China / Hong Kong Industry Focus

China Fintech Sector

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DBS Group Research . Equity

14 Sep 2018

Snooping around- a visit to Lufax, PPDai, Ant Financial, Huifu Payment

- **Lufax is benefitting from concentration effect amid P2P compliance with expanding scale to drive profit**
- **PPDai (PPDF US) eyeing large-ticket loans to diversify product offering**
- **Ant Financial is adjusting its model to adopt the new policy on reserve fund/ABS on-BS rule**
- **Huifu Payment (1806 HK) will benefit from small merchants' offline payment and cross-border payment services**

We visited Lufax, PPDai, Ant Financial, and Huifu Payment to gain a better understanding of their business models. The key takeaways are as follows.

Lufax (non-listed) - An unbeatable champion. As the largest online lending/WMP platform in China, Lufax is set to benefit from the market consolidation from the P2P compliance process, where both borrower/investor migrate to safer platforms such as Lufax. A continuous growth in user base and loan origination point to increasing benefits from economies of scale, which would enhance Lufax's profitability ahead. Based on the management, its IPO is likely to take place in 2H19.

PPDai (PPDF US) - King of online small-ticket loans. As the first P2P platform in China, PPDai has accumulated vast personal credit data through providing small-sized loans since its inception. With industry consolidation, PPDai will benefit as unqualified platforms currently providing small-sized loans withdraw from the market. PPDai is expanding its offering to offer large-ticket loans and the learning curve may take one-to-two years based on the loan cycle, in our view.

Ant Financial (non-listed) - Adjusting for a better future. Ant Financial is adjusting its business model to adopt the new regulatory requirement on Customer Reserve Fund and asset-backed securities (ABS) on-balance sheet calculation. Adjustments include diversifying its funding sources to leverage on MyBank, and tap on institutional funds. Despite near-term earnings slowdown, its impressive scenario-based ecosystems underpins its positive long term outlook.

Huifu (1806 HK) - Mobile POS/Cross-border services are drivers. With rising mobile POS adoption among small merchants in China's tier 3-4 cities, Huifu, a unique independent payment service provider focusing on acquiring services, is set to benefit from the trend. Pricing competition has eased thanks to the new Customer Reserve Fund rule, implying more stable pricing/margin in the future. Its cross-border payment business, which is small currently, is set to serve as another long-term earnings driver.

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Snooping around - Lufax, PPDai, Ant Financial, Huifu

Source: Company, DBS HK

Lufax (non-listed)- An unbeatable champion

The largest online lending/WMPs platform in China. Backed by PingAn (2318 HK, BUY) and set up in Sep 2011 in Shanghai, Lufax operates a one-stop online financial services platform, ranging from personal lending services (PingAn Puhui), wealth management (LU Funds), and institutional trading (CQFAE and SQFAE) with earnings contribution at 70%/30%/ breakeven in 1H18. Lufax has 8.8m active borrowers and RMB314bn outstanding loans (50/50 funding from retail investors/FIs) for personal lending services, while it has 9.9m active investors on its wealth management product (WMP) platform and RMB385bn AUM with more than 5K products in partnership with 300+ financial institutions.

CQFAE works with the Chongqing government to provide debt financing services on its matchmaking trading platform, while SQFAE operates a distressed assets and cross-border transaction platform. In 2017, Lufax established LU International. It expanded its footprint to Southeast Asia , when it acquired a Capital Markets Services (CMS) license in Singapore to provide online wealth management and consumer lending services in Vietnam and Indonesia.

Fig 1: Lufax's Puhui and P2P apps

Source: Company, DBS HK

Fig 2: LU Funds app

Source: Company, DBS HK

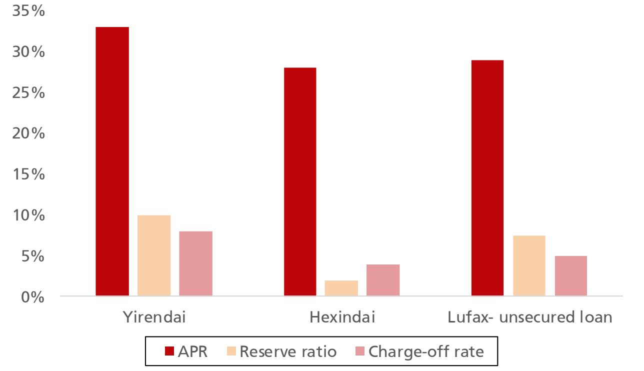
Fig 3: Lufax's business structure

Source: Company, DBS HK

Broad range of personal financing services. Lufax offers three types of online lending products, including secured loans with house as collateral, unsecured loans, and iLoans which forms 45%/45%/10% of its loan portfolio, with annual percentage rate (APR) charges of 20%/29%/27% respectively. The average duration for secured and unsecured loans is 36 months and the average ticket size is RMB500K for the former and RMB200K for the latter. Similar to Ant Finanacial's Jiebei, iLoan provides a revolving loan of amounts less than RMB50K. Breaking down the APR, reserve fund is charged 7-8% which is backed by insurance companies, investors seeking 7-7.5% return, and the rest is Lufax's fee income.

The funding source for secured loans is banks, while for unsecured loans, it is mainly from P2P retail investors. By leveraging on Puhui's 13-year offline lending experiences and borrowers' behavior data, Lufax's average charge-off rate is 4%, with a default rate of less than 2%/5% for secured/ unsecured loans. Contracts with insurance companies are renewed annually, and credit guarantee fees are low as Lufax has a relatively stable charge-off rate. Lufax is considering to use Lending Club (LC US)'s business model which allows investors to decide on whether to buy insurance to protect their investments. Investors could enjoy higher returns through taking their own risk without insurance protection.

Fig 4: Lufax's unsecured loan APR/charge-off rate compared to peers



Source: Company, DBS HK;

IPO likely in 2H19. Due to the P2P compliance process, Lufax's IPO schedule has been delayed from 1H18 to 2H19. Lufax believes the recent P2P turmoil amid the shut-down or clean-up of medium-small platforms was due to :1) the duration mismatch between investors/borrowers, 2) providing corporate loans instead of consumer loans, and defaults were impacted by the liquidity crunch as a result of deleveraging, and 3) reliance on upfront fees for revenue, which is highly related to new loan sales. Thus, once loan facilitation slowed, P2P's operating cashflows were impacted. Lufax thinks only 200-300 platforms would survive at the end of the day, vs 1.5K-1.6K platforms currently.

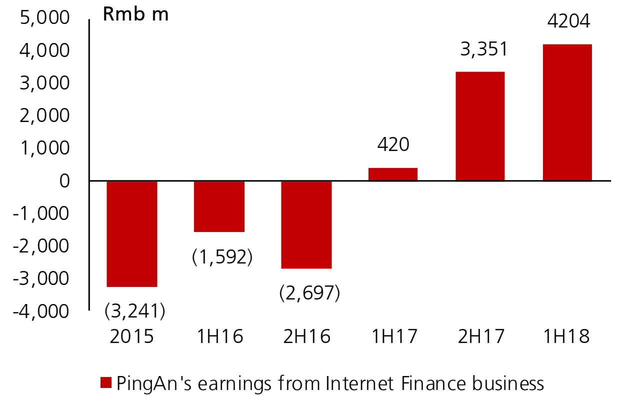
Its WMP platform meets the regulatory requirement that no non-standard WMPs are listed on its platform, from 30% previously. This is the reason that its WMP's AUM dropped by 16.6% h-o-h to RMB385bn in 1H18, despite the increase in active investors by 11.7% h-o-h to 9.9m. Lufax has completed two rounds of fundraising, A-round of US$292m in Dec 2014 and B-round of US$1.216bn in Jan 2016 which brings Lufax's valuation to US$18.5bn. Lufax targets to achieve a market cap of US$50-60bn post IPO.

Fig 5: Lufax's key operating matrix

Lufax's operating matrix	2014	2015	2016	2017	1H18
Number of users ('000)					
Registered users	5,120	18,310	28,380	33,830	36,840
yoy		*258%*	*55%*	*19%*	*18%*
Active investor users	340	3,630	7,400	9,610	9,900
yoy		*968%*	*104%*	*30%*	*29%*
Borrowers (Puhui)	n.a.	1,240	3,770	7,490	8,790
yoy			*204%*	*99%*	*59%*
Trading volume (Rmb bn)					
Wealth management*	83	646	1,536	2,117	925
yoy		*681%*	*138%*	*38%*	*-16%*
Institutional trading	168	879	4,200	5,382	n.a.
yoy		*422%*	*378%*	*28%*	
New loans (Puhui)	30	48	173	344	177
yoy		*60%*	*258%*	*99%*	*11%*
Asset/loan under managed (Rmb bn)					
Asset under management	n.a.	251	438	462	385
yoy			*75%*	*5%*	*-25%*
Loans under management	n.a.	42	147	288	314
yoy			*251%*	*97%*	*39%*

Source: Company, DBS HK

Fig 6: PingAn's earnings from internet finance is largely from Lufax



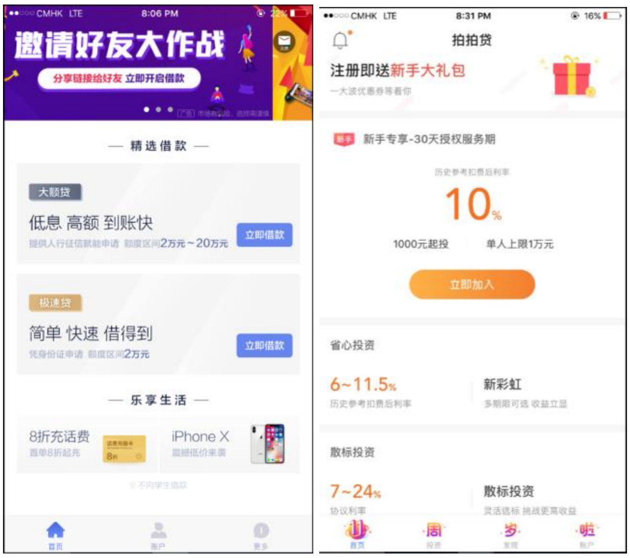
Source: Company, DBS HK; Note: Internet finance business represent business from Lufax, Ping An Good Doctor and Finance One Account

PPDai (PPDF US, NR)- King of online small-ticket sized loan

The first P2P platform in China. Established in 2007 in Shanghai, PPDai (PPDF US) is the first P2P platform in China to provide small ticket loans averaging RMB3-4K with a short duration of 9-10 months in China. Loan origination volume reached RMB29.1bn (+7.8% y-o-y) in 1H18 and the cumulative number of borrowers/investors on its platform stood at 12.4m/614K as of June 2018. PPDai charged borrowers 33% APR and provided 11% returns for investors in 1H18. The slowdown in loan origination (2017 loan origination was up 230% y-o-y to RMB65.6bn) was mainly due to Shanghai government placing a cap on the loan facilitation value from retail investors at June 2017's level until P2P compliance processes are completed.

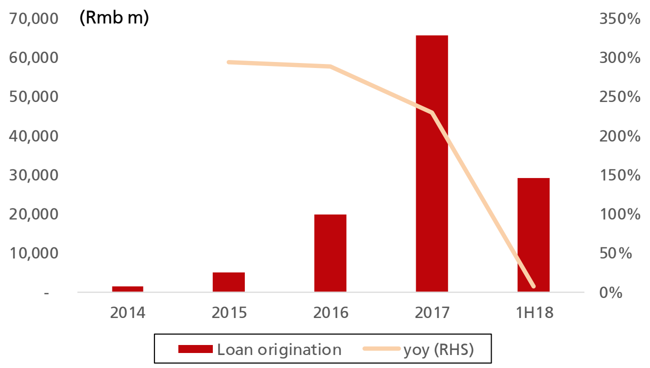
On the new "108 rules" announced in mid-Aug that required all P2P platforms to undergo local/national government checks before the end of Sep/Oct, PPDai stated that the new rule is no different to Shanghai government's previous "168 rules" and it has almost met all the requirements. Despite that the final list of qualified P2P platforms may be announced in early 2019, the management believes all platforms should know whether they have passed the P2P checks by the end of 2018, and this should be a key factor for investors to monitor in our view.

Fig 7: PPDai's app



Source: Company, DBS HK

Fig 8: PPDai's loan origination trend

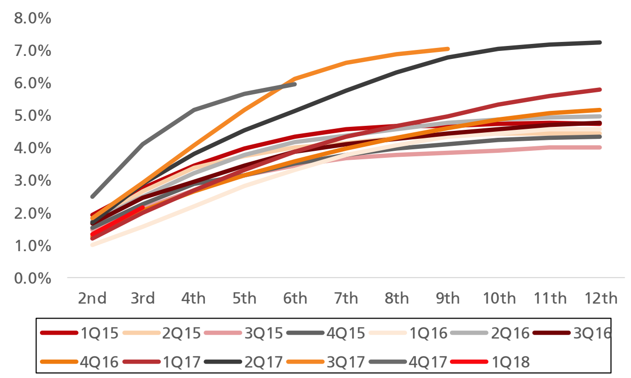


Source: Company, DBS HK

Predicting credit risk accurately is important. Breaking down PPDai's 33% APR charge into 11% return for investors, 10-15% on average for quality assurance fund (QAF), the rest is its fee income. PPDai's current take rate is around 6.3% implying that the QAF contribution rate is towards the upper range where pricing is always higher than the default rate. PPDai's QAF is protected ~80% of loans, which are originated on its platform, up from the previous 50-60%, by taking over the investor reserve fund (IRF) which was closed in Jan 2018. The QAF is now held by Sino Guarantee, a third-party guarantee company. PPDai's charge-off rate (default rate) used to be at 4-6%, however, the management has stated that the new norm for its credit risk should be 6-8% as the previous low default rate was masked by rapid loan growth.

The notion for PPDai is to predict borrowers' credit risk accurately, and to bear the risk as long as it is reasonable. Despite PPDai sharing its credit data with Baihang Credit, China's first unified credit reporting platform for the online lending platform sector, the advantage that PPDai has is talent and culture, rather than abundant data, as it cherry picks the variables to use to assess risk management, which is key.

Fig 9: PPDai's charge-off rate



Source: Company, DBS HK

Shifting to large ticket loans. PPDai launched a new product with loan size of RMB20K and duration of 12-24 months, similar to Yirendai's (YRD US) online lending model. This is still in the testing stage and the company expects demand for the product to grow faster once its loan balance cap is removed. The target borrowers for large-ticket loans are required to have credit record data at China Credit Reference Center (CCRC), which is the same requirement as large-ticked loan providers such as Yirendai and Hexindai (HX US). PPDai Is expanding its borrower segment from near-prime to prime.

In terms of competition, given that PPDai's APR is priced higher than ATJ (Alibaba (BABA US), Tencent (700 HK), JD (JD US))/banks, the direct competitors would be Lufax and Yirendai. However, as borrowers' profiles for large-ticket and small-ticket loans are totally different, it would take time to accumulate the required data and assess credit risk. Management expects the learning curve would take six months to one year, however, we think the learning process may take at least one to two years in tandem with the lifecycle of the loan.

Fig 10: PPDai's key matrix

PPDai's operating matrix	2014	2015	2016	2017	1Q18	2Q18
Total loan origination (RMBm	1,300	5,120	19,878	65,614	12,349	16,761
yoy		*293.8%*	*288.3%*	*230.1%*	*17.1%*	*1.6%*
Average loan size (Rmb)			2,795	2,470	3,066	3,212
yoy				*-11.6%*	*24.9%*	*40.6%*
# of unique borrower (K)	136	463	3,376	8,730	2,501	3,252
yoy		*240.4%*	*629.2%*	*158.6%*	*-2.7%*	*-14.9%*
Repeat borrowinr rate		55.7%	55.6%	68.9%	79%	73%
yoy			*-0.1%*	*13.3%*	*12.6%*	*5.0%*

Source: Company, DBS HK

Fig 11: PPDai's balance sheet

Balance (RMBm)	2015	2016	2017	1Q18	2Q18
Cash	92.5	404.7	1,891.1	1,476.2	2,485.1
Restricted cash	269.8	802.9	2,392.6	2,563.7	2,362.0
Short-term investments	34.5	260.0	1,958.9	2,261.9	1,440.5
Quality assurance fund receivable	115.5	286.8	1,152.8	1,325.3	2,043.4
Loans receivable, net	91.4	28.2	681.8	656.7	784.3
Other	133.3	364.7	526.5	875.6	1,062.3
Total assets	**736.9**	**2,147.3**	**8,603.7**	**9,159.4**	**10,177.6**
Short-term borrowings and interest payables	20.0	-	-	52.1	30.0
Payable to platform customers	176.2	421.7	1,114.0	1,241.0	689.0
Quality assurance fund payable	125.7	473.7	2,062.8	2,280.6	3,248.9
Provision for payment to investor reserve fund inv	-	-	107.7	107.7	107.7
Deferred tax liability	-	-	15.9	15.9	15.9
Other	146.7	479.7	1,621.1	1,201.2	1,256.7
Total liabilities	**468.5**	**1,375.1**	**4,921.5**	**4,898.6**	**5,348.1**
Total equity (including mezzanine equity & non-c	**(317.4)**	**(438.4)**	**3,682.2**	**4,260.9**	**4,829.5**

Source: Company, DBS HK

Fig 12: PPDai's income statement

P&L (RMBm)	2015	2016	2017	1Q18	2Q18
Loan facilitation service fees	164.3	911.4	2,843.3	620.8	753.3
Post facilitation service fees	8.0	126.8	668.8	227.2	205.9
Other revenue	25.1	170.4	491.4	68.8	88.2
Expected discretionary payment to IRF investors	-	-	(107.7)	-	-
Total operating revenue	197.4	1,208.7	3,895.8	916.8	1,047.3
Net interest income/(expense) and loan provision	(1.7)	7.1	(15.2)	27.0	12.5
Total revennue	**195.7**	**1,215.8**	**3,880.6**	**943.8**	**1,059.8**
Origination and servicing	99.4	349.9	890.2	221.8	207.1
Origination and servicing- related party	-	38.3	84.4	25.3	27.6
Sales and marketing	125.4	353.0	788.3	151.1	194.3
General and administration	115.9	237.8	588.7	145.5	161.5
Profit / (loss) from operations	**(145.1)**	**236.8**	**1,529.2**	**400.1**	**469.3**
Gain from quality assuarance fund	42.4	100.0	5.9	59.7	151.1
Realized gain from financial guarantee derivative	19.55	32.00	169.10	(45.22)	(101.89)
Fair value change of financial guarantee derivativ	15.76	146.65	(383.06)	71.53	196.54
Gain from disposal of subsidiary	-	20.61	-	-	-
Other income, net	(0.37)	13.68	36.53	46.03	50.75
Net (loss)/income before income taxes	**(67.8)**	**549.8**	**1,357.6**	**532.1**	**765.8**
Income tax expenses/(benefit)	4.4	48.3	274.7	94.6	158.0
Net (loss)/income	**(72.1)**	**501.5**	**1,082.9**	**437.6**	**607.8**
Net income/(loss) attributable to ordinary shareho	(180.9)	(60.5)	(1,990.6)	439.0	607.8
EPS	(1.4)	(0.5)	(12.8)	1.5	2.0
Key raitos					
Operating margin	-74.1%	19.5%	39.4%	42.4%	44.3%
EBITDA margin	-54.6%	38.0%	35.4%	50.1%	58.0%
Pre-tax profit margin	-34.6%	45.2%	35.0%	56.4%	72.3%
Net margin	-36.9%	41.2%	27.9%	46.4%	57.3%
As % of loan origination					
Net revenue to loans facilitated	3.8%	6.1%	5.9%	7.6%	6.3%
Other operating cost to loans facilitated	4.2%	3.1%	2.4%	3.2%	2.4%
PBT to loans facilitated	-1.3%	2.8%	2.1%	4.3%	4.6%
Net income to loans facilitated	-1.4%	2.5%	1.7%	3.5%	3.6%

Source: Company, DBS HK

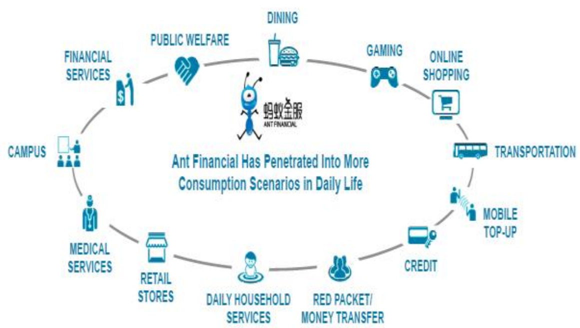
Ant Financial (non-listed)- Adjusting for a better future

From payment giant to financing services. Starting with Alipay services, which was launched in 2004, Alibaba's buyers/sellers on Tmall/Taobao rely on payment services to guarantee e-commerce transactions, from collecting to making payments for merchants. In 2014, Alibaba set up Ant Financial which has consolidated Alipay and expanded into financing services, incl. personal lending (Huabei/Jiebei) and small and micro loans (MyBank), as well as Zhima Credit. With a consumption-based scenario model, Ant Financial plays an important role in Alibaba's ecosystem from digital payment, consumer finance, wealth management, insurance, to credit scoring (Zhima Credit) to serve consumers in China with over 500m monthly active users (MAU).

MyBank, one of the five privately owned banks to obtain a banking license from CBRC in 2014, provides pure online services from account opening to small and micro loan financing to serve SMEs. Since inception, MyBank has served 5.71m SMEs with average loan size of RMB28K. MyBank is leveraging on Ant Financial/Alibaba's cloud-computing techniques with developing big data, artificial intelligence and facial recognition to facilitate lending services. In 2017, MyBank's assets/liabilities reached RMB78.17bn/ RMB73.5bn (+27%/+28% y-o-y) with loans/deposits of RMB31.6bn/RMB25bn (-4%/+8% y-o-y).

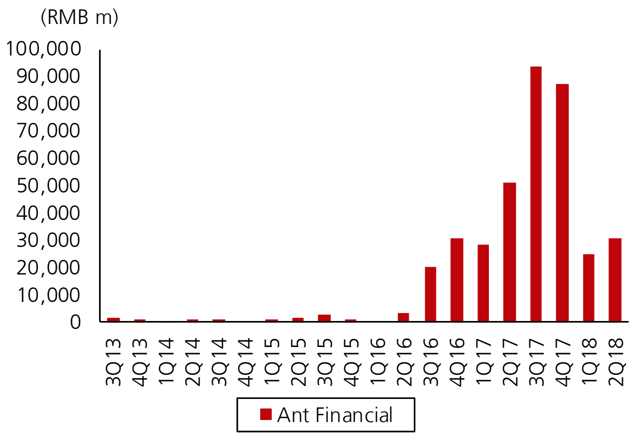
In 2017, the CBRC allowed MyBank to expand in the bond financing, interbank deposit/borrowing, and asset-backed securities (ABS) markets. Through MyBank, Huabei/Jiebei's ABS issuance has been able to leverage up, as online consumer loan license only allows 2.3x leverage, vs banking license's 11-12x. Huabei and Jiebei provide small-ticket unsecured consumer loans mainly through the Alipay app to acquire borrowers with loan tenure of less than 12 months. In 2017, the value of Huabei/Jiebei's ABS issuance increased 3.8x y-o-y to RMB261bn.

Fig 13: Consumption-based scenario model



Source: WIND, DBS HK

Fig 14: Ant Financial ABS issuance by quarter



Source: WIND, DBS HK

MyBank focuses on small-micro corporate loans and expanded into the interbank market in 2017, while WeBank (owned by Tencent (700 HK)) is focused on consumer unsecured loans through Welidai, offering loans of RMB500-RMB300K. As the nature of their business models are different, this is reflected on their financials - MyBank's loan growth declined 4% y-o-y to RMB32bn in FY17, vs WeBank +50% y-o-y to RMB45bn, while MyBank's net profit was up 28% y-o-y to RMB402m, vs WeBank +263% y-o-y to RMB1.5bn. As WeBank offers consumer credit loans and the segment was booming in FY17, its earnings growth was aligned with other fintech companies. Despite MyBank helping Huabei/Jiebei issue ABS for consumer credit loans, this very likely only contributed to MyBank's fee income (+225% y-o-y to RMB565m) while the profits of Huabei/Jiebei were not consolidated.

Fig 15: MyBank (Ant Financial) vs WeBank (Tencent) Income statement

Internet bank name	MyBank			WeBank		
Income Statement (Dec-end, RMB mil)	**FY15**	**FY16**	**FY17**	**FY15**	**FY16**	**FY17**
Interest income	366	3,689	5,613	307	2,533	6,539
Interest expense	(166)	(1,285)	(1,910)	(112)	(698)	(2,144)
Net interest income	**200**	**2,405**	**3,703**	**195**	**1,835**	**4,396**
Fee and commission income	0	195	736	42	624	3,136
Fee and commission expense	(0)	(21)	(171)	(15)	(62)	(862)
Net fee and commission income	**0**	**174**	**565**	**27**	**562**	**2,274**
Investment gains/(losses)	1	1	1	4	52	41
Other operating income	53	58	5			2
Other gain/(losses)	0	-1	0			35
Total operating income	**253**	**2,637**	**4,275**	**226**	**2,449**	**6,748**
Taxes and surcharges	(16)	(66)	(42)	(10)	(46)	(69)
Operating and administrative expenses	(154)	(1,150)	(3,300)	(706)	(1,271)	(2,699)
Impairment losses on assets	(127)	(967)	(423)	(111)	(824)	(2,242)
Other operating expenses	(48)	(51)	-	0	0	0
Total operating expenses	**(345)**	**(2,234)**	**(3,765)**	**(828)**	**(2,140)**	**(5,010)**
Non-operating income	-	2	2	20	25	6
Non-operating expenses	0	(0)	(0)		(0)	(2)
Profit before income tax	**(92)**	**404**	**512**	**(582)**	**334**	**1,741**
Income tax expense	23	(89)	(108)	(2)	67	(293)
Profit after tax	**(69)**	**316**	**404**	**(584)**	**401**	**1,448**
Other comprehensive income, net of tax						
Gains /(losses) arising from changes in fair value of AFS financial	0	0	-2	1	0	11
Total comprehensive income	**(69)**	**316**	**402**	**(583)**	**402**	**1,459**
Net Interest income / operating income	79%	91%	87%	87%	75%	65%
Net fee income / operating income	0%	7%	13%	12%	23%	34%
Cost-income	67%	46%	78%	317%	54%	41%
credit cost (bps)	174	294	134	296	276	499
Net interest margin	n.a.	5%	5%	n.a.	6%	7%
Funding cost	n.a.	3%	3%	n.a.	2%	4%
Net interest spread	n.a.	3%	4%	n.a.	3%	5%
NPL ratio (%)	n.a.	n.a.	1.2%	n.a.	0.3%	0.6%
Capital adequacy ratio (%)	18.5%	11.1%	13.5%	36.5%	20.2%	16.7%
ROA (%)	n.a.	1%	1%	n.a.	1%	2%
ROE (%)	n.a.	8%	9%	n.a.	2%	5%

Source: Company, DBS HK

Fig 16: MyBank (Ant Financial) vs WeBank (Tencent) Balance sheet

Internet bank name	MyBank			WeBank		
Balance Sheet (Dec-end, RMB mil)	**FY15**	**FY16**	**FY17**	**FY15**	**FY16**	**FY17**
Cash and due from central banks	991	7,784	31,629	1,996	6,308	14,549
Due from banks and other financial institutions	491	1,820	4,868	34	1,617	1,401
Placements with banks and other financial institutions	-	-	-	-	2,000	70
Financial assets at fair value through profit or loss	0	105	-	-	182	217
Financial assets held under resale agreements	-	-	-	-	900	5,562
Interest receivable	167	525	253	47	315	442
Loans and advances to customers	7,287	32,891	31,636	3,764	29,862	44,920
Available-for-sale financial assets	-	-	3,363	341	2,299	5,540
Financial assets classified as receivables	21,000	17,000	5,560	3,220	7,809	1,799
Fixed asset	101	68	63	19	34	36
Intangible assets	116	76	36	34	49	2,493
Deferred tax asset	23	202	297	-	145	318
Other asset	69	1,051	465	167	475	4,356
Total Assets	**30,245**	**61,522**	**78,171**	**9,621**	**51,995**	**81,704**
Due to banks and other financial institutions	26,000	17,988	38,088	6,009	35,347	45,213
Placements from banks and other financial institutions	-	500	800	500	2,040	-
Financial liabilities at fair value through profit or loss	-	1	-	-	182	217
Financial assets sold under repurchase agreements	-	-	-	-	1,148	1,489
Customer deposits	0	23,212	25,168	145	3,297	5,336
Employee benefits obligations	17	34	44	176	315	569
Taxes payable	14	256	198	4	146	297
Interest payable	64	174	614	25	397	563
Bonds issued	-	14,253	1,964	-	1,985	17,036
Other liabilities	217	859	6,624	335	434	2,653
Total Liabilities	**26,314**	**57,276**	**73,500**	**7,194**	**45,292**	**73,372**
Share capital	4,000	4,000	4,000	3,000	4,200	4,200
Capital reserve	-	-	22	-	2,675	2,844
Other comprehensive income	-	-	(2)	1	1	12
Surplus reserve	-	20	66	1	1	322
General reserve	-	164	285	9	9	953
Retained earnings	(69)	63	300	(584)	(182)	-
Total Equity	**3,931**	**4,247**	**4,671**	**2,427**	**6,704**	**8,332**

Source: Company, DBS HK

Heavily impacted by recent regulation. As major players such as Alipay and TenPay have expanded rapidly, recent regulation concerning third-party payments has focused on containing operational risks, protecting consumer rights, and reining in leveraging. A large impact is on the third-party customer reserve fund, as the latest requirement is that 50% of the client reserve fund has to be deposited into a centralised account under PBOC supervision from April 2018, increasing to 100% in 2019, and the funds under PBOC supervision generate no interest. On our estimates, Ant Financial's ~RMB5bn interest income (based on RMB250bn deposit with banks offering 2%) from idle reserve fund will disappear.

Secondly, online micro-finance lenders using asset-backed securities (ABS) as a funding source would need to include the securitisation amount and liability on the balance sheet when calculating the regulatory restricted leverage ratio cap of 2.3x. This has greatly affected Ant Financial's consumer finance company which operates Huabei and Jiebei, which previously used ABS as an off-balance sheet funding source to boost lending, in our view. With restrictions on ABS issuance, Huabei/Jiebei is shifting to "platform" model, seeking institutional funding, i.e. syndicated loans. Lastly, Zhima Credit, a private credit scoring company developed by Ant Financial, would not be able to be monetised given that PBOC has already set up Baihang Credit which is China's first official private credit scoring company, in May 2018. Baihang Credit will be able to collect and store personal credit information from online lending companies as well as create credit reports and ratings.

As a result of various regulatory impacts in 2018, Ant Financial is basically resorting to go "global" and internationalise itself, creating the next growth driver. The last round of funding in June 2018 raised RMB10bn mainly for overseas expansion, adopting "9+1 strategy" targeting the South-East Asia market, including Singapore, South Korea, the Philippines, Vietnam, Malaysia, Thailand, Indonesia, India, and Pakistan. The current valuation of Ant Financial has reached RMB150bn from RMB60bn in 2016.

Data is key for its credit model. Basically, a credit model's accuracy is 80% decided by data, including where/how to acquire and which variables to use, and 20% by R&D talents. Banks' borrower profile is purely based on PBOC's credit report, which is an advantage to banks as only they can access the credit reports when expanding into consumer loan business. In addition, banks are able to easily conduct identity authentication when customers open accounts which could lower the incidence of frauds. The P2P platforms face challenges on 1) how to perform identity verification as all the processes are done online, 2) difficult to avoid multiple lending as there is no central credit database. Traditional consumer finance companies conduct lending largely through offline channels, thus the major risk they face is "operational" risk, such as loan collusion. The P2P players try to solve these difficulties mainly through the use mobile apps to verify identification, such as GPS information to cross-check home/work address, capture other apps' information, i.e. other P2P apps, and messages related to loan collection etc, as part of its credit risk assessment process.

The major risks for consumer finance are fraud and credit risk, while three vital components required to assess credit scores, including scenario, borrower segment and operating processes. Ant Financial, with its advantage of having a consumption-based ecommerce platform and Alipay ecosystem, leverages on Zhima Credit for credit screening of potential borrowers. Borrowers with Zhima Credit score lower than 600 are automatically rejected by Jeibei/Huabei. Despite Alipay requiring all customers to register with an ID and phone number, this is not a 100% fraud-free mechanism. Thus, the better way to lower risk is to provide a small loan amount, such as RMB500, for the first-time borrowers, and gradually increase the loan quota once a borrower acquires good credit record. Huabei's NPL of ~1.3% and MyBank's 1.2% are much better than other online lending players.

Fig 17: Huabei's delinquency rate/charge-off rate

Installment duration (month)	Loan outstanding (Rmb bn)	Delinquency rate (M1+)	Charge-off rate (M3+)
1	50.94	0.78%	0.51%
3	6.74	1.94%	1.26%
6	6.27	1.69%	1.15%
9	3.84	2.34%	1.69%
12	21.54	4.20%	3.10%
Total	**89.32**	**1.83%**	**1.29%**

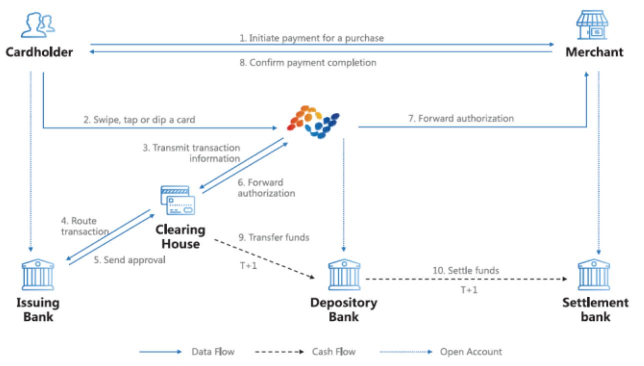
Source: WDZJ, DBS HK; data as of June 2017

Huifu Payment (1806 HK, NR)– Mobile POS/Cross-border the driver

Established in June 2006, Huifu Payment is the leading independent third-party payment service provider for micro and small merchants in China, with market share estimated to reach 5.5%, serving 7.4m+ micro and small merchants mainly located in China's tier-3 to tier-4 cities. Its payment services focus on merchant-side (mainly payment acquiring services), as compared to Internet payment giants, such as Alipay and WePay, that focus more on consumer-side of payment services. Huifu's revenue model includes a) merchant payment services, and b) fintech enabled services; merchant payment services accounted for 97% of total revenue in 1H18, up 1.3x y-o-y, and served as the main growth driver.

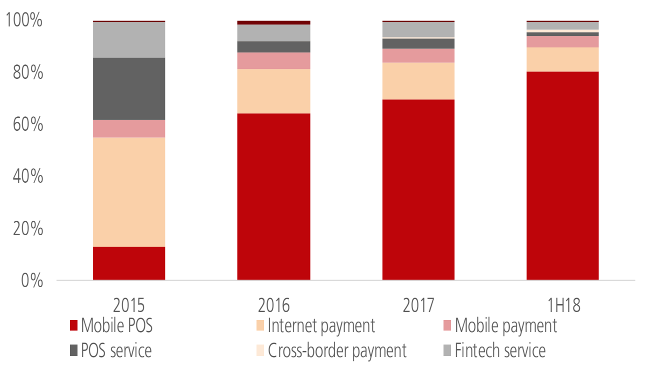
Fast growing independent payment service provider
Huifu's merchant payment services comprises of 5 revenue lines, which are: a) Mobile POS services (83% of merchant payments) – providing aggregate payment acquiring services, b) internet payment services (10% of merchant payments) – providing internet payment acquiring service, c) mobile payment services (4% of merchant payments) – providing mobile payment processing service mainly for industry verticals, d) POS services (3% of merchant payments) – providing both hardware/software to merchants to be able to accept bank card payments, and e) cross-border payment services (1% of merchant payments) – service was launched in 2016 to provide both in-bound/out-bound payments and FX settlement services for purchases placed on domestic/foreign e-commerce platforms (see figure 18-19). Among the 5 revenue lines, Mobile POS payment and cross-border payment services are future main growth drivers.

Fig 18: Huifu's POS payment services flow chart



Source: Huifu, DBS HK

Fig 19: Huifu's revenue breakdown by type



Source: Huifu, DBS HK

Mobile POS services - the main growth driver

Huifu launched its integrated Mobile POS payment services solution, SuPay, in 2015, to provide integrated payment acquiring services to China's micro and small merchants mainly located in tier 3 to tier 4 cities. Its integrated POS machine enables merchants to accept a wide range of electronic payment methods, ranging from credit/debit cards, NFC (Near-Field Communication), Bluetooth and QR code payments. Its SuPay solution not only provides timely (T+0) account settlement services, but also offers merchants account management and loan facilitation related valued-add services, which enables and helps merchants to better optimise their cash management (figure 20).

According to Huifu, the number of mirco and small merchants in China has reached 80m, whereas only 7.4m+ of these small merchants (up from 5.8m in 2017) are currently Huifu's customers. This implies the domestic addressable market is substantial. Huifu indicated its merchant conversion rate will be maintained at acquiring 2m to 3m new customers per year during 2018 to 2019, while its previous target of reaching a 10m merchant customer base by 2020 should easily be reached. Riding on the back of the fast merchant conversion rate, its Mobile POS service revenue posted 307% CAGR during 2015-17, grew by 185% y-o-y and accounted for 81% of total revenue. We believe Huifu's mobile POS service will continue to serve as a main driver in the future.

Fig 20: Huifu's SuPay APP and interface

Source: Huifu, DBS HK

Cross-border payment services a growing spot

Huifu is the first payment service provide to obtain a cross-border payment licence in China, and commenced its cross-border payment services in 2016. At present, Huifu focuses primarily on cross-border e-commerce payment services, which includes a) inbound payment services from overseas consumers buying goods on China's domestic e-commerce platforms, and b) outbound payment services from China consumers buying goods from overseas e-commerce platforms. Cross-border payment services include providing customer clearance, FX settlement, and timely payment settlements (currently at T+2 versus Amazon currently at T+7). Its main operating bank for cross-border payment is Shanghai Pudong Development Bank (600000 SH, NR).

Despite the small contribution currently, cross-border payment services have grown by 14x and 8x in 2017 and 1H18 respectively, but revenue contribution is merely 1%. However, we believe Huifu is in a good position to expand its share of cross-border payment services in the future, while it has plans to expand to capture opportunities from China's outbound tourism and overseas education sectors.

Easing industry-wide pricing competition

Prior to March 2016, the pricing mechanism of bankcard acquiring processing fees in China was set at 70%/20%/10% between the issuing bank, acquiring service provider, and UnionPay, whereas total cost to be borne by merchants set at 0.6% of the transaction value. As the initiative to further reduce merchants' transaction cost burden, National Development and Reform Commission (NDRC) has put in place new rules : a) setting 0.35% (no more than Rmb13 per transaction) and 0.45% fee cap on the issuing bank's charge on credit card and debit card services, respectively, b) internet service fees that UnionPay charges issuing bank and acquiring service provider has been set at 0.0325% (or no more than Rmb3.25 per transaction), and c) acquiring processing fee will be based on market price.

Opening up the market to allow for market pricing with third-party payment giants, i.e. Alipay and WePay, given the long history of providing full transaction fee subsidies to merchants in the past, has led to rising pricing competition in China's third-party payment market. This has resulted in industry-wide POS acquiring service margins contracting during 2016-17 in China. However, the fierce pricing competition landscape is expected to alleviate and change going forward driven by the new "Customer Reserve Fund" rule introduced by the PBOC in late 2017.

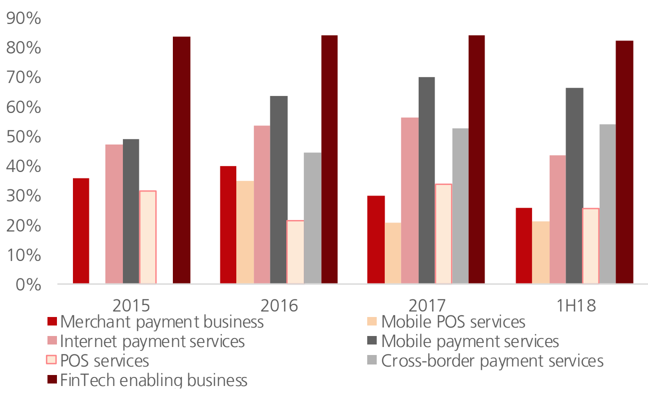
New Customer Reserve Fund rule to ease competition

In December 2017, the PBOC issued new rules governing third-party payment service providers' resulting in the formation of the "Customer Reserve Fund". The Customer Reserve Fund basically covers payments and idle money yet to be paid to merchants while still remaining within the payment provider's ecosystem. As the amount of the reserve fund is huge, and banks are also fighting for such funds to convert to deposits, banks are now offering interest income to third-party payment service providers. Given the large payment user base and lion's market share of the Internet payment giants, i.e. Alipay and WePay, the interest income from the Customer Reserve Fund has served as "free money", and due to this reason, these giants are able to continuously and fully subsidise merchants' transaction fees. According to Huifu, the total Customer Reserve Fund is about Rmb500bn in size. Taking Alipay for example, given it has 50% share of China's payment market, and assuming banks offer 2% deposit rate to attract such money, this implies Alipay, or Ant Financial (non-listed), can potentially receive around Rmb5bn of interest income every year.

Given that ownership of the Customer Reserve Fund is with the consumer, rather than third-party payment giants, and to prevent payment providers from misappropriating such funds, PBOC is requesting third party payment providers to gradually place these funds (from 50% in April 2018 to 100% as of 2019) to a depository bank (indirectly to PBOC) where the depository bank is no longer required to pay interest income to third-party payment providers.

Huifu believes the new rule will substantially impact the two Internet giants' profitability (i.e. Ant Financial losing Rmb5bn of free money), which in turn will impact its ability to continue to provide full subsidy to merchants and on the other hand start charging fees. Therefore, the pricing competition landscape, especially in payment acquiring services, should end and management believes its Mobile POS service pricing and margins will stabilise going forward (figure 21).

Fig 21: Huifu's gross margin trend by revenue type



Source: Huifu, DBS HK

Manageable impact on Fintech enabled business

In addition to various third-party payment services, Huifu also provides software as a service (SaaS), such as account management and data-driven value-added services to Internet finance providers (i.e. P2P) and commercial banks. In 1H18, fintech enabled business grew by 29% y-o-y but only accounted for 3% of total revenue. The market has recently been concerned on whether China's P2P tightening measures, along with continuous P2P industry consolidation, will impact Huifu's Fintech enabled business growth. We believe the impact is considered to be manageable given 1) Fintech enabled business only accounted for 3% of Huifu's total revenue, and 2) Huifu provides purely software services to its Internet Finance counterpart, and does not bear any credit risk.

Fig 22: Huifu's income statement

Income statement (Rmb m)	2015	2016	2017	1H18
Merchant payment business	479	1,012	1,623	1,357
FinTech enabling business	75	70	100	40
Others	2	13	4	4
Total revenue	556	1,095	1,726	1,400
Cost of revenue	(298)	(631)	(1,159)	(1,020)
Gross profit	258	464	567	380
S&M	(65)	(82)	(95)	(57)
G&A	(118)	(146)	(216)	(158)
R&D	(80)	(93)	(131)	(74)
Operating profit	(5)	143	125	91
Net finance costs	(2)	(15)	(22)	4
Share of losses of associates	(0)	(10)	(7)	2
Other expense	(75)	(72)	(65)	(12)
Other income or gains	85	94	125	15
Profit before tax	4	140	155	100
Tax expense/(benefit)	11	21	23	(18)
Net income	(8)	119	133	83
Minority interest	0	(6)	(5)	(1)
Net income attributable to ordinary shareholders	(8)	125	138	82

Source: Huifu, DBS HK

Fig 23: Huifu's balance sheet

Income statement (Rmb m)	2015	2016	2017	1H18
Merchant payment business	479	1,012	1,623	1,357
FinTech enabling business	75	70	100	40
Others	2	13	4	4
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Net finance costs	(2)	(15)	(22)	4
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Other income or gains	85	94	125	15
Profit before tax	4	140	155	100
Tax expense/(benefit)	11	21	23	(18)
Net income	**(8)**	**119**	**133**	**83**
Minority interest	0	(6)	(5)	(1)
Net income attributable to ordinary shareholder	**(8)**	**125**	**138**	**82**

Source: Huifu, DBS HK

Peer comparison

Coverage	Ticker	price (LC)	Stock rating	Target Price (LC)	Mkt Cap (US$ m)	PBV FY17 (X)	PBV FY18F (X)	PBV FY19F (X)	PEV FY17 (X)	PEV FY18F (X)	PEV FY19F (X)	PSV FY17 (X)	PSV FY18F (X)	PSV FY19F (X)	ROE FY17 (%)	ROE FY18F (%)	ROE FY19F (%)	EPS CAGR 18-19F (%)
China Fintech																		
Yirendai	YRD US	17.0	BUY	24.0	1,032	2.2	1.8	1.4	1.8	1.8	1.8	51.8	25.4	11.9	53.7%	25.2%	28.6%	0.4%
Lexin Fintech	LX US	10.5	BUY	21.0	1,739	2.3	4.1	2.2	16.1	10.4	4.9	2.0	1.5	1.1	28.0%	48.3%	58.3%	81.0%
Qudian	QD US	5.3	NR		1,729	1.2	1.0	0.8	2.1	4.7	3.6	0.4	0.2	0.1	n.a.	20.9%	21.6%	-23.4%
PPDai	PPDF US	6.0	NR		1,795	12.9	2.3	1.8	29.4	7.1	6.3	0.4	0.5	0.4	n.a.	39.0%	31.0%	116.0%
Hexindai	HX US	8.0	NR		385	14.5	2.7	n.a.	39.9	5.5	4.0	n.a.	3.6	1.9	n.a.	80.1%	39.2%	216.2%
China Rapid Finance	XRF US	2.3	NR		148	5.9	8.7	4.5	-0.9	-4.2	9.1	1.7	1.5	0.9	-107.5%	-99.0%	62.0%	n.a.
ZhongAn Online P&C Insurance	6060 HK	30.3	BUY	55.0	6,068	3.1	3.3	3.4	n.a.	n.a.	n.a.	1.3	0.9	0.5	-8.3%	-6.8%	-3.2%	n.a.
Jianpu	JT US	4.3	NR		716	2.6	4.4	4.2	n.a.	n.a.	45.4	0.5	0.4	0.2	-33.0%	-9.1%	6.6%	n.a.
Huifu Payment	1806 HK	3.9	NR		697	7.2	2.0	1.8	35.0	15.6	10.3	0.4	0.2	0.1	22.3%	16.4%	15.0%	84.0%
Average						**5.8**	**3.4**	**2.5**	**17.6**	**5.8**	**10.7**	**7.3**	**3.8**	**1.9**	**-7.4%**	**12.8%**	**28.8%**	**79.0%**
Internet																		
Alibaba	BABA US	161.5	BUY	222.0	418,534	9.8	7.7	6.4	63.2	44.2	38.3	18.1	11.5	7.3	17.5%	19.7%	18.2%	28.5%
Tencent	700 HK	308.4	BUY	428.0	392,866	10.0	7.7	5.9	35.5	28.5	21.3	1.4	1.1	0.9	33.2%	30.2%	30.9%	29.1%
Baidu	BIDU US	218.7	NR		76,565	3.5	3.6	3.1	28.4	21.3	18.7	0.9	0.7	0.6	20.3%	17.3%	15.7%	23.3%
JD.com	JD US	27.6	BUY	43.0	39,630	5.2	5.4	5.4	n.a.	n.a.	317.6	0.8	0.6	0.5	-0.4%	-5.0%	1.7%	n.a.
Ctrip.com	CTRP US	36.9	NR		20,108	1.5	1.6	1.5	62.5	29.1	24.1	0.8	0.6	0.5	6.2%	5.1%	6.5%	61.2%
Royal Flush	300033 CH	34.4	NR		2,720	6.4	5.3	4.6	25.5	25.8	21.2	2.0	1.9	1.6	22.4%	19.5%	20.2%	9.6%
Hundsun Tech	600570 CH	54.2	NR		4,899	10.5	9.4	8.0	71.3	57.5	44.3	1.9	1.5	1.2	18.8%	17.4%	20.1%	26.9%
Average						**6.7**	**5.8**	**5.0**	**47.7**	**34.4**	**69.3**	**3.7**	**2.6**	**1.8**	**16.9%**	**14.9%**	**16.2%**	**29.8%**
Payment/consumer finance																		
Mastercard	MA US	214.0	NR		222,260	42.3	33.7	22.5	58.3	33.5	28.5	17.8	14.9	13.2	84.9%	109.9%	102.1%	42.9%
Visa	V US	146.6	NR		298,160	10.7	10.0	9.3	46.0	32.0	27.5	16.2	14.5	13.0	35.4%	31.6%	33.5%	29.3%
Capital One	COF US	97.4	NR		46,603	1.0	0.9	0.8	27.7	8.6	8.7	1.6	1.7	1.6	6.8%	11.5%	10.3%	78.2%
American Exp	AXP US	107.9	NR		92,891	4.4	4.4	3.8	36.2	14.8	13.4	2.6	2.3	2.2	15.7%	31.1%	29.9%	64.2%
Discovery Fin.	DFS US	77.6	NR		26,580	2.6	2.4	2.1	14.3	9.9	9.0	2.3	2.4	2.3	21.5%	25.1%	25.2%	26.0%
Sybchrony Fin.	SYF US	32.3	NR		23,917	1.7	1.6	1.5	13.3	9.3	7.5	1.4	1.8	1.7	15.8%	17.9%	21.4%	33.5%
Average						**10.5**	**8.8**	**6.7**	**32.6**	**18.0**	**15.8**	**7.0**	**6.2**	**5.7**	**30.0%**	**37.8%**	**37.1%**	**45.7%**

Note: BBG consensus used for non-rated (NR) stocks. Closing price as of 12 Sep 2018

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BUY (>15% total return over the next 12 months for small caps, >10% for large caps)
HOLD (-10% to +15% total return over the next 12 months for small caps, -10% to +10% for large caps)
FULLY VALUED (negative total return i.e. > -10% over the next 12 months)
SELL (negative total return of > -20% over the next 3 months, with identifiable catalysts within this time frame)

Share price appreciation + dividends

Completed Date: 14 Sep 2018 12:29:38 (HKT)
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