



Baidu Inc
July 28, 2015

General Overview

Baidu Inc. (BIDU) is the leading internet search provider in China and is in the business of connecting people with information. The company enjoys a dominant market share that is nearly identical to Google's position in the United States, but unlike the mature market of the US; internet usage in China is growing rapidly. As the world's fastest growing economy continues to move online BIDU is perfectly positioned to reap the benefits.



Purchase Logic

BIDU currently enjoys the 'winner-takes-all' economics of the online search industry and has emerged as the clear victor in China. Similar to Google, BIDU gets paid-per-click by advertisers for sponsored search results on Baidu.com. The company does have one distinct advantage when compared to its American counterpart – location. China has one of the lowest penetration rates for internet usage in developed nations and a rapidly growing middle class that is steadily moving online. For these reasons, we believe BIDU will be an amazing success story in the decades to come.

The company has been on our radar as a dominant business since going public in 2005 and we have been patiently waiting for an attractive opportunity to invest. During the Q2 2015 conference call, Robin Li, the company's founder and CEO, reported that BIDU would be investing heavily in growth initiatives to capture market share across multiple verticals in the online space. These investments would increase revenue growth, but decrease profits, for several years. Following the news the stock dropped substantially and we jumped at the opportunity to make a purchase.

Our initial investment in BIDU was made at a price of roughly \$169 per ADS share. There are currently 27,613,315 Class A ordinary shares and 7,492,921 Class B ordinary shares outstanding – with each ordinary share convertible into ADS shares at a ratio of 10:1. This equates to a total market capitalization for BIDU of \$59 billion USD. The company's balance sheet is impressive with \$12 billion in cash and \$4 billion in debt for a net cash position of \$8 billion – meaning our effective purchase price was roughly \$51 billion USD. In the next twelve months BIDU's core search business will generate approximately \$2.5 billion in profits for an effective purchase price of 20x forward looking earnings. The average S&P 500 constituent is currently priced at roughly 19x earnings, but unlike the average S&P 500 business, BIDU is growing revenue at more than 30% per year with a long runway for growth.

Key Metrics

The key metrics for BIDU are Revenue, O2O GMV, Gross Profit, Growth Initiative Spending (GIS), and Owner Earnings. The key business variables that drive each metric are described in further detail below.

Revenue

In the last 10 years substantially all of BIDU's revenue has been generated through the company's core search product, Baidu.com. Advertisers paid BIDU to increase their page ranking on search results and BIDU received revenue whenever a user clicks on a paid link. In recent months BIDU has committed to leveraging the company's powerful position in search to generate revenue in other areas of online services, such as online travel, social-networking, knowledge products (like Wikipedia), location-based products (like Google Maps), security products, and online-to-offline (O2O) shopping. Developed nations, such as the US, have demonstrated that these online channels can be extremely profitable (Priceline, TripAdvisor, Ebay, etc.).

O2O GMV

During the Q2 2015 conference call BIDU announced that it would be investing to create a platform that would connect online users to local businesses in an 'online-to-offline' model. Revenue will be generated by receiving a commission from local business owners based on the customers that search for those businesses through BIDU's O2O platform. This particular type of search focuses on services where proximity is important – such as finding a nearby restaurant or gas station. The O2O model is being rapidly adopted across China and BIDU will be competing against many large firms to win market share in this space; including Alibaba, Tencent, and Qihoo 360. The O2O GMV is a measure of the 'gross merchandise volume' that is purchased from merchants through customers that utilized BIDU's platform. For example, if an individual searches for a local restaurant and spends \$6.00 at that particular restaurant, the O2O GMV from this transaction would be \$6.00. The revenue BIDU receives will be a small fraction (somewhere between 0.10% to 15%) of the O2O GMV. It should be noted that in the short-term BIDU is not charging materially for this service in order to gain market share and we view this as an excellent business decision. Winning the O2O market could be very lucrative for BIDU in the future.

Gross Profit

The gross profit is equal to the revenue generated by the business less traffic acquisition costs, bandwidth costs, depreciation of servers and other equipment, and share-based compensation. Gross profit represents owner earnings prior to expenses related to selling, general, administrative, R&D, and investments in growth initiatives. The gross profit is an excellence indicator of the potential earning power of BIDU's core business.

Growth Initiative Spending (GIS)

There is opportunity for BIDU to grow by investing in several verticals in the Chinese internet market. To understand the various verticals it is helpful to describe the current environment in the United States: Google dominates search, Priceline dominants online travel, Ebay dominants online Peer-to-Peer sales, etc. Each of these businesses dominates one particular vertical. In China, BIDU has the dominant position for online search, but there is not a clear winner for many other verticals that are beginning to develop. The opportunity to win market share in each vertical is an investment worth making – and BIDU is investing heavily.

The GIS represents the discretionary investments that BIDU is making to compete for market share in these new verticals. This figure is important because if BIDU determines that these investments are not profitable, or the company will not win in a particular market, the investments can stop and the expenses would disappear. For this reason, we add back the GIS each year to determine BIDU's core earning power. We believe this to be rational when evaluating the intrinsic value of BIDU, because Robin Li, the founder and CEO of BIDU, can withdraw from

any vertical at any time and enjoy the profits from the core earnings. In the event the investments pay off BIDU will be even more profitable in the future.

Owner Earnings

The owner earnings are equal to the true economic earning power of the business. We calculate owner earnings by taking the net income for the business and adding back the GIS less taxes. This figure is equal the cash available to a business owner that was interested in maximizing profits *without* the discretionary spending of the GIS. We view this as a rational way to calculate owner earnings because if the growth initiatives prove to be unprofitable the activities can cease and only the profitable activities resume; namely the core search and other profitable verticals.

Historical Performance of Key Metrics

Year	'10	'11	'12	'13	'14
Total Revenue	\$1,201,128,000	\$2,303,906,000	\$3,580,249,000	\$5,276,586,000	\$7,906,563,000
O2O GMV	\$0	\$0	\$0	\$0	Not Reported
<i>Gross Profit</i>	\$874,969,000	\$1,684,764,000	\$2,545,219,000	\$3,381,636,000	\$4,862,487,000
GIS	\$0	\$0	\$0	\$0	\$0
Owner Earnings	\$519,296,450	\$1,068,552,000	\$1,611,228,550	\$1,692,330,450	\$1,941,136,500
Cash	\$1,243,872,000	\$2,329,591,000	\$5,277,416,000	\$6,390,276,000	\$9,362,310,000
Debt	\$13,051,000	\$396,836,000	\$1,916,639,000	\$2,916,943,000	\$4,170,673,000

Revenue

In the last 5 years revenue has grown from \$1.2 billion to more than \$7.9 billion with a compound annual growth rate of 60%. The primary driver for this increase in revenue has been the core search revenue from online advertisers. This particular source is still growing rapidly with year-over-year growth in excess of 25%. In addition to growth in core search advertising we believe that BIDU will rapidly increase revenue by leveraging their strong brand name and the highest online traffic of any site in China. We anticipate BIDU to grow revenue at a rate between +10% and +35% year-over-year for the next 10 years with a 10-year average of 20%. If BIDU is able to compound revenue at a rate of 20% for 10 straight years the company's revenue would be roughly \$60 billion per year – compared to Google's search revenue of \$66 billion in 2014.

O2O GMV

The O2O GMV is a relatively new business venture for BIDU. In the last 5 years the company primarily focused on search and did not report online-to-offline sales. During Q2 2015 BIDU began reporting O2O GMV and stated they would continue to report this figure as the business division progresses. During Q2 2015 BIDU accomplished \$6.48 billion in O2O GMV. At the current run rate the company would generate roughly \$26 billion per year in GMV. It is our expectation that the O2O GMV will increase at a rate between +10% and +80% per year with a compound rate of +25% per year for the next 10 years. The most important factor with respect to the profitability of this new business division will be the 'take rate' BIDU receives when the company begins to monetize the GMV transactions. If the company charges 1% of all GMV generated this would add \$260 million to revenue at the current run rate; whereas, if the company charges 10% of all GMV it would generate \$2.6 billion. The future take rate of these transaction is currently unknown, but we believe it would fall somewhere between 5% and 15%. This assumption is based on the fact that businesses, such as restaurants, tend to spend between 5% and 15% of revenue on advertising to generate new customers – so this take rate would fall within the current business model of many businesses.

Gross Profit

In the last 5 years gross profit has increased from \$874 million to more than \$4.8 billion today. This represents a compound annual growth rate of 53.5%. There are several factors that will impact the growth rate of gross profits moving forward. As the core search business continues to grow gross profit will increase proportionally with revenue for this division due to the cost structure of the business - the majority of expenses are variable, such as bandwidth and traffic acquisition costs. The new business divisions will initially contribute to revenue more than gross profit due to the high costs associated with launching these new divisions. As these businesses grow over the years additional revenue will be leveraged across a fixed cost base and operational leverage should allow gross profits to increase at a rate that is faster than revenue. For this reason, we are forecasting a growth rate of +5% to +30% in gross profits for the first 5 years with a 5 year average of +15% and then a +10% to +40% growth rate in gross profits for the next 5 years with a 5 year average of +20%.

Growth Initiative Spending

In the last 5 years the investments made into growth were primarily on the core search business. This investment is required to maintain and grow BIDU's primary source of earnings and is considered a mandatory expense. For that reason, this was not and is not considered part of the GIS during the last 5 years. Moving forward GIS will be an estimate of the investments made in non-search verticals that are discretionary. This number is difficult to calculate precisely due to the fact that these investments are consolidated into Cost of Revenues, Selling, General, Administrative, and R&D expenses; but should be relatively easy to estimate each year. We are not attempting to forecast the GIS in the next 5 years and view these investments as a potentially additive upside. In the event that the GIS fail and no new verticals are established the core search business will be substantially larger in the upcoming decade and the investment will likely still be an overwhelming success.

Owner Earnings

In the last 5 years Owner Earnings has compounded at an annual rate of 39% and in the last twelve months exceeded \$2 billion. Moving forward we will estimate Owner Earnings as the reported net income plus Growth Initiative Spending less taxes. Using this metric for Owner Earnings we anticipate growth between +10% and +35% per year with a 10 year average of +20%. We anticipate that by the year 2026 the owner earnings of BIDU will likely exceed \$16 billion dollars.

Summary of Key Metrics

Metric	Expectations
Revenue	+10% to +35% per year 10-Year Average of +20%
O2O GMV	+10% to +80% per year 10-Year Average of +25%
Gross Profit	Next 5 Years: +5% to +30% with +15% Average Following 5 Years: +10% to +35% with +20% Average
Growth Initiative Spending	No forecast
Owner Earnings	+10% to +35% per year 10-Year Average of +20%

The Moat Around The Metrics

The moat protecting BIDU's competitive position is nearly identical to the moat protecting Google's competitive position. The primary elements that contribute to the dominant market position of these two enterprises are: Consumer / Payer Disconnect, Network Effect, and Brand Name.

Consumer / Payer Disconnect

BIDU benefits from the disconnect between the individuals who perform searches for free and the businesses that pay for online advertising. Individuals in China use BIDU's services for free and have no incentive to switch providers. This massive user base is valuable as BIDU is able to leverage these individuals search queries for profits. Businesses interested in advertising on this platform pay BIDU through an auction format for ad placements. This creates a natural disconnect between the consumers of the service (individuals performing search) and the payers of the service (the businesses wanting to advertise). This disconnect makes it impossible for competitors, such as Tencent or Qihoo 360 to undercut BIDU on price. This disconnect also minimizes political pressure that typically is experienced when businesses achieve a monopoly in an industry. Search is very unique in this respect.

Network Effect

The second element that contributes to BIDU's success is a powerful network effect. BIDU is able to optimize search engine results based on the behavioral patterns of the user base. The more individuals that search using BIDU, the more data BIDU has to improve search results. The more people that search, the better the results, the better the results, the more people that search.

In addition to this network effect, BIDU also benefits from a large and well trained direct sales force. Many companies in China are not aware of the benefits of online advertising and BIDU's massive direct sales force is able to educate these business owners and generate revenue for BIDU. This direct sales force will also prove to be extremely valuable in establishing new verticals – such as online travel.

Brand Name

BIDU has the most powerful brand name in China when it comes to search. The company has more than 70% market and has steadily increased this percentage in recent years. This powerful brand name will also be a tremendous advantage when moving into new online markets. The company has launched Baidu Takeout Delivery, Baidu Nuomi, and several others that have had very successful launches with millions of users in less than a year. The powerful brand name of BIDU allows the company to launch new products with more success than smaller rivals.

Risks

BIDU is a sensational company with a large net cash position, no net debt, and a dominant business model. The search industry in general has wonderful economics for the winners and the economic moat surrounding these businesses is deep and wide. We believe the investment in BIDU has a very low probability of permanent loss, but here we outline some of the risks we've assumed as owners of the business. We believe the three biggest risks we've assumed are political, currency, and technology risks.

As a Chinese company BIDU is subject to the rules and regulations of the People's Republic of China. As a communist state the government on occasion passes laws that have a dramatic effect on how business is conducted. In the last 10 years the political climate in China has become increasingly favorable to capitalistic enterprises, but there is always a risk that things may change. We currently view the risk of adverse political change

as relatively low and believe it is more likely that regulations will improve, rather than deteriorate, for the foreseeable future.

One particular area where BIDU has benefited in recent years is the current legislation that provides tax breaks to ‘high technology’ firms in China. There is no guarantee that these tax breaks will continue into the future. In the event the tax breaks cease the profitability of BIDU at the new tax rate would be sufficient to justify our purchase price.

In addition to the political risk we’ve also assumed currency risk as owners of BIDU. The revenue and profits of BIDU are denominated in Chinese Yuan (RMB) and our investment success will fluctuate with the movements between the USD and RMB. The RMB has been pegged to the USD for many years and the currency fluctuations have been minimal and in the event that the RMB is no longer pegged to the USD the fluctuations could have an impact on our investment success.

Finally, as a technology company BIDU faces the risk that the method by which individuals connect with information may change in the years to come. The company has already successfully migrated its business to the mobile platform with more than 33% of all revenue being generated from mobile devices. This transition will likely continue over the next few years with little impact on BIDU’s profitability or business model. In the event that technology changes in such a way that search portals are no longer utilize it would dramatically impact the profitability of BIDU. We view this as an unlikely event, because we believe that the huge data warehouses and large volumes of search traffic would allow BIDU to lead the next generation of search on a new platform. Overall, we view the risk inherent in ownership of BIDU as low.

Conclusion

BIDU has emerged as the dominant search engine in China and seen top line revenue growth of more than 60% per year over the last 5 years. We paid roughly 20x forward looking earnings and anticipate revenue growth in excess of 20% for several years. We essentially paid a fair price for an outstanding business. The company has a wide economic moat due to a strong network effect, a disconnect between consumers and payers, and a powerful brand name. China’s internet usage is very low relative to developed nations and BIDU has a very long potential runway for growth. The company recently announced some major investments in multiple verticals that will pressure net income in the near term, but will likely be lucrative for BIDU over the long term. We view the company’s aggressive investments into these new business verticals as a very positive development for long-term shareholders. The largest risks we’ve assumed as owners of BIDU are political, currency, and technology risk. It is our intention to hold on to BIDU as long as the company continues to execute on all growth initiatives with excellence. We’re very excited about the future of this investment.

Works Cited

- 1) *BIDU Annual Report - SEC Filing 20-F*. EDGAR, 2014.
- 2) *BIDU Q2 2015 Conference Call*: <http://seekingalpha.com/article/3362235-baidus-bidu-ceo-robin-li-on-q2-2015-results-earnings-call-transcript>

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