

Alibaba Group

Ant Technology: Developing more competitive advantages

Maintain Rating: BUY | PO: 301.00 USD | Price: 264.91 USD

Diversify services, engage users along a “super-app” path

The leading digital payment/ fintech platforms, Ant and Tencent, established entry barriers by connecting to a large number of users, merchants, service providers, and financial institutions. However, the segment penetration among Internet users is getting high at 80%+ and regulation such as the creation of NetsUnion and QR Code interoperability has lowered some of these entry barriers. Hence, Ant and Tencent need to maintain their competitive advantages in (1) user engagement, (2) service portfolio. Both have the largest user reach among mobile apps in China (Chart 2). Alipay, with 600m+ monthly users, announced the move to be a digital life open platform, revamped its interface, added mini-programs and aggressively expanded high-frequency services such as local services, new retail, transportation, public utilities and personal assistant (Table 1). There is more cooperation with Alibaba's eco-system, acting as a key traffic gateway, a transaction enabler and a customer management channel. The value of Ant to Alibaba can go beyond the market value of Ali's equity stake and come from operating synergies, thus supporting our Buy rating on Ali. As for Ant, we expect the strategy to increase daily activeness and potential biz opportunities, partially mitigating the risk of being overly dependent on services subject to frequent policy changes.

Driving monetization as a service platform

Ant continues to focus on a platform approach to drive revenue, upselling services/products such as funds, insurance and loans for partnered financial institutions in exchange for tech-enabled services fees. CEO expects that 80% of Ant's revenues in the coming five years to come from tech-enabled services fees, according to Sina, There are also emerging opportunities in Cloud-based solutions, mini-programs and blockchain applications. We estimate that payment and the upselling services fees each accounted for 40-50% of Ant's revenue in FY19, with the latter outgrowing the former in FY20.

Estimates (Mar)

| (CNY) | 2019A | 2020A | 2021E | 2022E | 2023E |
|-------------------------------|--------|---------|---------|---------|---------|
| Net Income (Adjusted - mn) | 89,215 | 149,263 | 107,063 | 142,345 | 174,499 |
| EPS | 34.01 | 55.94 | 39.15 | 51.85 | 63.32 |
| EPS Change (YoY) | 38.0% | 64.5% | -30.0% | 32.4% | 22.1% |
| Dividend / Share | 0 | 0 | 0 | 0 | 0 |
| Free Cash Flow / Share | 97.79 | 51.47 | 58.39 | 67.70 | 84.36 |
| Common EPS (CNY) | 4.25 | 6.99 | 4.89 | 6.48 | 7.91 |
| Common Dividend / Share (CNY) | 0 | 0 | 0 | 0 | 0 |

Valuation (Mar)

| | 2019A | 2020A | 2021E | 2022E | 2023E |
|-----------------------|--------|--------|--------|--------|--------|
| P/E | 52.34x | 33.59x | 47.04x | 35.52x | 29.09x |
| Dividend Yield | 0% | 0% | 0% | 0% | 0% |
| EV / EBITDA* | 48.90x | 34.45x | 27.75x | 22.52x | 18.96x |
| Free Cash Flow Yield* | 5.02% | 2.69% | 3.12% | 3.63% | 4.54% |

* For full definitions of *IQmethod*SM measures, see page 12.

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Refer to important disclosures on page 13 to 16. Analyst Certification on page 10. Price Objective Basis/Risk on page 10.

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Stock Data

| | |
|-----------------------------|---------------------------|
| Price (ADR / Common) | 264.91 USD / 255.80 HKD |
| Price Objective | 301.00 USD / 293.00 HKD |
| Date Established | 13-Jul-2020 / 13-Jul-2020 |
| Investment Opinion | B-1-9 / B-1-9 |
| 52-Week Range | 155.30 USD-268.00 USD |
| Market Value (mn) | 723,318 USD |
| Shares Outstanding (mn) | 2,730.4 / 21,843.4 |
| Average Daily Value (mn) | 4,758 USD |
| Free Float | 26.0% |
| BofA Ticker / Exchange | BABA / NYS |
| BofA Ticker / Exchange | BABAF / HKG |
| Bloomberg / Reuters | BABA US / BABA.N |
| ROE (2021E) | 11.4% |
| Net Dbt to Eqty (Mar-2020A) | -23.3% |

iQprofileSM Alibaba Group

| Key Income Statement Data (Mar) | 2019A | 2020A | 2021E | 2022E | 2023E |
|--|----------|----------|-----------|-----------|-----------|
| (CNY Millions) | | | | | |
| Sales | 376,844 | 509,711 | 653,597 | 837,581 | 1,022,145 |
| Gross Profit | 169,915 | 227,344 | 288,184 | 352,608 | 401,694 |
| Sell General & Admin Expense | (64,669) | (78,870) | (106,227) | (129,276) | (137,931) |
| Operating Profit | 57,084 | 91,430 | 114,903 | 143,000 | 172,738 |
| Net Interest & Other Income | 40,752 | 75,215 | 3,064 | 3,920 | 4,861 |
| Associates | NA | NA | NA | NA | NA |
| Pretax Income | 97,836 | 166,645 | 117,967 | 146,919 | 177,599 |
| Tax (expense) / Benefit | (16,553) | (20,562) | (25,065) | (27,856) | (31,440) |
| Net Income (Adjusted) | 89,215 | 149,263 | 107,063 | 142,345 | 174,499 |
| Average Fully Diluted Shares Outstanding | 2,623 | 2,668 | 2,734 | 2,745 | 2,756 |

Key Cash Flow Statement Data

| | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|
| Net Income | 89,501 | 149,433 | 107,295 | 142,577 | 174,731 |
| Depreciation & Amortization | 40,187 | 46,628 | 56,523 | 68,246 | 78,173 |
| Change in Working Capital | 183,225 | 21,418 | 25,304 | 17,063 | 31,558 |
| Deferred Taxation Charge | NA | NA | NA | NA | NA |
| Other Adjustments, Net | (10,963) | (36,872) | 29,190 | 29,262 | 29,872 |
| Cash Flow from Operations | 301,950 | 180,607 | 218,311 | 257,148 | 314,334 |
| Capital Expenditure | (49,643) | (45,386) | (61,466) | (74,580) | (85,904) |
| (Acquisition) / Disposal of Investments | (101,424) | (75,299) | (40,053) | (41,053) | (42,053) |
| Other Cash Inflow / (Outflow) | (156,069) | 5,652 | 0 | 0 | 0 |
| Cash Flow from Investing | (307,136) | (115,033) | (101,519) | (115,633) | (127,957) |
| Shares Issue / (Repurchase) | (11,641) | 60,306 | 0 | 0 | 0 |
| Cost of Dividends Paid | NA | NA | NA | NA | NA |
| Cash Flow from Financing | (7,392) | 70,853 | 21,888 | 41,976 | 67,873 |
| Free Cash Flow | 252,307 | 135,221 | 156,845 | 182,568 | 228,430 |
| Net Debt | (70,786) | (205,073) | (343,753) | (527,243) | (781,493) |
| Change in Net Debt | 5,102 | (140,682) | (138,680) | (183,490) | (254,250) |

Key Balance Sheet Data

| | | | | | |
|-------------------------------|---------|-----------|-----------|-----------|-----------|
| Property, Plant & Equipment | 92,030 | 103,387 | 108,330 | 114,665 | 122,396 |
| Other Non-Current Assets | 602,773 | 746,675 | 749,339 | 752,858 | 757,320 |
| Trade Receivables | 21,216 | 30,815 | 39,485 | 50,604 | 59,337 |
| Cash & Equivalents | 189,976 | 330,503 | 469,183 | 652,673 | 906,923 |
| Other Current Assets | 59,081 | 101,605 | 101,706 | 102,047 | 102,149 |
| Total Assets | 965,076 | 1,312,985 | 1,468,043 | 1,672,848 | 1,948,125 |
| Long-Term Debt | 111,834 | 120,276 | 120,276 | 120,276 | 120,276 |
| Other Non-Current Liabilities | 30,171 | 71,186 | 71,186 | 71,186 | 71,186 |
| Short-Term Debt | 7,356 | 5,154 | 5,154 | 5,154 | 5,154 |
| Other Current Liabilities | 200,313 | 236,718 | 270,793 | 299,316 | 339,709 |
| Total Liabilities | 349,674 | 433,334 | 467,409 | 495,932 | 536,325 |
| Total Equity | 615,402 | 879,651 | 1,000,634 | 1,176,916 | 1,411,799 |
| Total Equity & Liabilities | 965,076 | 1,312,985 | 1,468,043 | 1,672,848 | 1,948,125 |

iQmethodSM - Bus Performance*

| | | | | | |
|----------------------------|-------|-------|-------|-------|-------|
| Return On Capital Employed | 12.4% | 16.4% | 8.6% | 9.6% | 10.1% |
| Return On Equity | 16.9% | 20.0% | 11.4% | 13.1% | 13.5% |
| Operating Margin | 15.1% | 17.9% | 17.6% | 17.1% | 16.9% |
| EBITDA Margin | 25.8% | 27.1% | 26.2% | 25.2% | 24.5% |

iQmethodSM - Quality of Earnings*

| | | | | | |
|--------------------------|--------|--------|--------|--------|--------|
| Cash Realization Ratio | 3.4x | 1.2x | 2.0x | 1.8x | 1.8x |
| Asset Replacement Ratio | 1.2x | 1.0x | 1.1x | 1.1x | 1.1x |
| Tax Rate (Reported) | 16.9% | 12.3% | 21.2% | 19.0% | 17.7% |
| Net Debt-to-Equity Ratio | -11.5% | -23.3% | -34.4% | -44.8% | -55.4% |
| Interest Cover | 11.0x | 7.1x | 19.5x | 24.3x | 29.3x |

Key Metrics

* For full definitions of iQmethodSM measures, see page 12.

Company Sector

Internet/e-Commerce

Company Description

Alibaba Group runs leading online marketplaces (Taobao, TMall, Ele.Me) and B2B sties in China, and Lazada in SEA. It collects revenues mainly from commissions, marketing services, subscription fees, cloud computing and software, and logistics platform services. It also owns media and store chains, and partners with logistics and payment companies to offer delivery, warehousing, payment & financing services for its users and merchants. It has a stake and cooperation agreement with Ant Technology.

Investment Rationale

We expect Alibaba to remain the leading eCommerce company. Its leadership position enables it to benefit from industry growth and economies of scale. Alibaba has industry-leading investment in R&D to facilitate cross-selling and targeting. Hence there should be room for customer management growth. It also runs industry leading B2B and cloud services, and has initiatives targeting large addressable markets such as overseas eCommerce, new retail, O2O and an affiliate, Ant Technology.

Stock Data

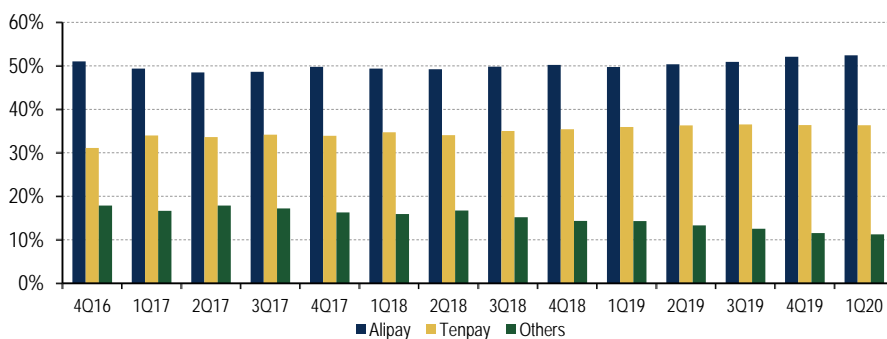
| | |
|---------------------|------|
| Shares / Common | 0.13 |
| Price to Book Value | 5.0x |

Evolving along a super-app path

Expanding use cases & service categories to engage users

Traditionally the leading digital payment/ fintech platforms (Chart 1), Ant and Tencent, established entry barriers by connecting to (1) a large number of users: each with roughly 900m domestically; (2) a large number of merchants: each with 50m+ of domestic monthly active merchants; (3) a wide range of financial institutions that provide various products including but not limited to clearing, financing, investment and insurance. These three pillars create material network effect for the platforms. However, regulation in the recent couple of years has lowered some of these entry barriers. NetsUnion provides one-stop clearing connection for payment providers, removing the needs to deal with multiple banks. QR Code inter-operability allows some online banking apps to serve a vast amount of offline merchants already educated by the two platforms. Connection with PBoC's centralized credit reporting system would offer more info of customer credit history with online finance companies. Hence, Ant and Tencent need to build on their competitive advantages in their user base and service portfolio.

Chart 1: Payment market share by transaction value

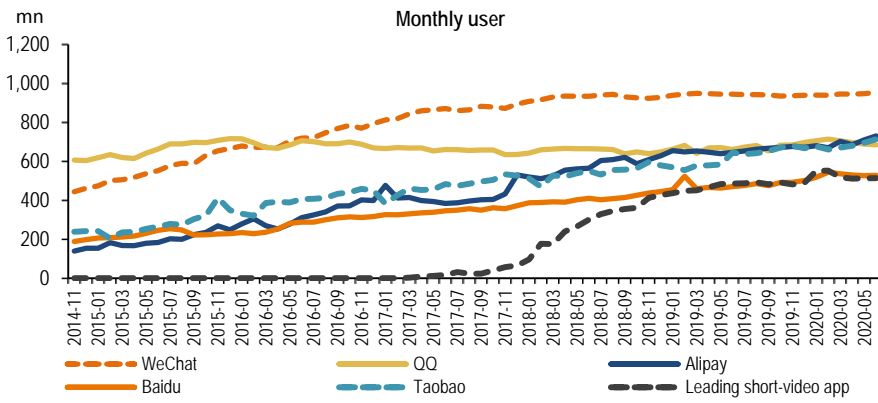


Source: Analysys, BofA Global Research

Ant's mobile app has a large base of 600m+ monthly users (Chart 2), among the top mobile apps in China. This enables it to follow a super-app strategy (for more on this subject please see the report: Deep Dive on Super-Apps in Asia dated 29 Apr 20) to drive user engagement and improve data insights via more features and services. It announced its vision as a digital life open platform, revamped its interface, added mini-programs (Chart 4) and aggressively expanded its service categories, most notably in the areas of local services, new retail, transportation, public utilities and personal assistant (Table 1). A recent example is its search results giving preferences to about 400 branded chains like KFC, McDonald's, Uniqlo and Watson's mini-programs, a lot of which support transactions. This could stimulate usage frequency, which Tencent's Weixin Pay has been known for.

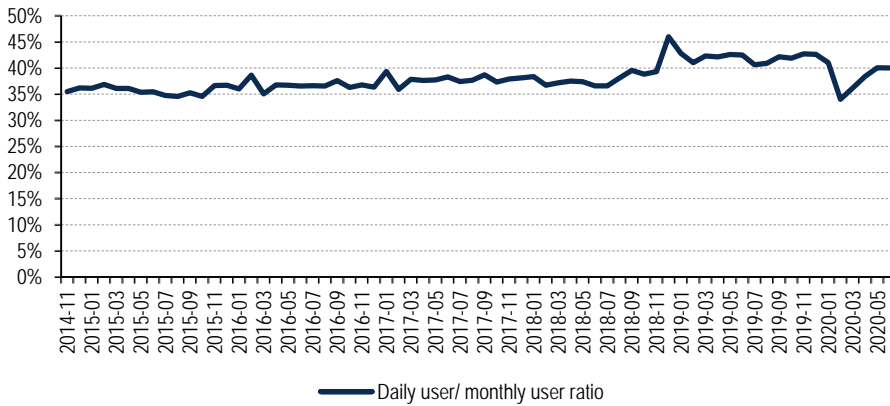
There is also more cooperation with Alibaba's eco-system incl. investees, acting as a key traffic gateway (e.g. accounting for 40%+ of Ali's new users in local services), a transaction enabler (e.g. payment, financing, mini-program functions, consumption membership/ credit score) and a customer management channel. The value of Ant to Alibaba can go beyond the market value of Ali's equity stake and come from operating synergies, especially in the local services area. CEO of Ant is reported by media including Sina to also take up the chairman post of Alibaba's local services business for better coordination between the two entities. As for Ant, we expect the strategy to increase daily activeness and potential biz opportunities, partially mitigating the risk of being overly dependent on services subject to frequent policy changes.

Chart 2: Super-app level of user reach



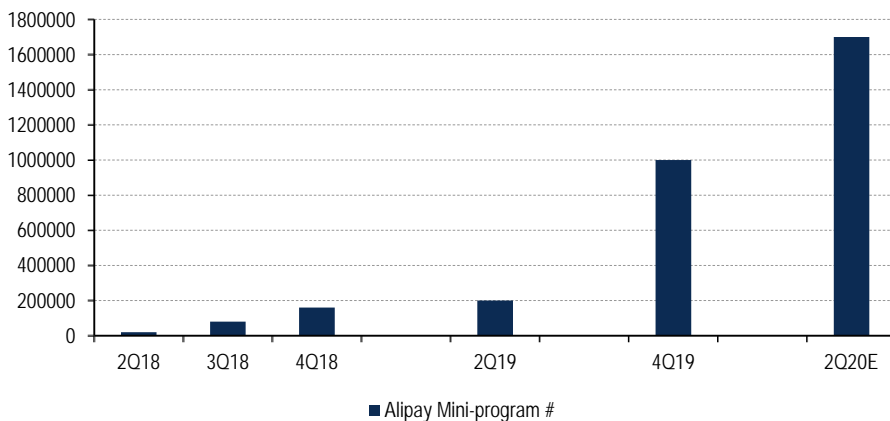
Source: Questmobile, BofA Global Research

Chart 3: Daily user engagement gradually improving as more features included



Source: Questmobile, BofA Global Research

Chart 4: Mini-programs bringing in more categories of services and merchants



Source: Company, Sina News, BofA Global Research



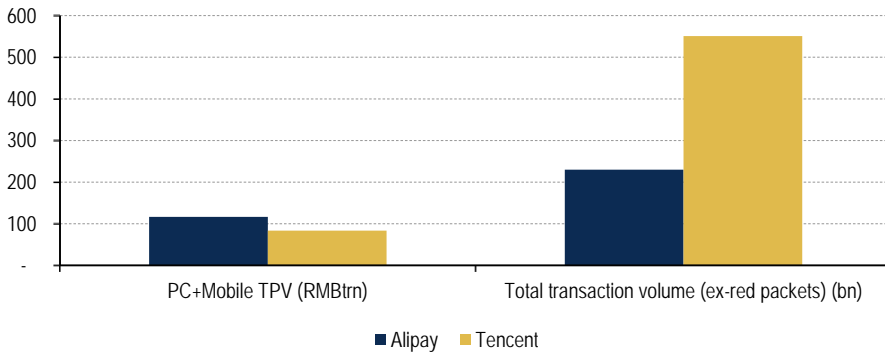
Table 1: Expanding services to drive user stickiness

| Daily life services | Wealth management/ Fortune | Transfer | Shopping & Entertainment | Education & Public welfare | Third party services |
|-----------------------|--|----------------|--------------------------|----------------------------|-----------------------------------|
| Top-up Charge | Yu'E Bao (money market funds) | Money transfer | Coupon | Ant Forest | Ele.Me (delivery, local services) |
| Card Repayment | Huabei (installment loan) | Red Packet | Lottery | Ant Farm | TaoXianDa (fresh produce) |
| Utilities | Jiebei (cash loan) | Go Dutch | Bonus | K12 | Tmall Supermarket |
| City Services | Stocks | Family Center | Global Fun | Campus Life | Freshippo/ Hema |
| Packages/ Logistics | Funds | | Koubei | Alipay Love | Tmall |
| Healthcare Services | Gold | | | Sports | Taobao |
| Bookkeeping | Insurance | | | Kids Wallet | Amap (car hailing) |
| E-Invoice | XiangHuBao (crowd insurance) | | | 3-hour Charity | Hellobike |
| Car Services | Fortune+ | | | | Air & Rail |
| Public Transportation | BangNiTou (system-asset allocation investment) | | | | Didi (car hailing) |
| Sports Services | BeiYongJin (credit line) | | | | Fliggy |
| Security | Zhima Credit (Sesame Credit) | | | | Youku |
| Health Code | Foreign Currencies | | | | Taopiaopiao (tickeing) |
| | | | | | Mini-programs |
| | | | | | ZAO (crowd funding) |

Source: Company, BofA Global Research

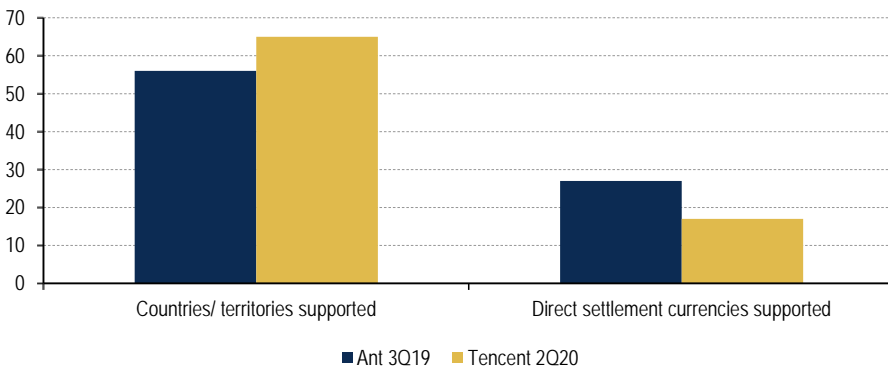
Another competitive advantage of Ant and Tencent is their overseas presence (Chart 6), supporting services such as cross-border payment, remittances, tax refunds, trade, consumption and local services. However, the pandemic and geopolitical uncertainty could hinder the speed of expansion. We expect more biz and investment opportunities in Eurasia, Southeast Asia, and other emerging/ frontier markets.

Chart 5: Payment: Ant with bigger ticket items while Tencent with higher usage frequency



Source: Analysys, PBoC, Baijiahao, BofA Global Research

Chart 6: Top two's overseas presence unmatched by others



Source: Company, Sina News, Sohu News, BofA Global Research

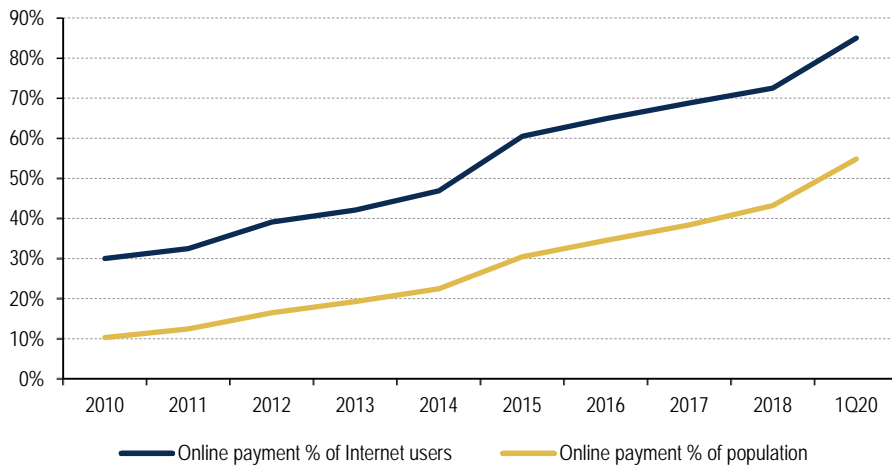


Monetization: continuous shift to a platform approach

On monetization, we have seen (1) a smaller need for heavy subsidies as penetration of digital payment among users and merchants has improved (Chart 7); (2) a continuous shift to a platform business model, upselling services/ products such as funds, insurance and loans for partnered financial institutions in exchange for tech-enabled services fees (Table 2); (3) emerging/ future opportunities in areas such as Cloud-based smart industry solutions, mini-programs and blockchain applications. We estimate that each of the payment business and the upselling services fees accounted for 40-50% of Ant's revenue in FY19, with the latter outgrowing the former in FY20. The remaining came from various sources incl. its own lending business, which is estimated at low-double-digit % of its loan balance, based on its legacy micro-loan licenses but no longer a growth focus.

CEO expects that 80% of Ant's revenues in the coming five years will come from tech-enabled services fees, according to Bloomberg and Sina, leveraging its large network of product partners (Chart 9), including but not limited to banks, insurance companies, trusts, micro-finance companies, and asset management companies. For example, funding partners of consumer installment or unsecured lending typically involve banks and trusts in the securitization market, while small-and-mid-size loans can be provided by MyBank. Regarding the newer initiatives such as industry solutions and blockchain services, we have already seen multiple projects implemented but expect revenue contribution to take multiple years to grow to a more material level.

Chart 7: Rising user penetration reducing the need for high consumer incentives



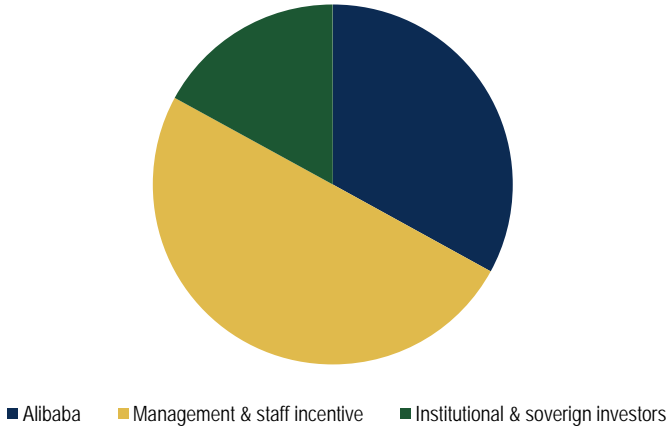
Source: CNNIC, BofA Global Research

Table 2: Select business indicators

| Upselling: main financial product categories | Typical platform take-rate range | Est. revenue contribution ranking* |
|---|----------------------------------|------------------------------------|
| Insurance | 8-25% | #6 |
| Financing (service fees, net) | <10%** | #1/ 2 |
| Payment | 0.1-0.6% | #1/ 2 |
| Investment/ funds | <1% | #5 |
| Consolidated subsidiaries of financial services | Annualized interest rate | |
| Financing (micro-loan licensees) | 12-20% | #3 |
| Asset management firm | <1% | #4 |
| Select scale indicators | 2019E* | |
| Financing facilitated | RMB1-1.5trn | |
| Payment value (incl. non-revenue generated) | RMB117-132trn*** | |
| Investment AUM facilitated | RMB2.5-3trn | |

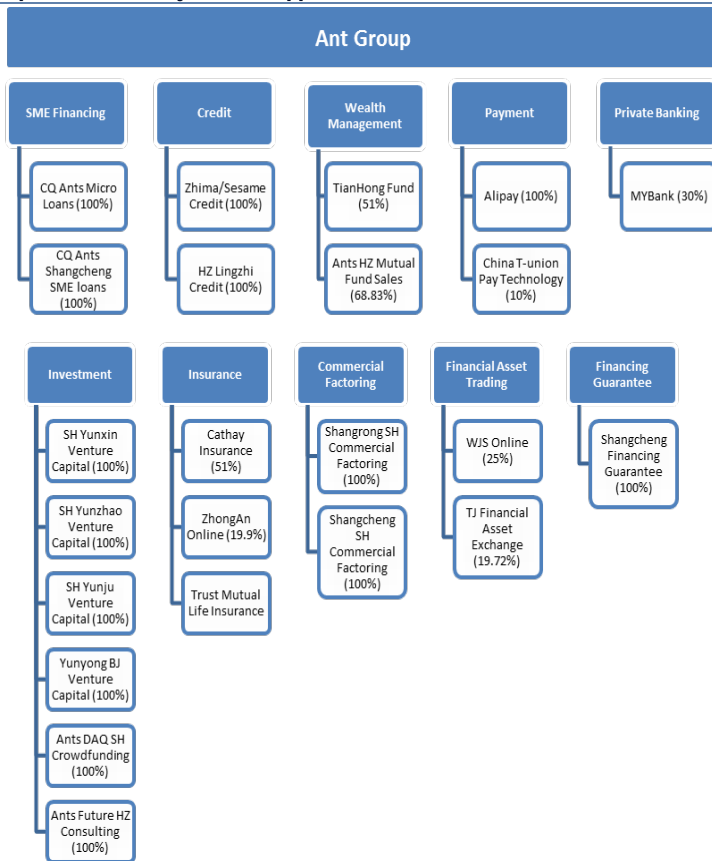
*: BofA Global Research estimates; classification not same as Co's own segmentation; ** typically mid-single digit % if no risk taken including the case of using credit enhancement (and net of credit enhancement costs); *** different estimates from Analysys, iResearch
Source: Company, Analysys, iResearch, Donews, Lexin, Sina News, TMT Post, BofA Global Research

Chart 8: Shareholding structure



Source: TianYanCha, BofA Global Research

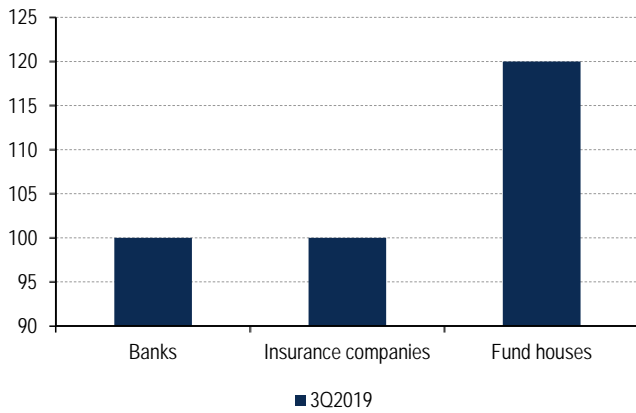
Exhibit 1: Comprehensive eco-system to support monetization



Source: The Beijing News, BofA Global Research

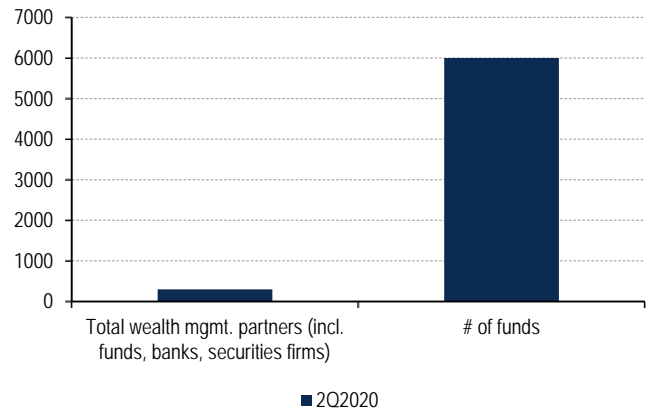


Chart 9: Financial institution partners (product sources)



Source: Company, TMT Post, Sina News, BofA Global Research

Chart 10: Selection of funds for wealth management users



Source: Company, TMT Post, Sina News, BofA Global Research

Regulation to remain a risk to the leaders

Policies will remain a risk to the monetization of Ant and Tencent Pay. The recent evaluation of lowering the interest rate cap with legal protection for the civilian lenders by the Supreme People’s Court from 24% is an illustration of on-going regulation risks. The annual percentage rate (APR) of loans available on Ant usually ranges between 14 and 18%, compensating for an average delinquency rate of 1.3-1.5% and supporting a mid-single-digit take-rate that Ant charges its funding partners. Lowering the legal protection cap to, for instance, 4x of the 1-year loan prime rate (which currently implies 15-16%) as in one of the proposals, according to China Times, could reduce lenders’ appetite to provide funding to less prime users, and might affect the amount of services fee revenue earned by the matching platforms like Ant. However, there are different proposals and the outcome of a significant cut in the interest cap is probably too disruptive to the money supply and thus consumption and SMEs.

The small loan size of Ant’s eC installment and cash credit loan products, which we estimate averaging <RMB1K and 3K, respectively, implies that litigation against defaulters has been more as a deterrence tool rather than a common procedure currently due to relatively high admin costs. More connection with the centralized credit reporting system of PBoC might help mitigate the risk of moral hazard in case of implementation of the proposal of a lowered interest rate cap.

Anti-trust regulation has also been another evolving area in the online sector. There were occasional calls for investigation into market dominance in segments like eCommerce, food delivery, and digital payment by academics, industry participants and media. However, there have not been substantial precedents of subsequent litigation. We expect more constant comments and directives from the authority when aggressive competitive approaches draw public attention. Major administrative measures that will cause significant, prolonged disruption to these segments will be less likely as smooth functioning of these segments will serve some of the strategic objectives of the authority such as a consumption-led economy and proliferation of a digital currency.

The adoption of digital currency (for more on this subject please see the report: PBoC Digital Currency dated 18 May 20) in China could incentivize mobile banking apps to strengthen payment features for end users, leveraging the publicity generated and contactless payment tech supported by this government initiative. Ant and Tencent have been expanding services and features to drive user engagement and hold on to their large online user traffic. We do not expect the change of the underlying payment currency to digital RMB based on blockchain to take away the role of payment tools.

In general, we expect Ant to see more frequent regulation proposals and possibly policy changes and to mitigate the risk by diversifying services and products. We also think



destructive measures are unlikely, partially due to its capability to facilitate consumption growth for the economy, which has been an important goal of the authorities; and a representative shareholder base including Social Security Fund, several sovereign and statutory pension funds from Canada, China, Malaysia and Singapore via investment vehicles, and most of the large insurance groups in China, according to Tianyancha.



Price objective basis & risk

Alibaba Group (BABA / BABAF)

We use a multi-year DCF to capture the impact from the long-term growth profile of the eCommerce business, capex, and investments of the company. Our PO is US\$301 (HK\$293/HK share): 1) US\$256 from our DCF valuation of the Alibaba operations (already reflecting cash outflow for new initiatives such as Ele.Me, Kaola and Cloud, net cash & liquid assets of US\$13, discount rate of 9%, mid-term FCF FY19-26E CAGR of 6%, 4% terminal growth), 2) US\$18 from its LT investments based on the reported value on balance sheet, 3) US\$27 from Ali's stake in Ant Technology, which is valued at US\$220b based on about 45x FY21E, comparable to large listed domestic Internet finance and insurance platforms and fintech software

Risks: 1) value-destructive investments causing repeat funding needs and impairment, 2) costs from overseas expansion, 3) regulation regarding privacy, anti-trust, ANT, trade, VAT, listing, restriction by US and audit inspections by PCAOB, though revenue exposure to US is immaterial, 4) reputational risk related to IP protection, 5) increasing service demand from customers, 6) industry competition in lower-tier cities, O2O or video, 7) industry deceleration off a large base, 8) operation complexity, 9) overhang of stakes of pre-IPO strategic investors, 10) macro or external shocks like epidemics. Upside risks: 1) a higher than expected valuation of Ant Technology in the VC market, 2) cloud profitability better-than-expected, 3) private market valuation of its new initiatives

Analyst Certification

I, Eddie Leung, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

Special Disclosures

BofA Securities is acting as financial advisor to MegaFon PJSC in connection with its proposed joint venture with Alibaba Group Holding Ltd, Mail.Ru Group Ltd and Russian Direct Investment Fund Management Co, which was announced on 5 June 2019.

APR - Internet, Media and Software Coverage Cluster

| Investment rating | Company | BofA Ticker | Bloomberg symbol | Analyst |
|---------------------|----------------------------|-------------|------------------|---------------------|
| BUY | | | | |
| | AfreecaTV | WNTHF | 067160 KS | Paul Dewberry |
| | Afterpay Limited | AFTPF | APT AU | Sameer Chopra |
| | Agora | API | API US | Emerson Chan, CFA |
| | Alibaba Group | BABA | BABA US | Eddie Leung |
| | Alibaba Group | BABAF | 9988 HK | Eddie Leung |
| | Appen Ltd | APPEF | APX AU | Lucy Huang |
| | Autohome | ATHM | ATHM US | Miranda Zhuang, CFA |
| | Baidu.com | BIDU | BIDU US | Eddie Leung |
| | Bilibili | BILI | BILI US | Lei Zhang |
| | Dada Nexus | DADA | DADA US | Eddie Leung |
| | Douyu | DOYU | DOYU US | Lei Zhang |
| | East Money | XEQTF | 300059 CH | Eddie Leung |
| | Huya | HUYA | HUYA US | Lei Zhang |
| | JD.com | JD | JD US | Eddie Leung |
| | Kakao Corp. | DAUCF | 035720 KS | Susie Lee |
| | Kingdee | KGDEF | 268 HK | Emerson Chan, CFA |
| | Lexin Fintech | LX | LX US | Eddie Leung |
| | Maoyan Entertainment | XMEEF | 1896 HK | Emerson Chan, CFA |
| | Meituan Dianping | MPNGF | 3690 HK | Eddie Leung |
| | Momo | MOMO | MOMO US | Lei Zhang |
| | Naver Corporation | NHNCF | 035420 KS | Susie Lee |
| | NCSOFT | NCSCF | 036570 KS | Susie Lee |
| | NetEase | XPURF | 9999 HK | Eddie Leung |
| | NetEase, Inc | NTES | NTES US | Eddie Leung |
| | Nine Entertainment Company | NNMTF | NEC AU | Lucy Huang |
| | OneConnect | OCFT | OCFT US | Emerson Chan, CFA |
| | REA Group | RPGRF | REA AU | Lucy Huang |
| | Sea Limited | SE | SE US | Paul Dewberry |
| | Sohu.com Ltd | SOHU | SOHU US | Eddie Leung |
| | Tencent Holdings | TCTZF | 700 HK | Eddie Leung |
| | Tencent Music | TME | TME US | Eddie Leung |
| | Trip.com Group | TCOM | TCOM US | Joyce Ju |
| | VGI Public Company Limited | XVGMF | VGI TB | Thititthep Nophaket |
| | Vipshop Holdings | VIPS | VIPS US | Joyce Ju |
| | Weibo Corporation | WB | WB US | Miranda Zhuang, CFA |
| | Weimob | WEMXF | 2013 HK | Emerson Chan, CFA |
| | WiseTech Global Limited | WTCHF | WTC AU | Lucy Huang |
| | YY | YY | YY US | Lei Zhang |
| | Zip Co Limited | ZIZTF | Z1P AU | Sameer Chopra |
| NEUTRAL | | | | |
| | Allium Limited | ALMFF | ALU AU | Lucy Huang |
| | Baozun | BZUN | BZUN US | Joyce Ju |
| | Carsales | CSSSF | CAR AU | Lucy Huang |
| | CooTek | CTK | CTK US | Emerson Chan, CFA |
| | IMAX China | IMXCF | 1970 HK | Emerson Chan, CFA |
| | iQIYI | IQ | IQ US | Eddie Leung |
| | Pinduoduo Inc. | PDD | PDD US | Joyce Ju |
| | Yonyou | XYNIF | 600588 CH | Emerson Chan, CFA |
| UNDERPERFORM | | | | |
| | China Literature | CHLLF | 772 HK | Eddie Leung |
| | CJ ENM | CJHOF | 035760 KS | Susie Lee |
| | Hithink Royalfly | XHIFF | 300033 CH | Eddie Leung |
| | Huace Film & TV | XZHEF | 300133 CH | Emerson Chan, CFA |
| | Huayi Brothers | XHIIF | 300027 CH | Emerson Chan, CFA |
| | Info Edge | IFOEF | INFOE IN | Sachin Salgaonkar |
| | Makemytrip Limited | MMYT | MMYT US | Sachin Salgaonkar |
| | Netmarble | XLGHF | 251270 KS | Susie Lee |
| | PearlAbyss Corp | XEPAF | 263750 KS | Susie Lee |
| | Seek Limited | SKLTF | SEK AU | Lucy Huang |
| | Seven West Media | WANHF | SWM AU | Lucy Huang |
| | Xero Limited | XROLF | XRO AU | Sameer Chopra |
| RSTR | | | | |
| | Bitauto | BITA | BITA US | Miranda Zhuang, CFA |



APR - Internet, Media and Software Coverage Cluster

| Investment rating | Company | BofA Ticker | Bloomberg symbol | Analyst |
|-------------------|---------|-------------|------------------|---------|
| | | | | |

iQmethodSM Measures Definitions

| Business Performance | Numerator | Denominator |
|----------------------------|---|--|
| Return On Capital Employed | $\text{NOPAT} = (\text{EBIT} + \text{Interest Income}) * (1 - \text{Tax Rate}) + \text{Goodwill Amortization}$ | Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill Amortization |
| Return On Equity | Net Income | Shareholders' Equity |
| Operating Margin | Operating Profit | Sales |
| Earnings Growth | Expected 5-Year CAGR From Latest Actual | N/A |
| Free Cash Flow | Cash Flow From Operations – Total Capex | N/A |
| Quality of Earnings | | |
| Cash Realization Ratio | Cash Flow From Operations | Net Income |
| Asset Replacement Ratio | Capex | Depreciation |
| Tax Rate | Tax Charge | Pre-Tax Income |
| Net Debt-To-Equity Ratio | Net Debt = Total Debt, Less Cash & Equivalents | Total Equity |
| Interest Cover | EBIT | Interest Expense |
| Valuation Toolkit | | |
| Price / Earnings Ratio | Current Share Price | Diluted Earnings Per Share (Basis As Specified) |
| Price / Book Value | Current Share Price | Shareholders' Equity / Current Basic Shares |
| Dividend Yield | Annualised Declared Cash Dividend | Current Share Price |
| Free Cash Flow Yield | Cash Flow From Operations – Total Capex | Market Cap. = Current Share Price * Current Basic Shares |
| Enterprise Value / Sales | $\text{EV} = \text{Current Share Price} * \text{Current Shares} + \text{Minority Equity} + \text{Net Debt} + \text{Other LT Liabilities}$ | Sales |
| EV / EBITDA | Enterprise Value | Basic EBIT + Depreciation + Amortization |

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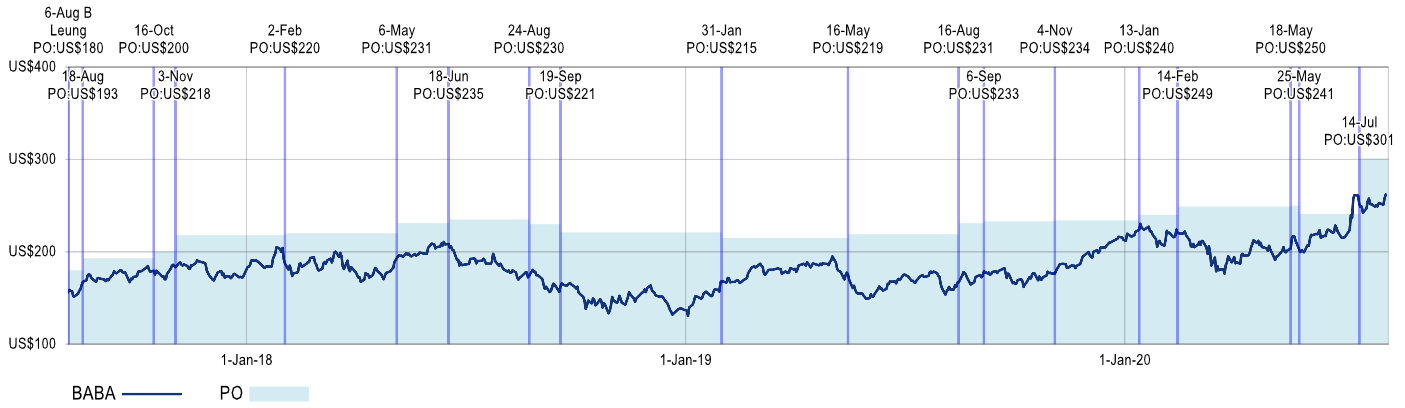
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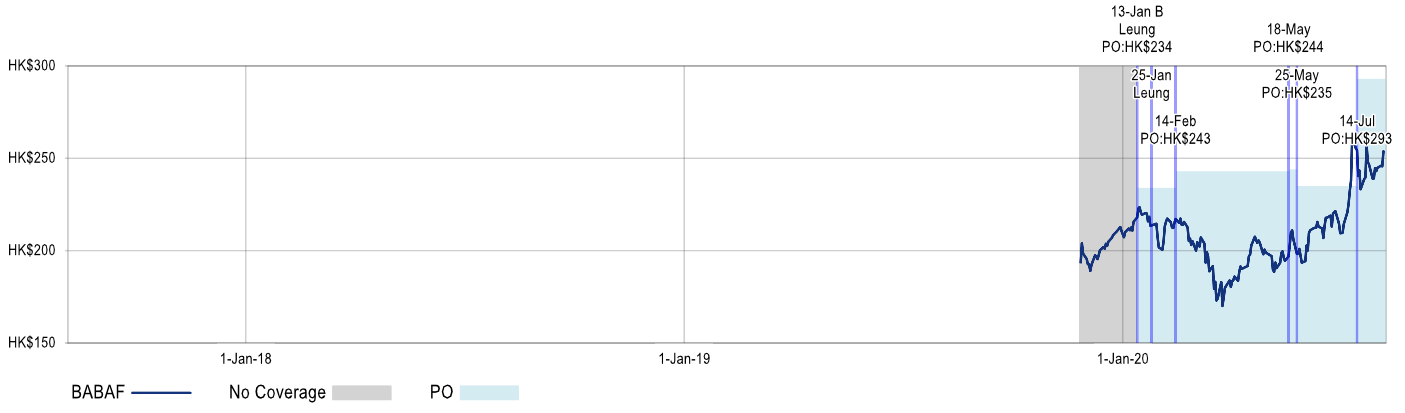
Alibaba (BABA) Price Chart



BABA — PO
 B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

Alibaba (BABA) Price Chart



BABA — No Coverage PO
 B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

Equity Investment Rating Distribution: Technology Group (as of 30 Jun 2020)

| Coverage Universe | Count | Percent | Inv. Banking Relationships* | Count | Percent |
|-------------------|-------|---------|-----------------------------|-------|---------|
| Buy | 176 | 64.00% | Buy | 107 | 60.80% |
| Hold | 43 | 15.64% | Hold | 28 | 65.12% |
| Sell | 56 | 20.36% | Sell | 28 | 50.00% |

Equity Investment Rating Distribution: Global Group (as of 30 Jun 2020)

| Coverage Universe | Count | Percent | Inv. Banking Relationships* | Count | Percent |
|-------------------|-------|---------|-----------------------------|-------|---------|
| Buy | 1632 | 52.21% | Buy | 1031 | 63.17% |
| Hold | 711 | 22.74% | Hold | 444 | 62.45% |
| Sell | 783 | 25.05% | Sell | 407 | 51.98% |

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| Investment rating | Total return expectation (within 12-month period of date of initial rating) | Ratings dispersion guidelines for coverage cluster* |
|-------------------|---|---|
| Buy | ≥ 10% | ≤ 70% |
| Neutral | ≥ 0% | ≤ 30% |
| Underperform | N/A | ≥ 20% |

* Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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