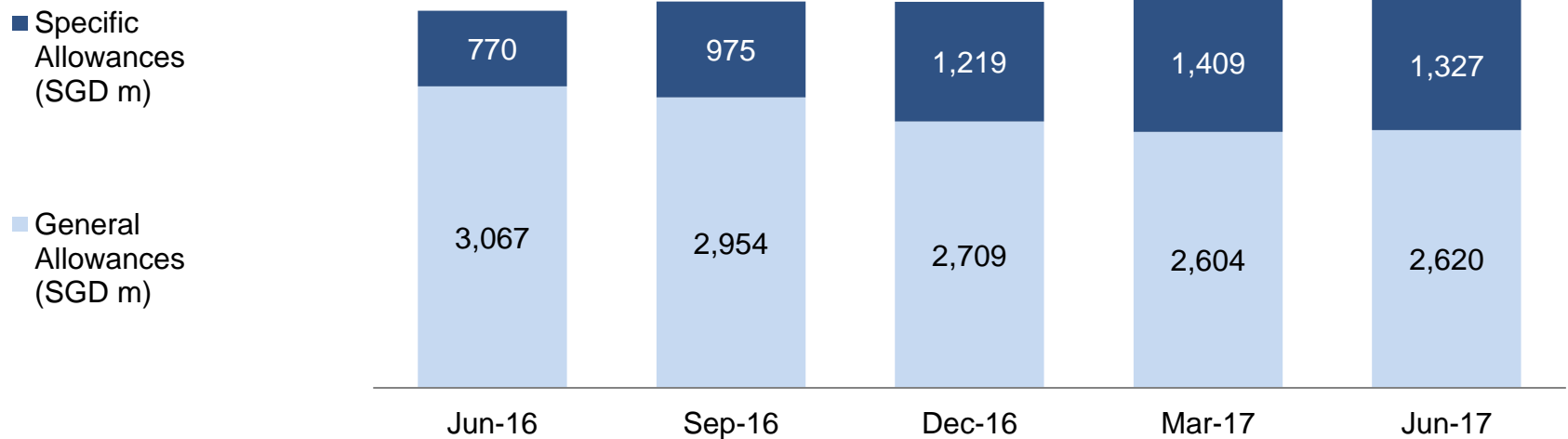
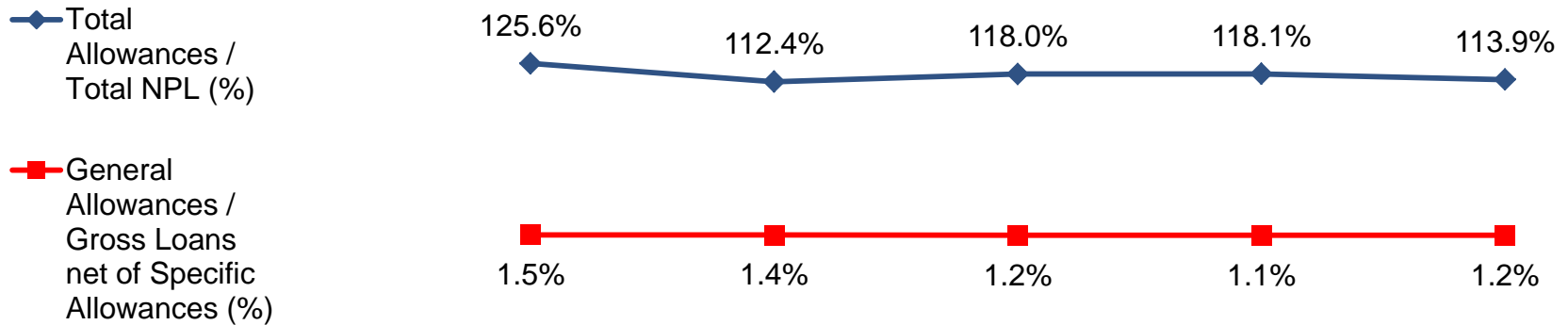
Allowances on Loans



- Specific Allowances on Loans (\$m)
- Specific Allowances on Loans / Average Gross Customer Loans (basis points) *
- ◆ Total Allowances on Loans / Average Gross Customer Loans (basis points) *

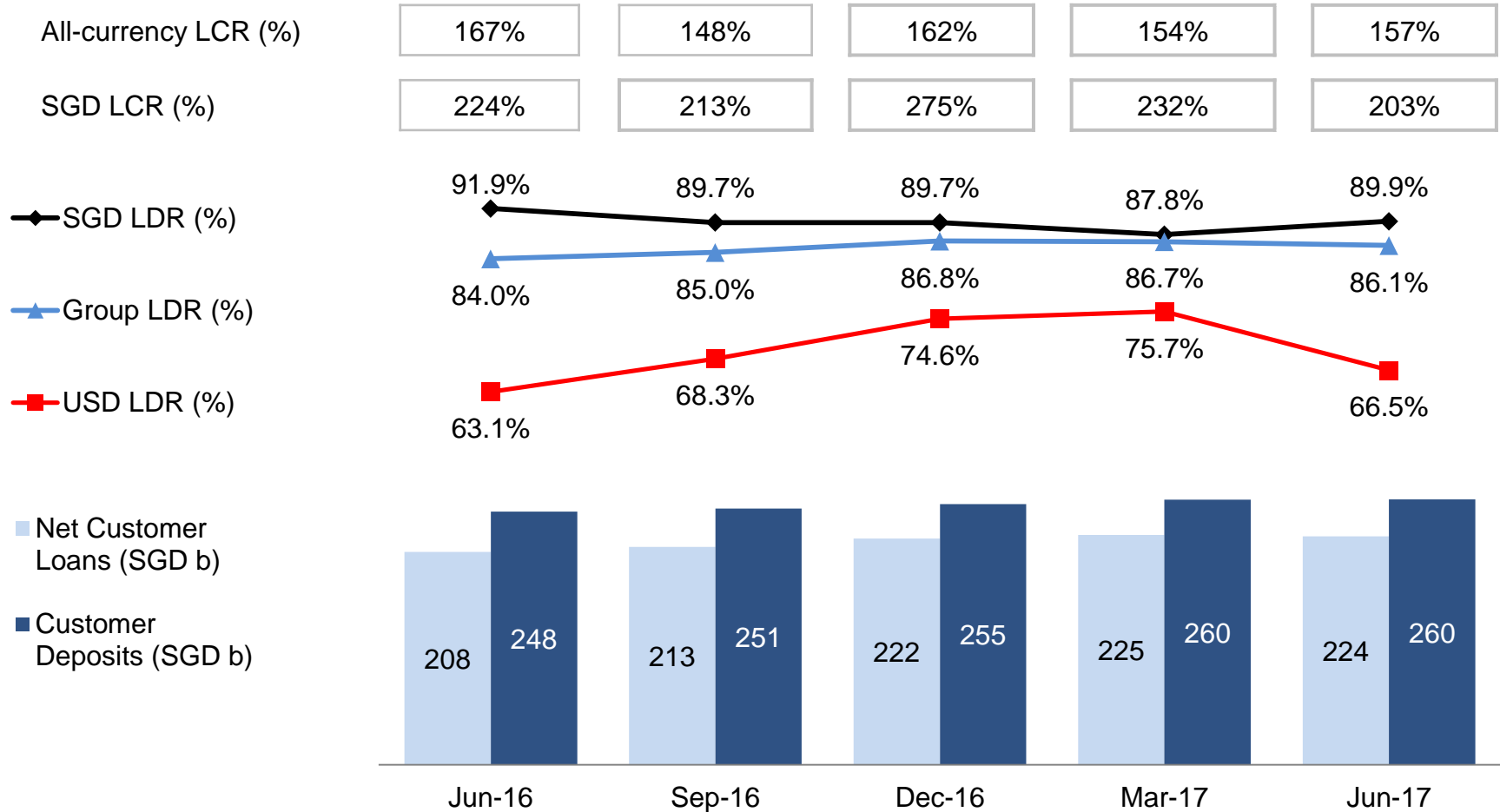
* Computed on an annualised basis, where applicable.

Countercyclical Approach in General Allowance Supports High Reserve Cover



Stable Liquidity Position

Customer Loans and Deposits; Loan/Deposit Ratios (LDR); and Liquidity Coverage Ratios (LCR)

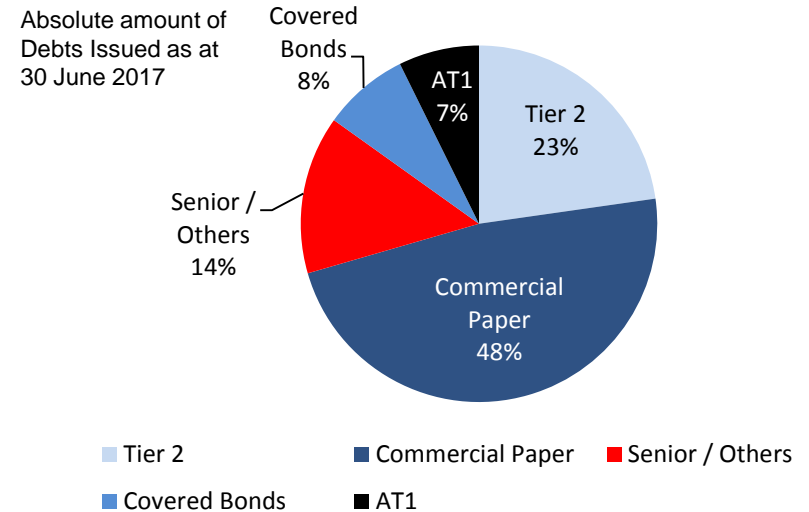


Disciplined Wholesale Funding Strategy

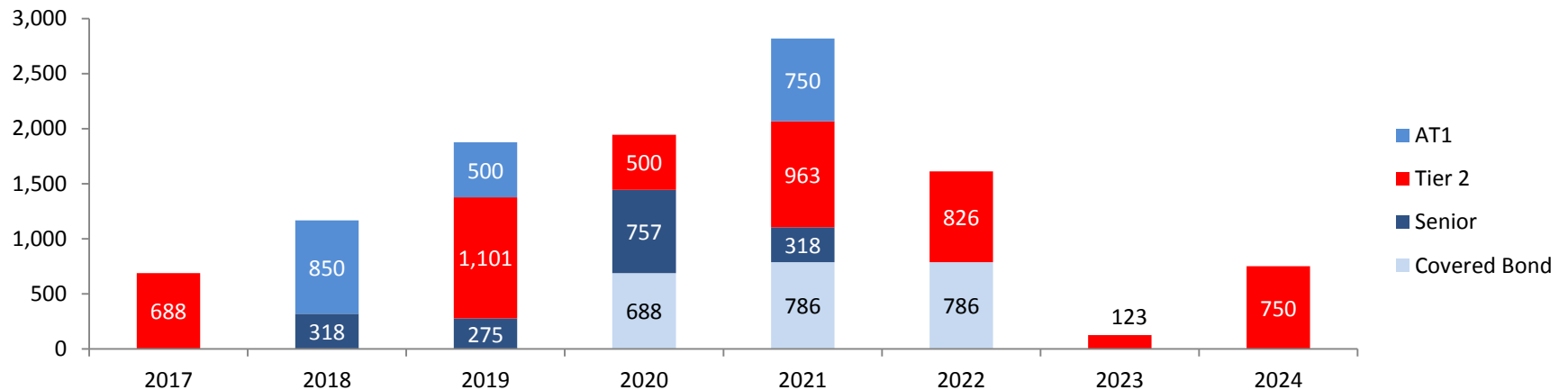
Wholesale Funding Strategy

- Diversification among global markets
 - Multiple funding instruments ranging from subordinated capital to senior to secured debt
 - Commitment to refreshing strategic benchmark curves
- Strategic cultivation of high quality and long-standing investors

Diversification in Debt Instruments Issued



Staggered Debt Maturity Profile



Note: Maturities shown at first call date for Capital Securities. Includes private placements
FX rates used are as at 30 June 2016

Embarking on Journey of Sustainability Reporting

Highly Material Factors



Customer experience



Risk-focused organisational culture



Digital transformation



Cyber security, fraud prevention and anti-money laundering



Economic value of our contributions



Regulatory compliance

Material Factors



Responsible lending



Access to financial services



Social impact



Attracting, developing and retaining talent



Diversity and inclusion

Important Factors



Environmental footprint



Workplace safety, health and well-being










Supply chain responsibility

2016 Annual Report in accordance to Global Reporting Initiatives' (GRI) G4 guidelines and select indicators from GRI's Financial Services Sector Disclosures paper.



Regulatory Developments

Basel III across the Region

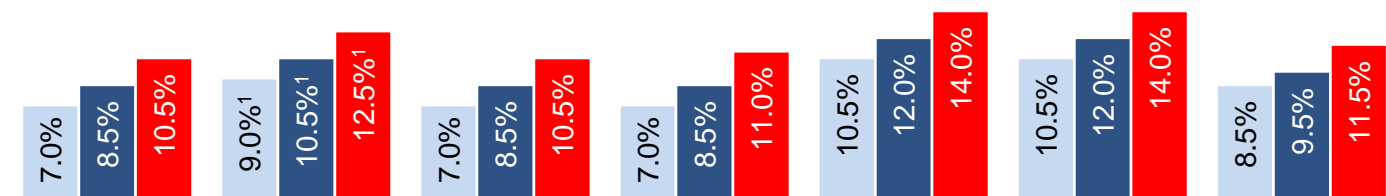
	BCBS 	Singapore 	Malaysia 	Thailand 	Indonesia 	Hong Kong 	China 
Minimum CET1 CAR	4.5%	6.5% ¹	4.5%	4.5%	4.5%	4.5%	5.0%
Minimum Tier 1 CAR	6.0%	8.0% ¹	6.0%	6.0%	6.0%	6.0%	6.0%
Minimum Total CAR	8.0%	10.0% ¹	8.0%	8.5%	8.0%	8.0%	8.0%
Full Compliance	Jan-15	Jan-15	Jan-15	Jan-13	Jan-14	Jan-15	Jan-13
Capital 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 Capital Buffer ²	Up to 2.5%	Up to 2.5%	Up to 2.5%	Up to 2.5%	Up to 2.5%	Up to 2.5% ³	Up to 2.5%
Full Compliance	Jan-19	Jan-19	Jan-19	Pending	Jan-16	Jan-19	Jan-19
D-SIB	–	2.0%	Pending	Pending	1.0%–3.5% ⁴	1.0%–3.5%	1.0% ⁵
G-SIB	1.0%–3.5%	n/a	n/a	n/a	n/a	n/a	1.0% ⁵
Minimum Leverage Ratio	3.0%	Pending	3.0%	3.0%	3.0%	3.0%	4.0%
Full Compliance	2018	Pending	2018	2018	2018	2018	2013

% of risk weighted assets ⁶

■ Minimum CET1

■ Minimum Tier 1 CAR

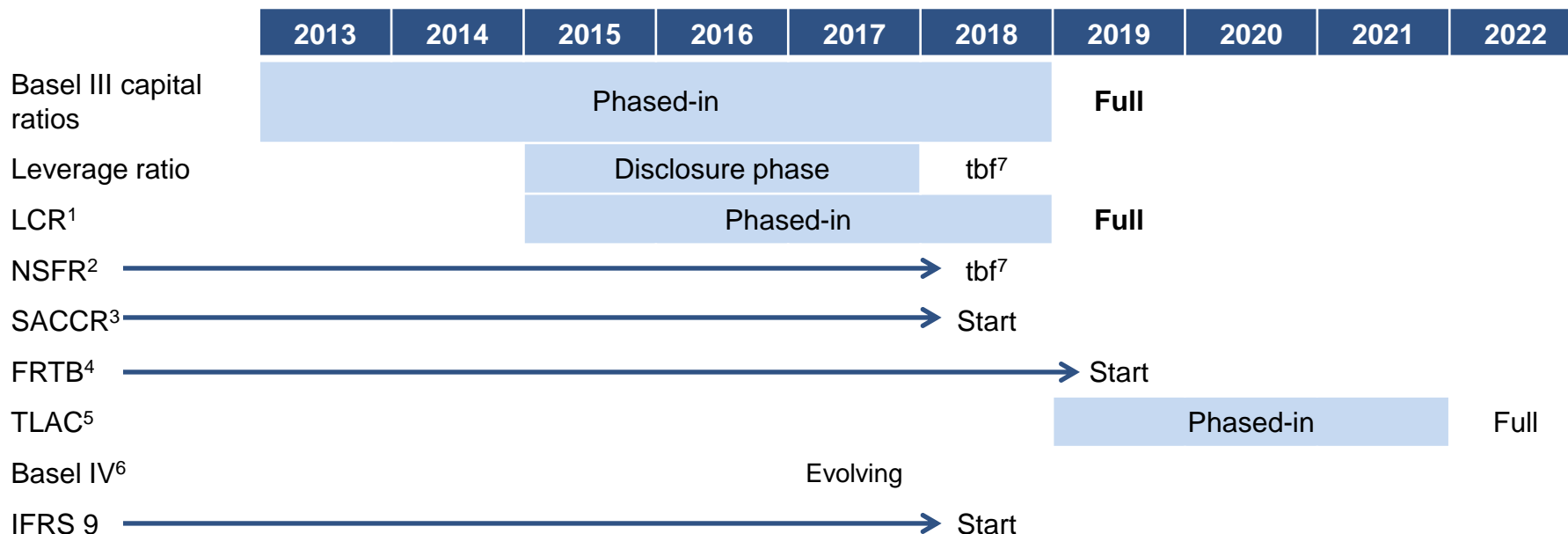
■ Minimum Total CAR



Source: Regulatory notifications and rating reports.

1. Includes 2% for D-SIB buffer for the three Singapore banks.
2. Each regulator determines its own level of countercyclical capital buffer. This requirement is currently set at 0%, except for Hong Kong.
3. HKMA has set a CCyB of 2.5% to be phased in over a period of 3 years. In 2017, the CCyB requirement is 1.25% of RWA.
4. According to the regulations, Indonesia D-SIBs will initially be subject to a D-SIB buffer of up to 2.5%.
5. In China, G-SIBs are only subject to the higher of G-SIB and D-SIB buffer
6. 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

“ ...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

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)
4. 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
7. Details to be finalised in Singapore



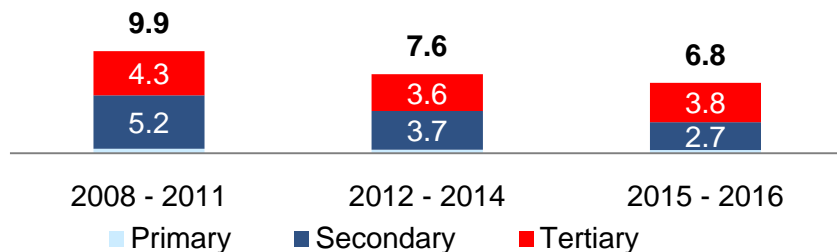
Macroeconomic Outlook

China's Growth Slower but Low Risk of Hard Landing

- While China's GDP growth rate is slowing, the annual increase in absolute GDP has been stable.
- The Chinese economy has its underlying momentum, supported by rebalancing reforms and steady job market.
- Low central government debt underpins China's fiscal capacity, which could help mitigate "black swan" events.
- Base case scenario for China: slow and unexciting growth; sideways movements in RMB; global economy continues to recover at gradual pace, led by the US.

Structural Shift of China's Economy

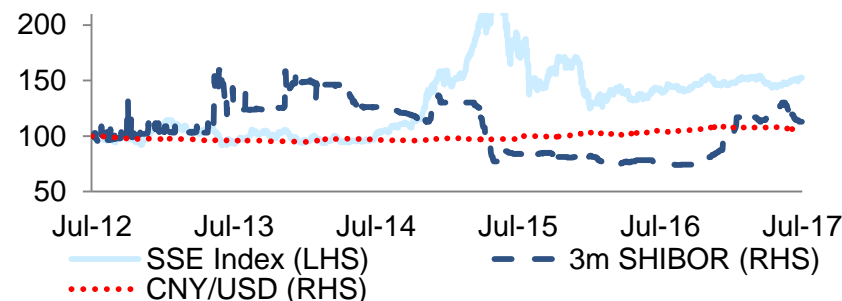
(Average Contribution to GDP growth rate, %)



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

Episodes of Market Volatility Contained

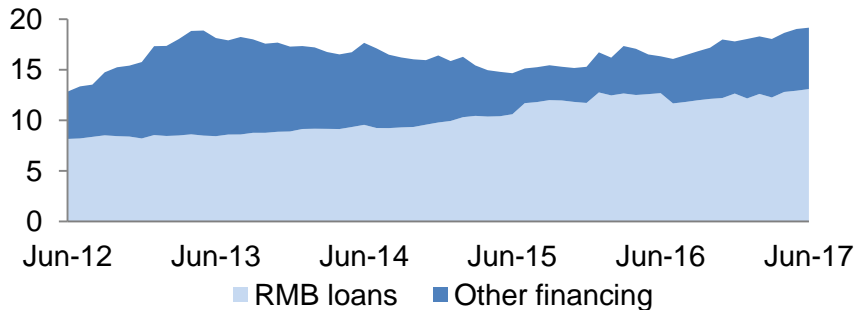
Jul'12 = 100



Source: Bloomberg, UOB Global Economics & Markets Research

New Financing Increasingly from Banking Sector

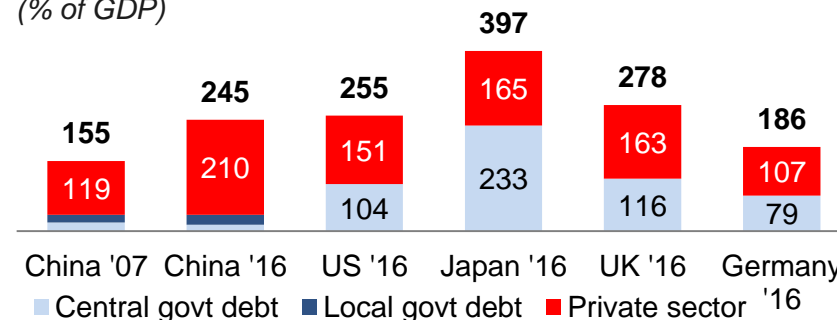
(Rolling 12 months, CNY trn)



Source: PBOC, UOB Global Economics & Markets Research

Source of China Debt Risk

(% of GDP)

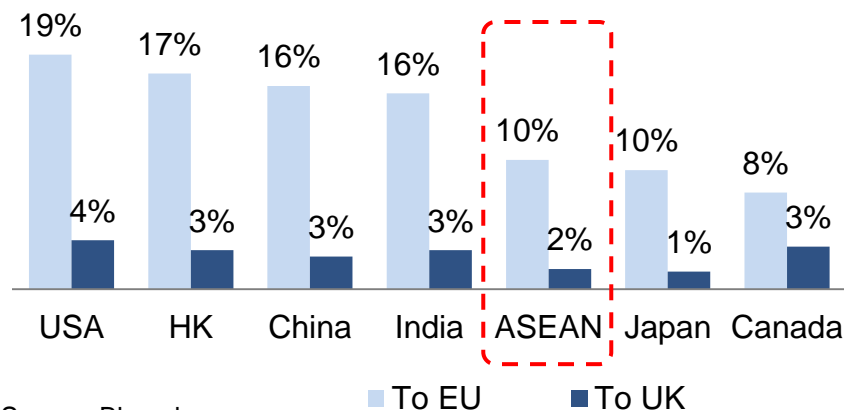


Source: China NAO, CEIC, IMF, OECD, UOB Global Economics & Markets Research

Brexit Impact on Asian Markets via Trade and Investment Channels

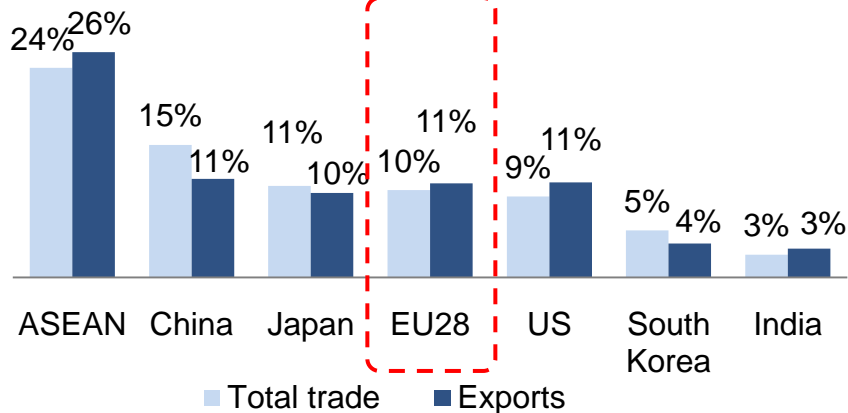
- It is a challenge to quantify Brexit effects with certainty at this stage.
- The immediate impact on Asian economies is likely to be limited and shallow, considering the low export reliance.
- If adverse impact of Brexit spreads to the broader European Union, however, this could have a more significant impact on Asia given the trade and investment links. As a bloc, EU represented 10.3% of ASEAN's total exports and 16% of FDIs in 2015.

EU & UK Export Mix of Selected Partners (2015)



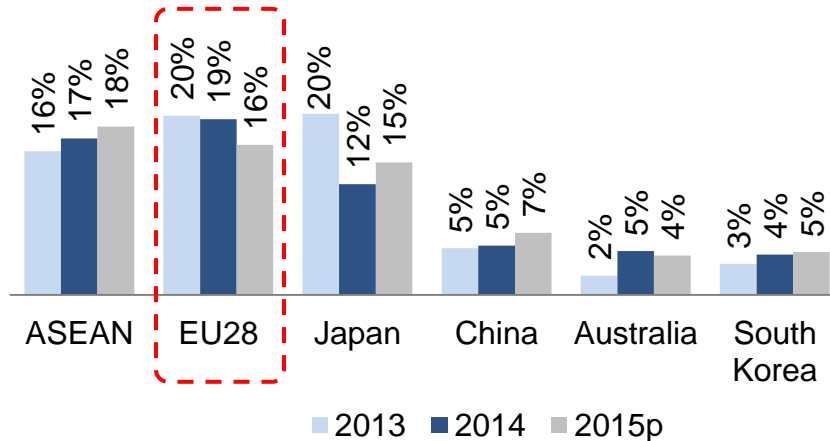
Source: Bloomberg

ASEAN's Trade/Export Mix by Key Partners (2015)



Source: ASEAN Secretariat

ASEAN's Net FDI Flows by Key Partners (2015)



Source: ASEAN Secretariat

Implication on Regional Policy Rates

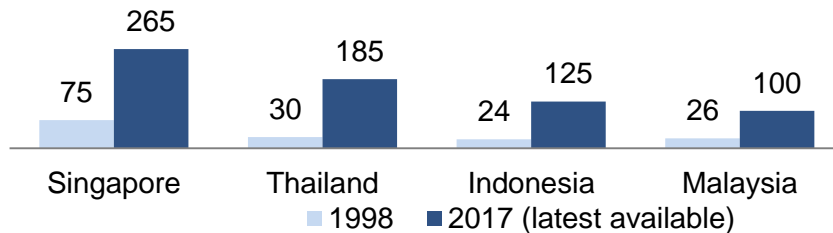
	3Q16	4Q16	1Q17	2Q17	3Q17f	4Q17f	1Q18f	2Q18f	3Q18f	4Q18f
US 10-Year Treasury	1.59	2.44	2.39	2.30	2.60	2.80	2.90	3.00	3.20	3.30
US Fed Funds	0.50	0.75	1.00	1.25	1.25	1.50	1.75	2.00	2.00	2.25
SG 3M SOR	0.67	1.01	0.86	0.75	1.00	1.30	1.40	1.50	1.50	1.70
MY Overnight Policy Rate	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
TH 1-Day Repo	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.75	1.75
ID 7-Day Reverse Repo	5.00	4.75	4.75	4.75	4.75	4.75	5.00	5.00	5.00	5.00
CH 1-Year Deposit Rate	1.50	1.50	1.50	1.50	1.50	1.50	1.75	2.00	2.00	2.00

- Recovery in inflation and growth in regional economies turned out to be more gradual than expected. However, the monetary policy bias remains tilted towards tightening in 2018, in line with the tightening signals from G10 central banks. In all, monetary convergence is more likely than further divergence.
- The US Fed Reserve is poised to further normalise interest rates (where 2017 should see 3 rate hikes, including the March and June hikes) and start balance-sheet reduction (BSR) in late 2017. A higher degree of convergence in rates is expected in 2018.
- Moderately stronger USD and further US Fed rate hikes with BSR implementation will gradually raise SGD rates over the long-term.
- Capital flight risk for Asia has seemingly receded as Asian currencies maintained strength amid policy uncertainties in the US. This is anchored by improved economic fundamentals and enhanced confidence in regional central banks.

Southeast Asia: Resilient Key Markets

Significantly Higher Foreign Reserves

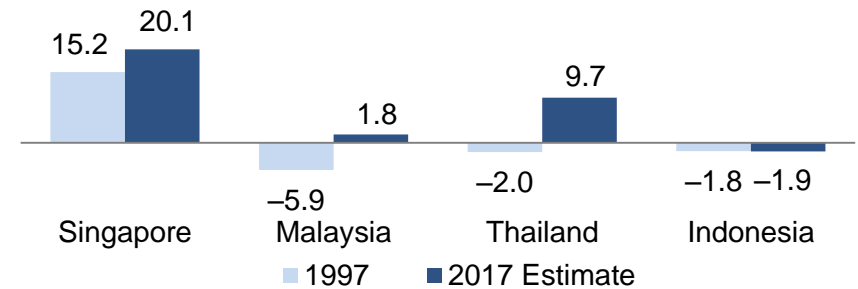
(USD billion)



2016 foreign reserves include foreign currency reserves (in convertible foreign currencies); source: World Bank, IMF

Healthier Current Account Balances

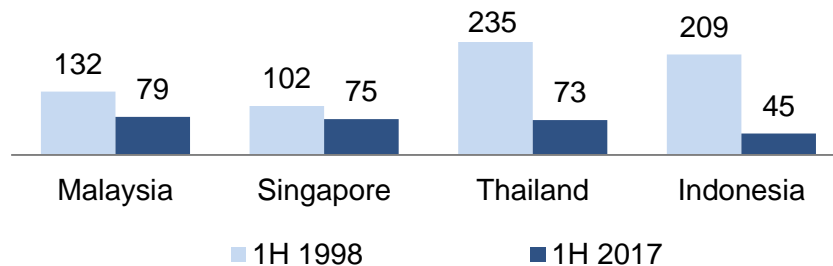
(% of GDP)



Source: IMF

Lower Debt to Equity Ratio

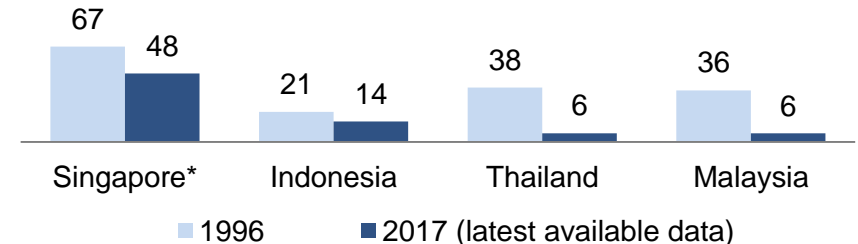
(%)



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

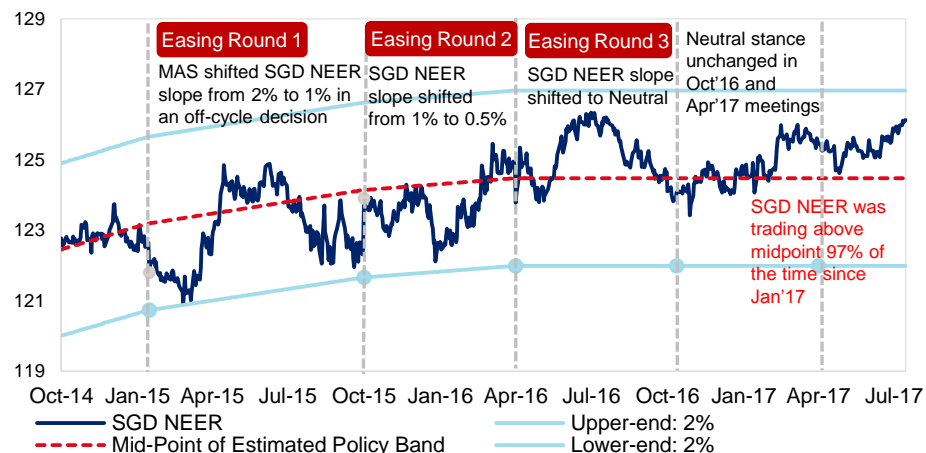
Long-term fundamentals and prospects of key Southeast Asia have greatly improved since the 1997 Asian Financial Crisis.

Manufacturing Sector to Continue To Lead Singapore GDP in 2017

- Advance 2Q17 GDP growth was at 2.5% yoy (1Q17: +2.5%), supported mainly by robust expansion in the electronics and precision engineering clusters, and further improvement in the services sector. Positive spillover from the trade to non-trade sectors, improvement in global demand, but slowdown in the tech cycle and strength in the SGD pose headwinds to sustained growth in 2H17.
- We keep GDP growth forecast at 2.4% in 2017 compared with 2.0% in 2016.
- Core inflation will rise to an average 1.3% in 2017 (2016: 1.0%), as the base effects of lower commodity prices and government subsidies wear off.

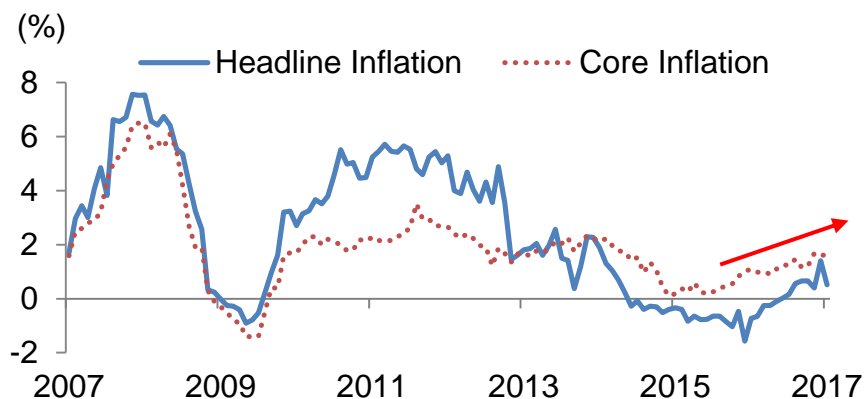
Source: UOB Global Economics & Markets Research

MAS Expected To Maintain Neutral SGD



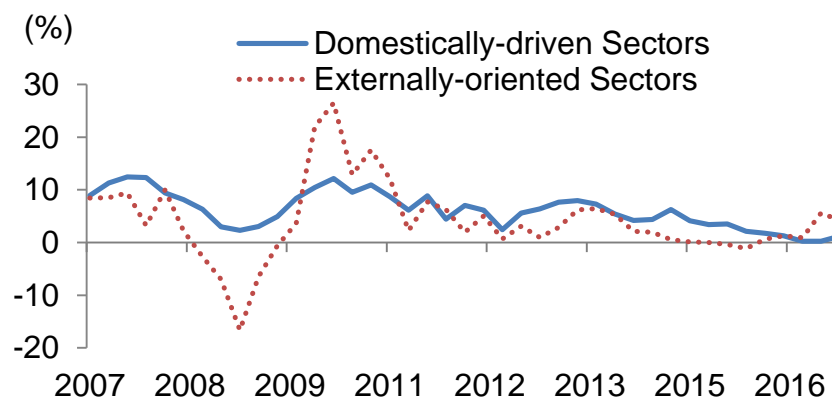
Source: CEIC, UOB Global Economics & Markets Research

2017 Core Inflation to Average 1.3%



Source: Singapore Department of Statistics

External Sectors To Pick Up in 2017



Source: Singapore Department of Statistics

Southeast Asia Banking Sector: Strong Fundamentals Remain Intact

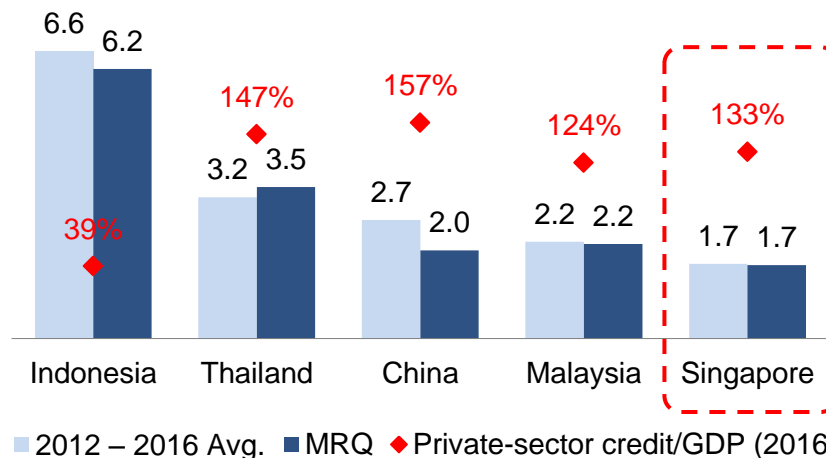
Key Banking Trends

- Southeast Asian banks have healthy capital and funding levels
 - Singapore banks have among the highest capital ratios in the region
 - As solvency is not generally an issue, focus would be on putting the excess capital to productive uses
- Policy changes in regulation, liquidity, rates and sector consolidation are shaping the Southeast Asian banking business models going forward

Source: Research estimates, Monetary Authority of Singapore

Higher NIM in Lightly Penetrated Markets

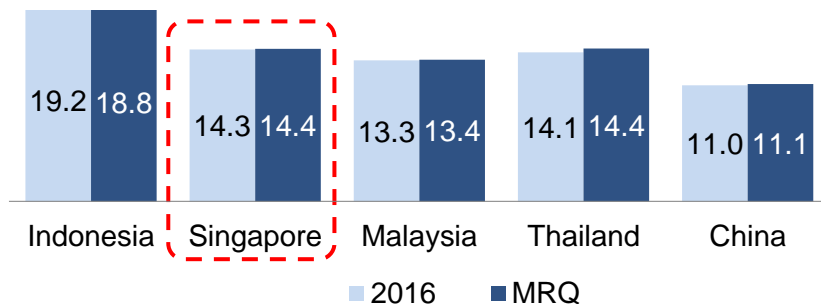
(Net interest margin and private-sector credit / GDP, in %)



Source: SNL, Research estimates, World Bank

Robust Capital Positions

(Tier 1 CAR, in %)

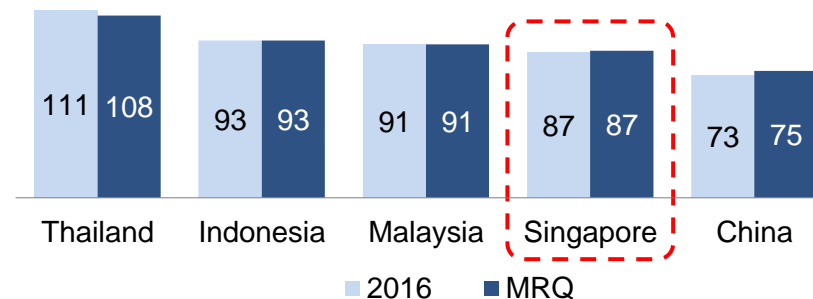


Source: SNL, Research estimates

Note: MRQ refers to the most recent quarter financials available for each bank

Stable Funding; Adequate Loan/Deposit Ratios

(Loan-to-deposit ratio, in %)

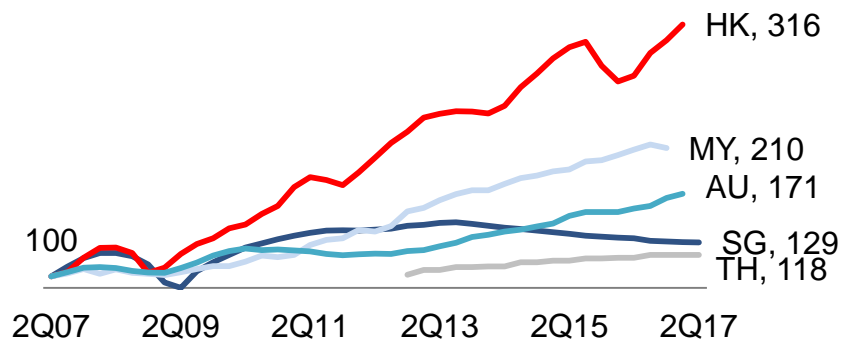


Source: SNL, Research estimates

Conducive Macro Conditions Underpin Singapore Property Market

Regional House Price Indices over Last 10 Years

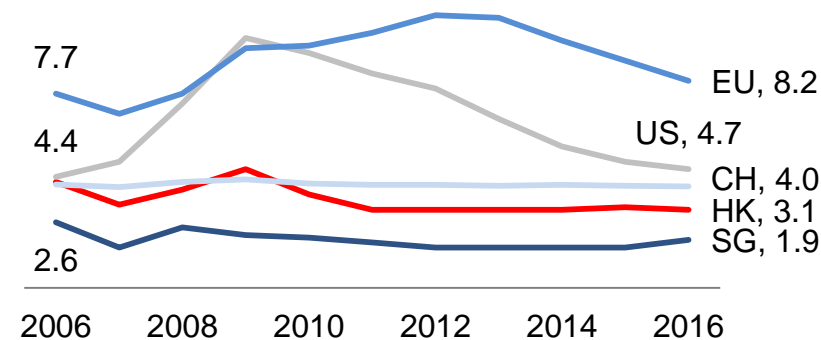
(2Q07 = 100)



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

Low Unemployment vs Global Peers

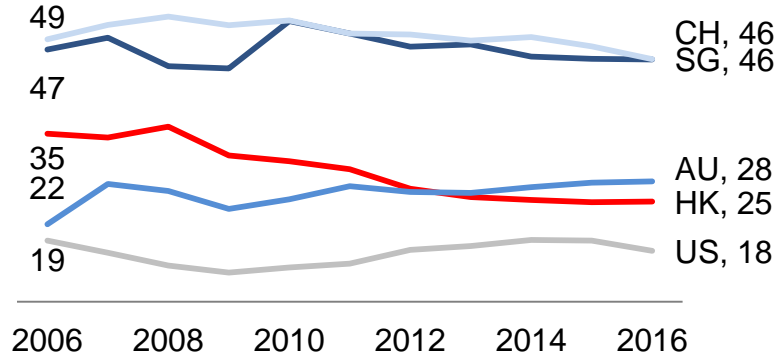
(%)



Sources: CEIC, UOB Economic-Treasury Research

High National Savings Rate

(% of GDP)



Sources: IMF, UOB Economic-Treasury Research

SG Household Income in Line with Property Prices

	1996	1Q17	+/(−)
Price ¹ (SGD / sq ft)	929	1,043	+12%
Unit size (sq ft)	1,450	1,200	−17%
Unit costs (SGD m)	1.35	1.25	−7%
Interest rate (%)	4.60	1.83	
Household income ² (SGD / mth)	9,050	16,900	+87%
Debt servicing ratio ³ (%)	61	21 ⁴	

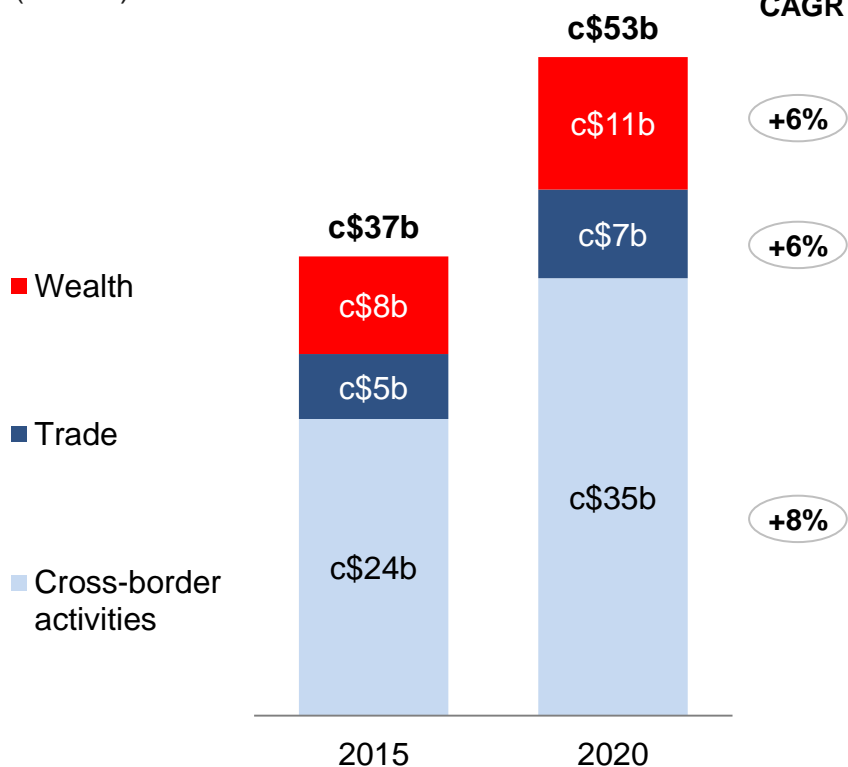
1. Reflects median price of non-landed private residential
 2. Reflects median of resident households living in private properties
 3. Based on a 30-year housing loan, with a loan-to-value of 80%
 4. A housing loan with 5% interest rate would increase DSR to 32%
- Sources: URA, CEIC, Singapore Statistics, UOB Economic-Treasury Research

Note: AU: Australia; CH: China, EU: European Union, HK: Hong Kong, SG: Singapore, TH: Thailand, UK: United Kingdom, US: United States

Revenue Potential from 'Connecting the Dots' in the Region

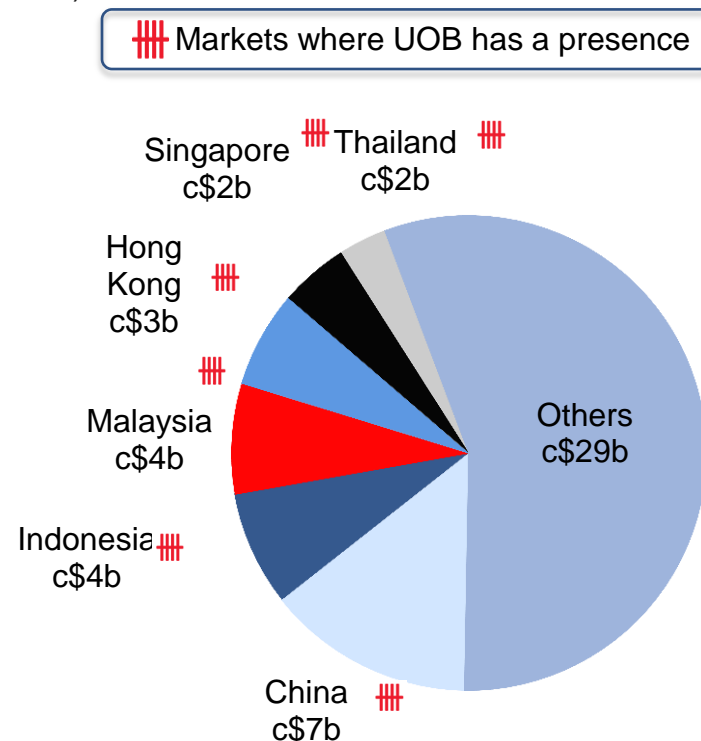
Industry's Potential Connectivity Revenue

(SGD b)



Industry's Potential Connectivity Revenue (2020)

(SGD b)



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



Appendix

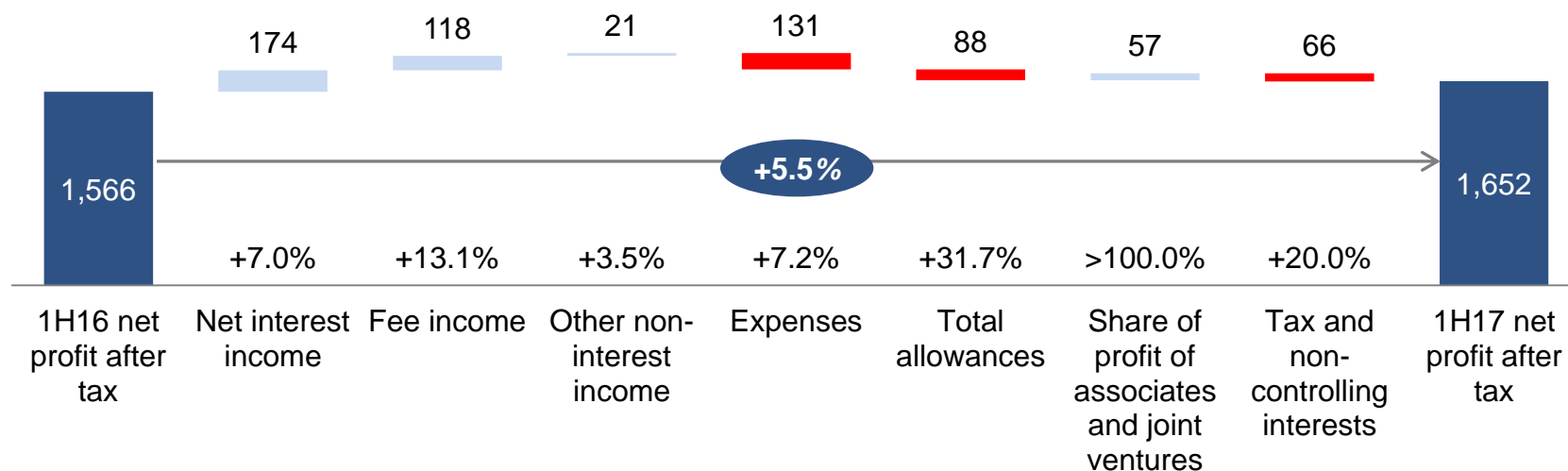


Latest Financials

1H17 Financial Overview

Net Profit After Tax¹ (NPAT) Movement, 1H17 vs 1H16

(SGD m)



Key Indicators	1H17	1H16	YoY Change
NIM (%)	1.74	1.73	+0.01% pt
Non-NII / Income (%)	38.2	37.8	+0.4% pt
Expense / Income ratio (%)	45.3	45.6	(0.3)% pt
ROE (%) ²	10.2	10.5	(0.3)% pt

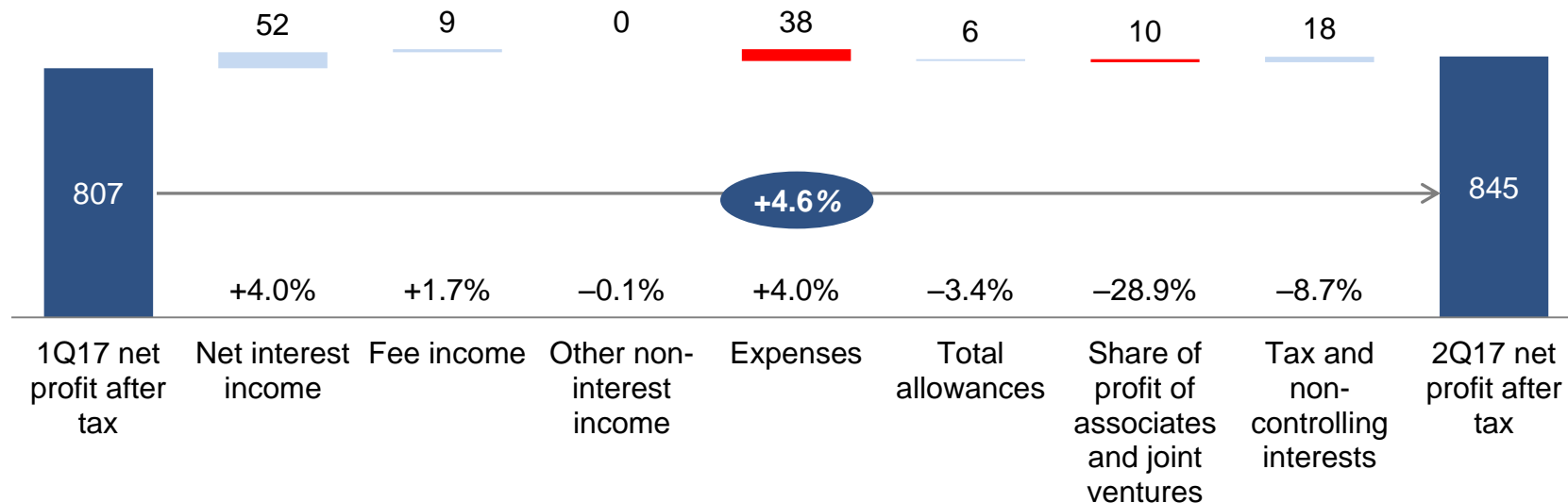
1. Relate to amount attributable to equity holders of the Bank.

2. Calculated based on profit attributable to equity holders of the Bank net of preference share dividends and capital securities distributions.

2Q17 Financial Overview

Net Profit After Tax¹ (NPAT) Movement, 2Q17 vs 1Q17

(SGD m)



Key Indicators	2Q17	1Q17	QoQ Change	2Q16	YoY Change
NIM (%)²	1.75	1.73	+0.02% pt	1.68	+0.07% pt
Non-NII / Income (%)	37.9	38.6	(0.7)% pt	40.2	(2.3)% pt
Expense / Income ratio (%)	45.6	45.1	+0.5% pt	45.8	(0.2)% pt
ROE (%)^{2,3}	10.3	10.0	+0.3% pt	10.7	(0.4)% pt

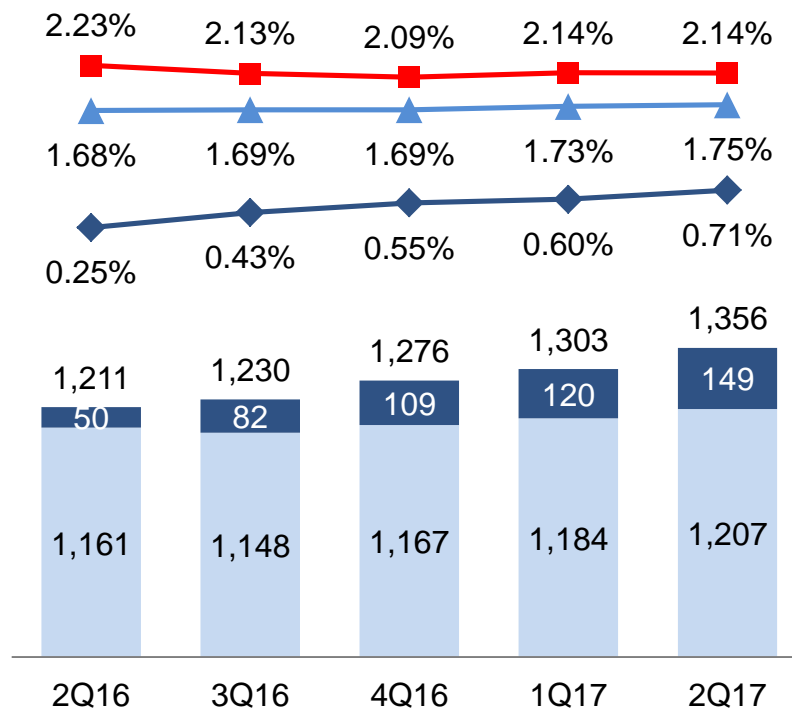
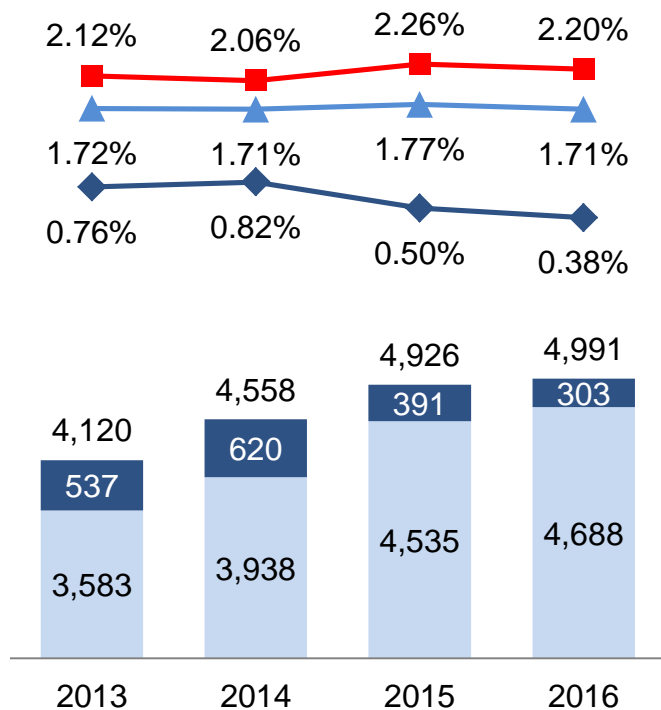
1. Relate to amount attributable to equity holders of the Bank.

2. Computed on an annualised basis.

3. Calculated based on profit attributable to equity holders of the Bank net of preference share dividends and capital securities distributions.

Net Interest Income Rose on Growth in Loans and Margins

Net Interest Income (NII) and Margin



■ NII from Loans (SGD m)
■ Loan Margin (%) *
▲ Net Interest Margin (%) *

■ NII from Interbank & Securities (SGD m)
◆ Interbank & Securities Margin (%) *

* Computed on an annualised basis, where applicable.

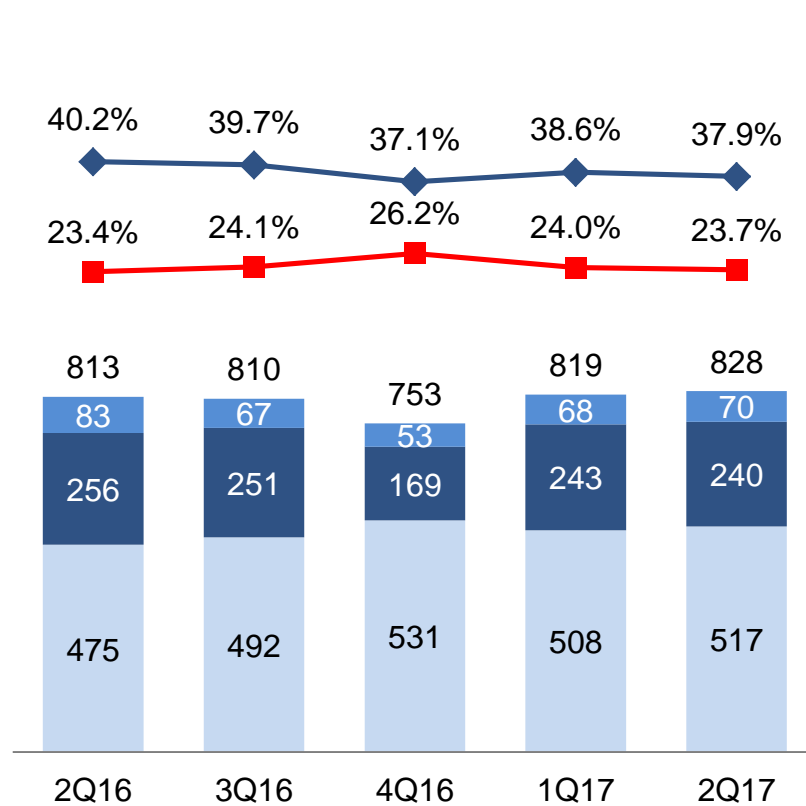
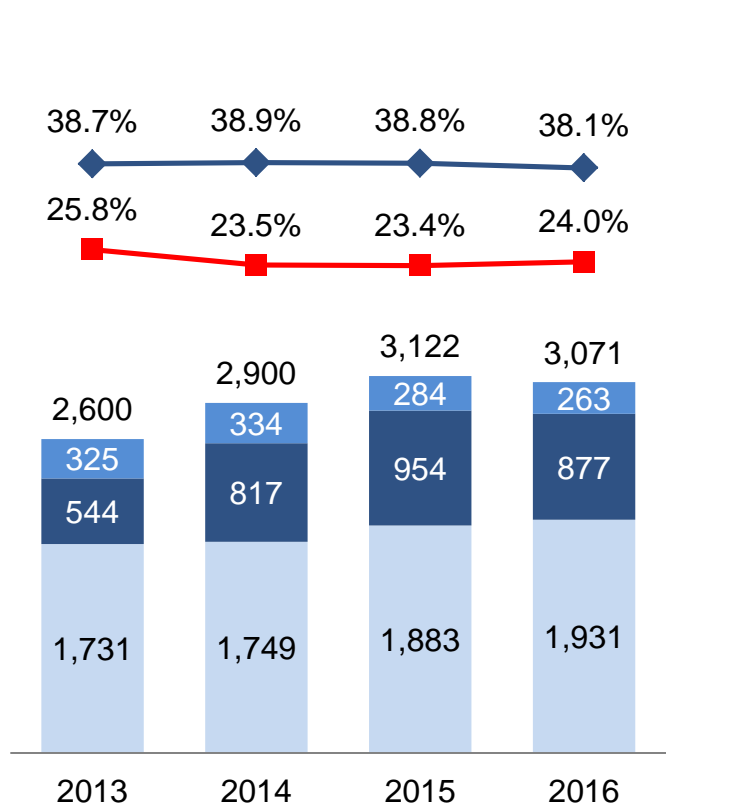
Broad-based increase in loan portfolio

	Jun-17 SGD b	Mar-17 SGD b	QoQ +/(–) %	Jun-16 SGD b	YoY +/(–) %
Gross Loans ¹					
<i>By Geography</i>					
Singapore	125.4	125.1	+0.3	119.9	+4.6
Regional:	79.5	80.6	–1.4	72.8	+9.2
<i>Malaysia</i>	26.1	25.6	+2.2	25.4	+2.9
<i>Thailand</i>	13.9	13.7	+1.6	11.6	+19.3
<i>Indonesia</i>	11.5	11.4	+1.0	11.4	+1.3
<i>Greater China</i>	27.9	29.9	–6.6	24.4	+14.5
Others	22.8	23.5	–2.8	19.6	+16.6
Total	227.7	229.1	–0.6	212.3	+7.3
<i>By Industry</i>					
Transport, storage and communication	9.5	9.7	–2.2	8.9	+6.6
Building and construction	53.1	52.8	+0.5	48.8	+8.8
Manufacturing	16.8	17.0	–1.3	16.7	+0.5
Financial institutions, investment & holding companies	16.3	16.7	–2.4	11.8	+38.6
General commerce	30.1	31.0	–2.7	27.9	+8.2
Professionals and private individuals	27.3	26.8	+1.9	26.6	+2.7
Housing loans	62.9	62.0	+1.4	59.3	+6.2
Others	11.7	13.1	–10.5	12.4	–5.9
Total	227.7	229.1	–0.6	212.3	+7.3

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).

Steady Non-Interest Income Mix Underpins Diversity

Non-Interest Income (Non-NII) and Non-NII Ratio

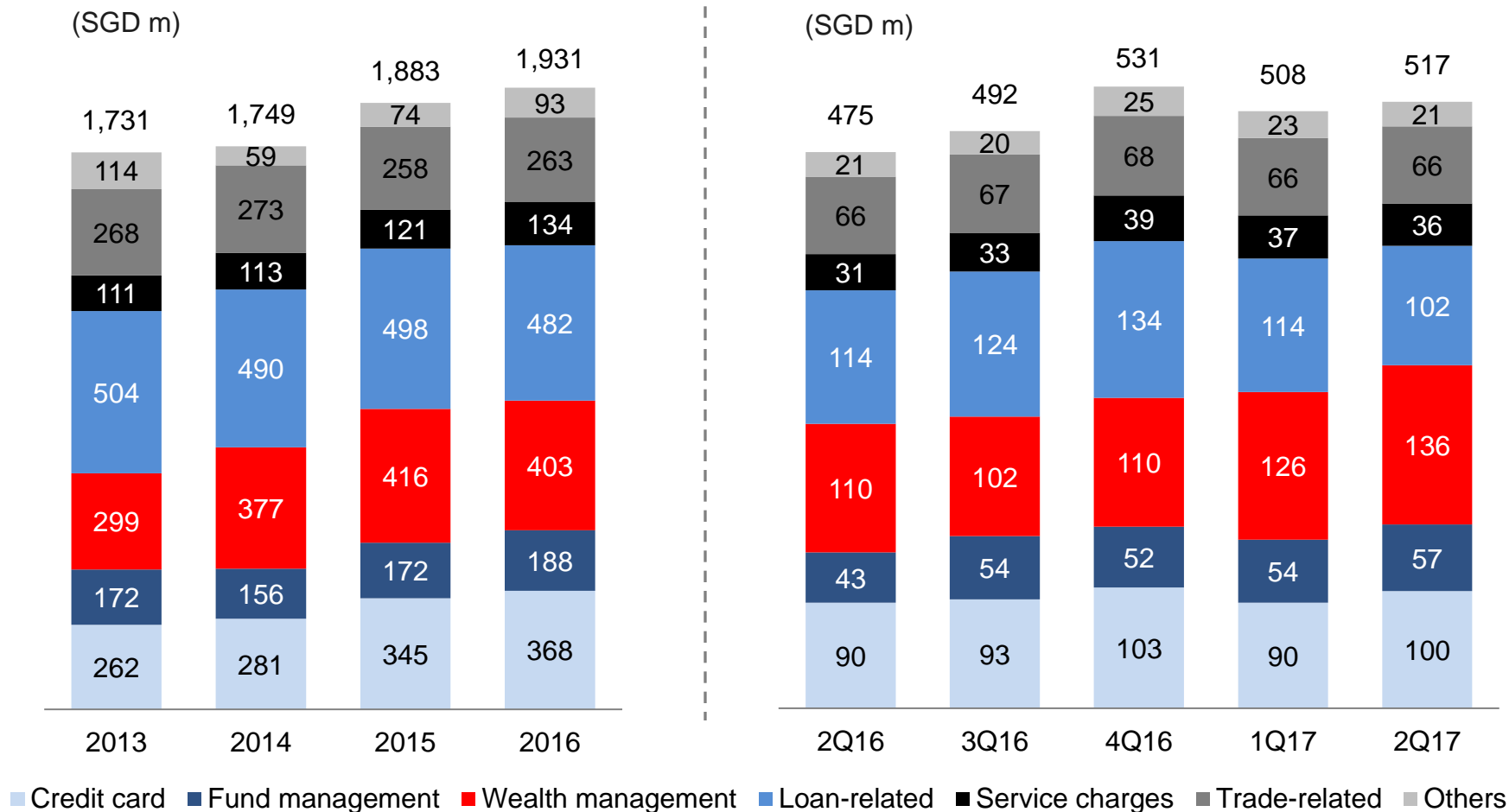


- Fee Income (SGD m)
- Other Non-Interest Income (SGD m)
- Core Fee Income / Total Income (%)

- Trading and Investment Income (SGD m)
- ◆ Core Non-NII / Total Income (%)

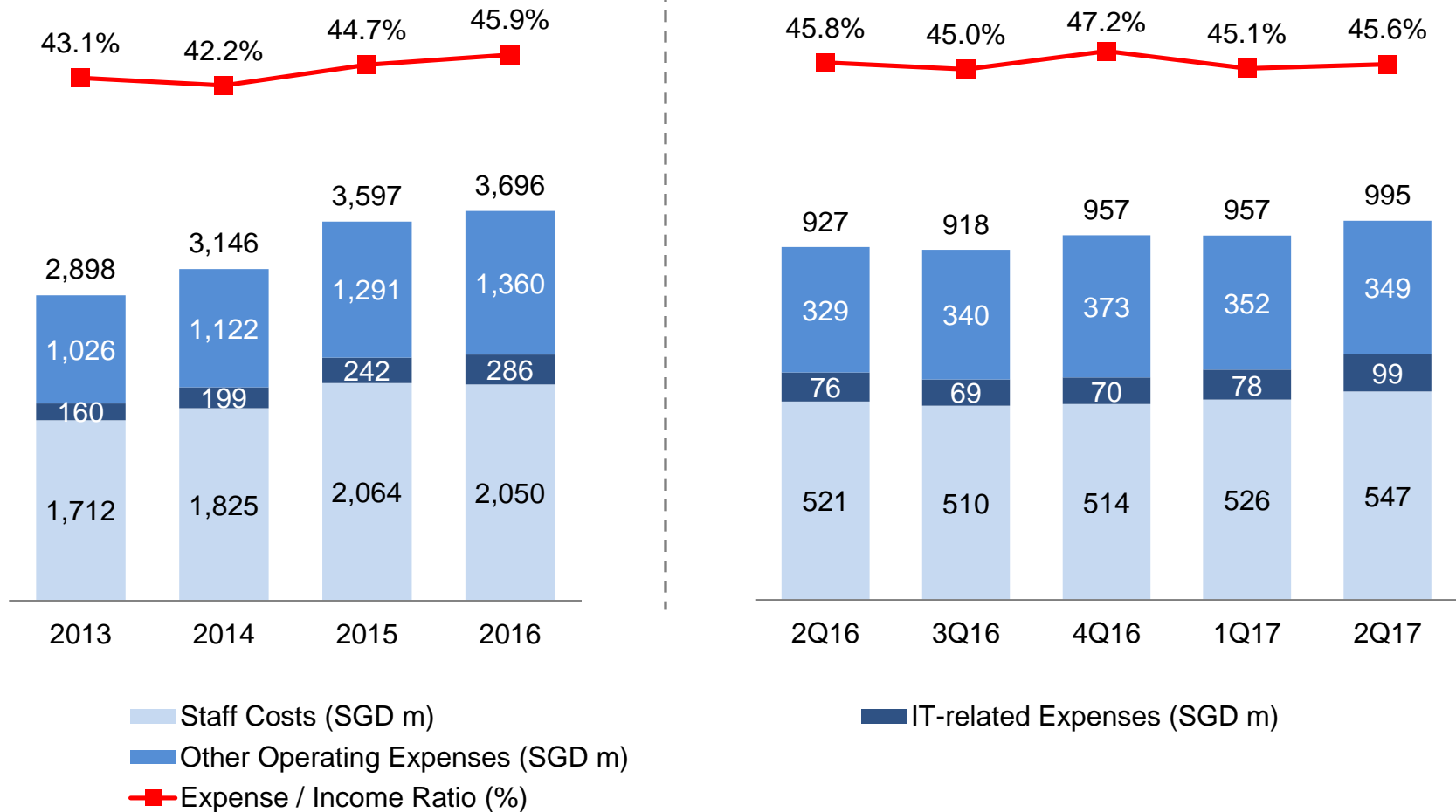
Broad-based Focus in Fee Income

Breakdown of Fee Income



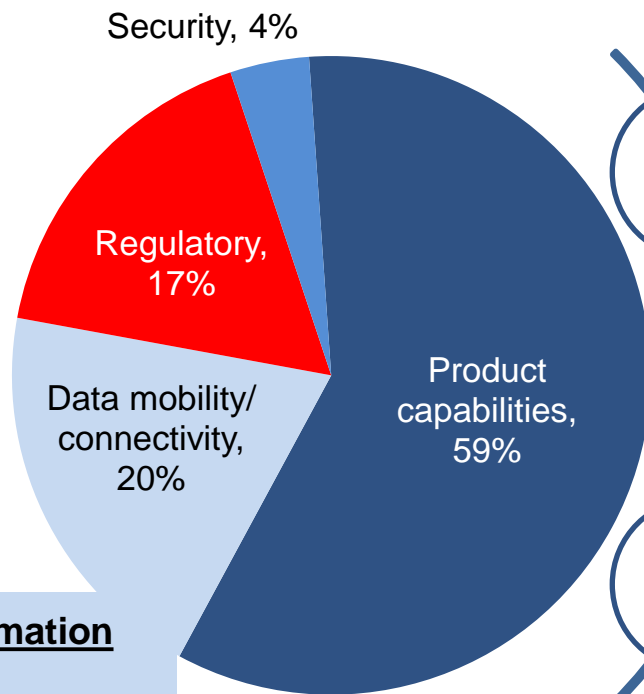
Staff Costs Tightly Managed as IT Investments Continue

Operating Expenses and Expense / Income Ratio

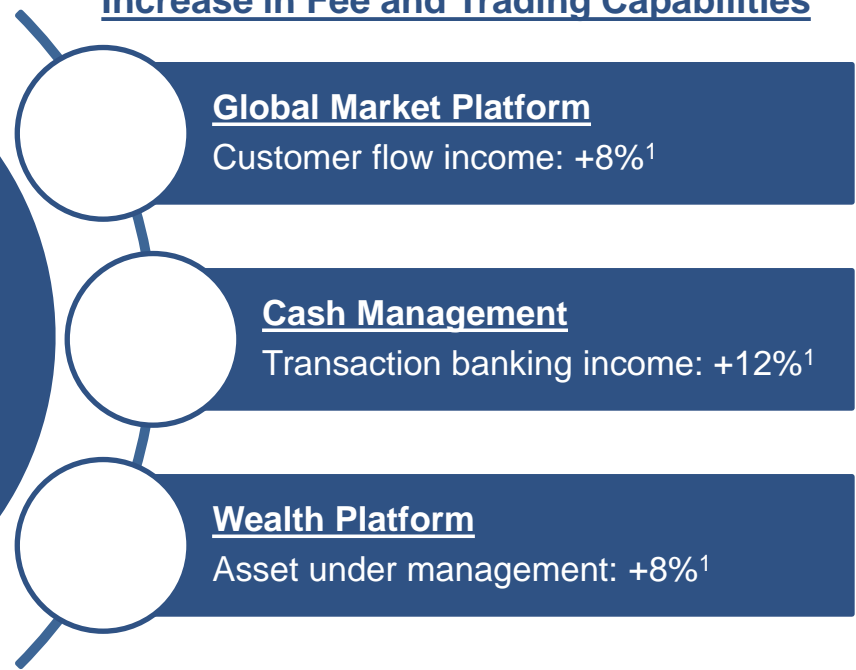


IT Investments Geared towards Products and Digital Capabilities

IT investments over 2014-2016
(cSGD0.7b)



Increase in Fee and Trading Capabilities



Digital Transformation

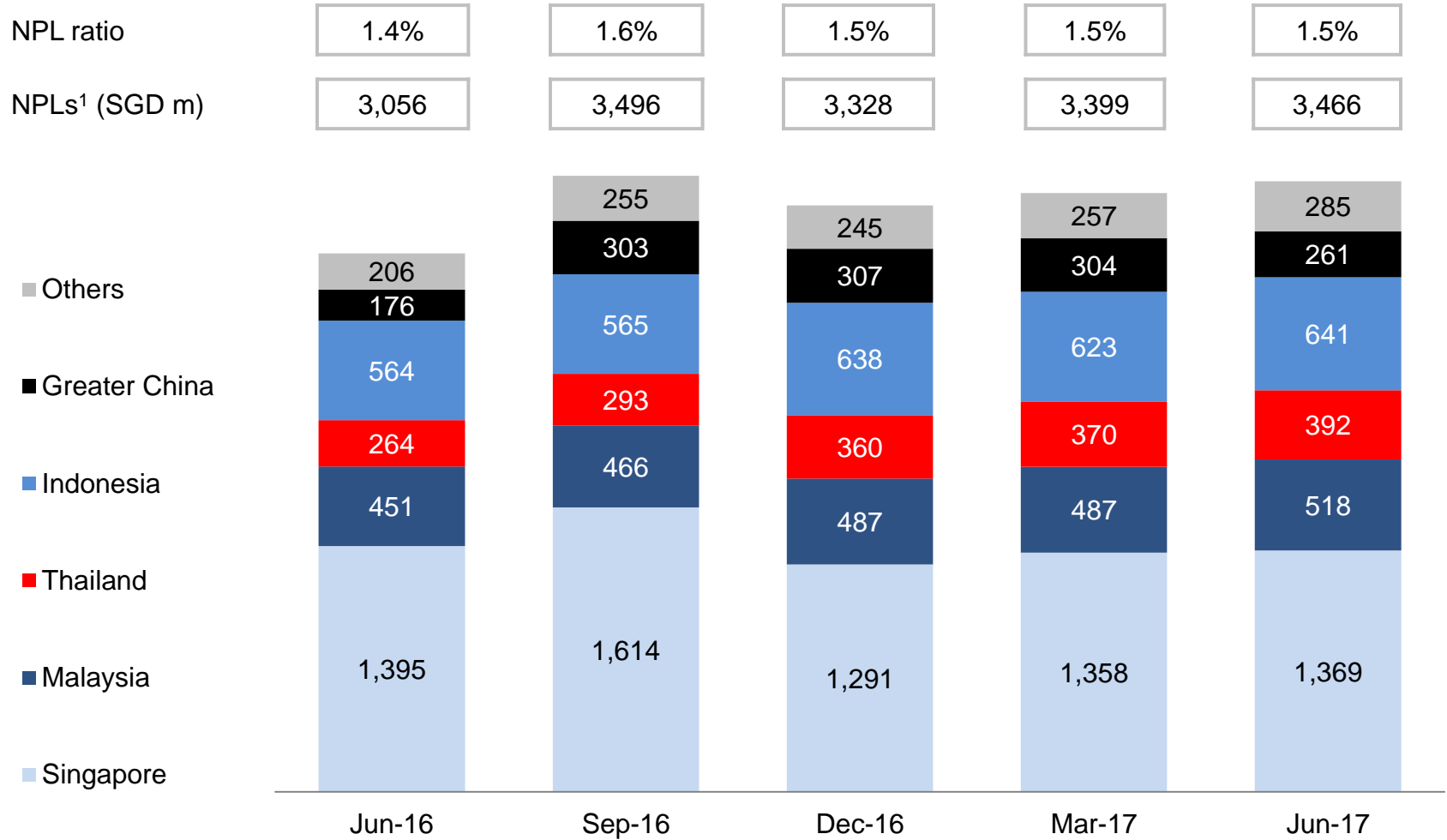
- Might App
- Enterprise data architecture

1. CAGR computed over 2 years (2014 to 2016)

Formation of Non-Performing Assets Remains Elevated but Contained within Specific Sectors

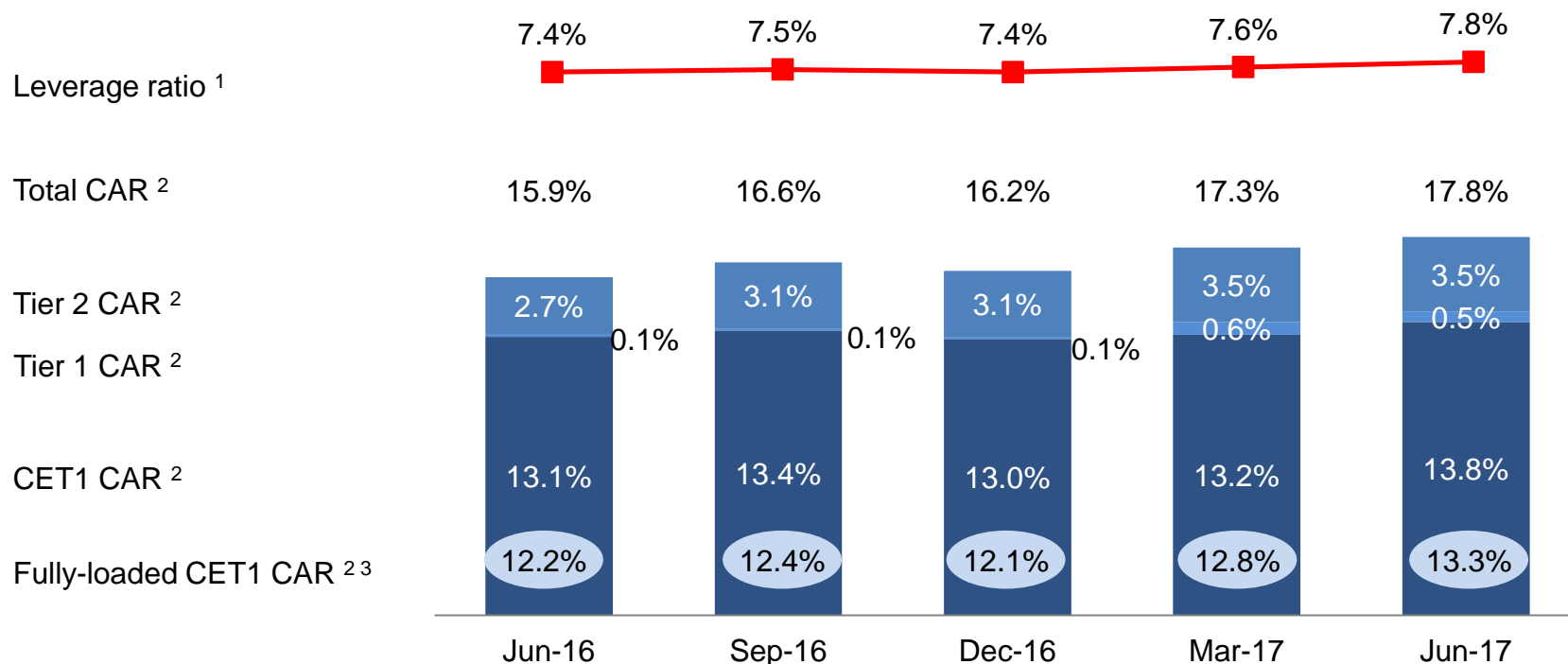
	2Q16 SGD m	3Q16 SGD m	4Q16 SGD m	1Q17 SGD m	2Q17 SGD m
NPA at start of period	3,016	3,164	3,632	3,480	3,543
New NPA	802	780	387	424	537
Upgrades, recoveries and translations	(548)	(201)	(320)	(293)	(255)
Write-offs	(106)	(111)	(219)	(68)	(238)
NPA at end of period	3,164	3,632	3,480	3,543	3,587

NPL Ratio Stable at 1.5%



1. 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).

Strong Capital and Leverage Ratios

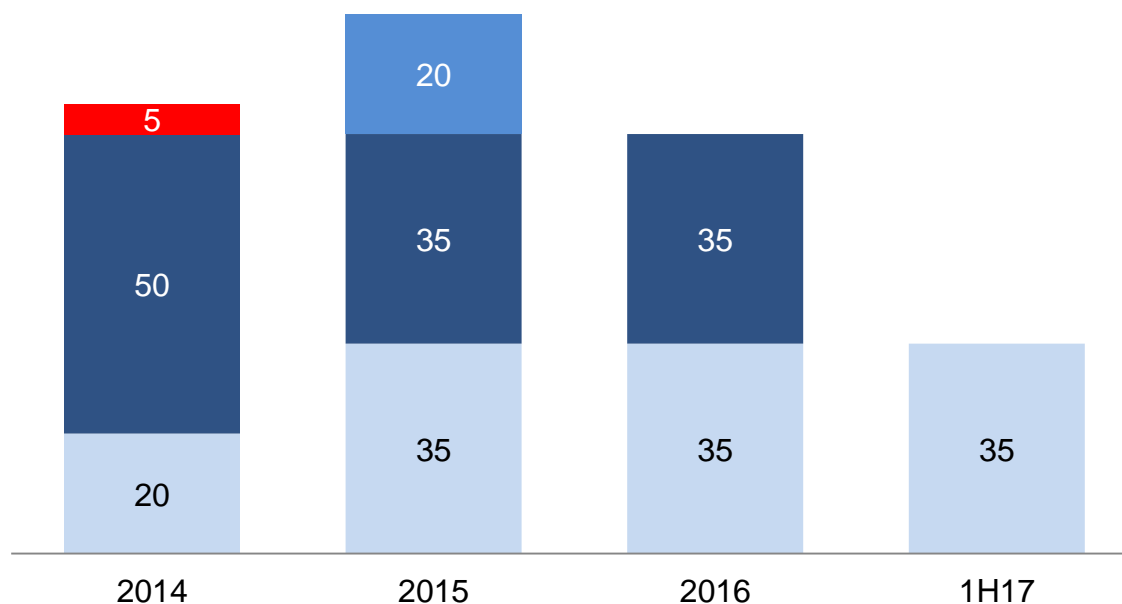


SGD b

Common Equity Tier 1 Capital	26	27	28	28	29
Tier 1 Capital	27	28	28	29	30
Total Capital	32	34	35	36	37
Risk-Weighted Assets	202	205	216	211	209

1. Leverage ratio is calculated based on the revised MAS Notice 637.
2. CAR: Capital adequacy ratio
3. Based on final rules effective 1 January 2018.

Stable Dividend Payout



Net dividend per ordinary share (¢)	Interim	Final	Special	UOB 80th Anniversary
Payout amount (SGD m)	1,201	1,444	1,135	581
Payout ratio (%)	37	45	37	35

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 and interim dividend 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.



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

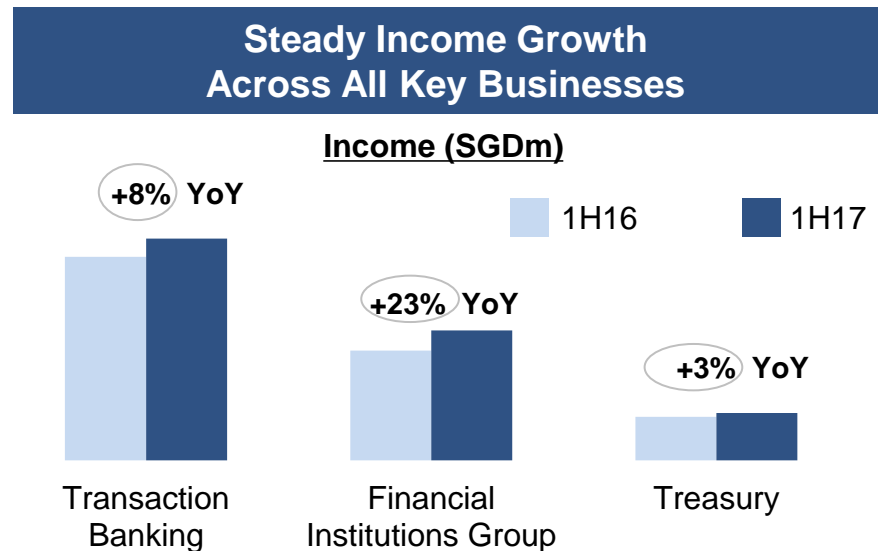
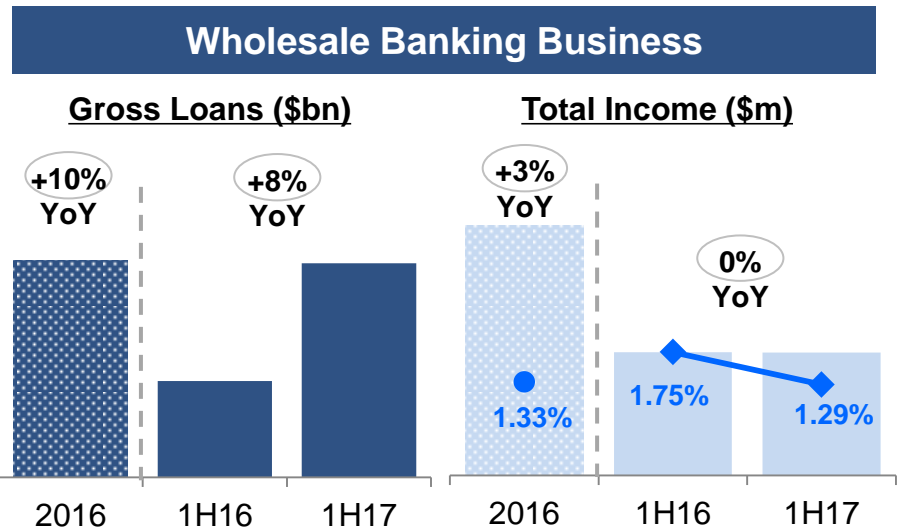
- Grow fee income to offset competitive pressures on loans and improve return on capital
- Increase client wallet share size by intensifying cross-selling efforts, focusing on service quality and expanding range of products and services

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: Good Traction in Growing Customer Franchise

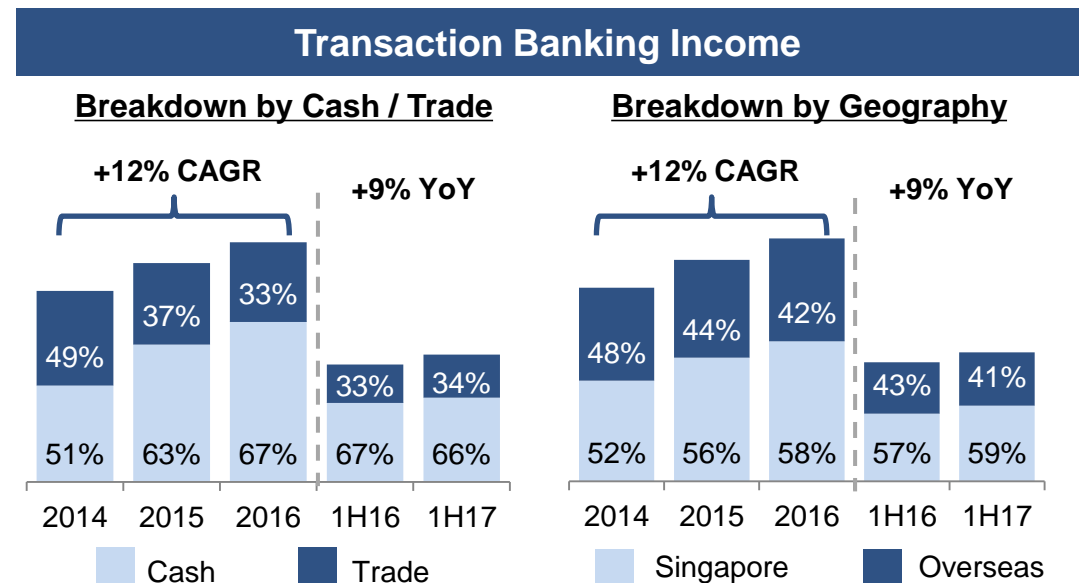
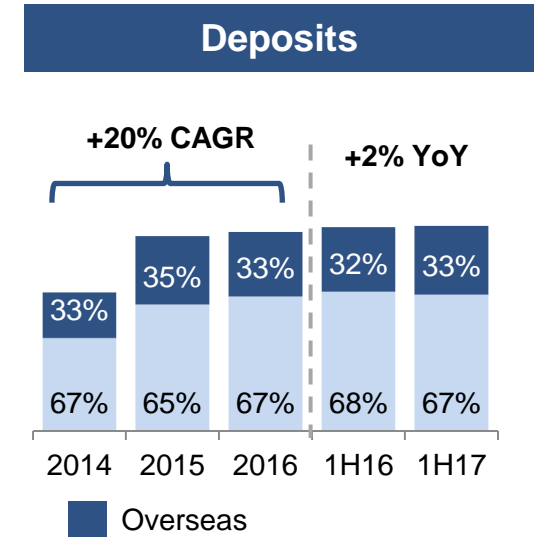
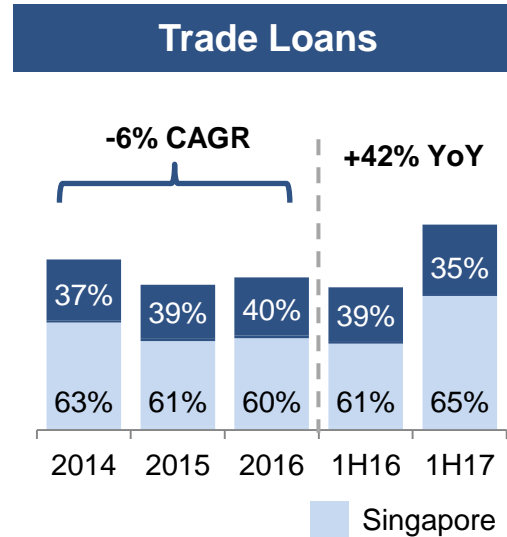
- **Stable performance in 1H 2017, amidst cautious business climate**
 - Higher loans, with growing customer franchise
- **Bottom line affected by higher allowances, largely from offshore & marine sector**
 - Broader portfolio quality remains sound
- **Capturing regional opportunities**
 - Cross-border income: 21%² of Group Wholesale Banking income



1. ROA: Ratio of “Profit before tax” to “Average Assets”
 2. Data for year-to-date May 2017

Group Transaction Banking: Stable Income Contributor

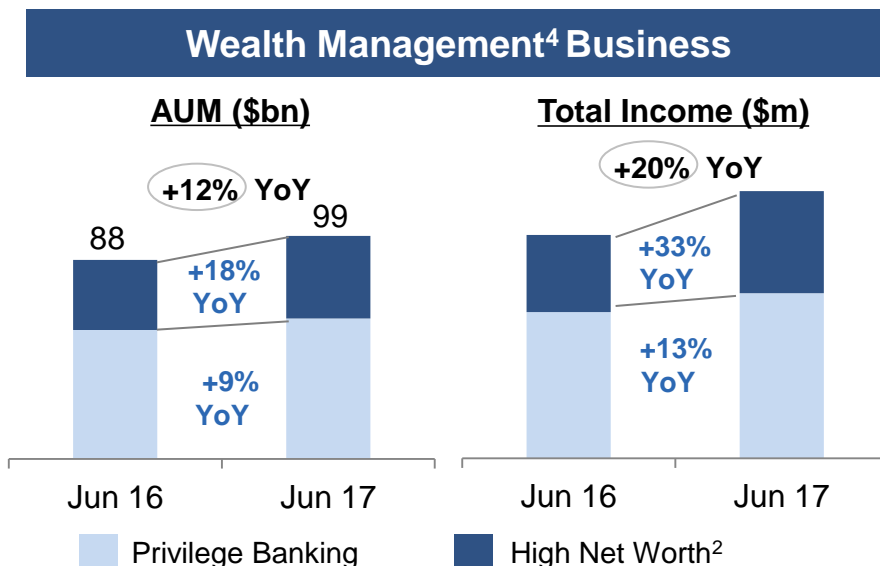
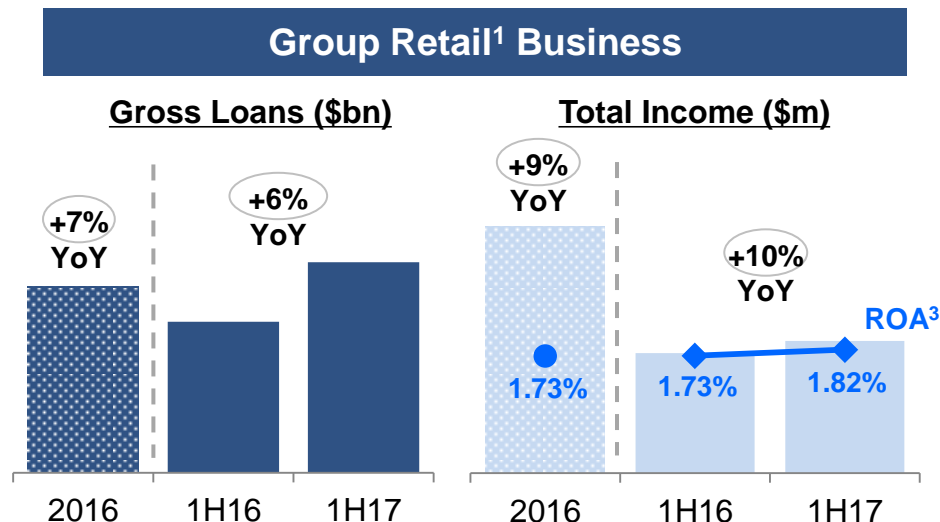
- Overall transaction banking income grew by 9%
- Growth in trade revenue, driven by strong growth momentum in trade assets, despite competitive market and margin compression
- Cash management revenue up; significant mandates won
- High-quality deposits on the uptrend
- Strong industry recognition with numerous accolades; recent accolade won for 'Best Transaction Bank' (*The Asian Banker*)



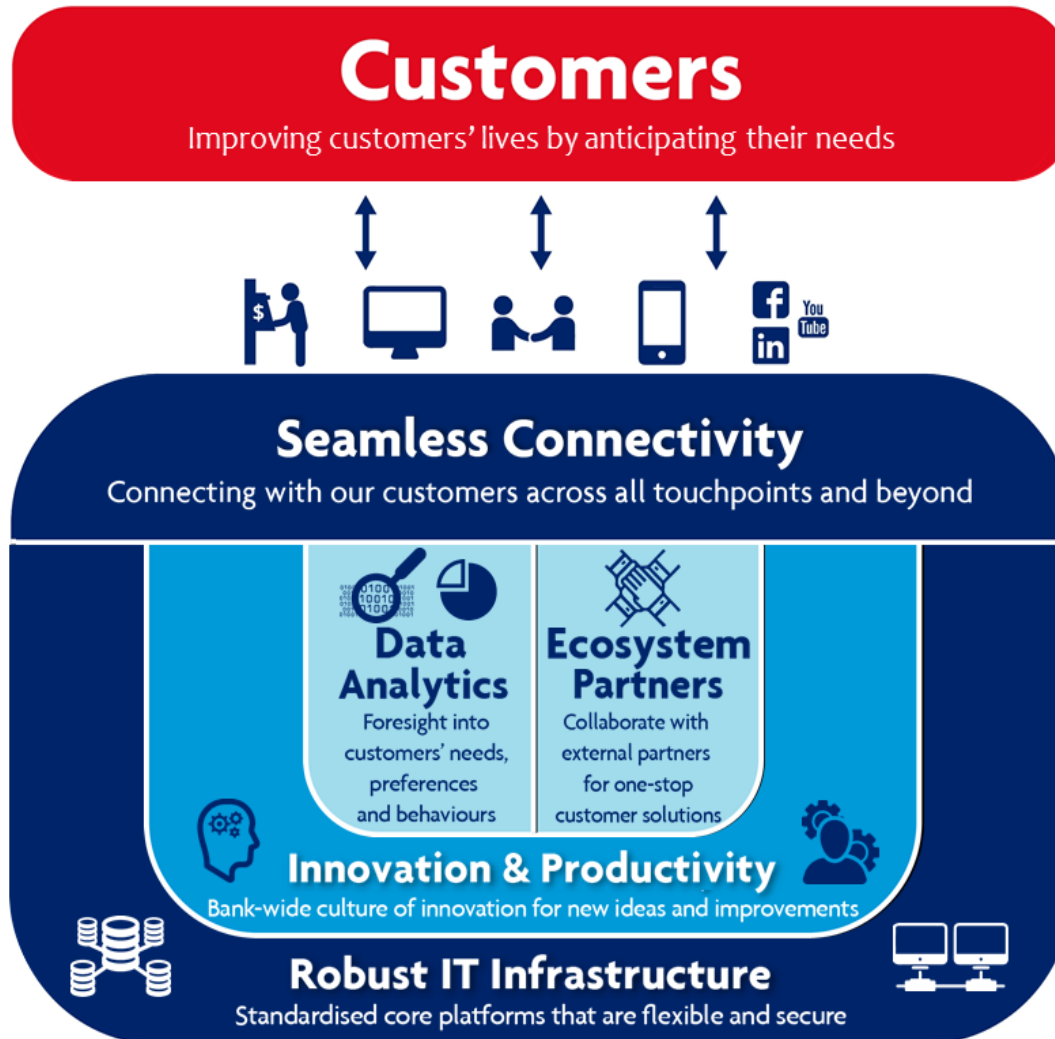
Retail Banking: Growing Income with Stable Asset Quality

- **Housing loans in Singapore and in the region fared well**
 - Asset quality remains stable
- **Business Banking a growing earnings driver; 16% of Group Retail’s revenue**
 - Helping small business owners to raise productivity and save costs
- **Wealth management⁴:**
 - Steady growth for both mass affluent and High Net Worth² segments
 - \$99bn AUM as at end-Jun 2017

1. Retail Banking comprises Personal Financial Services, Private Banking and Business Banking.
2. High Net Worth segment comprises Privilege Reserve and Private Bank segments.
3. ROA: Ratio of “Profit before tax” to “Average Assets”.
4. Wealth Management comprises Privilege Banking, Privilege Reserve and Private Bank segments.



Digitalisation: Enriching Customer Experience



Examples of UOB's digital initiatives

Connectivity

- [Security token embedded in smartphone](#)
- [Instant digital credit card issuance](#)
- [Contactless ATM](#)

Ecosystem partners

- [hiLife and MGG](#)
- [cloudBuy](#)
- [BizSmart](#)
- [FinLab](#)
- [OurCrowd](#)
- [Innoven Capital](#)

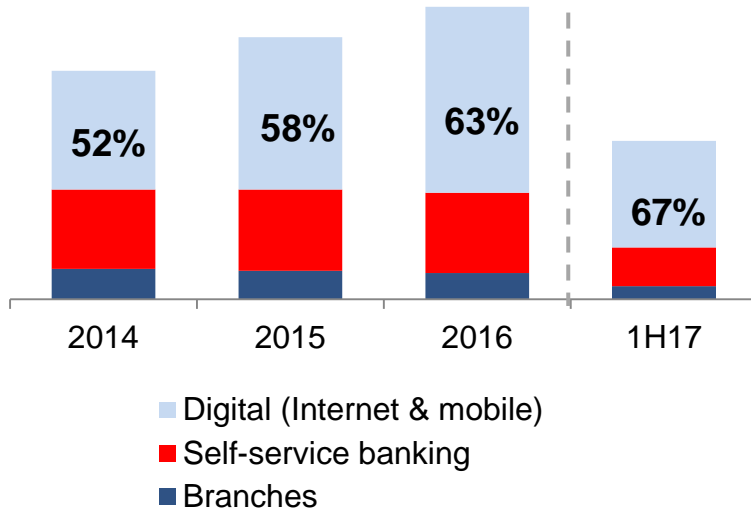
Innovation

- Innovation workshop
- Hackathon

Customer-Centric Approach in Digital

Rising Digital Adoption by Customers

Group's Transaction volumes



UOB Mighty a winner at:

- Asian Banking & Finance Retail Banking Awards 2017
- Retail Banker International Asia Trailblazer Awards 2017



Nov 2015



UOB Mighty debuts

May 2016



Offers contactless mobile payments on mobile devices

Jun 2016



Introduces contactless payment acceptance for public transport

Sep 2016



Offers instant digital card issuance
Rolls out contactless ATMs

Dec 2016



Launches UOB Mighty Secure for use of mobile phone as security token

Jul 2017



Launches UOB MyKey for use of PayNow in social messaging apps

1st In Singapore

1st In Singapore

1st In Southeast Asia

1st In Singapore

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

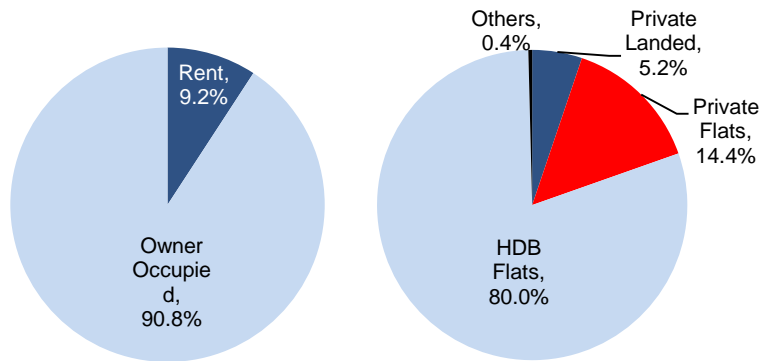
Proven track record of financial conservatism and strong management committed to the long term



Resilience of the Singapore Housing Market

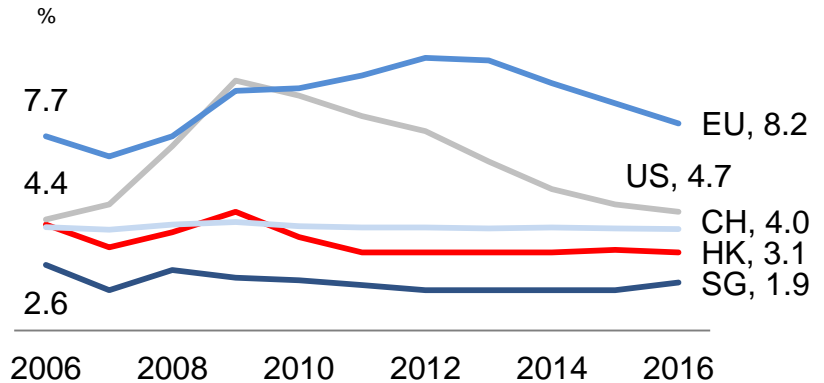
Dynamics Behind the Singapore Housing Market

Majority Owner Occupied



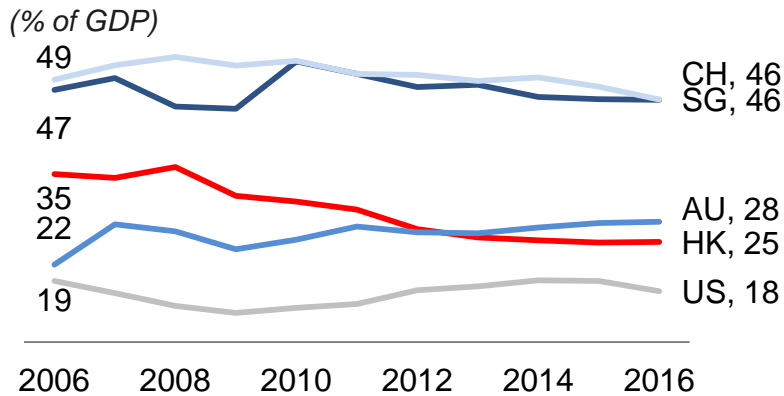
Source: Singapore Department of Statistics.
HDB = Housing Development Board

Low Unemployment vs. Global Peers



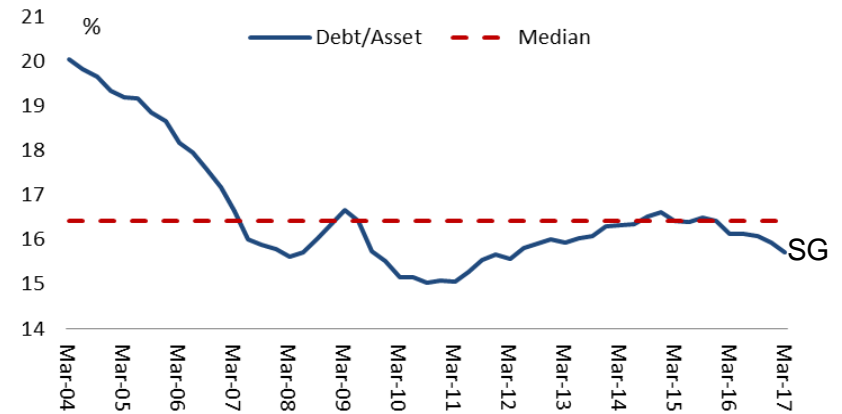
Sources: CEIC, UOB Economic-Treasury Research.

High National Savings Rate



Sources: IMF, UOB Economic-Treasury Research

Low Household Debt/Asset

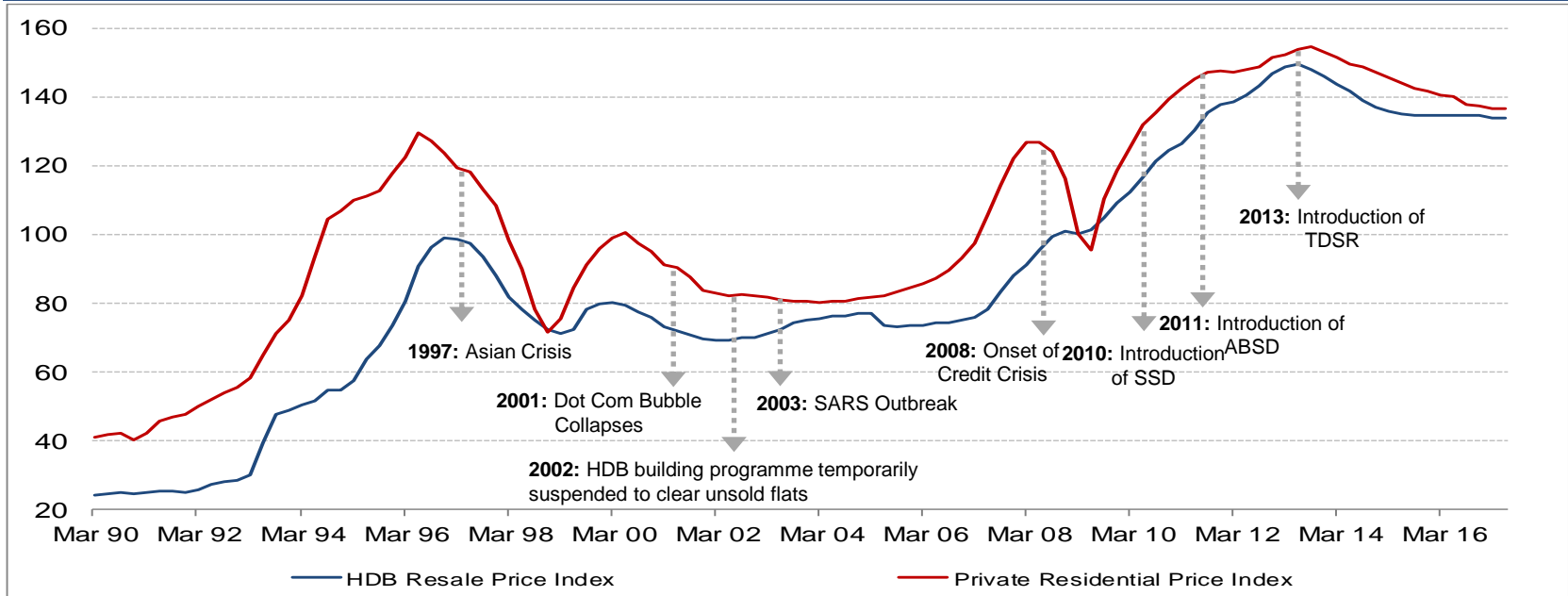


Source: UOB Economic Research

Country Abbreviations: EU: European Union, US: United States, CH: China, HK: Hong Kong, SG: Singapore, AU: Australia

Prudent Policies for Sustainable Prices

Residential Property Price Indices



Regulatory Measures	2009	2010	2011	2012	2013	2017
LTV Ratio Limit: 1st property	90%	80%	80%	80% / 60% ¹		
2nd property	90%	70%	60%	60% / 40% ¹	50% / 30% ¹	
Subsequent property	90%	70%	60%	60% / 40% ¹	40% / 20% ¹	
Non- individual purchasers	90%	80% / 70% ²	50%	40%	20%	No change
Maximum Mortgage Loan Tenor	Originating banks use their			35 years	No change	
Total Debt Servicing Ratio (TDSR) Framework	own tenor and affordability guidelines				60% limit; Medium i/r used: 3.5%	
Seller Stamp Duty (SSD): Percentage / Holding Period	SSD may be applicable for properties purchased on and from 20 February 2010 if property is sold within the applicable holding period ³				Reduced in Mar 17: 12% if sold within 1 st year, 2 nd year: 8%, 3 rd year: 4% 4 th year onwards: nil	
Additional Buyer's Stamp Duty (ABSD)	ABSD may be payable depending on the nationality and number of properties owned by the purchaser ³				No change	

1. From 6th October 2012, higher LTV ratio limit will apply if the mortgage tenor ≤30 years and sum of tenor of mortgage plus age of borrower at time of applying for credit facility is ≤65 years old, otherwise lower LTV ratio limit will apply.

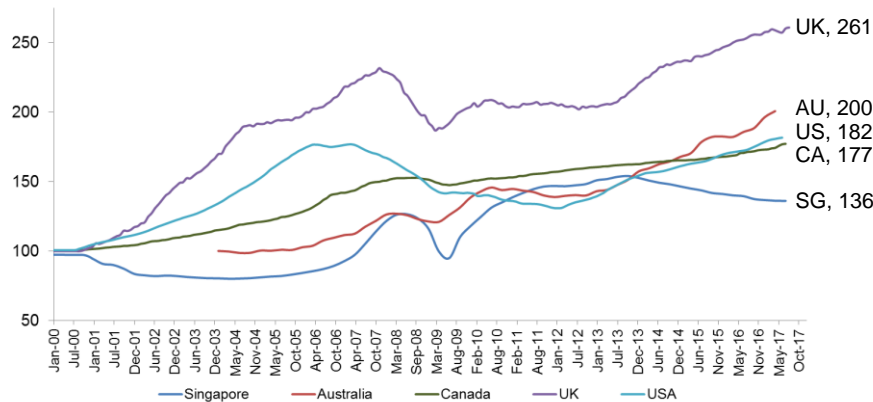
2. 80% LTV ratio limit for 1st property and 70% LTV ratio limit for 2nd and subsequent properties.

3. Refer to IRAS website for more details.

Source: Singapore Department of Statistics

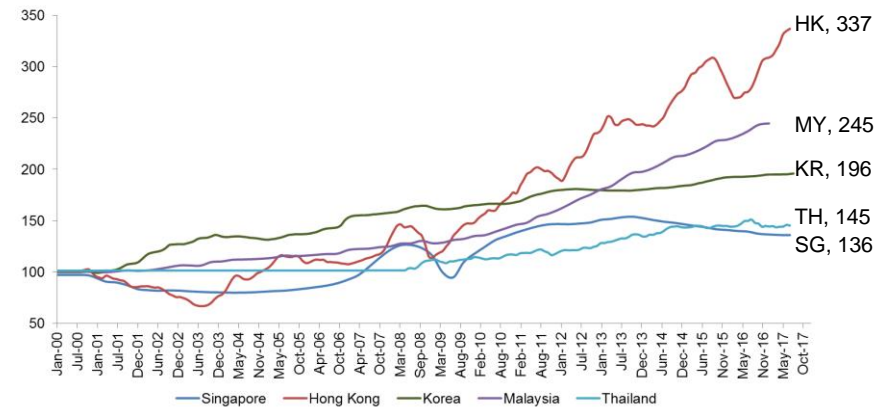
Singapore Home Prices Remain Competitive

Global House Price Indices



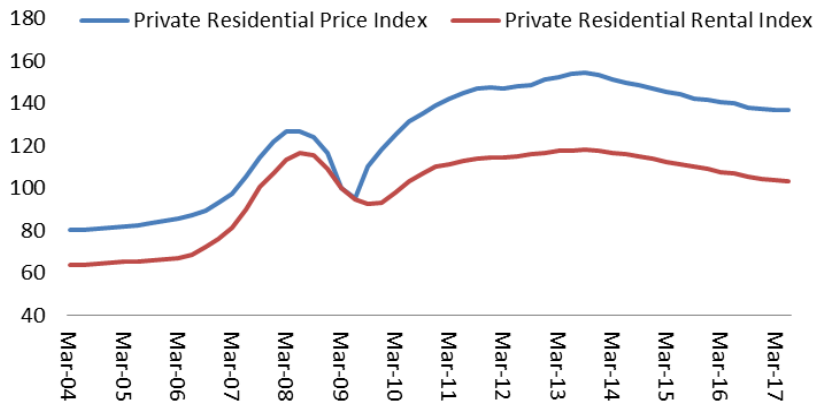
Source: Bloomberg. Note: For Australia (2003=100) as no prior data available.

Regional House Price Indices



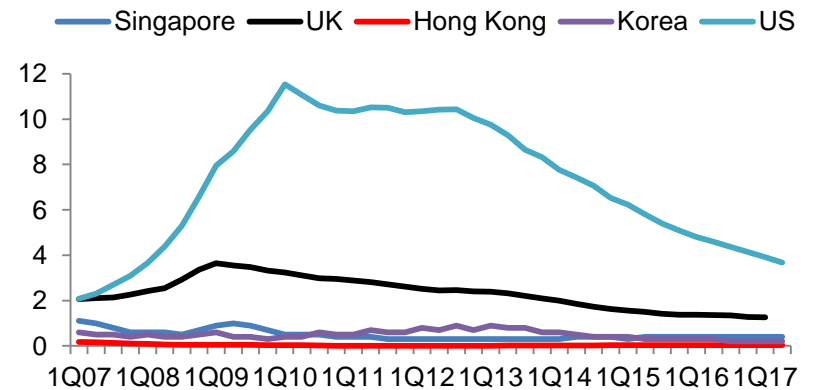
Source: Bloomberg. Note: For Thailand (2Q12=100) as no prior available

SG Private Residential Rent Indices



Source: CEIC, URA, UOB Economic-Treasury Research, Singapore Department of Statistics, Bloomberg

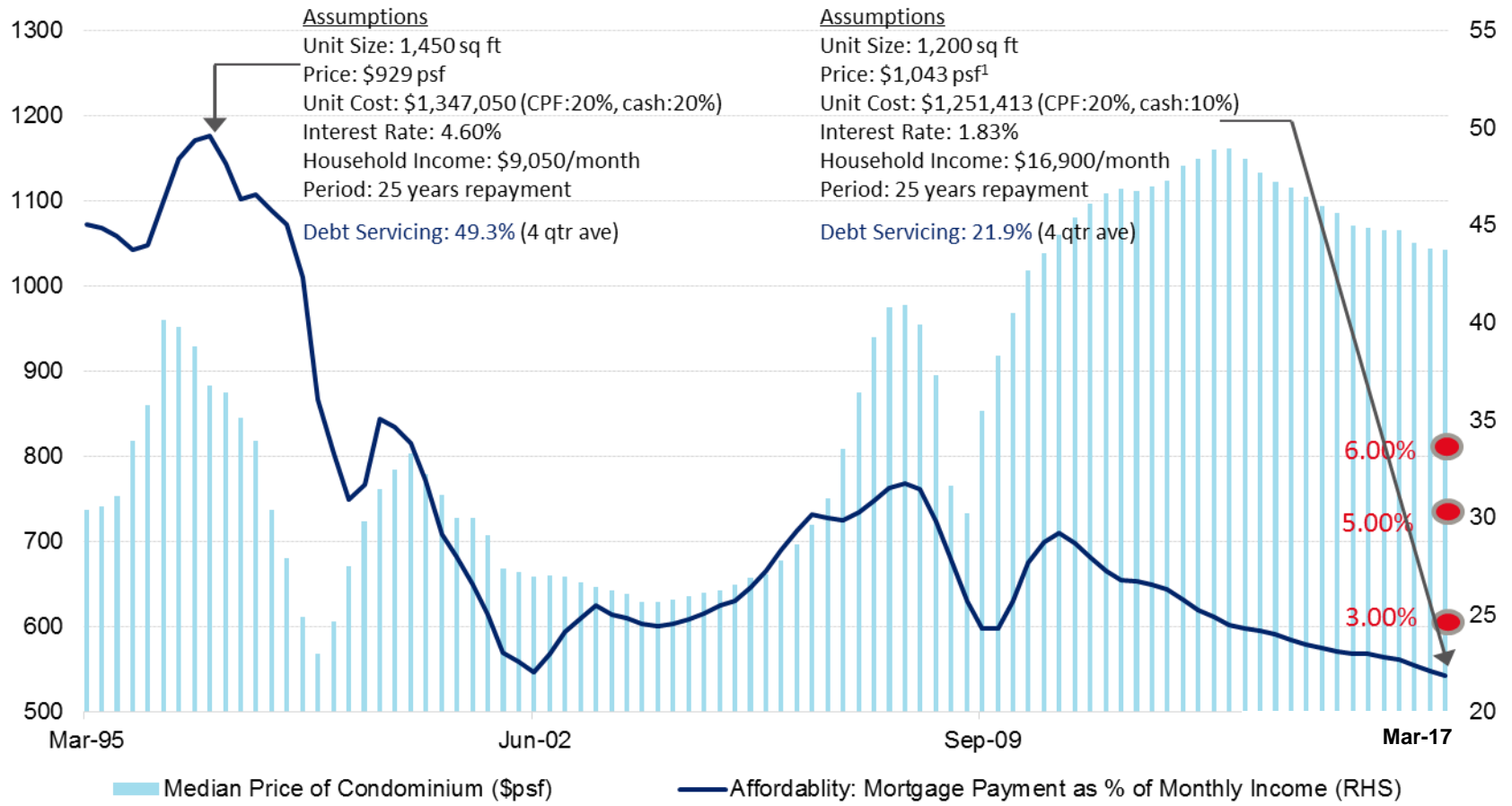
Mortgage Delinquency Rate Comparison



* The delinquency ratio of Korea captures loans in arrears for more than 1 day, the ratios of USA include loans in arrears for more than 1 month, while the ratios of the Singapore, UK and Hong Kong count loans in arrears for more than 3 months

Mortgage Debt Serving Ratio Remains Low

Low Mortgage Debt Service Ratio due to Low Interest Rates, High Income Growth and Smaller Units



Note 1: Median Price of non-landed private residential from 1Q04 onwards
 Source: URA , CEIC, UOB Global Economics & Markets Research Estimates



Overview of our Covered Bond Program

Our Cover Pool Profile

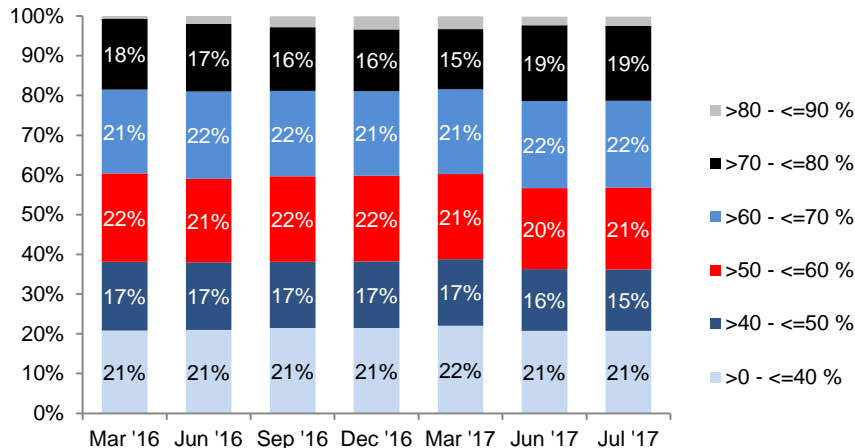
Overview of Cover Pool (as of Jul '17)

Number of Mortgage Loans	8,849
Total Current Balance (SGD)	5,543,840,830
Average Current Loan Balance (SGD)	626,493
Maximum Current Loan Balance (SGD)	8,256,112
W.A. Current Interest Rate	2.00%
W.A. Seasoning	62 months
W.A. Remaining Tenor	254 months
W.A. Indexed Current LTV	55%
W.A. Unindexed Current LTV*	57%

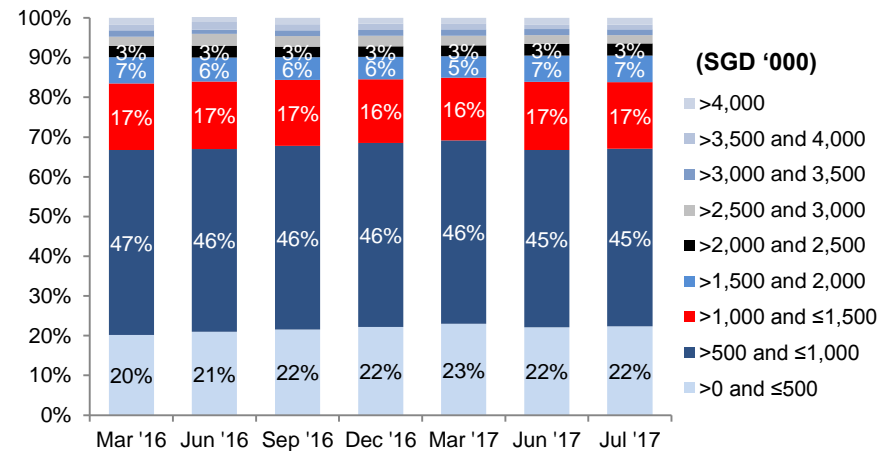
W.A. represents weighted averages

*Current loan balance divided by the original property value

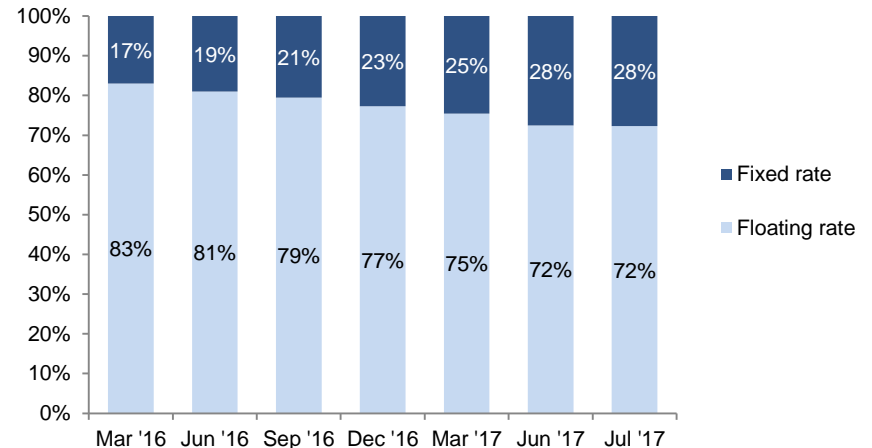
Granular LTV Breakdown



Current Loan Balances Mainly <S\$1m

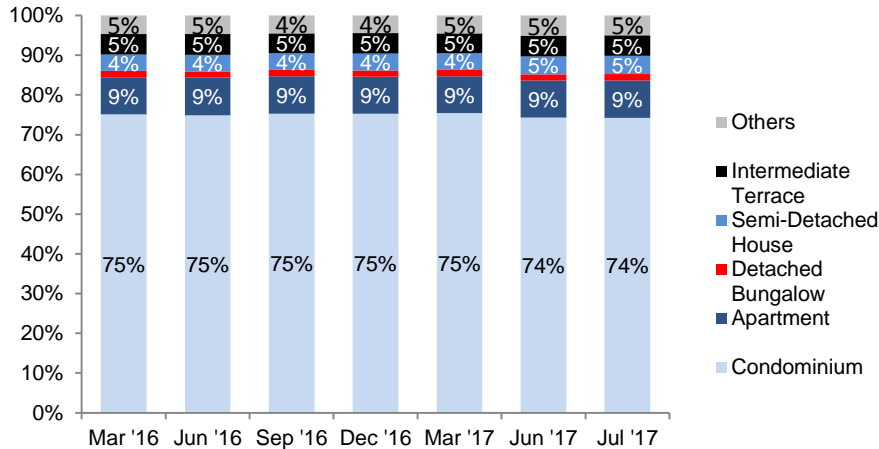


Largely Floating Rate Mortgages

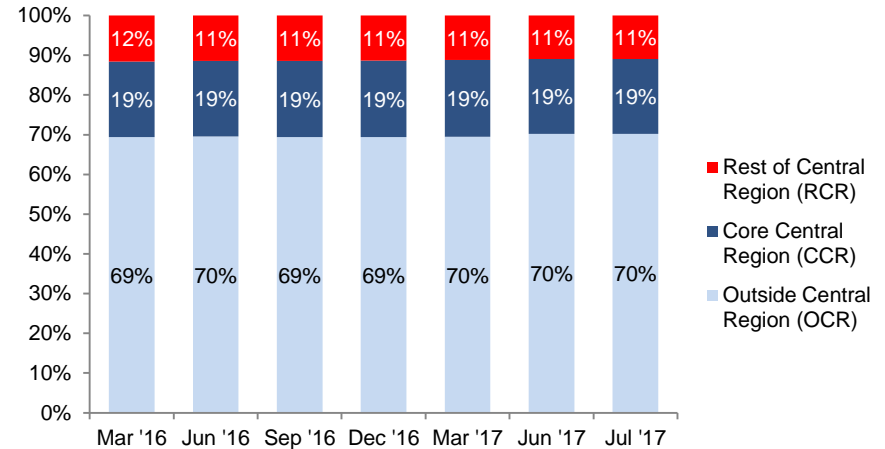


Cover Pool has Remained Stable

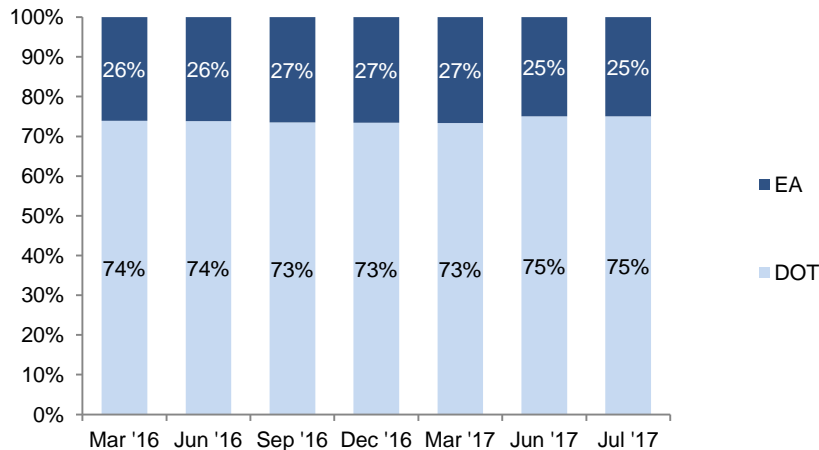
Primarily Apartments / Condominiums



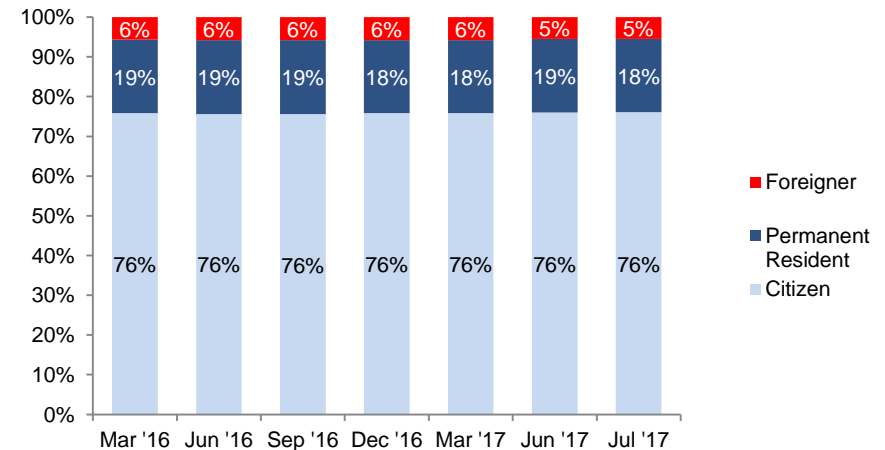
Diversified Geographical Distribution



Strong Legal Protection by EA / DOT

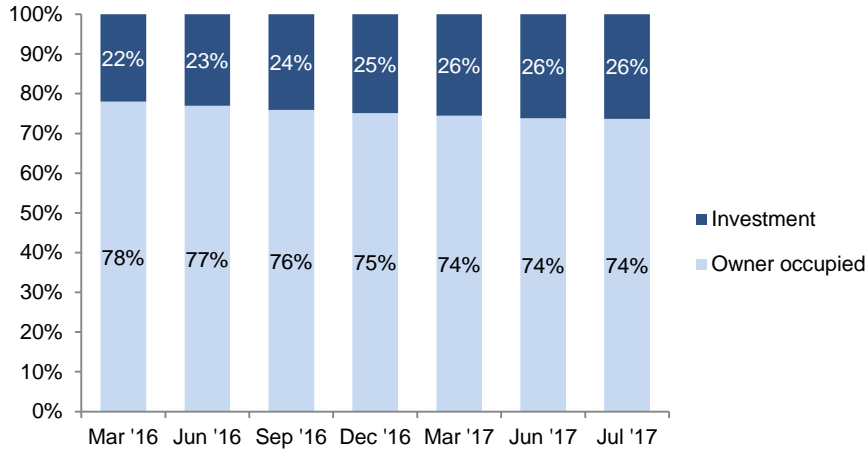


Borrowers mainly Citizens / PRs

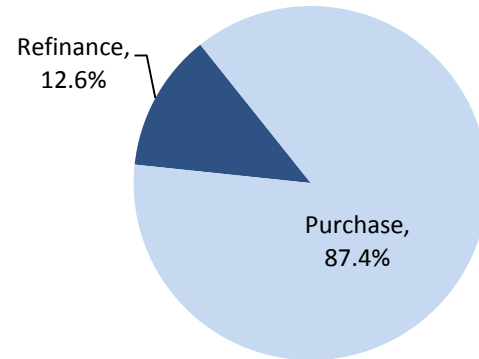


Cover Pool has Remained Stable

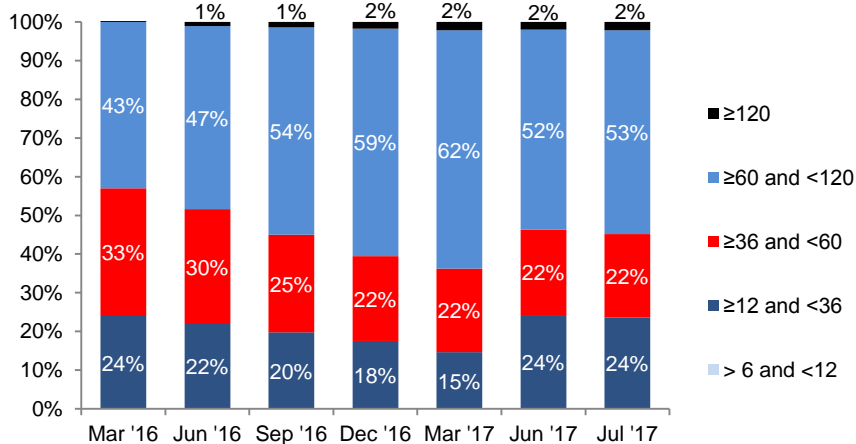
Majority Owner Occupied



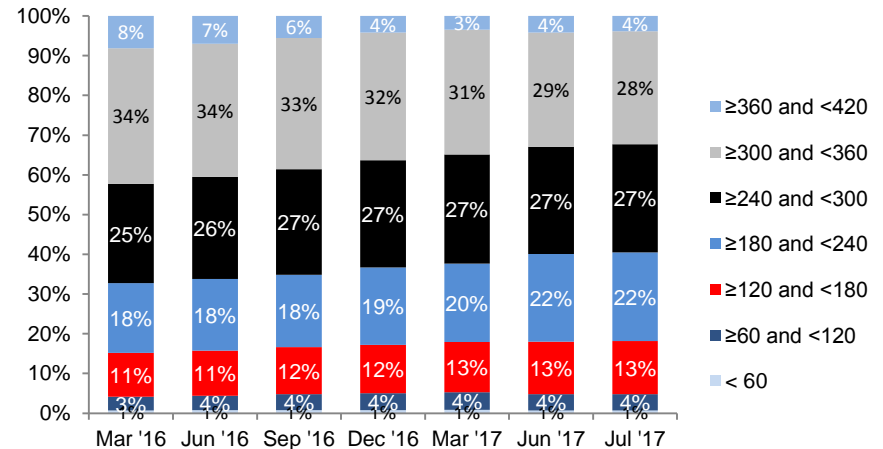
Loans Mainly for Purchases



Well Seasoned Portfolio (in months)



Stable Profile for Remaining Loan Tenors



Covered Bond Program Summary



USD8,000,000,000 Global Covered Bond Programme

Issuer	United Overseas Bank Limited
Issuer Long Term Rating	Aa1 (neg) / 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)^ / Not Eligible
Programme Rating	Aaa / AAA (Moody's / S&P)
Issuance Structure (Dual Recourse)	Direct issuance covered bond regulated under MAS Notice 648, Senior unsecured claim against the Issuer and 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 1 st ranking SGD denominated residential mortgages loans originated by UOB in Singapore (and other eligible assets)
Mortgage Loan-to-Value Cap	80% of latest Valuation of the Property, to be adjusted at least quarterly
Over-collateralization (OC)	Legal minimum OC of 3% and committed OC of 15.90%
Hedging	Cover Pool Swap ¹ to hedge against possible variances between the interest received from the residential 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

^{*}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

¹Only 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

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



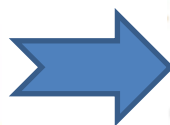
Medisave Account (MA)

For hospitalisation expenses and approved medical insurance

Use of CPF for housing loan

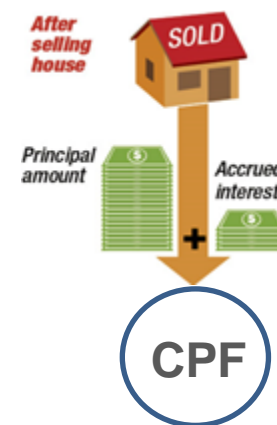
- CPF Members can use their savings (and future monthly contributions) in the Ordinary Account to finance residential property purchase and/or repay the housing loan in part or whole and/or to service the monthly housing loan instalments
- When CPF money is used for housing, a charge (CPF charge) is 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

Ordinary Account (OA)



CPF Board and Priority of Payments

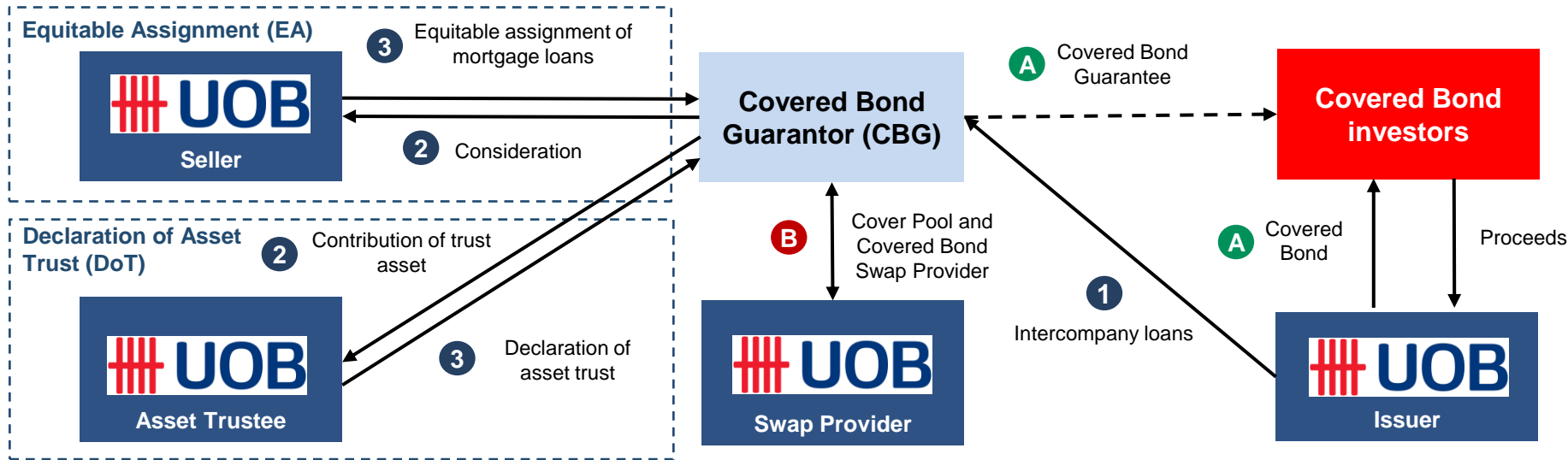
- Under the present regime, if the property is sold (after deducting all costs and expenses incurred directly in connection with the sale), the proceeds will be applied to repay the outstanding housing loan ahead of the CPF money withdrawn



- 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

Structure Diagram

- 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)

- A** 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

- B** 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
- 3** 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

¹Only 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

²DOT 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

³EA 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

Structural Features/Enhancements

Credit Structure (Dual Recourse)	<ul style="list-style-type: none"> ▶ The Covered Bonds will be direct, unsecured and unsubordinated obligations of the Issuer ▶ 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
Over-collateralisation from the Cover Pool	<ul style="list-style-type: none"> ▶ 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
LTV Cap	<ul style="list-style-type: none"> ▶ Where a mortgage loan has a loan-to-value ratio in excess of 80%, the portion of the loan exceeding the 80% threshold will not be counted in the Asset Coverage Test
Asset Coverage Test (ACT)	<ul style="list-style-type: none"> ▶ 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
Amortisation Test	<ul style="list-style-type: none"> ▶ The Amortisation Test (AT) 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
Pre-Maturity Test (for Hard Bullet only)	<ul style="list-style-type: none"> ▶ An Issuer Event of Default will occur where the rating of UOB falls below the rating trigger(s) <u>and</u> the transaction account has not been pre-funded up to the outstanding nominal amount of Covered Bond maturing within the next six months
Reserve Fund	<ul style="list-style-type: none"> ▶ If UOB is downgraded below the rating trigger(s), UOB is required to establish a Reserve Fund equal to the next three 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	<ul style="list-style-type: none"> ▶ If UOB is downgraded below the rating trigger, UOB is required to establish a Commingling Reserve Fund equal to the previous three months¹ or two months² of principal and interest collections from the mortgage loans multiplied by the committed collateralisation percentage
Deposit Set-off	<ul style="list-style-type: none"> ▶ Additional collateralisation will be provided by the issuer to cover the potential set-off risk
Covered Bond Swap(s)	<ul style="list-style-type: none"> ▶ 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	<ul style="list-style-type: none"> ▶ UOB 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	<ul style="list-style-type: none"> ▶ Value of property included in the ACT is adjusted on a quarterly basis
Investor Report	<ul style="list-style-type: none"> ▶ UOB will produce and furnish covered bond investor reports on its website on a monthly basis
Cashflow Waterfall	<ul style="list-style-type: none"> ▶ 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 are protected

¹Pre-service of a Notice of Assignment or a Notice of Assets Trust

²Post-service of a Notice of Assignment or a Notice of Assets Trust

Key Programme Rating Triggers

Moody's		Trigger Events	S&P		Trigger Events
Long-term	Short-term		Long-term	Short-term	
Aaa	P-1	No impact	AAA	A-1+	No impact
Aa1			AA+		
Aa2			AA		
Aa3			AA-		
A1			A+	A-1	
A2			A		
A3	P-2	<ul style="list-style-type: none"> ▶ Pre-maturity Test ▶ Reserve Fund 	A-	A-2	<ul style="list-style-type: none"> ▶ Pre-maturity Test ▶ Reserve Fund ▶ Transfer of Account Bank ▶ Collateral Posting for Swap(s)[†] ▶ Procure a Guarantee/Replacement for Swap(s) Provider[†]
Baa1			<ul style="list-style-type: none"> ▶ Deposit Set-off ▶ Collateral Posting for Swap(s) 		
Baa2		P-3	<ul style="list-style-type: none"> ▶ Procure a Guarantee/Replacement for Swap(s) Provider 	BBB	
Baa3	BBB-			<ul style="list-style-type: none"> ▶ Deposit Set-off ▶ Commingling Reserve 	
Below Investment Grade		<ul style="list-style-type: none"> ▶ Replacement of Servicer ▶ Perfection of Title/Transfer of Asset Trustee ▶ Transfer of Account Bank 	Below Investment Grade		<ul style="list-style-type: none"> ▶ Replacement of Servicer ▶ Perfection of Title/Transfer of Asset Trustee

Trigger Event	Descriptions
Pre-Maturity Test	<ul style="list-style-type: none"> ▶ 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, Cash Manager 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	<ul style="list-style-type: none"> ▶ 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)	<ul style="list-style-type: none"> ▶ The Swap Provider will be required to provide collateral pursuant to a one-way credit support annex
Account Bank	<ul style="list-style-type: none"> ▶ 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	<ul style="list-style-type: none"> ▶ Additional collateralisation will be provided by the issuer to cover the potential set-off amount against borrowers' deposit
Guarantee/Replacement for Swap(s) Provider	<ul style="list-style-type: none"> ▶ 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	<ul style="list-style-type: none"> ▶ The Servicer role will be transferred to a suitably rated institution
Perfection of Title/Transfer of Asset Trustee	<ul style="list-style-type: none"> ▶ EA structure: Notification to borrowers for legal perfection ▶ DoT structure: Appointment of a replacement Assets Trustee
Commingling Reserve	<ul style="list-style-type: none"> ▶ 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

[†]Rating level based on current selected option

Covered Bond Legal Frameworks



	Singapore	Australia	Canada	Germany	United Kingdom	Korea
Legal Framework / Regulation	<i>Notice 648 under the Banking Act</i>	<i>Banking Amendment (Covered Bonds) Act 2011</i>	<i>Canadian Covered Bond Law (June 2012)</i>	<i>German Pfandbrief Act</i>	<i>UK Regulated Covered Bond Regulations</i>	<i>Covered Bonds Act of Korea</i>
Regulator	<i>Monetary Authority of Singapore</i>	<i>Australian Prudential Regulation Authority (APRA)</i>	<i>Canada Mortgage and Housing Corporation (CMHC)</i>	<i>The Federal Financial Supervisory Authority</i>	<i>Financial Services Authority (FSA)</i>	<i>Financial Services Commission of Korea (FSC)</i>

Issuers and Program Requirements

Structure	▶ 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 ring-fenced via true sale to Covered Bond Guarantor)	▶ Direct Issue Structure (with cover pool security registered recorded in the cover register)	▶ 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	▶ 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	▶ Case-by-case basis, but ranging from 10 to 20% of total assets (soft limit: 20% of total assets)	▶ Principal amount of all covered bonds must not exceed 4% of such issuer's total asset value
Eligible Cover Pool Assets	<ul style="list-style-type: none"> ▶ 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) 	<ul style="list-style-type: none"> ▶ Residential mortgages ▶ Commercial mortgages 	▶ Canadian residential mortgage loans	<ul style="list-style-type: none"> ▶ Mortgage covered bonds: <ul style="list-style-type: none"> - Any combination of residential and commercial mortgages ▶ Public sector covered bonds: <ul style="list-style-type: none"> - Public sector loans ▶ Ship and aircraft finance-backed bonds also permitted 	<ul style="list-style-type: none"> ▶ Public sector credits / guarantees ▶ Bank debt ▶ Secured first-ranking mortgage / real estate loans ▶ Shipping, social housing, secured public-private partnership loans 	<ul style="list-style-type: none"> ▶ 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



	Singapore	Australia	Canada	Germany	United Kingdom	Korea
Minimum Standards of Asset Quality	<ul style="list-style-type: none"> ▶ Residential mortgages ≤80% LTV 	<ul style="list-style-type: none"> ▶ Residential mortgages ≤80% LTV ▶ Commercial mortgages ≤60% LTV ▶ Excl. non-performing assets >90 days 	<ul style="list-style-type: none"> ▶ Residential mortgages ≤80% LTV ▶ The mortgaged property cannot exceed four residential units 	<ul style="list-style-type: none"> ▶ 60% LTV for both residential and commercial mortgage loans 	<ul style="list-style-type: none"> ▶ 80% LTV for residential mortgage loans ▶ 60% LTV for commercial mortgage loans ▶ 60% LTV for shipping loans 	<ul style="list-style-type: none"> ▶ 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	<ul style="list-style-type: none"> ▶ Cash/ cash equivalents (Singapore Government Bonds, Treasury Bills, MAS Bills), may not exceed 15% of cover pool, except under certain circumstances 	<ul style="list-style-type: none"> ▶ 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 	<ul style="list-style-type: none"> ▶ Securities issued by Government of Canada ▶ May not exceed 10% of cover pool" 	<ul style="list-style-type: none"> ▶ 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% 	<ul style="list-style-type: none"> ▶ 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 	<ul style="list-style-type: none"> ▶ Liquid assets (Cash, CD issued by other FIs <100 days)May not exceed 10% of cover pool
Collateralization	<ul style="list-style-type: none"> ▶ Minimum of at least 103% 	<ul style="list-style-type: none"> ▶ Minimum of 103% 	<ul style="list-style-type: none"> ▶ No legislative minimum ▶ Cover pool assets have to be at least equal to liabilities on a nominal basis, Market practice is to covenant to maintain overcollateralisation of between 3.0% and 7.5% 	<ul style="list-style-type: none"> ▶ Min. of 102% on a stressed net present value (NPV) basis ▶ Min. of 100% on an nominal basis 	<ul style="list-style-type: none"> ▶ Minimum of 108% (FSA to evaluate each program) 	<ul style="list-style-type: none"> ▶ Minimum of 105% on a nominal basis

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:

$$A + B + C + D + E - Y$$

A

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

B

the aggregate amount of any Principal Receipts in the Portfolio that have not been applied to acquire further Loans and their Related Security

C

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

E

the amount of any Sale Proceeds standing to the credit of the Transaction Account and credited to the Pre-Maturity Liquidity Ledger

Y

(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:

- the actual Principal Balance of the relevant Loan in the Portfolio[^]
- 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
- ❑ Breach of the Amortisation Test will immediately constitute a CBG Event of Default and will result the service of a CBG Acceleration Notice
- ❑ The formula for calculating the Amortisation Test Aggregate Loan Amount is as follows:

A



B



C

A

the sum of the “Amortisation Test Principal Balance” of each Loan[^], which will be the actual Principal Balance of the relevant Loan *multiplied by M*

where, M for all Loans that are not Defaulted Loans, 1; and where, for all Loans that are Defaulted Loans, zero

B

the sum of the amount of any cash standing to the credit of the Transaction Account and the principal amount of any Authorised Investments

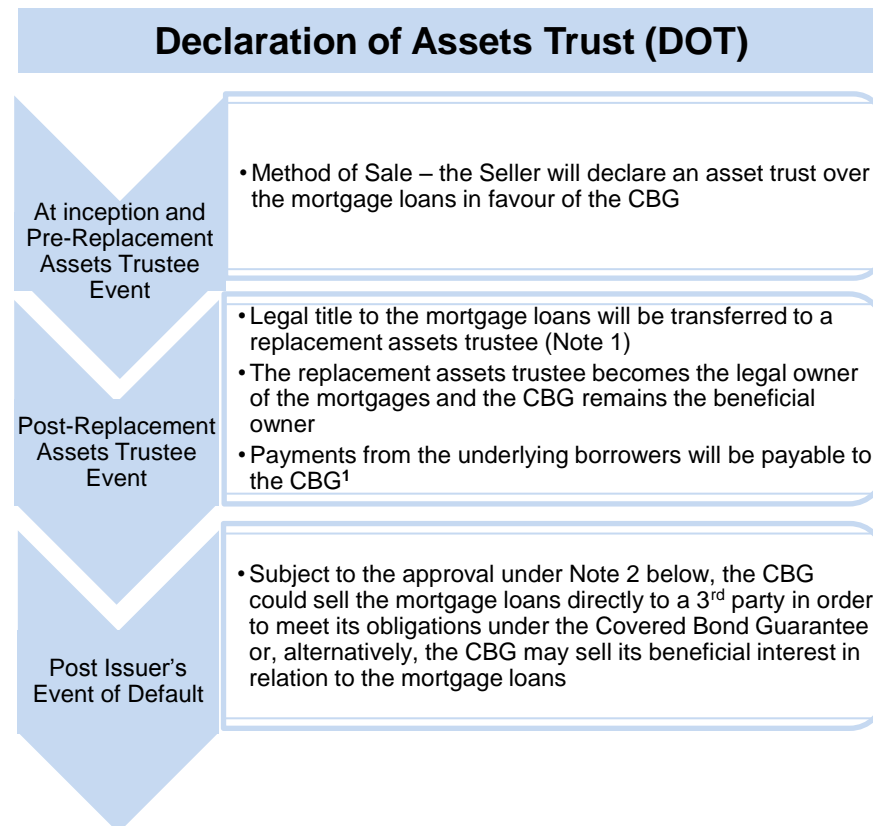
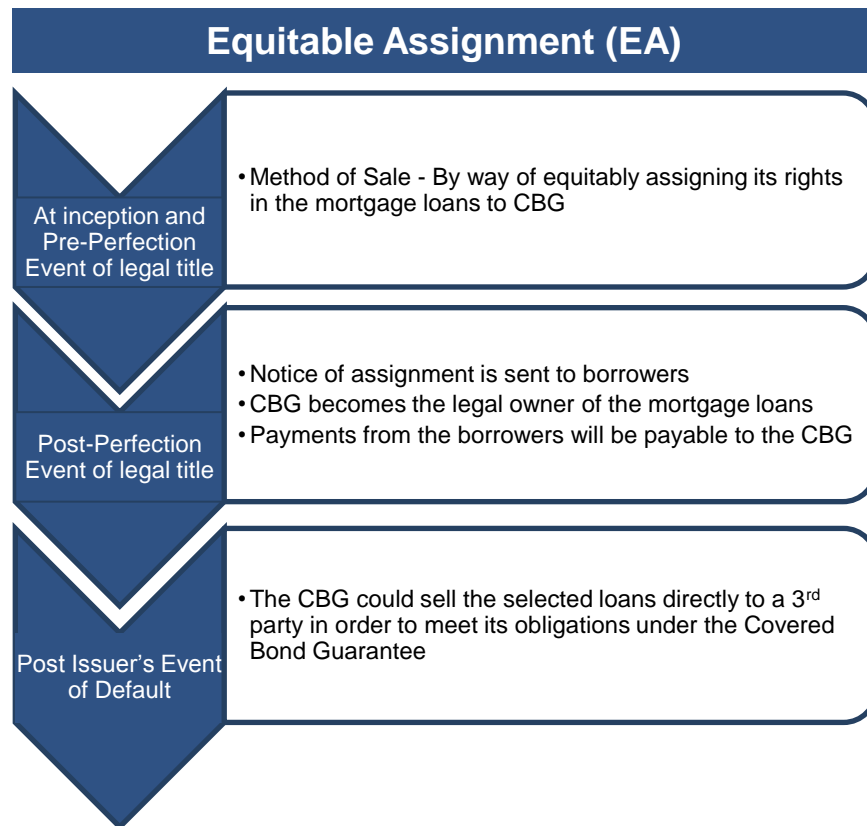
C

any Substitution Asset standing to the credit of the Transaction Account

[^]Excluding 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

Equitable Assignment -v- Declaration of Assets Trust Structure



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;
3. 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

Thank You

