JCAP

E-Commerce
China

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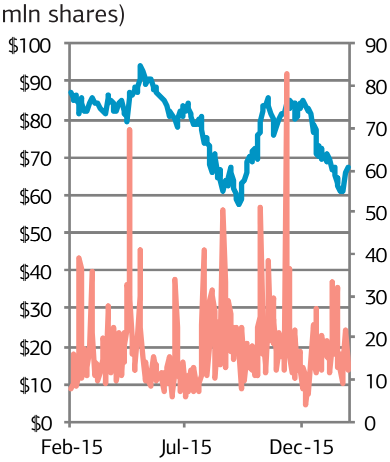
Alibaba Group Holding (BABA US)
How to Measure Alibaba

- **We believe that Alibaba's GMV** is overstated at least by a factor of three, making true GMV around USD 100 bln, against reported GMV of USD 352 bln for calendar year 2014.[1]
- **We believe the company** is less profitable than stated and that it may have been assigning cash flows to itself from Ant Bank and other sister companies in order to support the share price. Alibaba's disclosures are shockingly vague and leave far too much to interpretation.
- **Alibaba has failed** to bring efficiencies to the supply chain. In an environment of compressing margins, many merchants will find the costs of marketing offline more attractive than online.
- **We value Alibaba** at USD 36.58 based on our lower estimate of turnover and profit and assigning a P/E multiple of 23, which we view as appropriate to a fast-growing Internet company.

Alibaba Group Holding (BABA US)

Price	USD 67.25
Rating	**SELL**
Price Target	**USD 36.58**
Difference	46%
Market Cap	USD 173 bln
P/E	16.57

Alibaba (BABA US) last share price in USD (blue) and volume (pink, in mln shares)



Source: Bloomberg, February 24, 2016

[1] Adding GMV from quarterly disclosures an applying a 6.54 exchange rate.

Note: This report was originally published on February 25, 2016, and has only been updated to correct a misquotation on page 9.

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Understanding a Behemoth

Alibaba represents in many ways the culmination of three decades of a reforming and opening China, the rise of Chinese consumption, the triumph of private business, and the stunning ability of a single entrepreneur to make good. As the biggest IPO in history, Alibaba also attracted a historic volume and breadth of capital from U.S. institutional investors. For its proponents, the company represents the motor of China's restructuring economy as well as one of very few remaining hopes for capital appreciation in an increasingly turbulent investment world.

The company represents the motor of China's restructuring economy.

Alibaba is the undisputed 800-pound gorilla of Chinese e-commerce. It commands a market share ranging from 65-85%, depending on how online retail is counted. And that online shopping has become ubiquitous in China is undisputed. If there is anything to the story of China's leapfrog over traditional retailing into the online world, then Alibaba is the only company that really matters.

But as much as investors would like to believe in the story of Chinese rebalancing, there are too many assertions about Alibaba that strain credulity because they are so fantastically large and seem to operate independently of all other trends in China's economy. Alibaba's turnover volume is generally believed to be overstated. But when the share price was over USD 80 and rising, investors could say that did not matter; they all believed in the profit numbers. Now that the market has turned down, there is more of a premium on accuracy.

Company Background

Alibaba hardly needs to be introduced. It is the largest online bazaar in the world, hosting around 5 mln shops. Unlike JD.com, Alibaba does not meddle in its merchants' logistics systems; its value is to capture and direct traffic, and its market dominance in commanding traffic is absolute.

Alibaba is the largest online bazaar in the world.

Alibaba has the following principal businesses:

- Taobao: principally a C2C platform for resellers.
- TMall: an online mall for operators of branded stores.
- Juhuasuan: a flash sales site for which Alibaba chooses popular products to feature at a discount for a limited period of time.
- 1688.com: China wholesale marketplace
- Aliexpress: Cross-border sales of consumer products

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- Alibaba.com: Global B2B website

Alibaba's revenue sources are as follows:

- Taobao: Pay-for-performance advertising fees
- Fees of between 0.5-5% on transactions settled via Alipay for TMall and Juhuasuan.
- Display advertising and search revenues
- Taobao Affiliate Network advertising fees
- Membership fees on Alibaba and 1688.com
- Fees for cloud computing services

The company does not provide a breakdown of business unit revenues, but Taobao has 90% of the merchants and traffic on the websites and probably generates around 75% of revenues.

Merchants say their buyers overwhelmingly come from Taobao and TMall, with a small but significant portion of sales made on JD.com and sales on other platforms very marginal. Our January survey of agencies that manage online stores on behalf of clients showed clearly that Alibaba sites were driving virtually all of online sales.

Table 1. January Survey of Service Companies that Manage Stores on Alibaba

Sales Agencies	Proportion of Sales on Taobao/ TMall	Proportion of Clients Seeing Decline	Proportion Seeing Flat Sales	Proportion Seeing Growth	Proportion of Sales Faked	Client Average Sales Growth
Tier 2, Northeast	100%	20%	30%	50%	10%	30%
Tier 3, East	90%	20%	0%	80%	10%	50%
Tier 1, Southeast	90%	20%	20%	60%	0%	20%
Tier 2, East	100%	0%	0%	100%	0%	20%
Tier 2, East	70%	10%	30%	60%	30%	30%

Source: J Capital

Alibaba in Financial Services

Alibaba Group has blurry boundaries between what sits within the listed entity and what is outside. That confusion, even in the name of the entities, makes it very challenging to estimate how much profit properly belongs in Alibaba and how much the company makes from its core business, the sale of consumer goods online. Divisions that hold, move, and manage money, plus the search tool, eTao, were excluded from the listing vehicle. Those companies left in the private ecosystem include Alipay (providing online escrow and payment service), Yu'ebao (money market fund sales), Tianhong (fund management), Zhejiang Alibaba Small Loans, E-Tao (search), and Laiwang (messaging). Consequently, we know little about how these businesses interact with Alibaba the listed company.

Alibaba's financial services started in 2002 with the "Integrity Ease" (诚信通) product for bridge financing and later the "Integrity Index" that provided credit verification in trade. Then, in October 2003, Alibaba established Alipay to offer escrow services for trade. The company followed by offering loans via a 2007 alliance with Construction Bank and ICBC based on mutual-guarantee networks. But the banks left the network in 2010, claiming high risk.

In 2010, Alibaba established the Zhejiang Alibaba Small Loan Co. Ltd. with 1.6 bln RMB in registered capital and operations in Chongqing and Zhejiang. These two companies provide loans to customers on Taobao, TMall, and the Alibaba B2B platform. In H2 2012, Alibaba reported that this company had extended RMB 13 bln in new loans but by the time of the new listing prospectus, lending was no longer mentioned in the listed company. The SME loan business was formally "transferred" to Ant Financial in February 2015.

Alibaba's unlisted portion may be seeking a brokerage license.

Originally, financial services supported Alibaba's core business, but now, finance has a life of its own. Alibaba's unlisted portion has been reported to be seeking a brokerage license. Future CBRC treatment of on-line financial service providers remains unclear.

- In June 2013, Alibaba established Yu'ebao, a money-market fund that extends higher negotiated deposit rates to small depositors. Debit cards or funds in Alipay can be used to transfer funds directly to Yu'ebao accounts, which can be redeemed on demand with a two-hour delay. Alipay accounts can also be set to automatically dump funds in excess of a specified amount into Yu'ebao accounts. Yu'ebao is insured by Zhong An Insurance

- In October 2013, Alibaba spent around 1.5 bln RMB to raise its minority stake in Tianhong Fund to 60%. Yu'ebao's license permits it to raise funds for Tianhong, and the money must be managed by Tianhong. By January 2014, the balance of funds managed by Tianhong was reported at RMB 540 bln, with 49 mln investors. In December 2015, the reported value was RMB 621 bln.

- Alibaba started online marketing of wealth management products through its “Zhaocaibao” platform. Originally, the most popular product was “Bank Acceptance Note” loans, in which Zhaocaibao acts essentially as a P2P platform for purchasing bundles of BANs. But in recent months of falling yields, the products offered on Zhaocaibao are much more constrained. Alibaba also sells wealth management products.

Ant Financial

On the Chinese Internet can be found an investment pitch book for Ant Financial Group, which hopes for an A-market IPO in 2017 and, according to this document, is seeking to raise RMB 25 bln. The document gives us our first glimpse of what may be happening inside Alipay, but it casts little light on Alibaba. It shows that Alipay has about RMB 31 trn per month in payments, up 53% YoY as of Q3 2015, and Alibaba is only 20% of Alipay’s volume but 33% of its revenue. These numbers are plausible in that our surveys of Alipay users show that about 75% of their transactions through Alipay consist of balance transfers, credit card and utility payments, and investments, none of which incur a fee.

The document says that Alibaba paid RMB 2.349 bln in 2014. We do not know what Alibaba paid for or at what rate. Supposing Alibaba paid the same 1% that Alipay charges external customers, then the RMB 2.349 bln represents 2014 GMV value of USD 36 bln, or one-tenth of what Alibaba reported.

It seems unlikely that Alibaba pays Alipay a commercial rate for its transactions, but we simply do not know. The problem is that it would be trivial for Alipay to create transactions of almost any volume and any nature for its sister company. If, for example, Alibaba needed to create expenses to offset income it is deemed to receive from the high level of reported transactions, Alipay would stand ready to generate a paper trail.

We find it shocking that Alibaba should be able to generate substantially all of its revenue via a related-party company whose financials are undisclosed and unaudited.

Predicting Growth

Investors would like to bet on Alibaba based on an estimate of future e-commerce penetration. The problem is that Chinese e-commerce is fundamentally different from e-commerce overseas. They have not created efficiencies in the delivery logistics, supply chain, CRM, or search processes. Instead, the online retailers are subsidizing the conveniences they offer in

If Alibaba's revenue is over 10% of REAL GMV, then the company may not have room for further monetization.

terms of convenience for buyers, and the value chain of express delivery companies, warehouse managers, payments companies, and so on take lower and lower margins in hope of reaching scale and themselves raising investment capital. This means that once capital drains out of the system, incentive to provide these services will disappear and much retailing will go offline.

There are only two questions that really matter for modeling Alibaba: what is the real Gross Merchandise Value (GMV)? And is Alibaba a fraud?

As to the first question, the answer is "a lot less than Alibaba reports."

Alibaba's revenue is only 3% of its reported GMV, far below the standards of other international giants such as eBay, which collects 10.5% of its GMV in revenue. And yet merchants say they pay as much as 30% of their gross revenue to get traffic on the Alibaba websites. Where is the gap?

We know that GMV is overstated. If it is overstated by, say, a factor of 10, then Alibaba's monetization rate is actually 30% and has surpassed that of international comparables. Investors should expect monetization to decline. Vendors will simply not be able to keep paying up. If GMV is only 60% overstated, on the other hand, then actual monetization is about 5% and, if international standards are any measure, could grow. Either way, a more accurate GMV number should tell us something about e-commerce penetration in China and how much of a runway is left for Alibaba.

On the other hand, if Alibaba's profit number is not wholly accurate—and there is good evidence that it might not be—then there is a chance that Alibaba, like so many Chinese companies of the recent past, is cannibalizing its own investment capital to create the illusion of high profits. If that were true, then Alibaba critically needs investment capital in order to show growth, and weaker capital markets will mean an eventual steep decline.

Unfortunately, we need to engage in a significant amount of guesswork to arrive at an estimate of either GMV or profit.

Incongruities

Since Alibaba listed in 2014, the investing world has become much more sophisticated about Chinese statistics, and few people believe now that Alibaba actually sees USD 281 bln in GMV on its websites. The logic that militates against believing the Alibaba numbers is overwhelming and need hardly be belabored.

- In terms of total size, using 2013 numbers, the Chinese retail industry was measured at USD 3.71 trn. The US retail industry was about USD 4.5 trn that year. Therefore, Chinese retail was reportedly 83% of U.S. retail. But the U.S. economy is 40% larger than China's, and US consumption is more than double Chinese as a proportion of GDP.

- Online shopping in 2013 was 7.9% of retail value, with a CAGR of 120% 2003-11. In the U.S., e-commerce was 5.2% of retail value that year. And yet U.S. broadband penetration is 70-80%, while China's is 40%.

- In terms of profitability, average operating margins claimed across Alibaba properties are about 46%, twice those for eBay (which reports revenues on a net basis and included Paypal in the comparison year).

- Despite Alibaba's enormous turnover and market share, the company is still able to drive 23% growth. Yet virtually no consumer product company reported growth offline exceeding 5% in the latter half of 2015. Even the taxes collected on the sale of products throughout China, a measure of aggregate demand, declined in 2015, according to the Ministry of Finance.

- The blogger Deep Throat IPO has observed that, for Alibaba's claims to be true, the ecosystem is "involved in" the equivalent of 79% of total Chinese sales of the categories of products sold on Alibaba, including appliances, furniture, magazines, garments, and cosmetics. This calculation is made simply by dividing Alibaba's GMV by the total sales of the Alibaba categories reported by the NBS. The blogger eliminated categories in the NBS data that are not meaningful for Alibaba, things like automobiles, gasoline, travel services, building materials, and medical care. Looking at only Alibaba-relevant categories, the equivalent of eight of every 10 "large business" retail transactions that take place in China are handled by the Alibaba "ecosystem."

- The average annual spend for an Alibaba active user is much higher than for other websites and seems to exceed the plausible level of spending in China, where average annual per capita disposable income, according to the NBS, is USD 4,621. In 2014, therefore, the average active user spent 23% of his or her total annual income on the Alibaba sites. By December 2015, the spend in the quarter per active user was USD 367, so the annualized spend had risen to nearly USD

> 1,500. Alibaba is now claiming 32% of the average Chinese person's annual income.

Table 2. Average Annual Spend Per Active User 2014

Alibaba	$1,075
JD.com	$502
eBay	$597
Zulily	$246
Amazon	$330
VIPS	$159

Source: Company reports

All of this makes the Alibaba claims obviously impossible.

It is notable that Alibaba pointedly avoids answering questions about what its GMV actually represents. A quote from the Q3 2015 conference call:

> Carlos Kirjner, Bernstein (Minute 19 of the call): "Could you give us the real figure for actual Gross Merchandise Value (GMV) that was actually shipped in the quarter? net of returns, of course."
>
> CEO Daniel Zhang: "In terms of Tmall growth, actually, when we look at our big picture, and in this quarter we generated RMB 946 billion (sic) [RMB 964 billion] (20:28) GMV and with net adds of RMB 177 billion compared to the quarter one year ago. So we think this is a huge base and the amount is massive, and we are happy with the result. And we believe that this is very important at this stage and with such a huge scale, we can continue to grow our user base and grow our active – especially our active annual buyers to 407 million.
>
> And in terms of growth, actually, I have to mention that, actually, when we look at the weather in the Q4, the weather is quite warm and the temperature is unusually high in the Q4, especially in November and December. And what we observed is that the heavier clothing items with higher ASP actually is not selling as well. But we are happy to see that in January, most areas in China and Hong Kong experienced the coldest winter, and we observed that the heaviest clothing items selling quite good, actually, in the past few weeks."

Alibaba does not disclose GMV settled through Alipay for its main businesses and does only for Aliexpress and 1688. That is because, if they reported the Alipay-settled GMV, the number would be unlikely to sync up to the total GMV.

What Is the True GMV?

There are several portions of Alibaba's business that could plausibly be counted in GMV but do not represent consumer purchases.

Brushing

The business of faking transactions that was dubbed "brushing" by the Financial Times when first reported on in 2014 has spawned a cottage industry of service agencies that claim to employ tens of thousands of freelancers. Despite scout's honor avowals that it is doing all it can to eliminate the practice by its vendors, Alibaba actively encourages brushing through its volume-rewarding policies:

- Merchants have to place deposits with Alibaba that may be refunded once certain volume targets are reached. They calculate the cost for creating fake transactions against the foregone interest on their capital.
- Alibaba sets high volume targets to be reached before a merchant becomes eligible to participate in various promotions. Merchants universally report that without participating in promotions, they get no traffic at all. So to get sales, they must first brush sales.
- Counters on store interfaces showing the number of products sold are a key indicator for consumers who, faced with similar products, will choose the one that has sold more. The counters can be manipulated, and this happened in the old, Hong Kong-listed Alibaba, but manipulation would have to be done at the backend, by company staff. Barring that, merchants must create their own sales as a marketing tool.

We assume that brushing and other types of faking by merchants, including reciprocal purchases, account for about 20% of volume.

In addition to these replica transactions, many merchants report that they create circular trades in order to raise apparent traffic to their sites, earn credit card points, meet Alibaba targets, or for other reasons. We know of cases in which high-value purchases such as houses or automobiles are "purchased" by related-party companies. We cannot estimate the value of such wash trades.

Store operators estimate that in the early life of a merchant on Alibaba, around 80% of volume is faked, while the most successful merchants drop this volume into the low single digits over time, using "brushing" techniques only for promotions.

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Given that most stores on TMall and Taobao are less than two years old, and given the simplicity and availability of wash trades, we assume that brushing accounts for about 20% of volume.

Wholesale

Alibaba reports revenue for wholesale transactions on the domestic platform—RMB 3,205 mln in 2015. In interviews, wholesalers consistently report that they do not pay for transactions. The cost to them is the lengthy period of time for transaction settlement: 30-45 days. However, Alipay merchants, outside the Alibaba platforms, say they pay Alipay 1% for their transaction. Dividing wholesale revenue by 1% would bring domestic wholesale to 17% of stated GMV.

Given that many merchants whose volumes are as much as 50% wholesale volumes say that they do not pay fees, we assume that actual wholesale volumes may be 25% of the total.

Logistics

Alibaba discloses that shipping charges are part of GMV. On page ii of the 2015 20-F, Alibaba reports:

> Our calculation of GMV for our China retail marketplaces includes shipping charges paid by buyers to sellers.

Shipping fees are generally about 5% of turnover. Consequently, we discount GMV by 5% to clarify sales value.

Money Market Funds

Alibaba, through a joint venture with Tianhong Funds that is controlled by Ant Financial, currently has RMB 620.6 bln RMB under management in its money market fund, according to data reported by Wind. Owners of Alipay accounts opt in to the fund via Yu'ebao, which now is part of Ant Financial but which sells on the Alibaba platforms.

Alibaba offers a wide range of investment products to customers, but most of them attract a commission on the sale. Funds raised by Yuebao do not. Consequently, we count Yuebao money market fund sales as "fake GMV": the money transits the Taobao platform and is likely to be counted in GMV but does not create revenue for Alibaba.

The money market funds can be withdrawn on demand, but we assume that the average investor keeps the money in Tianhong for one year. We also assume that half of the investors make their investments directly on

Alipay rather than through one of the Alibaba platforms. We therefore estimate that half of the 2014 balance of RMB 550 bln is re-invested each year and is counted in Alibaba GMV.

Table 3. GMV Calculations

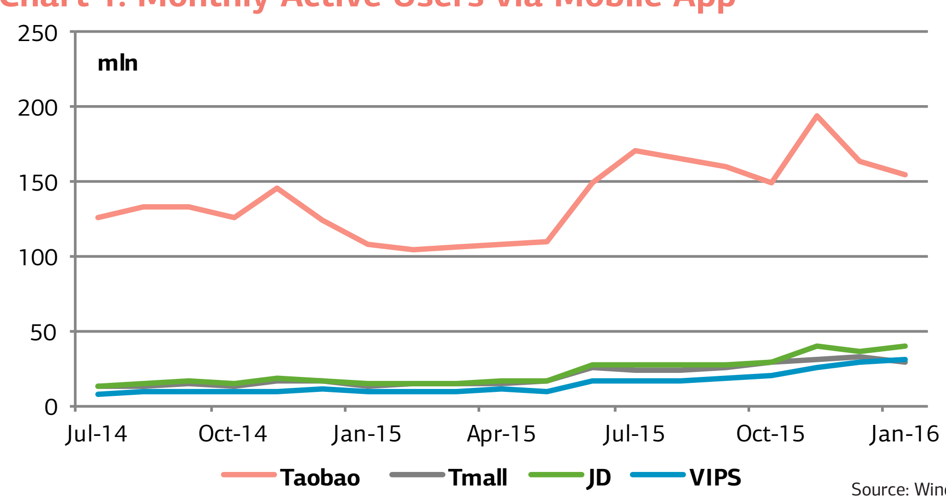
	mln RMB	USD	
Alibaba Reported	1,833,000	281,308	
Estimated Unpaid Wholesale GMV	458,250	70,327	assumes that wholesale is 25% of volume
Estimated Faking by Platform Vendors	366,600	56,262	20%
Est Annual Volume of Yuebao Funds Counted in GMV	275,000	42,204	assumes annual turnover of half of the 550 bln originally raised
Logistics Costs Counted in GMV	30,550		5% of actual sales or roughly 5%x.33x stated GMV
Total Actual GMV	702,600		
Total GMV in USD	107,827	6.516	
Overstatement Factor	3		

Source: Company filings, J Capital

Unfortunately, these calculations are conservative., There are several ways to back test the numbers.

- Our interviews with merchants indicate that the average take rate for Alibaba is actually 20-30% of gross revenue, although some of this spend is done off the Alibaba platforms. Some larger merchants may pay as little as 13%. If we assume that Alibaba's real average

Chart 1. Monthly Active Users via Mobile App



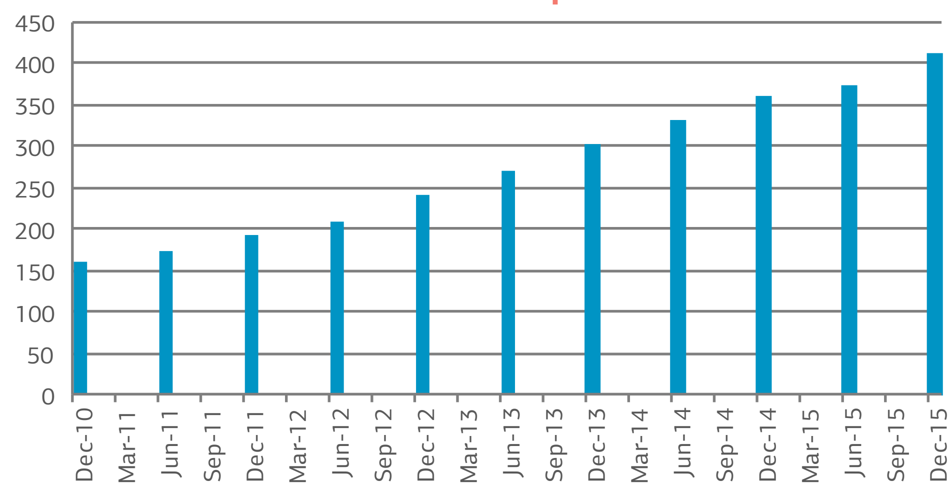
Source: Wind

take rate is 15%, then GMV is overstated by a factor of six.

- Alibaba discloses that the fee charged for the transaction through Alipay is "typically" anywhere from 0.3% to 5%. Merchants tell us that they generally pay 5%. In 2015, reported commissions as a percentage of GMV were 0.87%. If we look only at the average commission rate on a sale and assume that it is 3%, then GMV is overstated by a factor of 3.5.

- Alibaba reports that its mobile monthly active users reached 393 mln

Chart 2. Total E-Commerce Participants



Source: CNNIC

in December 2015. The data service Wind tracks MAUs via mobile apps. Although Alibaba is far and away the dominant site in e-commerce, the reported MAUs for Taobao and Tmall together were 195 mln in December.

According to the government agency that tracks online activity via phone surveys, the total number of people participating in e-commerce as of H2 2015 was 413 mln. Alibaba reported 407 mln active users in December, giving Alibaba a virtually 100% share. The agency, CNNIC, asks respondents whether they made a purchase online in the half year July through December, and Alibaba's number refers to people who made a purchase in the reporting month. As of June 2015, according to CNNIC, there were 39 mln fewer e-commerce participants. Alibaba's numbers would require every one of the online buyers in China to have made a purchase on Alibaba in the month.

Based on these GMV calculations, Alibaba's percentage of revenue to GMV has already surpassed that of eBay, a useful benchmark, since the two have very similar business models.

Estimating the Profit

Many investors acknowledge that GMV is overstated but believe that the profit reported by Alibaba is accurate. But there is reason to doubt that.

The first clue should come from Alibaba's focus on financial services. If e-commerce were as profitable as the company represents, then Alibaba should be focusing on acquiring new verticals and improving the user experience on the site. Instead, Alibaba's managerial energy is in financial services, and those are conducted outside the ambit of the public reports. The arrangements between Alibaba and the Ant Financial group are far too occluded to form a reliable basis for investment.

We bring a conservative approach to evaluation of Alibaba's e-commerce business but believe that costs are likely understated and income from financial services is undependable and risky. After all, the reason that Alibaba can offer cheaper, smaller loans at higher efficiency than the banks is because it is not held to the same prudential standards. It is worth noting that banking partners ICBC and Construction Bank left their partnership with Alibaba in 2010 citing high risk.

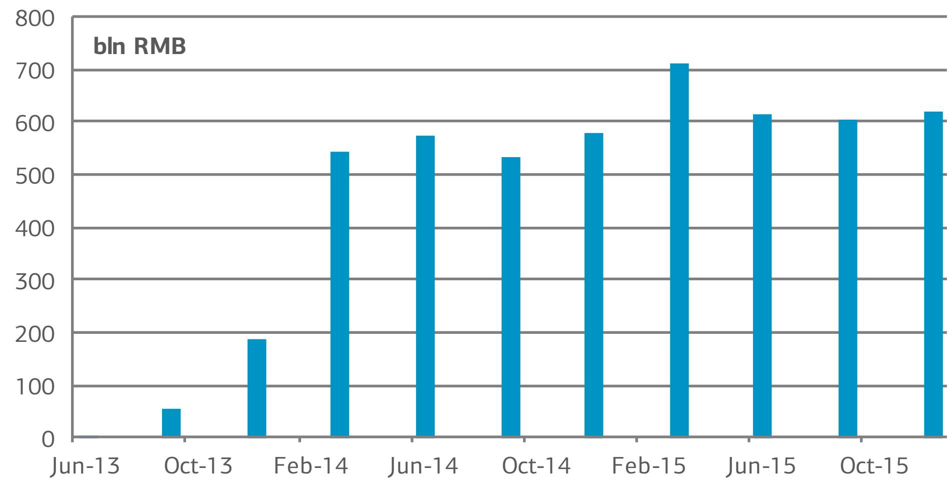
Some considerations:

- **Arrangements with Alipay:** Alipay staff say that the company does not charge Alibaba for transactions. But Alipay charges external customers about 1% for their payments. This implies that Alibaba's costs are lower than they "should" be by 1% of the value of Alipay-settled GMV, which the company states is 75% of the total. That would create an additional expense of RMB 13.58 bln in 2015. That change alone would more than halve earnings for 2015. The escrow and payment service by all rights should cost money. Alibaba may ultimately be able to pass that cost to the consumer.

  eBay provides precedent for such a change. Following the divestiture of Paypal in June 2015, eBay's transaction costs rose by more than 1% of revenue. The disclosure:

  > "The increase in transaction fees for payment services consists primarily of the impact of transaction fees for payment services provided by PayPal which were not included in cost of

Chart 3. Reported Tianhong AUM



Source: Wind

net revenues prior to the Distribution. Cost of net revenues as a percentage of net revenues was 20.6% and 18.9% respectively, in 2015 and 2014."

- **Returns on invested cash:** Alibaba is contractually entitled to 37.5% of the profit of Alipay. Alipay, through its parent, Ant Financial, is the 60% owner of Tianhong, the fund that manages money market funds for Alibaba. The Tianhong money market fund currently manages RMB 6206.9 bln and offers about 3.5% to the investor. The fund earns a spread between what banks pay and what depositors earn. Negotiated rates for structured deposits are now around 4.5%. Therefore, it seems reasonable that the fund yields about RMB 1.4 bln, or USD 210 mln, per year to Alibaba.

Table 4. Calculated Value of Money Market Fund Yield to Alibaba (bln RMB and USD)

Spread	1.0%
Ant Financial's ownership	60.0%
Alibaba's share of returns	37.5%
Est annual return (RMB bln)	1.4
in mln USD at 6.52	210

Source: Wind, J Capital

- **SME Loans:** BABA is entitled to a 2.5% fee from Ant Financial (SMFSC) based on average daily balance of all outstanding SME

> loans. These numbers have never been disclosed in any filing. They are buried in "other income." With 700 mln Alipay users the numbers are material and should be disclosed.
>
> The loan receivables disclosed show Alibaba to be a phenomenally efficient and high-interest lender. If we use "other income" to approximate loan interest from SMEs, then in 2014, Alibaba's loan receivables were RMB 13 bln with an average interest rate of 13.3%. Minsheng Bank's SME loan receivables the same year were RMB 4 bln at 5.3%. Alibaba's apparent cost of operations in the loan business were insignificant as measured by headcount.

There are two reasons why this source of earnings is vulnerable. First, interest rates across asset classes are coming down. Two years ago, Yuebao offered as much as 8% to depositors, and banks were so hungry for the money that they may have paid 10% for term deposits. Now Yuebao offers around 3.5%. The rates will only decline and, as they do, investors will increasingly choose to leave their money in banks instead.

Why did Alibaba squander its IPO raise on questionable assets?

Secondly, GMV is slowing down, and as that happens, the float that Alibaba can direct to its investment products, and the balances held on Alipay accounts, will also slow.

For the moment, Alibaba has been directing the float and account balances preferentially into higher-yield investments through its wealth management portal on Taobao.

Among the most concerning aspects of Alibaba's post-IPO development is the company's accretion of investments that have no visible value. These investments are reflected on the balance sheet as goodwill, intangible assets, and "investment in investees." The goodwill and intangibles have reached nearly the total value of money raised in the IPO, USD 23 bln. On top of that, "Gain on deemed disposals/disposals/ revaluation of investments" was an astounding USD 7.2 bln for the nine months to December 31, 2015 even as the Chinese stock market declined.

"Goodwill" is a plug to fill the balance sheet gap between what was paid for an asset and what the asset is actually worth. So in other words, Alibaba squandered the IPO raise on questionable assets. There are four possible reasons for doing that:

- Alibaba is placing bets on a wide range of Internet and e-commerce-related assets: Although this is possible and even likely, Alibaba has no track record in private equity and it seems ill-advised to use investors' money to make speculative investments.

- Alibaba is generating its own revenues by placing investment with counterparts who will then sell on Alibaba's platforms, provide services to Alibaba, create advertising revenue, or otherwise return a portion of the capital back to Alibaba. Investments in discrete production lines at Haier, in the electronics retailer Suning, and in AdChina have characteristics that could make them well suited for round tripping.
- Alibaba is returning favors to companies and individuals, perhaps government officials, who helped the company along on its path to IPO.
- Alibaba does not actually have the profit it records on its books and needs to make overstated acquisitions to make the balance sheet balance.

We have no way to determine which motive or combination of motives may be at play, but none seems like a good treason to invest in Alibaba.

Here is a partial list of Alibaba's investments.

Table 5. Alibaba Investments

Name	Amount in mln USD	Purchase Date	Note
Xiami.com-Online Music	-	1/31/13	
Sina Weibo	586	Apr-13	
Weibo Corp	$586.00	4/29/13	
Undisclosed Mobile Internet	-	4/30/13	
UCWeb Inc	-	9-May	
AutoNavi Hldg Ltd	$294.00	5/13/13	
Fanatics Inc	$170.00	6/6/13	
ShopRunner Inc	$75.00	8/16/13	
Kanbox	-	9/25/13	
Umeng.com	-	11/19/13	
Haier	364	Dec-13	
Qingdao Haier Logistics Co Ltd	$69.70	12/9/13	
CITIC 21CN Co Ltd	$120.20	1/23/14	38% owner. Listed on HKeX as 0241. Authentication and tracking systems.
AutoNavi Hldg Ltd	$715.60	2/10/14	
ChinaVision Media Group	$804.40	3/11/14	

TangoMe Inc.	$217.00	3/14/14	20% share. Company makes free vice, video, and text messaging in the US.
Intime Retail Group	$692.40	3/14/14	26% interest. Additionally, Alibaba is establishing an 80% JV with Intime to develop retailing and supermarkets.
Haier Electronics Group Ltd.	$364.00	3/14/14	2% in Haier, 9.9% in a subsidiary, convertible bond representing 24% equity in the logistics business.
Wasu Media	1,005	Apr-14	The investment was mostly from Jack Ma and associates, not from Alibaba. Wasu is a content partner to Alibaba.
InTime Retail	692	Apr-14	
UCWeb Inc.		4/14/14	Mobile web browsers. Acquired 66% in successive acquisitions of convertible preferred shares.
Wasu Media Holding	$1.00	4/14/14	10-year loan at 8% collateralized by shares. Shenzhen-listed company 000156 in digital media. "We have entered into strategic partnership agreements with a major shareholder of Wasu in order to enhance our capabilities and profile in the digital media sector in China."
Youku	$1,090.00	4/28/14	18.5% of Youku Tudou
Zhejiang Cainiao (China Smart Logistics)	$270.00	5/13/14	Logistics infrastructure and information. Created by Alibaba with partners. Will pay in another $117.6 mln to maintain 48% share of the JV, which is capitalized at 5 bln RMB. Investment to be USD 16 bln over 5 years.
SoftBank Robotics	118	Jun-14	
Shiji Information Technology	450	Sep-14	
Youku Tudou	4,200	Oct-14	Joint Venture
Peel	50	Oct-14	
Momo		12/1/14	20% ownership, no value disclosed
Ping An	4,700	Dec-14	Joint Venture
Kuaidi Dache	600	Jan-15	With Tiger Global and Softbank – taxi hailing app
Kabam	120	Jan-15	A U.S. gaming company
AdChina		Jan-15	Majority Stake
Baiyunshan	1,600	Jan-15	
Tebon Fund Management		Feb-15	30% stake

Meizu	590	Feb-15	
Jet.com		Feb-15	No value disclosed
SnapChat	200	Mar-15	
SnapDeal	1,000	Mar-15	
Alibaba Health	2,500	Apr-15	
Ant Bank (MyBank)		May-15	No value disclosed
Aliyun		May-15	12 data centers this year
China Business News	193	Jun-15	
Taiwan Investment		Jun-15	No value disclosed
Shanghai Media Group	194	Jun-15	
Alibaba Pictures	1,570	Jun-15	
Reorient Group	150	Jun-15	
58Daojia	300	Oct-15	Services marketplace
Magic Leap	200	Nov-15	
South China Morning Post	266	Dec-15	
Zulily	56	Q2 2015	9.3% of the company
Lyft		Q4 2014	No value disclosed
Groupon	95	Q4 2015	5.6% of the company
Yueke	134		Online ticket booking and theater management
Singapore Post	338		In two tranches, 2014 and July 2015
Suning Appliances	4,600		Payment made in shares. Suning also bought Alibaba stock.
Whaley	313		Internet TV
One97			
Visualead			
Aiming			
KTPlay			
WITown			

Sources: Deep Throat IPO, CrunchBase, TechinAsia, News articles

It is worth listing these investments not just for sheer number but because none of the companies in which Alibaba has bought a controlling stake—maybe none of the companies at all—is profitable.

Between June 30, 2014, before the IPO, and the most recent quarter report, Alibaba accumulated USD 26.2 bln on a currency-adjusted basis in assets such as goodwill, intangibles, and investments in investees. In other words, USD 26.2 bln has been moved into companies of unverifiable value that do not contribute to Alibaba's bottom line.

Throughout our years of following Chinese companies, we have found that a pattern of acquiring dubious assets is a red flag suggesting that reported profit may actually be less than it appears. When companies are over-reporting their profit, they accumulate phantom cash on the balance sheet and need to move it into overstated assets.

We suspect that Alibaba may be pulling in cash from Ant Bank and Alipay that does not actually belong to the company and does not represent sustainable income.
Companies that operate at Alibaba's scale in China inevitably find that they must make acquisitions, often of uncompetitive or money-losing companies, in order to preserve market access, gain needed bureaucratic benefits, such as lower taxes and the right to engage in certain businesses, and boost revenue growth. Even if Alibaba is making acquisitions that are legitimate, they may be legitimate only in the context of bureaucratic requirements in China.

The Structural Decline

Opting Out

For many Chinese companies, e-commerce is much more promise than reality. Sales rise quickly on TMall—really the only game in town for volume—but few online vendors are profitable. In the first year of operation, third-party store operators say, 80-90% of merchants lose money online. After the second year, about half drop off the platforms. The remainder may make profit, but to be profitable, vendors need scale. Smaller stores on Taobao generally exist to sell off written-down inventory, and on an ongoing commercial basis, they lose money.

Tmall has consistently been gaining share against Taobao, at a surprising rate given that Tmall hosts only a small fraction of the merchants on Alibaba.

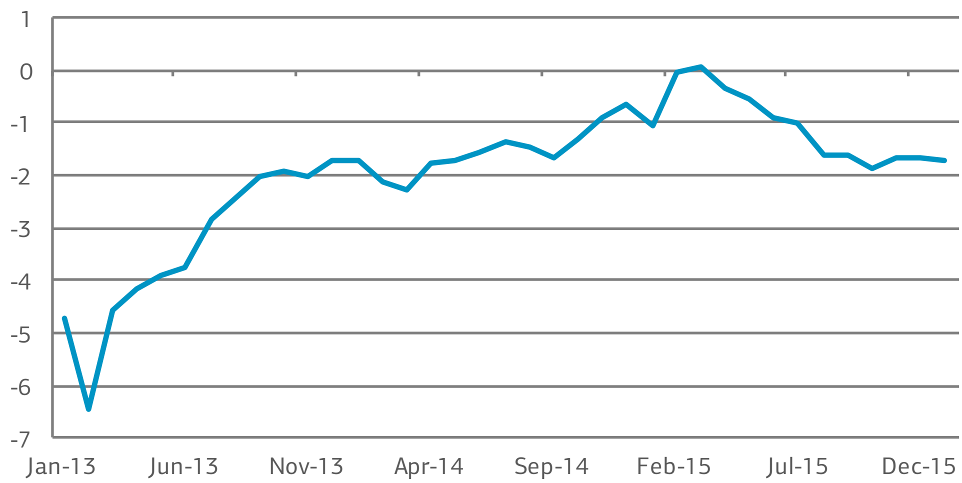
Table 6. GMV Taobao vs. TMall

(in billions of RMB, except percentages)	Jun. 30, 2013	Sep. 30, 2013	Dec. 31, 2013	Mar. 31, 2014	Jun. 30, 2014	Sep. 30, 2014	Dec. 31, 2014	Mar. 31, 2015	Jun. 30, 2015	Sep. 30, 2015	Dec. 31, 2015
Taobao Marketplace GMV	257	275	346	295	342	380	494	381	427	438	562

Tmall GMV	88	99	183	135	159	176	293	219	246	275	401
Total GMV	345	374	529	430	501	556	787	600	673	713	963
Tmall Share	26%	26%	35%	31%	32%	32%	37%	37%	37%	39%	42%
Mobile GMV (as a percentage of total GMV)	12%	15%	20%	27%	33%	36%	42%	51%	55%	62%	68%

Source: Alibaba Q4 filing

Chart 4. Average Prices of Core Alibaba Categories YoY



Source: Wind

Categories

In the volatile world of Chinese commerce, categories come and go on Taobao and TMall. Among the challenges for vendors is a continual decline in prices on Taobao and Tmall even as costs grow. Wind Information tracks the prices of "core categories" on Alibaba:

- Fashion is by far the biggest category and, with gross margins of 40-50%, merchants can generally sell profitably online. However, the NBS reports that the manufacture and sale by China's top 100 enterprises of garments declined in 2015. Even though Alibaba may be gaining share, it is hardly a promising category.
- Right now, the sale of financial services may be the highest-margin category and even though it does not account for more than 1% of turnover, store operators say that sales of insurance products, investments, stock funds, and the like are growing at about 150%. The take rate for Alibaba, however, is lower, as the dedicated channel for financial services needs little promotion to attract traffic.
- The costs of marketing online for consumer electronics, according to merchant platforms, has reached a tipping point at which merchants

can no longer afford the steep costs of traffic. We project that online sales for this category will decline in the coming months.
- Housewares, toys, white goods, unbranded shoes, and other bulky or low-margin categories will be next in trimming down their online sales.

The biggest problem for the mid-size and large merchants online is the high cost of traffic. For high-margin categories such as fashion, spending 30% of gross revenue on marketing could be tolerable, but many categories lack such a generous margin structure. Adding to the problem is the general decline in margins across industry.

As margins decline and marketing costs stay stable or rise, the cost of selling online becomes too high for lower-margin categories. This has already begun for consumer electronics, the vendors say, and many companies are opting to expand their physical retail network rather than sell online. Other vulnerable categories, we believe, include appliances, furniture, toys, tools, and possibly shoes and low-end garments.

We anticipate that Alibaba will have to choose between volume and take rate and will eventually lower the price of play on Tmall and other websites, just as occurred in the old Alibaba in 2010 after the financial crisis. Although Alibaba said in 2012 that it was delisting in Hong Kong due to a scandal that found its managers taking bribes to promote fraudulent companies, the reality was that slicing listing fees and reducing the number of paying stores undermined profit growth and consequently, a market listing was not attractive.

For valuable efficiencies added to the ecosystem, we recommend looking at Amazon China.

The Decline of Taobao

Merchants say the customers are migrating Tmall and away from Taobao. Sales agencies as well, which managing inline stores on behalf of clients, say that interest has migrated away from Taobao and toward TMall. Some comments from our survey of online consumers:

“There's a lot of fake stuff on Taobao but people fall for it because they are looking for bargains.”

“There is so much stuff it sort of blinds you.”

“There are products that aren't at all what they're advertised to be.”

Alibaba claims 8.5 mln active annual vendors on Taobao. Sina reported 6 mln.

Platform operators as well say that they advise clients to avoid Taobao and sell on Tmall instead.

Alibaba claims 8.5 mln active annual vendors on Taobao and 10 mln on Taobao, Juhuasuan, and TMall, but Chinese news accounts differ. A 2014 article in Sina reported that there were 7.06 mln stores on the Taobao platform, and one year later, another article reported that there were 6 mln stores on the platform and only 5% were profitable. The article says that the Tmall platform hosts 60,000 stores, of which 90% are profitable. This is not necessarily a contradiction since the definition of an active seller is generous:

> "active sellers" in a given period are to seller accounts (representing storefronts) that had one or more orders confirmed by a buyer on the relevant marketplace in that period and that were active at the end of the period, regardless of whether the buyer or seller settle the transaction;

There are businesses that establish dozens or hundreds of stores daily and close them at night in order to create circular transactions, earn credit card points, or meet volume-related targets.

One way to test the accuracy of the store numbers is to look at the growth in merchant deposits, up 53% in 2015 over 2014. The growth is high, but any merchant joining the platform in the last year will have had to make a deposit. Assuming that the average deposit is RMB 60,000, the RMB 7.2 bln deposit number would indicate 120,000 new merchants. Attrition is certainly higher.

One of the puzzles around Alibaba is why an apparent decline in Taobao stores has not impacted revenue, given that Taobao represents such an overwhelming proportion of traffic and merchants.

Old Commerce Pretending to Be New

Alibaba in essence is a cluttered, confusing bazaar, not very different from the huge wholesale warehouses that fill Alibaba's neighboring city, Yiwu, only Alibaba's products can be accessed online. The collection of sites have such overwhelming market dominance and are so focused on volume growth that Alibaba has not been able to afford the time and effort to develop efficiencies, such as standardized databases and product categorization schemes. Client Relationship Management tools, more efficient ERPs, with better warehouse management and truck dispatch. Instead, players up and down the value chain are willing to lose money in hopes of becoming the next Alibaba themselves, and they apply human labor to the problems of rapid delivery, returns management, payments, and warehousing.

Few companies participating in e-commerce are making money. This reflects the difficulty of reaching buyers in China and the inefficiency of available search tools. It is also a clear illustration of how Alibaba and its peers have failed to bring deeper penetration of IT systems, better logistics, or more efficient warehousing to this new industry.

How Do They Do It?

Alibaba is a sprawling collection of enterprises that disclosed more than 300 operating entities in its IPO prospectus and now has many more. It is more city than commercial enterprise and Jack Ma more mayor than CEO.

Where the Incentives Lie

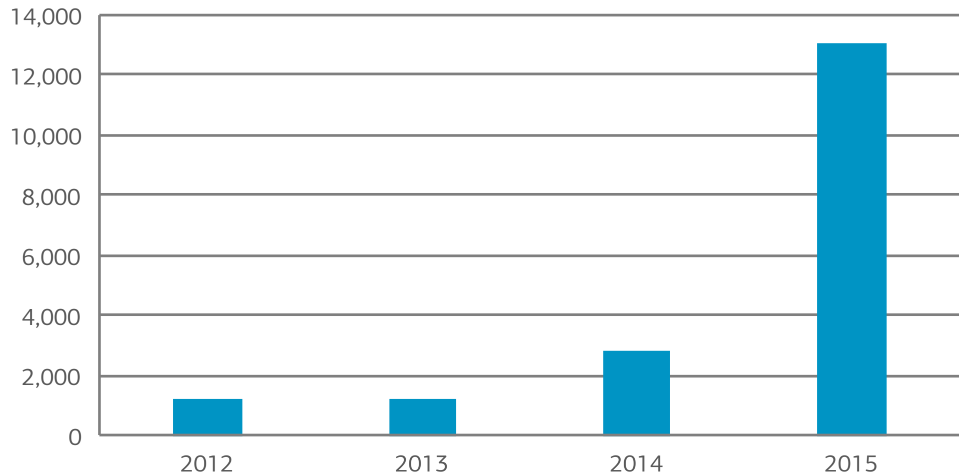
Alibaba, like most Chinese stocks, is valued based on its growth and its potential for even-higher earnings. With 40 Street ratings, the average target price is USD 91.52, 30% higher than the stock is trading. Getting the share price up is at the center of management interests: Alibaba issues at least half of its profit in stock-based compensation: between 14-20% of its revenue. In the most recent quarter, stock-based compensation was 14% of revenue. Whether or not shareholders make money on Alibaba, you can be sure that management stands to get fabulously rich.

Table 7. Share-Based Compensation (mln RMB and USD)

Share-Based Compensation Expense By Function	2014		2015			% of Revenue YoY Change
	RMB	% of Revenue	RMB	USD	% of Revenue	
Cost of Revenue	1,413	5%	1,467	227	4%	-1%
Product Development Expenses	1,266	5%	1,561	241	5%	0%
Sales and Marketing Expenses	402	2%	492	76	2%	0%
General and Administrative Expenses	1,232	4%	850	131	2%	-2%
Total Share-Based Compensation Expense	4,313	16%	4,370	675	13%	-3%

Source: Alibaba Q4 2015 filing

Chart 5. Share-Based Compensation Expense from Cash Flow Statement (mln RMB)



Source: Alibaba Annual Report

Those sorts of rich awards are not sustainable.

In addition to the share-based compensation awarded to Alibaba employees. Alibaba issues share options to employees of Ant Financial, further supporting our view that Ant is really one and the same as Alibaba, only its financials are not disclosed. Alibaba reports in the 2015 Annual Report on page 15:

> In addition, we have granted share-based awards to employees of Ant Financial Services, and Junhan has made share-based awards tied to the value of Ant Financial Services to our employees. The provision of awards to our employees tied to the value of Ant Financial Services is expected to enhance our strategic and financial relationship with Ant Financial Services.

Corporate Governance Concerns

Jack Ma and his management team have been extremely successful at enriching themselves but not enriching investors. The de-listing of the old Alibaba is a case in point: The company listed in Hong Kong in 2007 at HKD 13.50 and was trading at HKD 13.40 when it delisted in 2012. The immediate reason for delisting surrounded a scandal that found Alibaba employees distributing “Gold Supplier” memberships to suppliers who took money from buyers but did not ship goods. Alibaba went private in May 2012, and was required to create a fraud compensation fund after over 2,000 sellers defrauded buyers.

When 1688.com was formerly listed, over 2,300 sellers defrauded overseas buyers by not delivering goods – sometimes with the help of Alibaba staff. The demise of 1688.com and ensuing management shuffle, however, did not end fraudulent activities at Alibaba, as described in detail in a report published in January 2015 by the State Administration of Industry and Commerce (available here in Chinese).

TMall's business is heavily reliant on personal negotiation, where brands pay deposits and advertising fees to Alibaba in return for prime space on TMall's website and search results. Corruption surrounding this structure has been documented in the Chinese media, with Alibaba staff purportedly accepting bribes and gifts to secure premium spots on T-Mall's website.

Yunfeng Capital

Yunfeng is another of those off-balance-sheet entities that make it very hard for public shareholders to know what is happening in the listed entity. A private equity company set up by Jack Ma and David Yu (Target Media founder) in April 2010, investors in the fund include Tencent, Giant Interactive, and Alibaba.

Alibaba is deeply intertwined with many of the Yunfeng investees. Giant and Dongxiang, whose chairmen were co-founders of Yunfeng, are shareholders. Sina invested $50 mln in Alibaba through Yunfeng in 2011, then Alibaba invested in Sina's Weibo division, also through Yunfeng. Yunfeng bought into Sohu's Sougou division, and then Sohu bought Sougou back.

Citic21

Alibaba and Yunfeng purchased a 54% stake in Citic 21CN for USD 171 mln, saying:

> "...The transaction is the foundation for a strategic partnership aiming at jointly driving development of a pharmaceutical-product information platform. The platform will use Citic 21CN's drug data and Alibaba's e-commerce, cloud computing and "big data" capabilities..."

Citic 21's main business is actually a call center business. The utility to Alibaba is unclear.

Wasu

Alibaba lent over USD 1 bln to the founder of Wasu Media, a digital media broadcasting company listed in Shenzhen. That founder, Simon Xie, is an equity holder in Alibaba VIEs. Again, the utility to BABA shareholders is unclear.

Find the Missing Shareholder Equity

Alibaba's listing prospectus shows that, between March 31, 2012 and March 31, 2013, total equity in the company declined from RMB 34.383 bln RMB to RMB 513 mln RMB.[1] A footnote explains:

> The decrease from March 31, 2012 to March 31, 2013 was primarily due to the repurchase of our ordinary shares from Yahoo in September 2012 and the privatization of Alibaba.com, partially offset by the issuance of ordinary shares to finance the repurchase.

It is hard to know what happened. Perhaps the company bought back some of its shares, but no such purchase shows up anywhere in the financial statements. The company issued RMB 10.447 bln in convertible preference shares, so there must have been a private placement event. But the statements are silent as to share count and to who was paid.

Regulatory Risk

Alibaba has been a pioneer in the private management of payments systems, investment tools, logistics, and other areas of the economy that are not explicitly open to private or foreign involvement. The difficulty with being a pioneer is that China's government tends to permit the more efficient private companies to develop a profit model along the edges of the regulatory system, then it makes regulation to haul back the profitable activities to State players.

- **Alipay:** Among the first disclosures in the filings is this:

  Although we rely on Alipay to conduct substantially all of the payment processing and all of the escrow services on our marketplaces, we do not have any control over Alipay.

  In 2011, Yahoo disclosed that Alibaba had transferred Alipay from Alibaba to a company wholly owned by Jack Ma. Accused of purloining assets from a listed company in which Yahoo owned 43%, Ma said that he had been obliged to remove the payments company from Alibaba because the Chinese government would not permit foreign-owned companies to participate in payments.

  The intimate relationship between Alipay and Alibaba clearly vio-

[1] See the listing prospectus, page 23.

lates the intent of Chinese regulation making payment services unavailable to foreign ownership. If the government banned the relationship between Alipay and Alibaba, Alibaba would lose the source of substantially all its revenue.

- **Virtual credit cards:** Alipay started talking about "virtual credit cards," meaning credit cards with no physical card, in 2010 and in 2013, Alibaba began offering products that could be paid for through Ali credit at 0.8% after a 38-day interest-free grace period. Tencent offers a similar product. But in March last year, the PBOC temporarily froze issuance of virtual credit cards, citing security concerns. This is one example of the degree to which Alibaba's financial services are at regulatory risk.

- **Investment management:** Through Ant Financial, Alibaba purchased controlling equity in a licensed fund manager to manage the Alipay float. There is precedent in Chinese regulation for deeming the control of cash flows to be the same as ownership and forcing foreign-owned companies out of those relationships.

- **Sale of financial products:** Agents working with Alibaba estimate that sales of financial services in 2016 are rising by about 150%. These products are very profitable to Alibaba, although they represent only about 1% of the total. And yet last year, the category saw negative growth due to heightened regulatory scrutiny that froze sales for a time. This kind of issue can easily best the sale of financial services.

- **Alibaba Health:** In April 2014, Alibaba acquired a 38% stake in a Hong Kong-listed company called Citic 21CN, which does authentication and tracking of pharmaceuticals that apparently make it possible for Alibaba to sell pharmaceuticals online. On February 20, the State Food and Drug Administration announced that it would establish a new agency to administer these licenses and would cancel Alibaba's permit to manage authentication and tracking on an agency basis.

- **VIE Structure:** Chinese regulators regularly attack the Variable Interest Entity arrangement under which all Internet companies operate and curtail their operations. Recently Xinhua reiterated rules that bar any private or foreign ownership in companies that write news and produce content for publication, including on the Internet. This could affect Alibaba.

Catalysts

- We believe that the real costs to merchants on the Alibaba platform are among the highest in the world. Profits are declining across industries in China, and we think Alibaba will have to drop prices in order to retain stores, probably this year.
- Bad loans in China are building and are likely to become larger and potentially destabilizing for Ant Financial and its small loan facility.

Valuation

We value Baba at USD 36.58 based on a P/E multiple of 23, assuming average revenue growth of 25% in each of the coming five years and assuming that GMV is overstated by a factor of three.

Risks

- The Chinese macro environment could be more stable than we think and support Alibaba's growth for another two or three years.
- Given high rents offline, there may continue to be companies converting more of their sales to online, enabling Alibaba to outrun the decline in China's economy generally.
- Alibaba's GMV is clearly overstated but argument around profit overstatement are less strong. If Alibaba is genuinely as profitable as stated, then it is the most successful e-commerce site in the world and can only become stronger over time.
- China's State-owned telecom operators are very interested in owning e-commerce and we can imagine a takeout scenario by one of these behemoths.

Thanks to Bob Wittbrot, author of the Deep Throat IPO blog, which can be found here.

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