

JD.com is the third largest e-commerce website in China. What makes JD unique is that they own their entire end-to-end logistics network. They buy product from manufacturers, store it in their own warehouses, sell direct to consumers, and even manage the last-mile delivery to the customer's door. JD's largest competitors, Tmall and Taobao, are both marketplaces that connect buyers and sellers. Tmall and Taobao don't buy their own inventory or ship it direct to consumers—they are more similar in concept to eBay. JD is more akin to Amazon.

One of the most important questions I ask myself about potential investments is: "Are the world's trends in front of or behind this company?" I want to invest in companies that are being pushed forward by the biggest and most inevitable tailwinds in the world. And one of the largest trends the past twenty years has been China's exploding middle class. Just in the ten years from 2008 to 2017, China's average yearly wage went from 29,229 yuan to 74,318 (for a compounded annual growth rate of 9.8%). More importantly, this increasing wealth is expected to continue.

The Chinese government has said that expanding the middle class and increasing consumption are two of its major goals going forward. Historically, China has had one of the highest savings rates in the world, but after peaking around 2010, household savings rates have been coming down. As the Chinese get wealthier, their consumption rates increase. And within that trend, people under thirty are not as frugal as the older generations who grew up in a very different economy. Consumption by the younger generation is growing 1.5x faster than the overall population.

In addition, internet penetration rates still have room for growth. In 2017, internet penetration in China was 56% vs the US at around 80% (and several European countries over 90%). Within this, 38% of the Chinese population shopped online in 2017 compared to 67% of the American population. Even the 38% of the population who already shops online will almost certainly increase their rate of purchasing going forward. As people get more comfortable with the internet and come to trust online shopping, their purchases go up over time. In summary, the major tailwinds benefitting JD are that the Chinese are getting wealthier, their consumption rates are increasing, and they are using the Internet more.

### **Competitor analysis**

JD's two largest competitors, Tmall and Taobao, are both owned by Alibaba. Taobao is the market leader, Tmall is second, JD is third, and then there is a large gap between JD and the smaller players. It's hard to get exact market share numbers because of how the companies report gross merchandise value, but my best estimate is Taobao's share of the online retail goods market is in the low-30s, Tmall is in the mid-20s, and JD is in the mid-teens.

Both Tmall and Taobao are marketplaces that connect buyers and sellers—neither owns inventory or their own logistics network. Taobao is a consumer-to-consumer (C2C) marketplace—it connects individuals selling to other individuals. Tmall is a business-to-consumer (B2C) marketplace—it connects businesses selling to individuals.

Tmall is more of a direct competitor to JD than Taobao is. Tmall focuses on higher-quality goods from established brands, while Taobao is filled with cheap products that are low quality and/or counterfeit. While Taobao has historically dominated Chinese e-commerce, there has been a shift in preference the past few years for the higher-quality and reliability that comes from the B2C segment. Taobao has been losing meaningful market share the past three years while JD and Tmall have both been gaining share (JD more so than Tmall, but JD is also coming off a smaller base).

To be clear, I don't expect the Chinese e-commerce market to ever be dominated by one player like the US market is. The US and China e-commerce markets developed much differently, and I think Taobao, Tmall, and JD are all too established at this point to not survive for the long-term. However, I do think JD can continue to grow their market share as they have the past three years.

The biggest difference between JD and Tmall and Taobao is that JD controls the customer experience and the product cost from end-to-end. I believe controlling the entire logistics network allows JD to do a lot of things that Tmall and Taobao can't do—like providing more consistency across everything they do, better customer service, guaranteeing

authentic products, and delivery speed and efficiency. And as the Chinese population gets wealthier, I predict they will care more about convenience, delivery speed, quality, and authenticity as opposed to just price (even though I think JD's logistics scale will allow them to win on price as well).

JD has excelled most in the largest and wealthiest Chinese cities. JD has its largest market share in Tier 1 cities, less so in Tier 2 and Tier 3 cities, and then it drops off quite a bit in Tier 4-6 cities. The wealthier Chinese are clearly liking JD more. In addition, surveys show the younger generation prefers JD over Tmall (while Tmall is more popular with the older generations). So, JD is currently preferred by wealthier Chinese (while the entire population is getting wealthier) and by the younger generation (which is growing up and becoming a larger chunk of the population). Those are two major trends in JD's favor.

Of the several consumer surveys and third-party reports I've read, JD consistently ranks higher in customer satisfaction than Tmall and Taobao. Tmall and Taobao are more popular right now, but as more people try JD, they start to prefer it more. And this dynamic is showing up in the overall results. JD's market share of online retail has significantly increased every year I have data on, while Taobao's market share has decreased every year and Tmall has slowly increased.

The best thing about scale as a competitive advantage is that it increases over time. JD is the only Chinese e-commerce retailer that owns a massive logistics network and that's probably not going to change. To replicate what JD has built as a direct retailer with their own logistics network would require billions of dollars and many years. Even if someone started today with the money in their pocket, it would still probably take 5-10 years to replicate the infrastructure that JD has.

As JD grows, the logistics network becomes more efficient as more revenue gets spread out across the entire network (which results in lower per-order fulfillment costs). The larger and more efficient network allows them to lower prices, which attracts more revenue. More money coming in allows them to offer broader product selection, negotiate better pricing from manufacturers, and to expand their logistics network even more. And on and on. And once that flywheel reaches critical mass (which it already has), it's almost impossible for a competitor to catch up (Costco, Walmart, and Amazon are other retailers that have successfully accomplished this scale flywheel).

## **Management**

Richard Liu started JD in 1998 at a market stall selling small electronics and has grown it into one of the largest retailers in the world. While I've never spoken to Liu, it's still important for me to get comfortable that he is someone I can trust with our money. I've read as much about Liu as I can, through many news stories, interviews, his biography, and obviously what he's done at JD. Through this research, there are three common threads that have really stuck out to me.

First, he is obsessed with low prices. He is well read on Sam Walton and Jeff Bezos and he mentions them on a regular basis. Liu understands that low prices win retail and the only way to continually drive prices lower over time is to have more scale than the competition. Low prices win retail and thus scale wins retail. Liu has made it very clear that low prices are not a temporary tactic—his long-term goal is net margins of 3-5%.

Second, he is obsessed with authenticity, which I think is important in a country that is getting wealthier but is also known for its cheap knock-offs. Authenticity is clearly a core belief of his. A quote from Liu: "Any true company of the people would not sell fake products to its own people."

Finally, Liu has zero tolerance for corruption of any kind. He has fired employees for accepting meals from manufacturer reps and he has stopped working with manufacturers for even attempting to give JD kickbacks. From what I can tell, JD pays well and treats employees well, but they are also very strict. Even minor transgressions result in being fired and reported to the police. A quote from Liu: "It is not that I am merciless, it is that what you've done is completely contrary to my values and has subverted my dreams... I cannot tolerate corruption in my life. I won't accept it and nor shall you."

## Risks

When I started researching JD, my biggest concern was the risk of government regulations or intervention. The number of unknown-unknowns go up exponentially when investing in a country that I've never been to—especially one that is so different than the US. However, I've become more comfortable with the regulatory risk than I thought I would.

Throughout my research, I noticed that the other big Chinese tech companies—Alibaba, Baidu, and Tencent—had far more run-ins with the Chinese government than JD has had, and it took me a little while to appreciate why. While Chinese President Xi Jinping has openly endorsed and encouraged more entrepreneurship, tech innovation, and e-commerce, he is extremely strict on censorship. Criticizing the government is simply not allowed. And where online are people most likely to criticize the government? Blogs, social media, and news outlets—not e-commerce sites.

Think about the US: Facebook and Google get brought up in political discussions far more often than Amazon does. This is because Amazon doesn't have as much ability to influence public opinion as Facebook and Google (Cambridge Analytica anyone?). Because of this, Amazon doesn't seem to piss off the government as much as their large tech counterparts. The same thing appears to be true in China. JD focuses almost entirely in e-commerce, which is a far more politically neutral domain. The other Chinese tech giants are in areas that are much more likely to be censored by the government. And despite Alibaba's main focus being e-commerce, they have expanded into many areas—like social media and news—that have gotten them into hot water with the Chinese government.

Another common concern with JD is the weird corporate structure that allows them (and all the Chinese tech giants) to list publicly in the US. Many investors think it's possible the Chinese government pulls the plug on this foreign ownership loophole, essentially saying "We don't want our largest companies to be owned by Americans, screw the US investors, all their shares are now worth zero."

I struggle to see that ever happening. Hundreds of billions of dollars being stolen from American investors would not be taken lightly. If China completely screwed over the millions of Americans who own shares in those companies, it would permanently harm many successful Chinese companies going forward as they would almost certainly be barred from the largest source of capital in the world.

More importantly, the Chinese government recently endorsed the corporate structures that allow foreign ownership in their companies. Chinese citizens currently aren't able to invest directly into the most successful Chinese companies listed in the US, but the government is changing that. As part of this change, the government explicitly said the current structures are being kept in place. In my opinion, that endorsement largely de-risked the "China screws all American investors" bear case.

Besides government and regulatory concerns, I think the largest near-term risk to JD would be losing their WeChat partnership. WeChat is the dominant chat and social media app in China. But to call it a "chat and social media app" is probably a large understatement—it's more akin to a mobile phone operating system than just an app. WeChat has over one billion monthly active users and the average user spends almost two hours per day in the WeChat universe—doing everything from texting and reading news to calling a rideshare and paying for meals. WeChat is truly an incredible app that damn near every Chinese person uses on a regular basis.

In March 2014, JD and Tencent (the company that owns WeChat) signed a 5-year partnership for e-commerce retailing, meaning the partnership ends in March 2019. Tencent also had a non-compete in that deal until 2022, so they can't start their own direct competitor to JD. As of late, JD has been getting around 25% of new clients through WeChat, so that is a very significant risk if the partnership goes south.

The good news is that two months ago JD and Tencent announced a plan to expand their partnership, which probably means it is safe over the near to medium-term. In addition, Tencent bought an 18.1% equity stake in JD, meaning they

are very incentivized to see JD succeed—especially if it means JD taking e-commerce market share from Alibaba, which is a major competitor to Tencent as well. The enemy of my enemy is my friend.

## Valuation

JD has grown their market share every year that I have good data on. Part of this is because they're in the right segment of the market—B2C as opposed to C2C. The Chinese are clearly shifting their preference to higher quality and authentic products that are more often found when buying direct from a company. I also believe part of JD's market share growth has been from them owning the entire customer experience and product cost from end-to-end. This allows them to provide the highest quality and most consistent buying experience to customers.

Beyond JD's market share growth, the Chinese e-commerce industry as a whole has massive tailwinds behind it: a wealthier population that is consuming more and spending more time and money online. It's not unreasonable to think that China's e-commerce industry can grow 10x over the next 15-20 years. With that as a backdrop, below are my high-level assumptions for valuing JD's e-commerce segment:

1. Online continues to take share from traditional retail. Online is currently around 15% of China's retail consumer goods industry. I expect online retail's share of overall retail to keep increasing for many years, eventually reaching over 30%.
2. JD continues to take market share within online retail. My baseline assumption is JD's current mid-teens market share can get up to the mid-20s.
3. JD is able to achieve Richard Liu's net margin goal of 3-5%. Sanity-checking this against other mass retailers (Amazon, Costco, Target, Walmart) gives me confidence that 3-5% is very reasonable and achievable. I also think there could be upside to this number via JD's other segments, which I'm about to get into.

Using the above assumptions, it's not hard to get a 12-15%+ IRR from today's price of ~\$39. However, it's important to note that this is only valuing JD's core e-commerce business. JD has two significant segments that I have yet to mention.

JD Logistics manages the warehousing network and last mile delivery for JD's retail business. JD Logistics became a stand-alone subsidiary in April 2017. On February 24, 2018, JD sold 18.6% of JD Logistics at a valuation of \$13.4 billion (meaning JD's portion is valued at \$10.9 billion). While JD Logistics mostly focuses on the JD ecosystem, they have started to get into logistics that is completely outside of JD as well.

China's logistics industry is very different than the US. In the US, third-party logistics is an oligopoly dominated by FedEx, UPS, and USPS. In China, the industry is much more fragmented with the market leader not even having 20% share. Third-party logistics requires enormous investments and networks to make work. Scale is a massive advantage in logistics, meaning it makes sense for the industry to consolidate into a handful of large players over time. And because JD Logistics will always have a massive number of guaranteed packages running through it thanks to JD, it makes sense that they may have a chance at being one of the few large logistics companies over the long-term. This is the long-term, blue-sky scenario for JD Logistics.

JD Finance provides credit to JD's suppliers, merchants and consumers, and they handle online payments. JD Finance was spun-off from JD in June 2017. JD sold its equity stake in the business, but they will get 40% of JD Finance's pre-tax profits going forward (which can be converted back to 40% equity upon regulatory approval). Current private market valuations for JD Finance are over \$20 billion. One reason JD wanted to spin-off this segment is so that JD Finance can expand into broader areas of the financial services industry.

It's tempting to strip out JD Finance and JD Logistics using their recent private market valuations and value JD's e-commerce business separately, but the problem with doing this is the logistics and financing segments support the e-commerce business. All of them are intertwined, so I think completely removing these two segments and then assuming

the e-commerce business would still be as successful as it is on its own is quite aggressive. On the other hand, I think my above valuation method that doesn't give any additional value to these two segments is overly conservative because both JD Logistics and JD Finance have expanded into non-JD business.

Bridging that gap is difficult because we don't have separate financials for JD Logistics and JD Finance, so I don't know how valuable their non-JD businesses are. Richard Liu has made it very clear that these businesses will eventually IPO, so someday (probably in the next couple years) we will have a much better idea of JD's full value. In addition to those two segments, JD has recently focused on growing their small advertising business, which I have also valued at zero.

To sum it up, I think JD's core e-commerce business is undervalued on its own. I also think the business has several other segments that have significant value on top of JD, but they are very difficult to estimate right now. Whether that additional value ends up being a few billion dollars or tens of billions, I don't know. For now, I'm content owning JD for its e-commerce business, while also recognizing that additional value will probably become more known in the coming years.