Asia Commercial Joint Stock Bank

The comeback of a major retail banking player

- ACB's rich retail banking expertise is a valuable asset in Vietnam's ongoing retail banking race.
- Large write-offs for bad assets in FY17 suggest big write-backs in FY18-21F.
- We forecast a moderate net profit CAGR of 15.6% in FY19-21F.

Vietnam

ADD *(previously NOT RATED)*

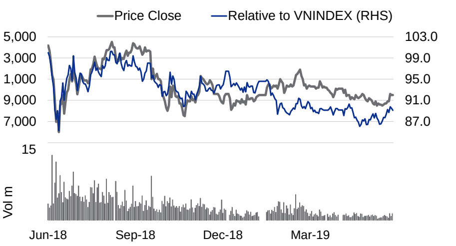
Consensus ratings*:	Buy 8	Hold 2	Sell 0

Current price:	VND28,900
Target price:	VND39,500
Previous target:	N/A
Up/downside:	36.7%
CGS-CIMB / Consensus:	6.1%
Reuters:	ACB.HM
Bloomberg:	ACB VN
Market cap:	US$1,580m
	VND36,791,372m
Average daily turnover:	US$1.26m
	VND29,447m
Current shares o/s:	1,247m
Free float:	35.0%

Source: Bloomberg

Key changes in this note

- N/A



Source: Bloomberg

Price performance	1M	3M	12M
Absolute (%)	1	-3.3	-13.9
Relative (%)	1.8	-0.7	-11.8

Major shareholders	% held
Chairman and related parties	11.3
Alp Asia Finance (Vietnam) Limited	10.0
Dragon Financial Holdings Limited	6.9

Reinitiate with an Add rating and potential upside of 33.9%

We reinitiate coverage on Asia Commercial Bank (ACB) with an Add rating and TP of VND39,500, based on residual income valuation (COE: 14.4%, LTG: 3.0%, 50% weighting) and 1.8x FY19F P/BV (50% weighting). We like ACB for its: 1) well-established retail brand name and customer base; 2) strong fee income franchise, and 3) good asset quality. We view ACB's current valuation of 1.4x FY19F P/BV as attractive compared to regional peers' average of 1.6x

Well-established retail brand name and customer base

ACB has focused on retail banking since its inception in 1993, while other Vietnamese banks were competing for market share in corporate banking. It was the first bank to run a 2-year training course on professional retail banking standards. Standard Chartered's investment in ACB for 12 years benefited the bank via the sharing of retail expertise and early application of best-practice corporate governance. Given its rich experience in retail banking, ACB achieved the second-largest market share in individual lending and the third-largest market share in individual deposits among Vietnam's private banks in FY18.

Large retail customer base enables strong fee income franchise

With 90% of its loan book at end-FY18 made up of retail customers, ACB earns a majority of its fee income from payment services, card fees and account management fees. ACB's fee income as a percentage of total operating income was 10.7% in FY18, the fifth-highest among Vietnam's listed banks. The bank recently launched various initiatives to expand its customer base as part of its strategy to increase fee income.

Healthy balance sheet, thanks to conservative lending

ACB's lending strategy is more conservative than its domestic peers', with one of the lowest exposures to real estate and unsecured lending. At end-1Q19, ACB had the lowest NPL ratio (0.7%) in the domestic banking sector (average 1.9%) and the second-highest loan loss reserve (LLR, 158.1%).

Upside and downside risks

Potential upside catalysts could come from higher loan growth vs. our forecast of 15.0% p.a. over FY19-21F, if inflation remains stable. A downside risk is higher-than-expected funding costs due to more competition for long-term deposits.

Analyst(s)

Thuy LE Minh
T (84) 96 784 4629
E thuy.leminh@vndirect.com.vn

Financial Summary	Dec-17A	Dec-18A	Dec-19F	Dec-20F	Dec-21F
Net Interest Income (VNDb)	8,458	10,363	12,206	14,309	16,537
Total Non-Interest Income (VNDb)	2,981	3,670	4,153	4,522	4,662
Operating Revenue (VNDb)	11,439	14,033	16,358	18,831	21,199
Total Provision Charges (VNDb)	(2,565)	(932)	(1,057)	(1,168)	(1,285)
Net Profit (VNDb)	2,118	5,137	5,937	6,873	7,930
Core EPS (VND)	1,658	4,039	4,680	5,418	6,252
Core EPS Growth	62%	144%	16%	16%	15%
FD Core P/E (x)	17.79	7.30	6.30	5.44	4.72
DPS (VND)	0.0	0.0	1,000.0	1,000.0	1,000.0
Dividend Yield	0.00%	0.00%	3.39%	3.39%	3.39%
BVPS (VND)	12,854	16,853	21,613	26,091	31,416
P/BV (x)	2.30	1.75	1.36	1.13	0.94
ROE	13.7%	27.2%	24.3%	22.7%	21.7%
% Change In Core EPS Estimates					
CIMB/consensus EPS (x)			1.09	1.09	1.17

SOURCES: VND RESEARCH, COMPANY REPORTS

The comeback of a major retail banking player

INVESTMENT THESIS

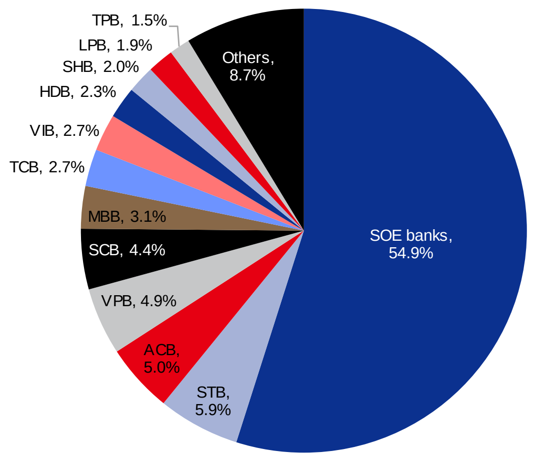
A well-established retail brand name and customer base

ACB was established in 1993 with a vision to become the best retail bank in Vietnam in terms of total asset size and popularity. The bank has focused on individual customers and small/medium enterprises (SMEs) since its inception, while other banks were competing for market share in corporate banking. ACB was once a pioneer in introducing new retail products to the Vietnamese retail banking market: it was the first bank in Vietnam to offer a MasterCard credit card in 1996 and Visa credit card in 1997. It is also the first bank to apply international best practices in banking operations and corporate governance by launching a 2-year training programme for employees, instructed by foreign banking experts, about the principles of modern banking, risk management and professional retail-banking standards.

Prior to 2012, ACB was the leading retail bank in Vietnam in terms of total assets and was well-known among retail customers. In 2011, ACB was ranked fifth in terms of total asset value, after the four state-owned commercial banks (SOCBs), making it the biggest bank in the private space. 2006-2011 was a period of rapid growth for ACB, with total asset CAGR of 44.3%, pretax profit CAGR of 44.9%, and ROE reaching 27.5% at end-FY11 (the second-highest ROE in the sector). ACB had the largest market share in both loans and deposits among the country's private sector banks in 2011, at 6.5% and 4.0%, respectively.

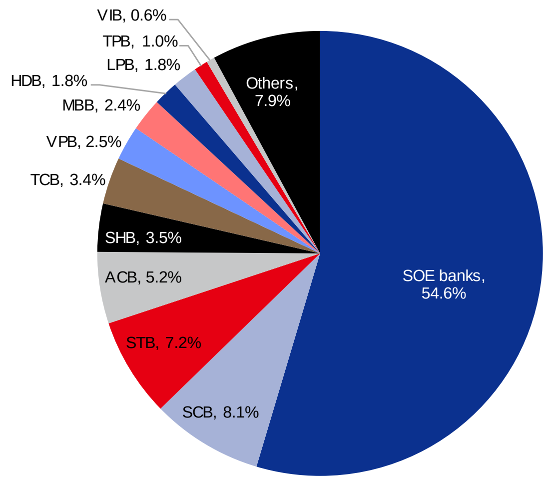
However, ACB was hit by scandal in 2012, when fraud committed by Mr Nguyen Duc Kien (former Vice Chairman of ACB's Board of Directors) left the bank with around VND7,900bn (~US$350m) in impairments as of end-FY12. The bank spent the next five years resolving these legacy assets (referred to as Group 6 company exposure) and as a result, fell behind its domestic retail bank competitors in terms of profit growth and total assets growth. At the moment, it is difficult to identify the top retail bank in Vietnam as each bank is aggressively competing in this market. However, thanks to its long-established retail customer base, ACB still has large market shares of the country's individual lending and individual deposits of 5.0% and 5.2%, respectively, at end-FY18. As of end-FY18, ACB has the second-largest market share in individual lending and the third-highest market share in individual deposits among the private banks in Vietnam.

Figure 1: Vietnam individual loan market share, by bank (end-FY18)



SOURCES: VND RESEARCH, COMPANY REPORTS

Figure 2: Vietnam individual deposit market share, by bank (end-FY18)



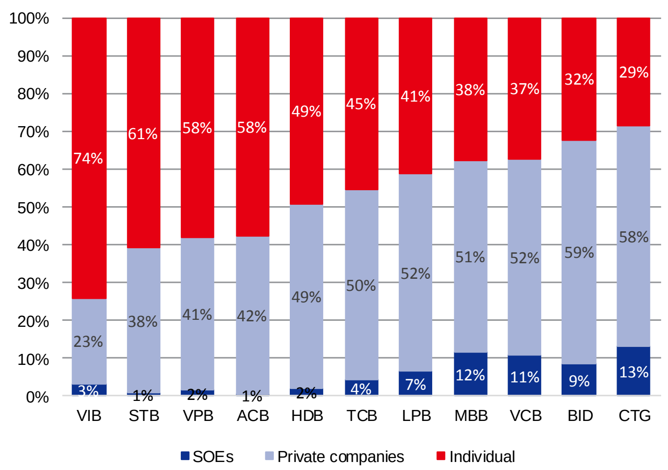
SOURCES: VND RESEARCH, COMPANY REPORTS

As a first-mover in the retail banking market, ACB has built a good foundation to excel in the retail banking business, including strong corporate governance practices and well-trained, retail-oriented staff. ACB was the first bank to conduct a professional training course for employees on the principles of modern banking, risk management and professional retail-banking standards. It was also the first bank in Vietnam to follow international best practices in corporate governance by setting up an Asset-Liability Committee (ALCO) in 1997 and having independent members on its Board of Directors in 2008. The investment by Standard Chartered (STAN LN, Not Rated) in 2005 meant that ACB was one of the first few banks in Vietnam to have a foreign investor, which benefited the bank as it offered support in technology and retail banking expertise. For years, ACB has been widely known among individual customers for its good customer service, providing a consistent positive experience throughout its network.

Given its focus on retail banking, 90% of ACB's loan book at end-FY18 comprised loans to individuals and small & medium enterprises (SMEs). ACB was among the top 3 banks in the country, with the largest individual loan book as a percentage of the total loan book as of end-FY18. We would like to emphasise that even though Vietnam Prosperity JSC Bank (VPB VN, Add, TP: VND21,200; VPB) had a large individual loan book, which accounted for 58% of its total loan book as of end-FY18 (similar to ACB's), this was due to unsecured lending by FE Credit (VPB's consumer finance subsidiary, Unlisted). In contrast, ACB has not participated in this business.

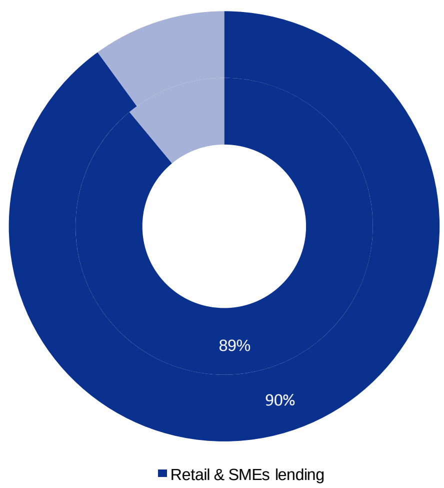
In our view, ACB's rich experience in retail banking gives the bank a competitive advantage over other banks in the country's' retail banking race. ACB's understanding of individual customers is a valuable asset in developing retail products that are tailored to the specific needs of customers. Its workforce is well-trained and experienced in serving individual customers, with retail-oriented mindset. As a result, ACB can deliver top-notch customer service, which is a very important aspect in retail banking.

Figure 3: ACB's loan breakdown by customer type (end-FY18)



SOURCES: VND RESEARCH, COMPANY REPORTS

Figure 4: ACB's retail and SME lending (outer circle: end-FY18; inner circle: end-FY17)



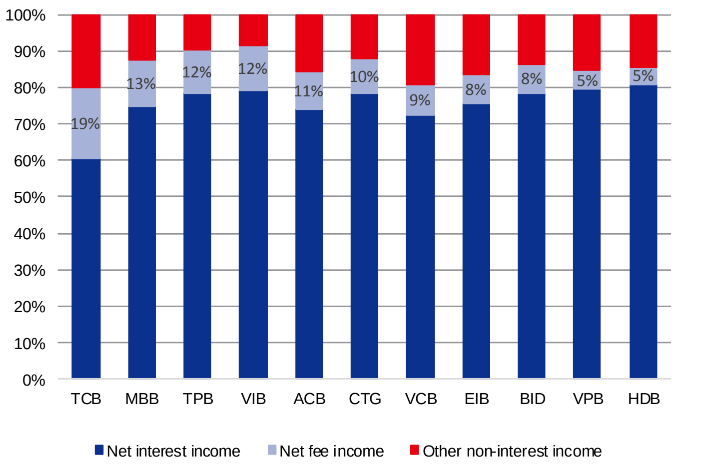
SOURCES: VND RESEARCH, COMPANY REPORTS

Large retail customer base enables strong fee income franchise

Among the listed banks in Vietnam, ACB was among the top 5, with the highest contribution of fee income to total operating income (TOI) at 10.7% in 2018. Payment and treasury services were the major fee income streams as they contributed 54.1% of ACB's total fee income in FY18. Other fee income streams were account management, card fees and bancassurance commission, which are booked as other fee income. In FY18, other fee income accounted for 35.3% of

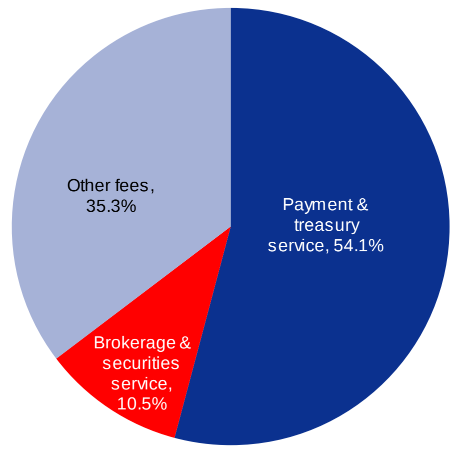
ACB's total fee income. ACB's large retail customer base enables the bank to enjoy a strong fee income franchise, thanks to transaction fees, account management and card fees.

Figure 5: ACB has strong fee income franchise (data in FY18)



Note: Excluding one-off income and recovery of bad debt
SOURCE: VND RESEARCH, COMPANY REPORTS

Figure 6: Breakdown of ACB's fee income (data in FY18)



SOURCES: VND RESEARCH, COMPANY REPORTS

Going forward, ACB's strategy to increase fee income is to expand its customer base. Payment services, card products and bancassurance will be the main products that the bank intends to promote to new customers. ACB is simultaneously launching a series of new products targeting various customer segments. Some of the initiatives are as below:

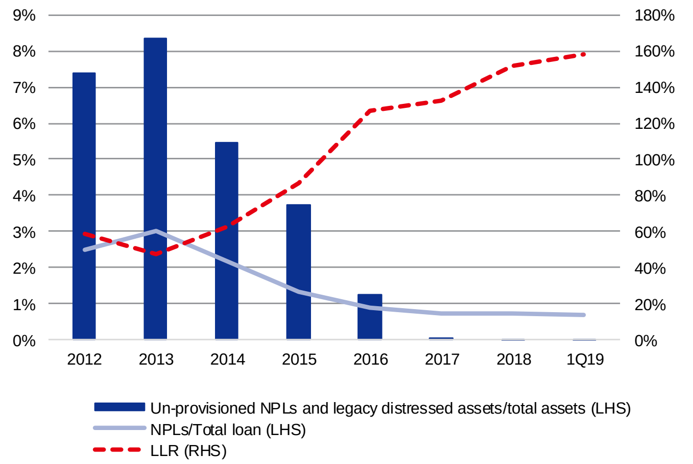
- Approaching corporate customers within a supply chain. ACB is courting the upstream and downstream business partners of its existing corporate customers in order to expand its customer base. In addition, the bank is promoting payroll services to these new corporate customers in order to approach the employees of these companies.
- Launching privilege banking services that target affluent customers (customers with high income). Privilege banking customers will be served by specialised customer officers with expertise in banking and investment. These customers will also be given priority at any branch and access to 700 VIP lounges at domestic and international airports. In Aug 2018, ACB launched ACB Visa Signature – a premium credit card with a credit limit of over VND200m and integrated insurance products such as card fraud insurance, wallet loss insurance and travel insurance. Management intends for cards and bancassurance to be the major products promoted to affluent customers.
- Launching Family Banking, which provides family members with preferential deposit interest rates. Under this product, deposit interest rates are based on the deposit balance of the whole family, and the rates increase as the balance increases. As a result, each member participating in Family Banking can get higher interest rates than those of regular deposit accounts. This product helps ACB utilise its current individual customer base to gain new customers.

A healthy balance sheet thanks to conservative lending

ACB used to have a bad reputation in terms of asset quality due to the fraud committed by Mr Nguyen Duc Kien – the former vice chairman. As at end-FY12, the total bad debt related to six companies owned by Mr Kien amounted to around VND7,900bn (~US$350m), or 4.5% of ACB's total assets at end-FY12. In the past five years, ACB has focused on resolving these legacy assets and in FY17, the bank made full provisions to write off all the bad debt of the Group 6 companies. In addition, ACB fully provisioned for the debt sold to Vietnam Asset Management Company (VAMC) and repurchased the debt to monitor off-balance sheet. As

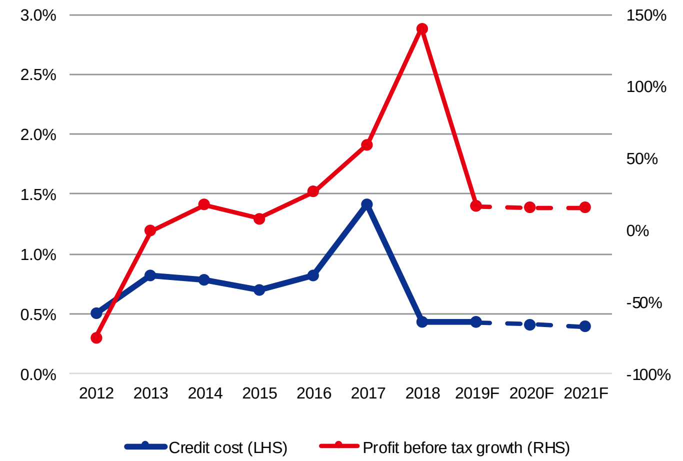
ACB ramped up provisioning and resolved legacy assets in FY17, its provision expenses dropped by 63.7% in FY18.

Figure 7: ACB now has low NPL and high LLR, having resolved all the bad debts of Group 6 companies in FY17…



SOURCES: VND RESEARCH, COMPANY REPORTS

Figure 8: … thus, ACB's credit cost dropped in FY18

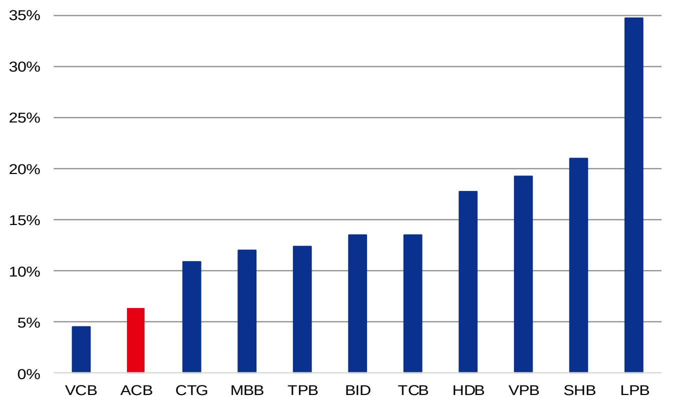


SOURCES: VND RESEARCH ESTIMATES, COMPANY REPORTS

Setting aside the legacy bad debt, which was fully written off in FY17, ACB is among the Vietnamese banks with the lowest NPL and the highest LLR. As of end-1Q19, ACB had the lowest NPL among all Vietnam banks at 0.7% of the total loan book and the second-highest LLR at 158.1%, despite its large retail loan book (90% of total loan book). In our view, ACB has a conservative lending strategy, evinced by:

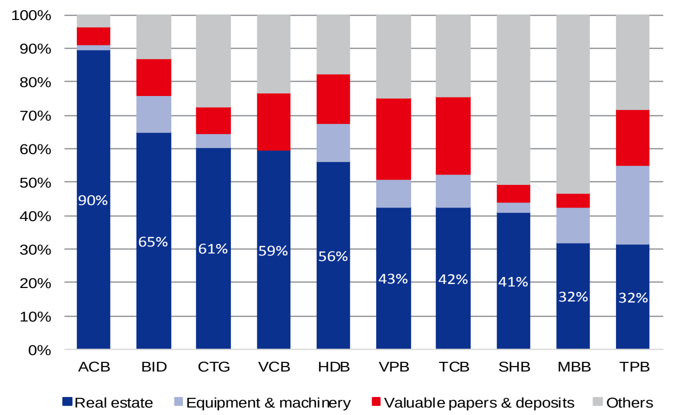
- Low exposure to real estate: ACB had one of the lowest exposure to real estate developers among Vietnamese banks in 2018. As of end-FY18, ACB's total exposure to construction and real estate trading was 6.3% of its total loan book. Regarding exposure to mortgages, Vietnam banks do not publish this information; we estimate mortgages typically make up 45-50% of the banks' individual loan book. In contrast, mortgages comprised one-third of ACB's individual loan book historically.
- Minimal unsecured lending: amid the intense competition in retail banking, several private-sector banks have expanded into unsecured lending for higher yields. ACB has a more conservative strategy and only has a small amount of unsecured lending (c.VND1,000bn, or 0.5% of the total loan book in FY18).
- ACB's loan book is collateralised mostly by real estate, as real estate accounted for 89.5% of its total collateral as of end-FY18. Although real estate collaterals are affected by economic cycles, real estate does not depreciate over time like equipment and machinery, and the value does not fluctuate as much as valuable papers. Valuable papers used as collateral for loans are often corporate bonds of which value is subject to change in interest and the repayment ability of the issuing companies. Real estate, on the other hand, could devalue in a downturn but banks can keep the real estate and liquidate it when prices recover. As the economy recovers, real estate collateral is the main driver that could help banks to resolve bad debts, in our view.

Figure 9: Construction and real estate trading as % of loan book, by bank (end-FY18)



SOURCES: VND RESEARCH, COMPANY REPORTS

Figure 10: Breakdown of banks' collateral, by type (end-FY18)

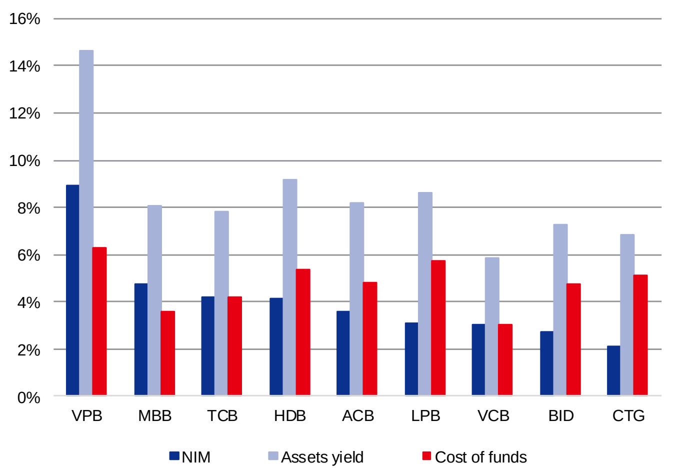


SOURCES: VND RESEARCH, COMPANY REPORTS

FINANCIALS

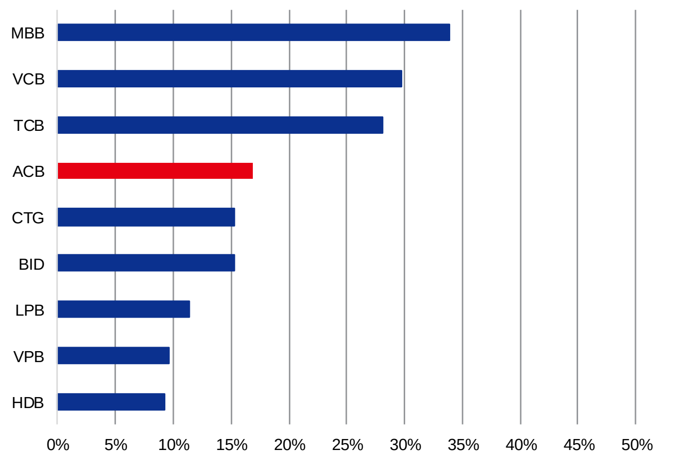
ACB's net interest margin (NIM) is on par with the average of the Vietnam banking sector. In 1Q19, ACB's NIM was 3.6%, slightly higher than the sector average NIM of 3.4% (excluding VPB, as its NIM is much higher than the rest of the sector, thanks to its consumer finance business). With a large retail lending book (90% of total loan book as of end-FY18), ACB earns high asset yields (1Q19 asset yield of 8.2%). However, ACB also bears high funding costs because the bank does not have strong relationships with state-owned enterprises (SOEs) and big corporations; as a result, the majority of its customer deposits come from individual customers who prefer time deposits to demand deposits for higher interest. Individual deposits accounted for 79.9% of ACB's total deposits at end-FY18, and its current account & savings account rate (CASA) was moderate at 16.9% at end-1Q19.

Figure 11: ACB charges higher lending rates than its peers but has higher funding costs (data in 1Q19)



SOURCES: VND RESEARCH, COMPANY REPORTS

Figure 12: ACB has moderate CASA levels (data as of end-1Q19)



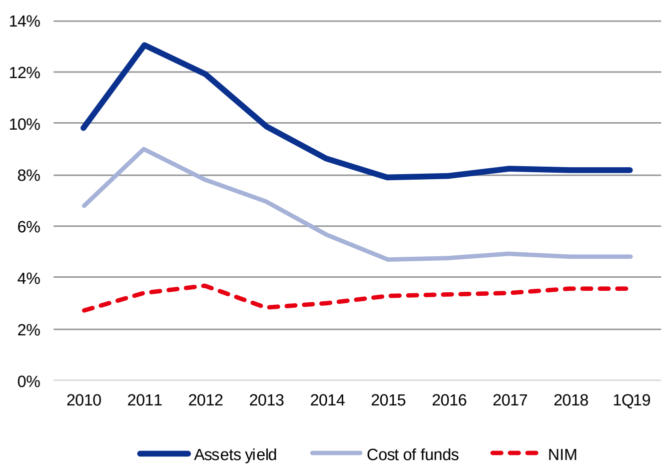
SOURCES: VND RESEARCH, COMPANY REPORTS

ACB's NIM has improved since 2014 thanks to the expansion of retail lending, increasing usage of funding for lending to customers, and improving CASA. ACB's individual loan book has grown by a strong 23.9% CAGR over FY13-18, lifting the contribution of individual loans to the total loan book from 42.5% as of end-FY13 to 57.7% as of end-FY18. In addition, after sluggish loan growth in FY12-14 as ACB had to prioritise clearing legacy bad debts over growth. ACB's loan growth momentum picked up again in FY15, raising its loan-to-deposit ratio (LDR) from 71.8% as of end-FY14 to 77.6% as of end-FY18.

On the funding side, ACB has embarked on new initiatives to increase the CASA rate. The major initiative was the launch of privilege banking in 2015. Customers must maintain a minimum deposit balance of VND2bn (~US$87k) to qualify for privilege banking. In return, privilege banking customers are given priority at ACB branches, incur no fees for money transfers, higher deposit rates and priority passes for more than 700 VIP lounges at domestic and international airports. The discounted fees and premium services attract more customers to perform banking transactions with ACB. ACB also introduced the Business Account in 2015, which pays higher interest rates for demand deposits and offers zero fees on money transfers if customers maintain a minimum demand deposit balance of VND500m (~US$22k). Additionally, the launch of a new debit card and prepaid card in 2015 are other initiatives to improve CASA. As a result, ACB's CASA increased from 14.6% as at end-FY14 to 16.9% as at end-1Q19.

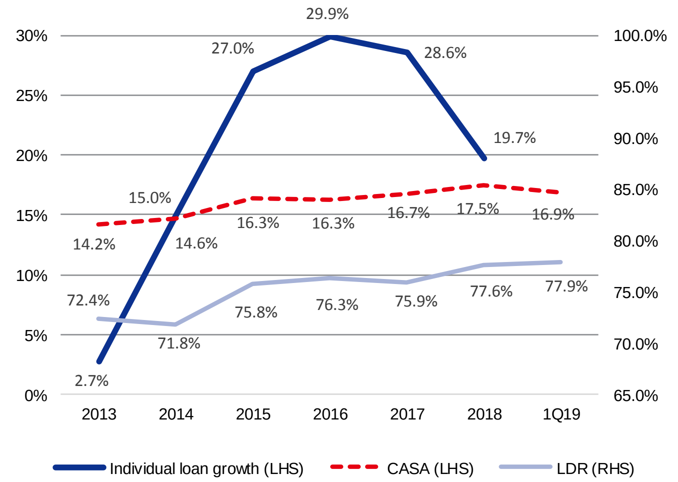
Over the period from FY15 to 1Q19, ACB's asset yields rose by 30bp. Funding costs also picked up but improving CASA capped the rise in funding costs at 15bp. Hence, NIM increased from 3.3% in FY15 to 3.6% in 1Q19.

Figure 13: NIM has improved since FY14 ...



SOURCES: VND RESEARCH, COMPANY REPORTS

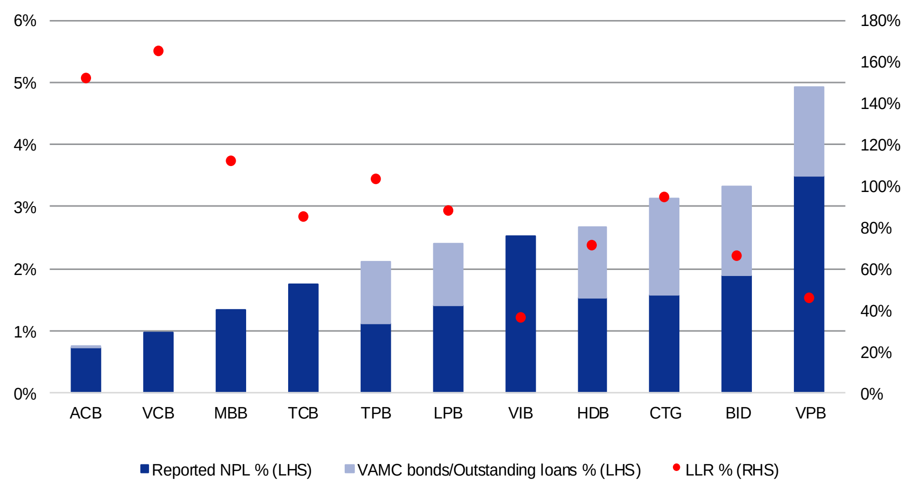
Figure 14: ... thanks to high individual loan growth, improving CASA and increasing LDR



SOURCES: VND RESEARCH, COMPANY REPORTS

A healthy balance sheet despite its focus on retail lending. In our view, the bad debts of Group 6 companies were major baggage for ACB, but the bad debts from its normal business are not significant. ACB completed provisioning for and writing off its exposure to Group 6 companies and bad debts sold to VAMC in 2017. Therefore, as of end-1Q19, ACB had the lowest level of distressed assets (0.7% of total loans) and the second-highest LLR (158.1%) in the Vietnam banking sector. It is even more encouraging that ACB was able to register low NPL despite its high exposure to retail lending and low write-off ratio (write-off/average loan book ratio of 0.4% over FY15-18, compared to the listed banks' average of 0.7% over the same period).

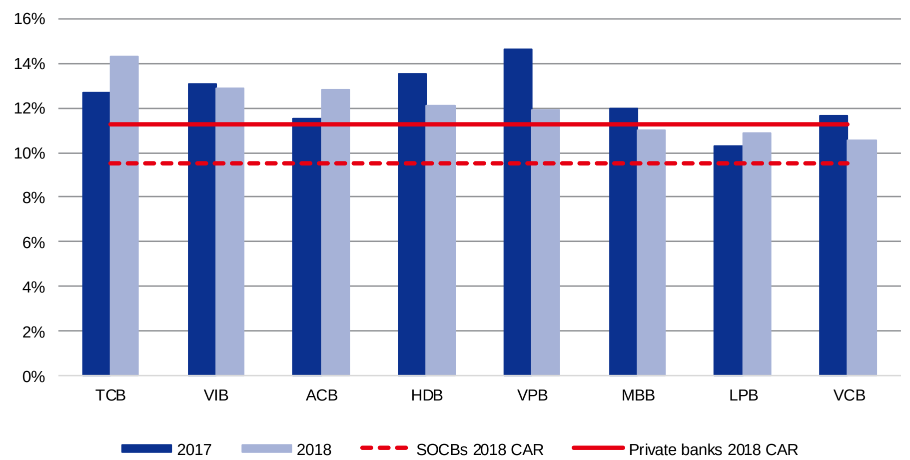
Figure 15: ACB has the lowest level of distressed assets and the second-highest LLR among Vietnam's listed banks (end-FY18)



SOURCES: VND RESEARCH, COMPANY REPORTS

Strong capital base allows ACB to qualify for Basel II in 2019. ACB recently obtained approval from the State Bank of Vietnam to apply Basel II from 1 May 2019, ahead of the deadline in Jan 2020. As of end-FY18, ACB has a capital adequacy ratio (CAR) of 12.8% and Tier 1 ratio of 10.6% (non-Basel II). This is a high capital level in the Vietnam banking sector, although ACB has not raised fresh capital since 2011. In comparison, other retail banks have actively raised capital via IPOs in 2017 and early 2018. However, ACB issued subordinated debts to increase Tier 2 capital. As of end-FY18, the bank had c.VND3,000bn (~US$129m) of subordinated debts, equivalent to 14.4% of Tier 1 capital. In our opinion, there is still plenty of headroom for ACB to issue more subordinated debts, as subordinated debts are capped at 50% of Tier 1 capital by Basel II.

Figure 16: ACB has a higher CAR than the sector average



SOURCES: VND RESEARCH, COMPANY REPORTS

We estimate ACB's CAR will drop to 9.8% and Tier 1 ratio will drop to 8.3% at end-FY19F under Basel II. Our estimates are based on the following assumptions:

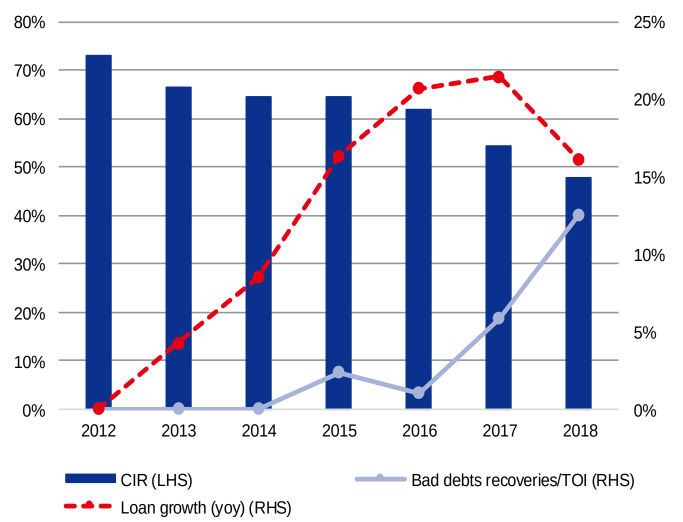
- We project net profit CAGR of 15.6% over FY19-21F
- ACB guided that it would start paying cash dividend at 10% on par value in FY19F. ACB has not paid cash dividends since FY15, however, during the 2018 Annual General Meeting, the bank announced plans to pay cash dividend in FY19F.

- Risk-weighted assets (RWA) CAGR of 22.3% over FY19-21F.
- RWA would be revised up by 30% under Basel II standards.

Our estimated Basel II CAR of 9.8% as of end-FY19F for ACB will satisfy the minimum requirement of 8.0%. Assuming ACB maintains 10% cash dividend on par value in FY19-21F, we estimate its Basel II CAR would drop to 9.2% by end-FY21F, which still meets the minimum requirement of 8.0%. In addition, ACB currently has 35.2m treasury shares. The bank's management guided that it would sell those treasury shares to raise capital when needed.

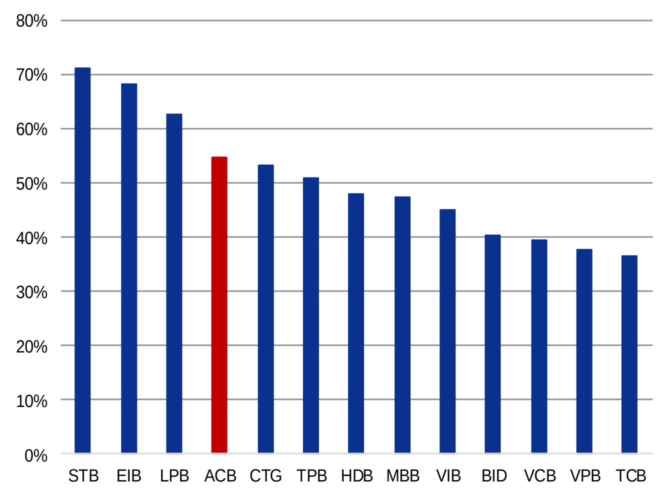
ACB's cost-to-income ratio (CIR) has come down from a high level in FY12. Following the fraud committed by Mr Kien in FY12, ACB had to book sizeable provisions for legacy assets, which significantly reduced TOI. As a result, CIR was high at 73.2% in FY12. In the past five years, the bank has managed to reduce CIR by cutting cost, but more importantly, by improving loan growth and better bad debt recoveries. CIR dropped significantly in FY18 due to the huge amount of debt recovered from Group 6 companies. As at end-FY18, CIR was 47.8%, down from 54.4% in FY17. CIR at ACB has improved, thanks to recovery of legacy assets related to Group 6 companies, therefore, if we exclude bad debt recoveries from TOI, we estimate FY18 CIR would be 54.7%.

Figure 17: CIR consistently declined thanks to improving loan growth and better bad debt recovery



SOURCES: VND RESEARCH, COMPANY REPORTS

Figure 18: ACB has above-average CIR in the banking sector (data in FY18)



Note: One-off income and bad debt recovery excluded from TOI
SOURCES: VND RESEARCH, COMPANY REPORTS

OUTLOOK

We project a 15.6% net profit CAGR in FY19-21F

Key assumptions for our earnings forecasts are as follows:

- Net interest income (NII) CAGR of 16.4% in FY19-21F, underpinned by 15.0% loan CAGR and a NIM hike of 9bp over FY19-21F. We think ACB's high, non-Basel II CAR of 12.8% at end-FY18 would support 15.0% loan CAGR in FY19-21F. In addition, ACB's loan-to-deposit ratio (LDR) of 77.6% as of end-FY18 is lower than the 80% regulated cap, therefore we expect its LDR level would still accommodate 15.0% loan CAGR over FY19-21F, on the assumption that ACB will maintain deposit CAGR of 15.5% over the same period to keep LDR below the 80% cap.

  In the coming years, ACB plans to continue to focus on its core business of retail lending. We project that interest rates may increase moderately over the next three years as inflation returns and competition for mobilisation becomes fiercer. As a result, both asset yields and funding costs are likely to increase. However, the State Bank of Vietnam (SBV) wants banks to stabilise lending rates; as such, we think the higher funding costs will not be fully passed on to credit customers. Nonetheless, ACB is deploying multiple campaigns to improve CASA, and thus lower funding costs. Therefore, we forecast ACB's NIM to increase subtly from 3.62% in FY19F to 3.71% in FY21F.

Figure 19: Balance sheet key KPIs, based on our forecasts

(In VND bn, otherwise noted)	2017A	2018A	2019F	2020F	2021F	CAGR 2015-18	CAGR 2019-21F
Interest-earning assets (excl. provisions) "IEAs"	**270,165**	**314,995**	**359,963**	**413,758**	**477,833**	**18.1%**	**15.2%**
% growth	*20.8%*	*16.6%*	*14.3%*	*14.9%*	*15.5%*		
Gross loans to customers	198,513	230,527	265,106	304,872	350,603	19.4%	15.0%
% growth	*21.5%*	*16.1%*	*15.0%*	*15.0%*	*15.0%*		
Interbank deposit and loans	8,942	18,770	21,585	24,823	28,546	22.9%	15.0%
% growth	*9.7%*	*109.9%*	*15.0%*	*15.0%*	*15.0%*		
Securities	54,396	55,015	60,985	69,688	81,434	10.4%	15.6%
% growth	*15.8%*	*1.1%*	*10.9%*	*14.3%*	*16.9%*		
Interest-bearing liabilities "IBLs"	**263,755**	**302,280**	**341,126**	**388,394**	**446,867**	**17.6%**	**14.5%**
% growth	*22.1%*	*14.6%*	*12.9%*	*13.9%*	*15.1%*		
Customer deposit	241,393	269,999	307,798	353,968	410,603	15.6%	15.5%
% growth	*16.6%*	*11.9%*	*14.0%*	*15.0%*	*16.0%*		
CDs and valuable papers	6,761	8,291	8,291	8,291	8,291	39.2%	0.0%
% growth	*2.2%*	*22.6%*	*0.0%*	*0.0%*	*0.0%*		
Deposit and loan from other banks	15,454	20,718	21,754	22,842	24,669	104.2%	6.5%
% growth	*591.4%*	*34.1%*	*5.0%*	*5.0%*	*8.0%*		
Other funds from gov. and other org.	147	198	208	219	230	7.0%	5.0%

SOURCES: VND RESEARCH ESTIMATES, COMPANY REPORTS

- Non-interest income CAGR of 6.0% over FY19-21F, driven by: 1) 20.5% CAGR in fee income; 2) 9.0% CAGR in FX trading income; 3) 12.5% CAGR in income from trading and investment securities, and 4) -12.5% CAGR in other income.

  We expect the 20.5% CAGR in fee income in FY19-21F to be underpinned by payment services, bancassurance and card fees. In order to grow its fee income franchise, ACB has simultaneously launched a series of initiatives to expand its customer base, such as privilege banking, digital banking and supply chain financing. The new initiatives target new segments of affluent and lower mass customers. The bank intends to promote card and insurance products to new customers and expects these products to be the main drivers of fee income growth in the coming years.

  The biggest component of other income would remain income from bad debt recovery, in our view. In FY18, ACB recovered a sizeable amount of bad debt, with income from bad debt recovery up 4.8x yoy (majority of bad debt recovered was from Group 6 companies). Besides the legacy assets of Group 6 companies, ACB also has bad debt sold to VAMC, but these were fully provisioned for and written off in FY17. Given the large amount of bad debt recovered in FY18, we expect ACB's bad debt recovery to taper in FY19-21F. As a result, we forecast other income to decline by a 12.5% CAGR over FY19-21F.

Figure 20: Profit & loss statement key KPIs, based on our forecasts

(In VND bn, otherwise noted)	2017A	2018A	2019F	2020F	2021F	CAGR 2015-18	CAGR 2019-21F
Net interest income	8,458	10,363	12,206	14,309	16,537	20.8%	16.4%
Net fee income	1,188	1,498	1,887	2,321	2,739	26.2%	20.5%
FX & gold trading income	237	241	273	300	324	26.0%	9.0%
Income from trading and investment securities	664	117	146	168	184	n/m	12.5%
Other income	892	1,815	1,847	1,733	1,415	95.6%	-12.5%
Operating income	11,439	14,033	16,358	18,831	21,199	31.2%	13.8%
% growth	*51.3%*	*22.7%*	*16.6%*	*15.1%*	*12.6%*		
Operating expense	6,217	6,712	7,852	9,039	9,964	18.6%	12.6%
% growth	*32.9%*	*8.0%*	*17.0%*	*15.1%*	*10.2%*		
Pre-provision profit	5,222	7,321	8,506	9,792	11,236	49.3%	14.9%
% growth	*81.0%*	*40.2%*	*16.2%*	*15.1%*	*14.7%*		
Provision expense	2,565	932	1,057	1,168	1,285	1.8%	10.3%
% growth	*110.7%*	*-63.7%*	*13.4%*	*10.5%*	*10.0%*		
Pre-tax profit	2,656	6,389	7,449	8,624	9,950	69.4%	15.6%
% growth	*59.3%*	*140.5%*	*16.6%*	*15.8%*	*15.4%*		
Profit after tax and minority interest	2,118	5,137	5,937	6,873	7,930	71.0%	15.6%
% growth	*59.8%*	*142.5%*	*15.6%*	*15.8%*	*15.4%*		

SOURCES: VND RESEARCH ESTIMATES, COMPANY REPORTS

- We forecast operating expense CAGR of 12.6% in FY19-21F, lower than the 18.6% CAGR seen in FY15-18. Over the past few years, ACB has increased salaries for employees to attract new talent and retain existing staff amid intensifying competition for banking workforce. On the other hand, ACB had to book provisions for receivables from Group 6 companies, hence operating expense was high in FY17. FY17 CIR was 54.4%, but there was a one-off provision expense of VND294bn for receivables from Group 6 companies. Excluding this one-off expense, FY17 CIR would be reduced to 51.8%. In FY18, due to the absence of provisions, CIR dropped to 47.8%. Given that ACB adjusted salaries in the past few years and the absence of provision expenses, we do not expect its CIR to increase in the coming years. However, ACB will continue to invest in ongoing and new IT projects, such as revamping its mobile banking app and development of digital cards. Therefore, we project CIR to be maintained at 48.0% in FY19-20F due to IT spending. ACB plans to spend US$30m-35m per year on IT development. Beyond FY20F, we expect CIR to gradually reduce as increased automation improves efficiency and cuts operating costs.
- We forecast provision expense CAGR to increase from 1.8% over FY15-18 to 10.3% over FY19-21F. Due to legacy assets, ACB booked hefty provisions in FY16-17, and as a result, it completed the provisioning for legacy bad debts and debts sold to VAMC in FY17. Nearly 70% of the provision expenses ACB incurred in FY17 were for legacy debts and VAMC bonds. As the bank fully provisioned for legacy debts and VAMC bonds in FY17, its provision expenses fell sharply in FY18 (-63.7% yoy). Due to the tapering of the provision cycle in FY18, ACB's provision expense posted a mild CAGR of 1.8% over FY15-18. In the coming years, we expect ACB to maintain a stable provision balance. We forecast credit cost to hold steady at 0.4% in FY19-21F, leading to a 10.3% CAGR in provision expense over the same period.
- Robust net profit CAGR of 71.0% in FY15-18 was driven by the fall in provision expense and the recovery of bad debt. Given the high base in FY15-18, we expect net profit CAGR in FY19-21F to normalise to 15.6%.

VALUATION AND RECOMMENDATION

Reinitiate coverage with an Add rating; potential 33.9% upside to our TP

We use the residual income and P/BV methodologies to value ACB, with weights of 70% and 30%, respectively. The residual income approach is based on our forecasts for ACB's earnings and growth, and factors in the bank's current capital buffer and its business strategy. As for the P/BV approach, this allows us to value ACB relative to other banks and factors in market sentiment on the Vietnamese banking sector as a whole, which has experienced sharp re-rating since Apr 2018. However, each bank has distinctly-different fundamentals and earnings prospects and, therefore, we only give a 30% weight to this relative valuation approach.

Figure 21: Target price calculation, based on our estimates

Approach	Weight	Fair value (VND/share)	Contribution (VND/share)
Residual income	70%	39,740	27,818
P/B multiple (at 1.8x FY19F BVPS)	30%	38,903	11,671
Target price (VND/share)			39,489
Target price (VND/share, rounded)			**39,500**

SOURCES: VND RESEARCH ESTIMATES

Figure 22: Key assumptions of residual income valuation, based on our estimates

Assumptions	2019F	2020F	2021F	2022F	2023F	Terminal year
Risk free rate	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Equity risk premium	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%
Beta	0.9	0.9	0.9	0.9	0.9	0.9
Cost of equity	14.4%	14.4%	14.4%	14.4%	14.4%	14.4%
Long-term growth rate						3.0%
(in VND bn, otherwise noted)						
Opening shareholders' equity	21,018					
PV of residual income (5 years)	10,519					
PV of terminal value	18,026					
Implied EV	49,563					
No. of outstanding shares (m shares)	1,247					
Implied value per share (VND/share)	**39,740**					

SOURCES: VND RESEARCH ESTIMATES

For peer comparison, we choose regional banks with strong earnings growth outlook, high profitability and similar financial metrics as ACB. We expect ACB to achieve a solid net profit CAGR of 15.6% over FY19-21F. With strong net profit growth in FY18 and anticipated stable growth in the coming years, we forecast ACB to achieve 24.3% ROE in FY19F. Despite its higher FY19F ROE than the regional peers' average (based on our estimates), ACB currently trades at 1.4x FY19F P/BV, at a 15.7% discount to regional peers' average of 1.6x. We believe ACB deserves to trade at a higher P/BV, given its high profitability and strong asset quality. As a result, we apply a target multiple of 1.8x to FY19F book value per share for our P/BV valuation. Combining the residual income valuation and P/BV multiple valuation, with respective weights of 70% and 30%, we arrive at a TP of VND39,500, implying potential upside of 33.9%.

Figure 23: Regional banking sector comparison

Banks	Bloomberg Code	Recommendation	Closing price	Target Price	Market cap	P/BV (x)		P/E (x)		3-yr Forward CAGR EPS	ROE (%)		Div. yields (%)
			(local curr.)	(local curr.)	(US$m)	FY19F	FY20F	FY19F	FY20F	%	FY19F	FY20F	FY19F
Agricultural Bank of China	1288 HK	ADD	3.28	5.30	182,696	0.5	0.5	4.4	4.1	6.3%	12.7%	12.4%	6.8%
Bank of China	3988 HK	ADD	3.27	5.60	150,765	0.5	0.4	4.3	4.0	7.3%	11.6%	11.5%	7.6%
China Merchants Bank	3968 HK	ADD	41.70	45.40	138,292	1.5	1.3	9.3	7.9	16.7%	17.0%	17.6%	3.2%
Bank of Communications	3328 HK	HOLD	6.52	6.90	65,089	0.6	0.5	5.2	4.9	7.7%	11.2%	10.9%	6.0%
China banks average						***0.8***	***0.7***	***5.8***	***5.2***	***9.5%***	***13.1%***	***13.1%***	***5.9%***
ICICI Bank	ICICIBC IN	ADD	430.80	475.00	39,943	2.4	2.1	23.9	16.4	84.9%	10.4%	13.7%	1.2%
Axis Bank	AXSB IN	ADD	771.95	900.00	29,057	2.7	2.3	20.5	14.0	60.9%	13.8%	17.6%	0.3%
Indusind Bank	IIB IN	ADD	1,448.70	2,100.00	12,558	2.9	2.4	17.3	13.2	35.8%	17.9%	19.8%	0.5%
Yes Bank	YES IN	ADD	109.60	270.00	3,650	0.9	0.8	9.3	6.4	49.2%	9.9%	13.0%	2.0%
India banks average						***2.2***	***1.9***	***17.8***	***12.5***	***57.7%***	***13.0%***	***16.1%***	***1.0%***
Bank Central Asia	BBCA IJ	HOLD	29,375.00	28,500.00	51,165	3.9	3.4	23.5	20.8	12.0%	17.6%	17.4%	0.9%
Bank Rakyat Indonesia	BBRI IJ	ADD	4,310.00	4,500.00	37,557	2.4	2.1	13.5	11.9	13.9%	18.8%	18.8%	2.6%
Bank Mandiri	BMRI IJ	ADD	7,975.00	8,800.00	26,292	1.8	1.6	12.5	10.8	15.4%	14.9%	15.6%	2.8%
Bank Negara Indonesia	BBNI IJ	ADD	8,875.00	11,100.00	11,692	1.3	1.1	8.7	7.5	15.9%	15.6%	16.0%	3.4%
Indonesia banks average						***2.3***	***2.1***	***14.5***	***12.7***	***14.3%***	***16.7%***	***16.9%***	***2.4%***
Malayan Banking Bhd	MAY MK	HOLD	8.96	9.29	24,276	1.2	1.2	12.3	11.5	3.8%	10.4%	10.5%	5.8%
Public Bank Bhd	PBK MK	HOLD	23.02	23.60	21,539	2.0	1.9	15.5	14.8	4.5%	13.5%	13.3%	2.9%
Hong Leong Bank	HLBK MK	REDUCE	19.42	16.80	9,575	1.5	1.4	14.7	13.9	6.2%	11.0%	10.5%	2.7%
BIMB Holdings	BIMB MK	HOLD	4.59	4.63	1,952	1.4	1.3	10.2	9.7	7.8%	14.6%	14.1%	3.6%
Malaysia banks average						***1.6***	***1.4***	***13.2***	***12.5***	***5.6%***	***12.4%***	***12.1%***	***3.8%***
Kasikornbank	KBANK TB	ADD	192.00	244.00	14,926	1.2	1.1	11.4	10.2	9.9%	10.6%	10.9%	2.0%
Siam Commercial Bank	SCB TB	ADD	135.00	146.00	14,890	1.2	1.1	11.5	10.5	8.2%	10.5%	10.8%	3.9%
Bangkok Bank	BBL TB	ADD	200.00	238.00	12,401	0.9	0.8	10.2	9.4	7.5%	9.0%	9.3%	3.1%
Kiatnakin Bank	KKP TB	REDUCE	68.25	63.00	1,877	1.4	1.3	10.1	9.0	4.9%	13.8%	15.0%	7.0%
Thailand banks average						***1.2***	***1.1***	***10.8***	***9.8***	***7.6%***	***11.0%***	***11.5%***	***4.0%***
Vietcombank	VCB VN	HOLD	73,000.00	73,800.00	11,618	3.2	2.7	16.3	13.9	13.2%	18.4%	17.4%	1.1%
Techcombank	TCB VN	ADD	20,900.00	27,400.00	3,136	1.2	1.0	7.8	6.8	14.6%	16.5%	16.1%	0.0%
Vietnam Prosperity JSC Bank	VPB VN	ADD	19,300.00	21,200.00	2,035	1.1	0.9	6.3	5.1	12.1%	19.7%	19.9%	0.0%
Military Commercial Joint Stock Bank	MBB VN	ADD	21,300.00	34,000.00	1,932	1.2	1.0	6.0	5.2	19.2%	20.0%	19.7%	2.8%
Asia Commercial Joint Stock Bank	ACB VN	ADD	29,500.00	39,500.00	1,579	1.4	1.1	6.1	5.3	15.7%	24.3%	22.7%	3.4%
Vietnam banks average						**1.6**	**1.3**	**8.5**	**7.3**	**15.0%**	**19.8%**	**19.2%**	**1.5%**
Vietnam banks average - ex-VCB						**1.2**	**1.0**	**6.6**	**5.6**	**15.4%**	**20.1%**	**19.6%**	**1.6%**
Regional bank average						**1.6**	**1.4**	**12.4**	**10.5**	**18.9%**	**13.2%**	**13.9%**	**3.4%**

SOURCES: CGS-CIMB RESEARCH, VND RESEARCH, BLOOMBERG (AS AT 24 JUN 2019)

POTENTIAL CATALYSTS AND INVESTMENT RISK

Potential re-rating catalysts

Potential upside catalysts for ACB could come from higher-than-expected credit growth. The State Bank of Vietnam (SBV) recently tightened credit growth on the back of tightening monetary policy in various countries, concerns over the US-China trade war and a rising interest rate environment globally. In FY18, Vietnam's credit growth was 14.0%, much lower than the 18.3% growth achieved in FY17. For FY19F, the SBV set a target of 14.0% credit growth. As a result, we conservatively forecast 15.0% loan growth in FY19-21F for ACB. However, credit growth in Vietnam is closely tied to GDP growth and inflation. As the majority of capital in Vietnam comprises banks' credit, credit growth is an important driver of GDP growth. In the coming years, credit growth could be higher than our forecasts if GDP growth is slow and inflation remains stable. In our base-case scenario, we forecast loan CAGR of 15% in FY19-21F for ACB. Our sensitivity analysis shows that every incremental 50bp increase in loan growth from our base-case assumption of 15% would increase FY19F EPS by VND31 (around 0.7% of our base-case EPS forecast).

Figure 24: Sensitivity of ACB's EPS to loan growth, based on our estimates

Loan growth (%)	14.0%	14.5%	15.0%	15.5%	16.0%	16.5%	17.0%
EPS FY19F (VND/share)	4,620	4,650	4,680	4,711	4,741	4,771	4,802
EPS FY20F (VND/share)	5,219	5,319	5,418	5,518	5,618	5,719	5,820
EPS FY21F (VND/share)	5,876	6,063	6,252	6,441	6,632	6,825	7,019

SOURCES: VND RESEARCH ESTIMATES

Another potential catalyst for ACB is the selling of 35.2m treasury shares. Management disclosed that ACB may sell its treasury shares to increase capital when needed. Assuming ACB sells its treasury shares at the current market price, we estimate it would raise VND1,038bn (~US$44m) in total proceeds, of which VND472bn (~US$20m) would be the share premium. The new capital would increase FY19F Basel II CAR by 15bp to 9.9%, based on our estimates. As the amount of treasury shares is small relative to ACB's outstanding shares, we estimate the selling of treasury shares would cause an insignificant dilution of 2.7% to FY19F EPS. However, ACB could use the new capital (non-interest bearing) for lending and investment, and therefore, increase income. Nevertheless, ACB does not face the problem of capital constraints, hence we do not think the treasury shares would be sold in the short-term.

Downside risks

Downside risks could come from higher funding cost vs. our expectation. Deposit rates in Vietnam are rising, especially for tenor over 12 months as banks have to keep the ratio of short-term funds used for medium/long-term loans below 40%, a stricter requirement that took effect in Jan 2019, compared to the 45% required pre-2019. We expect that ACB's efforts to increase CASA will help to limit the rise in funding costs, and thus project an 9bp NIM hike over FY19-21F. However, ACB faces the downside risk of increasing deposit rates due to more competition for long-term funds, which would lead to lower interest income vs. our forecasts.

SWOT ANALYSIS

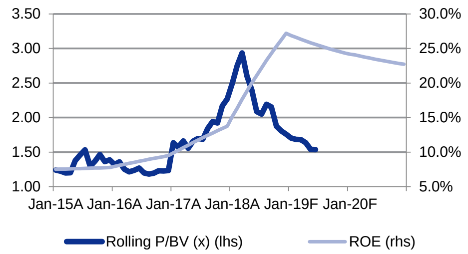
Figure 25: SWOT analysis for ACB

Strengths	Opportunities
• Well-established retail brand name and retail customer base. • Rich experience in retail banking and good customer service. • Strong fee income franchise • Prudent risk management reflected in low NPL and high LLR.	• Opportunities in fintech, thanks to continuous technology development.
Weaknesses	**Threats**
• Lack of close relationship with large corporations. • Limited presence in regions outside Ho Chi Minh City and Hanoi.	• Rising competition in retail banking.

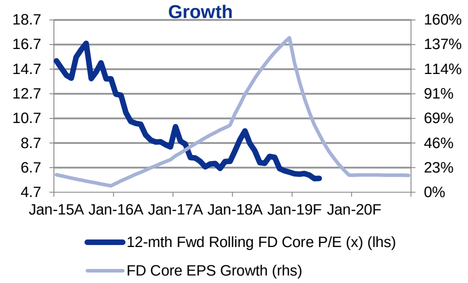
SOURCES: VND RESEARCH, COMPANY REPORTS

BY THE NUMBERS

P/BV vs ROE



12-mth Fwd FD Core P/E vs FD Core EPS Growth



Profit & Loss

(VNDb)	Dec-17A	Dec-18A	Dec-19F	Dec-20F	Dec-21F
Net Interest Income	8,458	10,363	12,206	14,309	16,537
Total Non-Interest Income	2,981	3,670	4,153	4,522	4,662
Operating Revenue	**11,439**	**14,033**	**16,358**	**18,831**	**21,199**
Total Non-Interest Expenses	(6,217)	(6,712)	(7,852)	(9,039)	(9,964)
Pre-provision Operating Profit	**5,222**	**7,321**	**8,506**	**9,792**	**11,236**
Total Provision Charges	(2,565)	(932)	(1,057)	(1,168)	(1,285)
Operating Profit After Provisions	**2,656**	**6,389**	**7,449**	**8,624**	**9,950**
Pretax Income/(Loss) from Assoc.	0	0	0	0	0
Operating EBIT (incl Associates)	**2,656**	**6,389**	**7,449**	**8,624**	**9,950**
Non-Operating Income/(Expense)	0	0	0	0	0
Profit Before Tax (pre-EI)	**2,656**	**6,389**	**7,449**	**8,624**	**9,950**
Exceptional Items					
Pre-tax Profit	**2,656**	**6,389**	**7,449**	**8,624**	**9,950**
Taxation	(538)	(1,252)	(1,512)	(1,751)	(2,020)
Consolidation Adjustments & Others					
Exceptional Income - post-tax					
Profit After Tax	**2,118**	**5,137**	**5,937**	**6,873**	**7,930**
Minority Interests	0	0	0	0	0
Pref. & Special Div	0	0	0	0	0
FX And Other Adj.	0	0	0	0	0
Net Profit	**2,118**	**5,137**	**5,937**	**6,873**	**7,930**
Recurring Net Profit	2,068	5,037	5,837	6,757	7,797

Balance Sheet Employment

	Dec-17A	Dec-18A	Dec-19F	Dec-20F	Dec-21F
Gross Loans/Cust Deposits	82.2%	85.4%	86.1%	86.1%	85.4%
Avg Loans/Avg Deposits	80.7%	83.9%	85.8%	86.1%	85.7%
Avg Liquid Assets/Avg Assets	27.1%	27.2%	27.3%	27.0%	27.2%
Avg Liquid Assets/Avg IEAs	28.4%	28.6%	28.4%	28.1%	28.1%
Net Cust Loans/Assets	69.0%	69.1%	69.7%	70.0%	69.9%
Net Cust Loans/Broad Deposits	74.4%	76.1%	77.3%	77.9%	77.7%
Equity & Provns/Gross Cust Loans	9.0%	10.2%	11.4%	12.0%	12.6%
Asset Risk Weighting	70.6%	60.0%	66.0%	72.0%	75.0%
Provision Charge/Avg Cust Loans	1.42%	0.43%	0.43%	0.41%	0.39%
Provision Charge/Avg Assets	0.99%	0.30%	0.30%	0.29%	0.28%
Total Write Offs/Average Assets	0.99%	0.30%	0.30%	0.29%	0.28%

SOURCES: VND RESEARCH, COMPANY REPORTS

BY THE NUMBERS… cont'd

Balance Sheet

(VNDb)	Dec-17A	Dec-18A	Dec-19F	Dec-20F	Dec-21F
Total Gross Loans	207,455	249,297	286,692	329,695	379,150
Liquid Assets & Invst. (Current)	54,396	55,015	60,985	69,688	81,434
Other Int. Earning Assets	8,315	10,684	12,286	14,375	17,250
Total Gross Int. Earning Assets	**270,165**	**314,995**	**359,963**	**413,758**	**477,833**
Total Provisions/Loan Loss Reserve	(2,285)	(3,001)	(3,828)	(4,703)	(5,765)
Total Net Interest Earning Assets	**267,880**	**311,994**	**356,135**	**409,055**	**472,068**
Intangible Assets	533	593	634	679	726
Other Non-Interest Earning Assets	11,052	10,617	11,360	12,155	13,006
Total Non-Interest Earning Assets	**11,584**	**11,210**	**11,994**	**12,834**	**13,732**
Cash And Marketable Securities	**4,852**	**6,129**	**6,558**	**7,017**	**7,508**
Long-term Investments	0	0	0	0	0
Total Assets	**284,316**	**329,333**	**374,687**	**428,906**	**493,309**
Customer Interest-Bearing Liabilities	248,154	278,289	316,089	362,259	418,894
Bank Deposits	15,454	20,718	21,754	22,842	24,669
Interest Bearing Liabilities: Others	147	3,272	3,282	3,293	3,304
Total Interest-Bearing Liabilities	**263,755**	**302,280**	**341,126**	**388,394**	**446,867**
Bank's Liabilities Under Acceptances					
Total Non-Interest Bearing Liabilities	4,531	6,035	6,607	7,973	7,260
Total Liabilities	**268,285**	**308,315**	**347,732**	**396,367**	**454,127**
Shareholders' Equity	**16,031**	**21,018**	**26,955**	**32,540**	**39,181**
Minority Interests	0	0	0	0	0
Total Equity	**16,031**	**21,018**	**26,955**	**32,540**	**39,181**

Key Ratios

	Dec-17A	Dec-18A	Dec-19F	Dec-20F	Dec-21F
Total Income Growth	51.3%	22.7%	16.6%	15.1%	12.6%
Operating Profit Growth	81.0%	40.2%	16.2%	15.1%	14.7%
Pretax Profit Growth	59%	141%	17%	16%	15%
Net Interest To Total Income	73.9%	73.8%	74.6%	76.0%	78.0%
Cost Of Funds	4.94%	4.82%	4.85%	4.88%	4.90%
Return On Interest Earning Assets	8.23%	8.21%	8.24%	8.30%	8.30%
Net Interest Spread	3.28%	3.38%	3.39%	3.42%	3.40%
Net Interest Margin (Avg Deposits)	3.77%	4.05%	4.22%	4.32%	4.33%
Net Interest Margin (Avg RWA)	4.71%	5.20%	5.49%	5.15%	4.87%
Provisions to Pre Prov. Operating Profit	49.1%	12.7%	12.4%	11.9%	11.4%
Interest Return On Average Assets	3.27%	3.38%	3.47%	3.56%	3.59%
Effective Tax Rate	20.3%	19.6%	20.3%	20.3%	20.3%
Net Dividend Payout Ratio	NA	NA	21.0%	18.1%	15.7%
Return On Average Assets	0.82%	1.67%	1.69%	1.71%	1.72%

Key Drivers

	Dec-17A	Dec-18A	Dec-19F	Dec-20F	Dec-21F
Loan Growth (%)	21.5%	16.1%	15.0%	15.0%	15.0%
Net Interest Margin (%)	3.4%	3.5%	3.6%	3.7%	3.7%
Non Interest Income Growth (%)	344.5%	23.1%	13.1%	8.9%	3.1%
Cost-income Ratio (%)	54.4%	47.8%	48.0%	48.0%	47.0%
Net NPL Ratio (%)	0.5%	0.4%	0.3%	0.2%	0.2%
Loan Loss Reserve (%)	132.7%	145.6%	153.4%	153.7%	155.1%
GP Ratio (%)	0.7%	0.7%	0.8%	0.8%	0.8%
Tier 1 Ratio (%)	7.8%	10.4%	10.7%	10.4%	10.5%
Total CAR (%)	11.5%	12.8%	12.7%	12.1%	12.0%
Deposit Growth (%)	16.6%	11.9%	14.0%	15.0%	16.0%
Loan-deposit Ratio (%)	81.3%	84.3%	84.9%	84.8%	84.0%
Gross NPL Ratio (%)	0.7%	0.7%	0.8%	0.9%	0.9%
Fee Income Growth (%)	25.8%	26.0%	26.0%	23.0%	18.0%

SOURCES: VND RESEARCH, COMPANY REPORTS

DISCLAIMER

The content of this report (including the views and opinions expressed therein, and the information comprised therein) has been prepared by and belongs to VNDIRECT Securities Corporation, and is distributed by CGS-CIMB or CIMB Investment Bank Berhad ("CIMB"), as the case may be, pursuant to an arrangement between VNDIRECT Securities Corporation and CGS-CIMB. VNDIRECT Securities Corporation is not an affiliate of CGS-CIMB or CIMB.

This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation.

By accepting this report, the recipient hereof represents and warrants that he is entitled to receive such report in accordance with the restrictions set forth below and agrees to be bound by the limitations contained herein (including the "Restrictions on Distributions" set out below). Any failure to comply with these limitations may constitute a violation of law. This publication is being supplied to you strictly on the basis that it will remain confidential. No part of this report may be (i) copied, photocopied, duplicated, stored or reproduced in any form by any means or (ii) redistributed or passed on, directly or indirectly, to any other person in whole or in part, for any purpose without the prior written consent of CGS-CIMB or CIMB, as the case may be.

The information contained in this research report is prepared from data believed to be correct and reliable at the time of issue of this report.

VNDIRECT Securities Corporation may or may not issue regular reports on the subject matter of this report at any frequency and may cease to do so or change the periodicity of reports at any time. None of VNDIRECT Securities Corporation, CGS-CIMB or CIMB is under any obligation to update this report in the event of a material change to the information contained in this report. None of VNDIRECT Securities Corporation, CGS-CIMB or CIMB has any and will accept any, obligation to (i) check or ensure that the contents of this report remain current, reliable or relevant, (ii) ensure that the content of this report constitutes all the information a prospective investor may require, (iii) ensure the adequacy, accuracy, completeness, reliability or fairness of any views, opinions and information, and accordingly, VNDIRECT Securities Corporation, CGS-CIMB and CIMB and their respective affiliates and related persons including China Galaxy International Financial Holdings Limited ("CGIFHL") and CIMB Group Sdn. Bhd. ("CIMBG") and their respective related corporations (and their respective directors, associates, connected persons and/or employees) shall not be liable in any manner whatsoever for any consequences (including but not limited to any direct, indirect or consequential losses, loss of profits and damages) of any reliance thereon or usage thereof. In particular, VNDIRECT Securities Corporation, CGS-CIMB and CIMB disclaim all responsibility and liability for the views and opinions set out in this report.

Unless otherwise specified, this report is based upon reasonable sources. Such sources will, unless otherwise specified, for market data, be market data and prices available from the main stock exchange or market where the relevant security is listed, or, where appropriate, any other market. Information on the accounts and business of company(ies) will generally be based on published statements of the company(ies), information disseminated by regulatory information services, other publicly available information and information resulting from our research. Whilst every effort is made to ensure that statements of facts made in this report are accurate, all estimates, projections, forecasts, expressions of opinion and other subjective judgments contained in this report are based on assumptions considered to be reasonable as of the date of the document in which they are contained and must not be construed as a representation that the matters referred to therein will occur. Past performance is not a reliable indicator of future performance. The value of investments may go down as well as up and those investing may, depending on the investments in question, lose more than the initial investment. No report shall constitute an offer or an invitation by or on behalf of CGS-CIMB, CIMB, or VNDIRECT Securities Corporation, or their respective affiliates (including CGIFHL, CIMBG and their respective related corporations) to any person to buy or sell any investments.

CGS-CIMB, CIMB and/or VNDIRECT Securities Corporation and/or their respective affiliates and related corporations (including CGIFHL, CIMBG and their respective related corporations), their respective directors, associates, connected parties and/or employees may own or have positions in securities of the company(ies) covered in this research report or any securities related thereto and may from time to time add to or dispose of, or may be materially interested in, any such securities. Further, CGS-CIMB, CIMB and/or VNDIRECT Securities Corporation, and/or their respective affiliates and their respective related corporations (including CGIFHL, CIMBG and their respective related corporations) do and seek to do business with the company(ies) covered in this research report and may from time to time act as market maker or have assumed an underwriting commitment in securities of such company(ies), may sell them to or buy them from customers on a principal basis and may also perform or seek to perform significant investment banking, advisory, underwriting or placement services for or relating to such company(ies) as well as solicit such investment, advisory or other services from any entity mentioned in this report.

CGS-CIMB, CIMB and/or VNDIRECT Securities Corporation and/or their respective affiliates (including CGIFHL, CIMBG and their respective related corporations) may enter into an agreement with the company(ies) covered in this report relating to the production of research reports. CGS-CIMB, CIMB and/or VNDIRECT Securities Corporation may disclose the contents of this report to the company(ies) covered by it and may have amended the contents of this report following such disclosure.

The analyst responsible for the production of this report hereby certifies that the views expressed herein accurately and exclusively reflect his or her personal views and opinions about any and all of the issuers or securities analysed in this report and were prepared independently and autonomously. No part of the compensation of the analyst(s) was, is, or will be directly or indirectly related to the inclusion of specific recommendations(s) or view(s) in this report. The analyst(s) who prepared this research report is prohibited from receiving any compensation, incentive or bonus based on specific investment banking transactions or for providing a specific recommendation for, or view of, a particular company. Information barriers and other arrangements may be established where necessary to prevent conflicts of interests arising. However, the analyst(s) may receive compensation that is based on his/their coverage of company(ies) in the performance of his/their duties or the performance of his/their recommendations and the research personnel involved in the preparation of this report may also participate in the solicitation of the businesses as described above. In reviewing this research report, an investor should be aware that any or all of the foregoing, among other things, may give rise to real or potential conflicts of interest. Additional information is, subject to the duties of confidentiality, available on request.

The term "VNDIRECT Securities Corporation" shall, unless the context otherwise requires, mean VNDIRECT Securities Corporation and its affiliates, subsidiaries and related companies. The term "CGS-CIMB" shall denote, where appropriate, the relevant entity distributing or disseminating the report in the particular jurisdiction referenced below, or, in every other case except as otherwise stated herein, CIMB Securities International Pte. Ltd. and its affiliates, subsidiaries and related corporations.

CGS-CIMB

Country	CGS-CIMB Entity	Regulated by
Hong Kong	CGS-CIMB Securities Limited	Securities and Futures Commission Hong Kong
India	CGS-CIMB Securities (India) Private Limited	Securities and Exchange Board of India (SEBI)
Indonesia	PT CGS-CIMB Sekuritas Indonesia	Financial Services Authority of Indonesia
Singapore	CGS-CIMB Research Pte. Ltd.	Monetary Authority of Singapore
South Korea	CGS-CIMB Securities Limited, Korea Branch	Financial Services Commission and Financial Supervisory Service
Thailand	CGS-CIMB Securities (Thailand) Co. Ltd.	Securities and Exchange Commission Thailand

CIMB

Country	CIMB Entity	Regulated by
Malaysia	CIMB Investment Bank Berhad	Securities Commission Malaysia

(i) As of July 01, 2019 VNDIRECT Securities Corporation has a proprietary position in the securities (which may include but not limited to shares, warrants, call warrants and/or any other derivatives) in the following company or companies covered or recommended in this report:

(a) -

(ii) As of July 01, 2019, the analyst(s) who prepared this report, and the associate(s), has / have an interest in the securities (which may include but not limited to shares, warrants, call warrants and/or any other derivatives) in the following company or companies covered or recommended in this report:

(a) -

This report does not purport to contain all the information that a prospective investor may require. CGS-CIMB, and VNDIRECT Securities Corporation and their respective affiliates (including CGIFHL, CIMBG and their related corporations) do not make any guarantee, representation or warranty, express or implied, as to the adequacy, accuracy, completeness, reliability or fairness of any such information and opinion contained in this report. None of CGS-CIMB, CIMB and VNDIRECT Securities Corporation and their respective affiliates nor their related persons (including CGIFHL, CIMBG and their related corporations) shall be liable in any manner whatsoever for any consequences (including but not limited to any direct, indirect or consequential losses, loss of profits and damages) of any reliance thereon or usage thereof.

This report is general in nature and has been prepared for information purposes only. It is intended for circulation amongst CGS-CIMB's, CIMB's and their respective affiliates' (including CGIFHL's, CIMBG's and their respective related corporations') clients generally and does not have regard to the specific investment objectives, financial situation and the particular needs of any specific person who may receive this report. The information and opinions in this report are not and should not be construed or considered as an offer, recommendation or solicitation to buy or sell the subject securities, related investments or other financial instruments or any derivative instrument, or any rights pertaining thereto.

Investors are advised to make their own independent evaluation of the information contained in this research report, consider their own individual investment objectives, financial situation and particular needs and consult their own professional and financial advisers as to the legal, business, financial, tax and other aspects before participating in any transaction in respect of the securities of company(ies) covered in this research report. The securities of such company(ies) may not be eligible for sale in all jurisdictions or to all categories of investors.

Australia: Despite anything in this report to the contrary, this research is provided in Australia by CGS-CIMB Securities (Singapore) Pte. Ltd. and CGS-CIMB Securities (Hong Kong) Limited. This research is only available in Australia to persons who are "wholesale clients" (within the meaning of the Corporations Act 2001 (Cth) and is supplied solely for the use of such wholesale clients and shall not be distributed or passed on to any other person. You represent and warrant that if you are in Australia, you are a "wholesale client". This research is of a general nature only and has been prepared without taking into account the objectives, financial situation or needs of the individual recipient. CGS-CIMB Securities (Singapore) Pte. Ltd. and CGS-CIMB Securities (Hong Kong) Limited do not hold, and are not required to hold an Australian financial services license. CGS-CIMB Securities (Singapore) Pte. Ltd. and CGS-CIMB Securities (Hong Kong) Limited rely on "passporting" exemptions for entities appropriately licensed by the Monetary Authority of Singapore (under ASIC Class Order 03/1102) and the Securities and Futures Commission in Hong Kong (under ASIC Class Order 03/1103).

Canada: This research report has not been prepared in accordance with the disclosure requirements of Dealer Member Rule 3400 – Research Restrictions and Disclosure Requirements of the Investment Industry Regulatory Organization of Canada. For any research report distributed by CIBC, further disclosures related to CIBC conflicts of interest can be found at https://researchcentral.cibcwm.com.

China: For the purpose of this report, the People's Republic of China ("PRC") does not include the Hong Kong Special Administrative Region, the Macau Special Administrative Region or Taiwan. The distributor of this report has not been approved or licensed by the China Securities Regulatory Commission or any other relevant regulatory authority or governmental agency in the PRC. This report contains only marketing information. The distribution of this report is not an offer to buy or sell to any person within or outside PRC or a solicitation to any person within or outside of PRC to buy or sell any instruments described herein. This report is being issued outside the PRC to a limited number of institutional investors and may not be provided to any person other than the original recipient and may not be reproduced or used for any other purpose.

France: Only qualified investors within the meaning of French law shall have access to this report. This report shall not be considered as an offer to subscribe to, or used in connection with, any offer for subscription or sale or marketing or direct or indirect distribution of financial instruments and it is not intended as a solicitation for the purchase of any financial instrument.

Germany: This report is only directed at persons who are professional investors as defined in sec 31a(2) of the German Securities Trading Act (WpHG). This publication constitutes research of a non-binding nature on the market situation and the investment instruments cited here at the time of the publication of the information.

The current prices/yields in this issue are based upon closing prices from Bloomberg as of the day preceding publication. Please note that neither the German Federal Financial Supervisory Agency (BaFin), nor any other supervisory authority exercises any control over the content of this report.

Hong Kong: This report is issued and distributed in Hong Kong by CGS-CIMB Securities (Hong Kong) Limited ("CHK") which is licensed in Hong Kong by the Securities and Futures Commission for Type 1 (dealing in securities), Type 4 (advising on securities) and Type 6 (advising on corporate finance) activities. Any investors wishing to purchase or otherwise deal in the securities covered in this report should contact the Head of Sales at CGS-CIMB Securities (Hong Kong) Limited. The views and opinions in this research report are of VNDIRECT Securities Corporation as of the date hereof and are subject to change. If the Financial Services and Markets Act of the United Kingdom or the rules of the Financial Conduct Authority apply to a recipient, our obligations owed to such recipient therein are unaffected. CHK has no obligation to update its opinion or the information in this research report.

CHK does not make a market on other securities mentioned in the report.

India: This report is issued and distributed in India by CGS-CIMB Securities (India) Private Limited ("CIMB India") which is registered with the National Stock Exchange of India Limited and BSE Limited as a trading and clearing member under the Securities and Exchange Board of India (Stock Brokers and Sub-Brokers) Regulations, 1992. In accordance with the provisions of Regulation 4(g) of the Securities and Exchange Board of India (Investment Advisers) Regulations, 2013, CGS-CIMB India is not required to seek registration with the Securities and Exchange Board of India ("SEBI") as an Investment Adviser. CGS-CIMB India is registered with SEBI as a Research Analyst pursuant to the SEBI (Research Analysts) Regulations, 2014 ("Regulations").

This report does not take into account the particular investment objectives, financial situations, or needs of the recipients. It is not intended for and does not deal with prohibitions on investment due to law/jurisdiction issues etc. which may exist for certain persons/entities. Recipients should rely on their own investigations and take their own professional advice before investment.

The report is not a "prospectus" as defined under Indian Law, including the Companies Act, 2013, and is not, and shall not be, approved by, or filed or registered with, any Indian regulator, including any Registrar of Companies in India, SEBI, any Indian stock exchange, or the Reserve Bank of India. No offer, or invitation to offer, or solicitation of subscription with respect to any such securities listed or proposed to be listed in India is being made, or intended to be made, to the public, or to any member or section of the public in India, through or pursuant to this report.

The research analysts, strategists or economists principally responsible for the preparation of this research report are segregated from the other activities of CGS-CIMB India and they have received compensation based upon various factors, including quality, accuracy and value of research, firm profitability or revenues, client feedback and competitive factors. Research analysts', strategists' or economists' compensation is not linked to investment banking or capital markets transactions performed or proposed to be performed by CGS-CIMB India or its affiliates.

CGS-CIMB India has not received any investment banking related compensation from the companies mentioned in the report in the past 12 months.

CGS-CIMB India has not received any compensation from the companies mentioned in the report in the past 12 months.

Indonesia: This report is issued and distributed by PT CGS-CIMB Sekuritas Indonesia ("CGS-CIMB Indonesia"). The views and opinions in this research report are our own as of the date hereof and are subject to change. CGS-CIMB Indonesia has no obligation to update its opinion or the information in this research report. Neither this report nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable Indonesian capital market laws and regulations.

This research report is not an offer of securities in Indonesia. The securities referred to in this research report have not been registered with the Financial Services Authority (Otoritas Jasa Keuangan) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market law and regulations.

Ireland: CGS-CIMB is not an investment firm authorised in the Republic of Ireland and no part of this document should be construed as CGS-CIMB acting as, or otherwise claiming or representing to be, an investment firm authorised in the Republic of Ireland.

Malaysia: This report is distributed in Malaysia by CIMB solely for the benefit of and for the exclusive use of our clients. Recipients of this report are to contact CIMB, at 17th Floor Menara CIMB No. 1 Jalan Stesen Sentral 2, Kuala Lumpur Sentral 50470 Kuala Lumpur, Malaysia, in respect of any matters arising from or in connection with this report. CIMB has no obligation to update, revise or reaffirm its opinion or the information in this research reports after the date of this report.

New Zealand: In New Zealand, this report is for distribution only to persons who are wholesale clients pursuant to section 5C of the Financial Advisers Act 2008.

Singapore: This report is issued and distributed by CGS-CIMB Research Pte Ltd ("CGS-CIMBR"). CGS-CIMBR is a financial adviser licensed under the Financial Advisers Act, Cap 110 ("FAA") for advising on investment products, by issuing or promulgating research analyses or research reports, whether in electronic, print or other form. Accordingly CGS-CIMBR is a subject to the applicable rules under the FAA unless it is able to avail itself to any prescribed exemptions.

Recipients of this report are to contact CGS-CIMB Research Pte Ltd, 50 Raffles Place, #16-02 Singapore Land Tower, Singapore in respect of any matters arising from, or in connection with this report. CGS-CIMBR has no obligation to update its opinion or the information in this research report. This publication is strictly confidential and is for private circulation only. If you have not been sent this report by CGS-CIMBR directly, you may not rely, use or disclose to anyone else this report or its contents.

If the recipient of this research report is not an accredited investor, expert investor or institutional investor, CGS-CIMBR accepts legal responsibility for the contents of the report without any disclaimer limiting or otherwise curtailing such legal responsibility. If the recipient is an accredited investor, expert investor or institutional investor, the recipient is deemed to acknowledge that CGS-CIMBR is exempt from certain requirements under the FAA and its attendant regulations, and as such, is exempt from complying with the following :

(a) Section 25 of the FAA (obligation to disclose product information);

(b) Section 27 (duty not to make recommendation with respect to any investment product without having a reasonable basis where you may be reasonably expected to rely on the recommendation) of the FAA;

(c) MAS Notice on Information to Clients and Product Information Disclosure [Notice No. FAA-N03];

(d) MAS Notice on Recommendation on Investment Products [Notice No. FAA-N16];

(e) Section 36 (obligation on disclosure of interest in securities), and
(f) any other laws, regulations, notices, directive, guidelines, circulars and practice notes which are relates to the above, to the extent permitted by applicable laws, as may be amended from time to time, and any other laws, regulations, notices, directive, guidelines, circulars, and practice notes as we may notify you from time to time. In addition, the recipient who is an accredited investor, expert investor or institutional investor acknowledges that a CGS-CIMBR is exempt from Section 27 of the FAA, the recipient will also not be able to file a civil claim against CGS-CIMBR for any loss or damage arising from the recipient's reliance on any recommendation made by CGS-CIMBR which would otherwise be a right that is available to the recipient under Section 27 of the FAA, the recipient will also not be able to file a civil claim against CGS-CIMBR for any loss or damage arising from the recipient's reliance on any recommendation made by CGS-CIMBR which would otherwise be a right that is available to the recipient under Section 27 of the FAA.

CGS-CIMBR, its affiliates and related corporations, their directors, associates, connected parties and/or employees may own or have positions in securities of the company(ies) covered in this research report or any securities related thereto and may from time to time add to or dispose of, or may be materially interested in, any such securities. Further, CGS-CIMBR, its affiliates and its related corporations do and seek to do business with the company(ies) covered in this research report and may from time to time act as market maker or have assumed an underwriting commitment in securities of such company(ies), may sell them to or buy them from customers on a principal basis and may also perform or seek to perform significant investment banking, advisory, underwriting or placement services for or relating to such company(ies) as well as solicit such investment, advisory or other services from any entity mentioned in this report.

As of July 01, 2019,, CGS-CIMBR does not have a proprietary position in the recommended securities in this report.

CGS-CIMBR does not make a market on the securities mentioned in the report.

South Korea: This report is issued and distributed in South Korea by CGS-CIMB Securities (Hong Kong) Limited, Korea Branch ("CGS-CIMB Korea") which is licensed as a cash equity broker, and regulated by the Financial Services Commission and Financial Supervisory Service of Korea. In South Korea, this report is for distribution only to professional investors under Article 9(5) of the Financial Investment Services and Capital Market Act of Korea ("FSCMA").

Spain: This document is a research report and it is addressed to institutional investors only. The research report is of a general nature and not personalised and does not constitute investment advice so, as the case may be, the recipient must seek proper advice before adopting any investment decision. This document does not constitute a public offering of securities.

CGS-CIMB is not registered with the Spanish Comision Nacional del Mercado de Valores to provide investment services.

Sweden: This report contains only marketing information and has not been approved by the Swedish Financial Supervisory Authority. The distribution of this report is not an offer to sell to any person in Sweden or a solicitation to any person in Sweden to buy any instruments described herein and may not be forwarded to the public in Sweden.

Switzerland: This report has not been prepared in accordance with the recognized self-regulatory minimal standards for research reports of banks issued by the Swiss Bankers' Association (Directives on the Independence of Financial Research).

Thailand: This report is issued and distributed by CGS-CIMB Securities (Thailand) Co. Ltd. ("CGS-CIMB Thailand") based upon sources believed to be reliable (but their accuracy, completeness or correctness is not guaranteed). The statements or expressions of opinion herein were arrived at after due and careful consideration for use as information for investment. Such opinions are subject to change without notice and CGS-CIMB Thailand has no obligation to update its opinion or the information in this research report.

CGS-CIMB Thailand may act or acts as Market Maker, and issuer and offerer of Derivative Warrants and Structured Note which may have the following securities as its underlying securities. Investors should carefully read and study the details of the derivative warrants in the prospectus before making investment decisions.

AAV, ADVANC, AMATA, ANAN, AOT, AP, BA, BANPU, BBL, BCH, BCP, BCPG, BDMS, BEAUTY, BEC, BEM, BJC, BH, BIG, BLA, BLAND, BPP, BTS, CBG, CENTEL, CHG, CK, CKP, COM7, CPALL, CPF, CPN, DELTA, DTAC, EA, EGCO, EPG, GFPT, GLOBAL, GLOW, GPSC, GUNKUL, HMPRO, INTUCH, IRPC, ITD, IVL, KBANK, KCE, KKP, KTB, KTC, LH, LHBANK, LPN, MAJOR, MALEE, MEGA, MINT, MONO, MTLS, PLANB, PSH, PTL, PTG, PTT, PTTEP, PTTGC, QH, RATCH, ROBINS, S, SAWAD, SCB, SCC, SCCC, SIRI, SPALI, SPRC, STEC, STPI, SUPER, TASCO, TCAP, THAI, THANI, THCOM, TISCO, TKN, TMB, TOP, TPIPL, TRUE, TTA, TU, TVO, UNIQ, VGI, WHA, WORK.

Corporate Governance Report:

The disclosure of the survey result of the Thai Institute of Directors Association ("IOD") regarding corporate governance is made pursuant to the policy of the Office of the Securities and Exchange Commission. The survey of the IOD is based on the information of a company listed on the Stock Exchange of Thailand and the Market for Alternative Investment disclosed to the public and able to be accessed by a general public investor. The result, therefore, is from the perspective of a third party. It is not an evaluation of operation and is not based on inside information.

The survey result is as of the date appearing in the Corporate Governance Report of Thai Listed Companies. As a result, the survey result may be changed after that date. CGS-CIMB Thailand does not confirm nor certify the accuracy of such survey result.

Score Range:	90 - 100	80 – 89	70 - 79	Below 70 or	No Survey Result
Description:	Excellent	Very Good	Good	N/A	

United Arab Emirates: The distributor of this report has not been approved or licensed by the UAE Central Bank or any other relevant licensing authorities or governmental agencies in the United Arab Emirates. This report is strictly private and confidential and has not been reviewed by, deposited or registered with UAE Central Bank or any other licensing authority or governmental agencies in the United Arab Emirates. This report is being issued outside the United Arab Emirates to a limited number of institutional investors and must not be provided to any person other than the original recipient and may not be reproduced or used for any other purpose. Further, the information contained in this report is not intended to lead to the sale of investments under any subscription agreement or the conclusion of any other contract of whatsoever nature within the territory of the United Arab Emirates.

United Kingdom and European Economic Area (EEA): In the United Kingdom and European Economic Area, this material is also being distributed by CGS-CIMB Securities (UK) Limited ("CGS-CIMB UK"). CGS-CIMB UK is authorized and regulated by the Financial Conduct Authority and its registered office is at 27 Knightsbridge, London, SW1X7YB. The material distributed by CGS-CIMB UK has been prepared in accordance with CGS-CIMB's policies for managing conflicts of interest arising as a result of publication and distribution of this material. This material is for distribution only to, and is solely directed at, selected persons on the basis that those persons: (a) are eligible counterparties and professional clients of CGS-CIMB UK; (b) have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "Order"), (c) fall within Article 49(2)(a) to (d) ("high net worth companies, unincorporated associations etc") of the Order; (d) are outside the United Kingdom subject to relevant regulation in each jurisdiction, material(all such persons together being referred to as "relevant persons"). This material is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this material relates is available only to relevant persons and will be engaged in only with relevant persons.

Where this material is labelled as non-independent, it does not provide an impartial or objective assessment of the subject matter and does not constitute independent "research" (cannot remove research from here under the applicable rules of the Financial Conduct Authority in the UK. Consequently, any such non-independent material will not have been prepared in accordance with legal requirements designed to promote the independence of research (cannot remove research from here) and will not subject to any prohibition on dealing ahead of the dissemination of research. Any such non-independent material must be considered as a marketing communication.

United States: This research report is distributed in the United States of America by CGS-CIMB Securities (USA) Inc, a U.S. registered broker-dealer and a related company of CGS-CIMB Research Pte Ltd, PT CGS-CIMB Sekuritas Indonesia, CGS-CIMB Securities (Thailand) Co. Ltd, CGS-CIMB Securities (Hong Kong) Limited, CGS-CIMB Securities (India) Private Limited, and is distributed solely to persons who qualify as "U.S. Institutional Investors" as defined in Rule 15a-6 under the Securities and Exchange Act of 1934. This communication is only for Institutional Investors whose ordinary business activities involve investing in shares, bonds, and associated securities and/or derivative securities and who have professional experience in such investments. Any person who is not a U.S. Institutional Investor or Major Institutional Investor must not rely on this communication. The delivery of this research report to any person in the United States of America is not a recommendation to effect any transactions in the securities discussed herein, or an endorsement of any opinion expressed herein. CGS-CIMB Securities (USA) Inc, is a FINRA/SIPC member and takes responsibility for the content of this report. For further information or to place an order in any of the above-mentioned securities please contact a registered representative of CGS-CIMB Securities (USA) Inc.

CGS-CIMB Securities (USA) Inc. does not make a market on other securities mentioned in the report.

CGS-CIMB Securities (USA) Inc. has not managed or co-managed a public offering of any of the securities mentioned in the past 12 months.

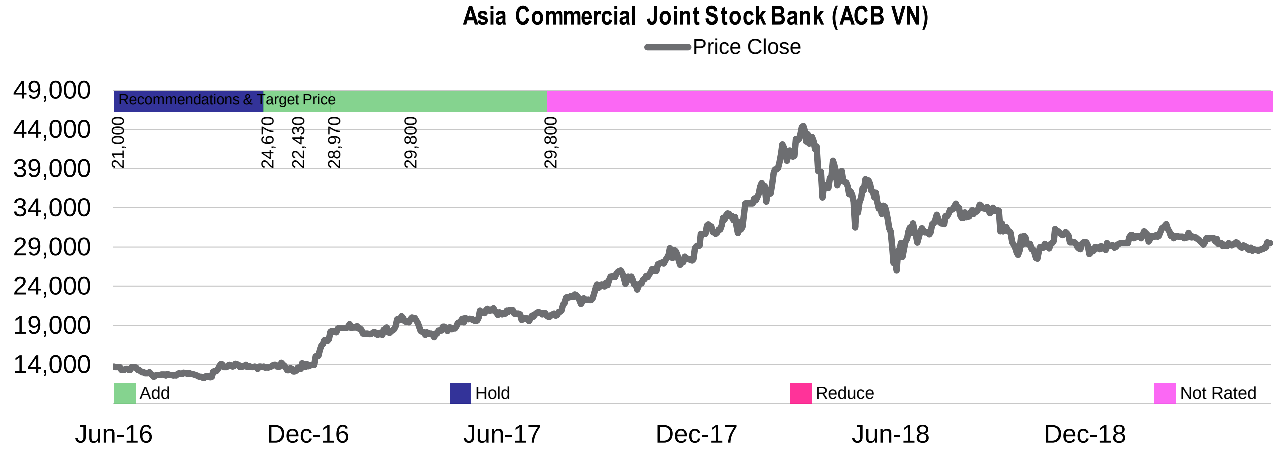
CGS-CIMB Securities (USA) Inc. has not received compensation for investment banking services from any of the company mentioned in the past 12 months.

CGS-CIMB Securities (USA) Inc. neither expects to receive nor intends to seek compensation for investment banking services from any of the company mentioned within the next 3 months.

Other jurisdictions: In any other jurisdictions, except if otherwise restricted by laws or regulations, this report is only for distribution to professional, institutional or sophisticated investors as defined in the laws and regulations of such jurisdictions.

Distribution of stock ratings and investment banking clients for quarter ended on 08 April 2019 771 companies under coverage for quarter ended on 08 April 2019		
	Rating Distribution (%)	Investment Banking clients (%)
Add	57.8%	4.0%
Hold	27.0%	2.1%
Reduce	15.2%	0.4%

Spitzer Chart for stock being researched (2 year data)



Corporate Governance Report of Thai Listed Companies (CGR). CG Rating by the Thai Institute of Directors Association (Thai IOD) in 2018, Anti-Corruption 2018

ADVANC – Excellent, Certified, **AEONTS** – Good, n/a, **AH** – Very Good, n/a, **AMATA** – Excellent, Declared, **ANAN** – Excellent, Declared, **AOT** – Excellent, Declared, **AP** – Excellent, Certified, **ASP** – Very Good, Certified, **BANPU** – Excellent, Certified, **BAY** – Excellent, Certified, **BBL** – Very Good, Certified, **BCH** – Good, Certified, **BCP** - Excellent, Certified, **BCPG** – Excellent, Certified, **BEM** – Very Good, n/a, **BDMS** – Very Good, n/a, **BEAUTY** – Good, n/a, **BEC** – Very Good, n/a, , **BGRIM** – Very Good, Declared, **BH** - Good, n/a, **BJC** – Very Good, Declared, **BJCHI** – Very Good, Certified, **BPP** – Very Good, Declared, **BR** - Good, Declared, **BTS** - Excellent, Certified, **CBG** – Very Good, n/a, **CCET** – Good, n/a, **CENTEL** – Very Good, Certified, **CHG** – Very Good, Declared, **CK** – Excellent, n/a, **COL** – Excellent, Declared, **CPALL** – Very Good, Certified, **CPF** – Excellent, Certified, **CPN** - Excellent, Certified, **DELTA** - Excellent, n/a, **DEMCO** – Excellent, Certified, **DDD** – Very Good, Declared, **DIF** – not available, n/a, **DTAC** – Excellent, Certified, **EA** – Excellent, n/a, **ECL** – Very Good, Certified, **EGCO** - Excellent, Certified, **EPG** – Very Good, n/a, **ERW** – Very Good, n/a, **GFPT** - Excellent, Certified, **GGC** – Excellent, Certified, **GLOBAL** – Very Good, n/a, **GLOW** – Very Good, Certified, **GPSC** – Excellent, Certified, **GULF** – Very Good, n/a, **GUNKUL** – Excellent, Certified, **HANA** - Excellent, Certified, **HMPRO** - Excellent, Certified, **HREIT** - Excellent, Certified **ICHI** – Excellent, Declared, **HUMAN** – not available, n/a, **III** – Good, n/a, **INTUCH** - Excellent, Certified, **IRPC** – Excellent, Certified, **ITD*** – Very Good, n/a, **IVL** - Excellent, Certified, **JASIF** – not available, n/a, **KBANK** - Excellent, Certified, **KCE** - Excellent, Certified, **KKP** – Excellent, Certified, **KSL** – Excellent, Certified, **KTB** - Excellent, Certified, **KTC** – Excellent, Certified, **LH** - Very Good, n/a, **LPN** – Excellent, Certified, **M** – Very Good, Certified, **MACO** – Very Good, n/a, **MAJOR** – Very Good, n/a, **MAKRO** – Excellent, Declared, **MALEE** – Very Good, Certified, **MC** – Very Good, Certified, **MCOT** – Excellent, Certified, **MEGA** – Very Good, n/a, **MINT** - Excellent, Certified, **MTC** – Excellent, Declared, **NETBAY** – Good, n/a, **PLANB** – Excellent, Declared, **PLAT** – Very Good, Certified, **PSH** – Excellent, Certified, **PSTC** – Good, Certified, **PTT** - Excellent, Certified, **PTTEP** - Excellent, Certified, **PTTGC** - Excellent, Certified, **QH** – Excellent, Certified, **RATCH** – Excellent, Certified, **ROBINS** – Excellent, Certified, **RS** – Very Good, n/a, **RSP** – not available, n/a, **SAMART** - Excellent, n/a, **SAPPE** – Very Good, Declared, **SAT** – Excellent, Certified, **SAWAD** – Very Good, n/a, **SC** – Excellent, Declared, **SCB** - Excellent, Certified, **SCC** – Excellent, Certified, **SCN** – Very Good, Certified, **SF** – Good, n/a, **SIRI** – Very Good, Certified, **SPA** - Good, n/a, **SPALI** - Excellent, n/a, **SPRC** – Excellent, Certified, **STA** – Very Good, Certified, **STEC** – Excellent, n/a, **SVI** – Excellent, Certified, **SYNEX** – Very Good, Declared, **TASCO** – Excellent, Certified, **TCAP** – Excellent, Certified, **TIPCO** – Very Good, Certified, **TISCO** - Excellent, Certified, **TKN** – Very Good, Declared, **TMB** - Excellent, Certified, **TNR** – Very Good, Declared, **TOP** - Excellent, Certified, **TPCH** – Good, n/a, **TPIPP** – Good, n/a, **TRUE** – Excellent, Certified, **TU** – Excellent, Certified, **TVO** – Very Good, Declared, **UNIQ** – Good, n/a, **VGI** – Excellent, Certified, **WHA** – Excellent, Certified, **WHART** – not available, n/a, **WORK** – Good, n/a.

Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of August 31, 2018) are categorized into:

- Companies that have declared their intention to join CAC, and
- Companies certified by CAC

* The company, its director or management had been reportedly accused for breaching proper corporate governance such as violation of the SEC's regulations or charged with corruption.

RECOMMENDATION FRAMEWORK

Stock Ratings	**Definition:**
Add	The stock's total return is expected to reach 15% or higher over the next 12 months.
Hold	The stock's total return is expected to be between negative 10% and positive 15% over the next 12 months.
Reduce	The stock's total return is expected to fall below negative 10% over the next 12 months.

The total expected return of a stock is defined as the sum of the:(i) percentage difference between the target price and the current price and (ii) the forward net dividend yields of the stock. Stock price targets have an investment horizon of 12 months.

Sector Ratings	**Definition:**
Overweight	An Overweight rating means stocks in the sector have, on a market cap-weighted basis, a positive absolute recommendation.
Neutral	A Neutral rating means stocks in the sector have, on a market cap-weighted basis, a neutral absolute recommendation.
Underweight	An Underweight rating means stocks in the sector have, on a market cap-weighted basis, a negative absolute recommendation.

Country Ratings	**Definition:**
Overweight	An Overweight rating means investors should be positioned with an above-market weight in this country relative to benchmark.
Neutral	A Neutral rating means investors should be positioned with a neutral weight in this country relative to benchmark.
Underweight	An Underweight rating means investors should be positioned with a below-market weight in this country relative to benchmark.

Hien Tran Khanh – Deputy Head of Research
Email: hien.trankhanh@vndirect.com.vn

Thuy Le Minh – Analyst
Email: thuy.leminh@vndirect.com.vn

VNDIRECT Securities Corporation
1 Nguyen Thuong Hien Str – Hai Ba Trung Dist – Ha Noi | Tel: +84 2439724568
Email: research@vndirect.com.vn | Website: https://vndirect.com.vn