

## Amazon's profitability

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### Abstract

Founded in 1994, Amazon had achieved sales of \$1.64bn by the end of 1999, a 170% increase of the previous year. Its stock price in early 2000 was \$64, giving a market capitalisation of \$22bn, but an influential analyst's note co-authored by Salomon Smith Barney and McKinsey argued that Amazon was probably worth twice that, around \$40bn. Unfortunately, Amazon's losses were growing at a faster rate than its sales, with its 1999 losses representing a margin of -36.9% on sales. Its accumulated losses were -\$882,088 by the end of 1999, and it had \$1.48bn of borrowing. It would raise \$681m with a bond issue early in 2000, but prior to that financing, just \$706m from a total \$2.66bn of earlier financing remained at the end of 1999.

The case explores the challenge facing an outsider trying to assess Amazon in early 2000. A lot of what Amazon was trying to do was quite new, both in terms of market and technology. So one challenge was to form a view on the likelihood of Amazon succeeding. More conventionally, if Amazon was going to have any value in the future it would need to start making a positive EBIT. This forces us to think about the structure of Amazon's costs in 1999, and how they might scale as Amazon grows.

This case was prepared by Chris Higson with assistance from Julie Conder and Tom Albrighton. The case study was prepared in 2006 from publicly available information as a basis for class discussion rather than to illustrate either the effective or ineffective handling of an administrative situation.

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London Business  
School reference  
**CS 06-035**

## Background

Amazon was the brainchild of Jeff Bezos, a graduate of Princeton University. Bezos had previously worked as an investment manager at the New York City firm of D.E. Shaw & Co, but left to set up his own concern, attracted by the astronomical rate of growth of the Internet.

Amazon began as an online bookshop, later diversifying by offering other goods for sale online. It was one of the first companies to sell goods in significant volumes over the Internet. Jeff Bezos' choice to sell books online was neither arbitrary nor borne of a love of literature. He drew up a list of the goods he could potentially sell online, and quickly saw that the Internet had the potential to transform bookselling. While the largest brick-and-mortar bookshops might offer 200,000 titles, a virtual shop could offer many times more; in fact, there was theoretically no limit to its range.

Moreover, the Internet is ideally suited to bringing books and readers together without human intervention. The facility for users to search a site's product range by entering their own words or phrases (the 'search box' that is now an integral part of so many sites) fits perfectly with the user's aim of finding books by title, author or subject.

For those who do not know exactly what they want, Amazon has gone to great lengths to replicate and perhaps improve upon the experience of browsing in a bookshop by progressively refining the user experience, offering links to related products, automatic recommendations based on buying patterns, customer reviews, lists of other customers' recommendations and so on. A facility to 'see inside' a book by inspecting electronic versions of its pages goes some way towards bridging the physical dislocation between online shopper and the product.

## A brief history of Amazon

Amazon was incorporated in 1994 in Seattle, Washington. Jeff Bezos chose the location (near Microsoft and other high-profile software companies) because of the ready availability of computing professionals. Bezos began operations in his garage with four employees, initially financing the operation with his own money and a loan from his parents. He later boosted his capital to \$1m by seeking investments from friends and colleagues. Amazon.com began selling on 6 July 1995, and orders grew steadily over the following months, with the site's reputation spread largely by word of mouth and discovery by Internet surfers.

In the early days, Amazon's huge range had no physical stock behind it. As soon as a book was ordered, a copy would be ordered from a book supplier and despatched once it arrived. Having little or no inventory helped to keep costs down. However, this approach made Amazon reliant on rapid shipment by its suppliers and could be costly in other ways: the firm would sometimes spend more than the cost of a book on shipping, in order to ensure the customer received it in time. For Jeff Bezos, this was in line with a personal business philosophy that put the customer's satisfaction first, even if this meant incurring extra cost. Today, Amazon continues to offer a combination of goods that are held in stock, and others that are ordered in response to customer requirements. The firm also initially offered discounts on the price customers would pay in a traditional retail outlet, perhaps responding to the expectation that online prices should be lower.

In contrast to some online operations, Amazon aims to handle all customer transactions and interactions online, through the medium of the Amazon website. Customer service telephone numbers are not easy to find and their use is not encouraged. However, Amazon has now begun offering to call customers back at their request in the event of problems.

Amazon had stated from the outset that it did not expect to turn a profit for four to five years, and it duly delivered on its promise. The firm grew quickly but failed to generate profit, making a net loss of -\$303,000 on net sales of \$511,000 during its first six months of trading. At the beginning of 1996, Amazon employed eleven people and moved out of Bezos's home to a small warehouse nearby. By the end of the year, Amazon.com offered 2.5m titles online, although it still carried only a minimal inventory. By this point, the firm had 151 employees and relocated once again to accommodate its growing workforce. Sales for 1996 were \$15.7m, with the company making a net loss of \$5.7m.

Amazon had its initial public offering on May 15, 1997 at \$18 per share. On a diluted basis, this was equivalent to \$1.50 after three stock splits during the late 1990s. Shares rose to \$30 before closing for the day at \$23.25. The IPO raised \$54m. Competitors and imitators had begun to appear during 1996, but in 1997 Amazon faced its biggest challenge yet when bookselling giant Barnes and Noble opened its online store (<http://www.barnesandnoble.com/>). B&N also filed a lawsuit against Amazon, alleging that its claim to be 'the world's largest bookstore' was false, since the firm was in reality a 'book broker'. An out-of-court settlement was reached, and Amazon continued to make its claim.

In 1998, Amazon expanded to Germany and the UK. By this point the firm had 9000 employees and was offering over 3m titles for sale online, as well as products in related areas such as music and video. Some acquisitions – of other online stores – were made. Amazon reported total sales of \$610m and a net loss of – \$124m in 1998.

1999 saw Jeff Bezos named as *Time* magazine's 'Person of the Year'. His personal wealth at this point was \$10.1bn, ranking him number 19 in *Forbes*' list of the world's wealthiest people.

By the end of 1999, Amazon had achieved sales of \$1.64bn, a 170% increase of the previous year. Unfortunately, its losses were growing at a faster rate than its sales. In 1999, the firm made an operating loss of -\$605,755 representing a margin of -36.9% on sales. Its accumulated losses were \$882,088 by the end of 1999, against issued share capital of \$1.2bn, the majority of which had come from a \$754m equity issue earlier in the year. Amazon also had \$1.48bn of borrowing, mostly from convertible bond issues in the previous two years. At end-1999, prior to that issuance, just \$706m of cash still remained of Amazon's (\$1.2+\$1.46=) \$2.66bn of financing.

### **The value of Amazon in 2000**

In early 2000, what came to be known as the 'technology bubble' was still in full swing. There were many start-up technology firms and 'dotcoms' with no profits and in some cases no sales to speak of, trading on public stock markets at sky-high valuations.

Despite its losses, Amazon was much admired by investors – its stock price in early 2000 was \$64, giving a market capitalisation of \$22bn. But, in an influential note co-authored with McKinsey and published in March 2000, Salomon Smith Barney argued that Amazon was probably worth twice that, around \$40bn. SSB's valuation was based on a detailed financial projection or modeling of Amazon five years ahead, in 2005. SSB argued that by 2005, Amazon would be generating positive EBIT of +\$1.75bn. There would be three components:

1. Amazon's US book business would continue to grow and would have sales of \$3.9bn by 2005, which would be 8% of the forecast US \$43bn book market at that time. Moreover, Amazon would significantly improve its fulfillment and its shipping margins, thus dramatically turning around its costs. So, it would be earning an EBIT margin of +13.9% on books, giving EBIT of \$543m from this segment. By way of comparison, they noted that in 1999 Barnes and Noble, the bricks and mortar bookseller, had sales of \$6.2bn, which was 11% of the US market, and were earning a 5.8% EBIT margin.
2. Amazon would continue to exploit its platform and technology to sell an increasing range of other goods. In value terms this would dwarf the growth in books so that, by 2005, SSB anticipated Amazon would be getting \$9.1bn of sales from the 'other' category, that is, US non-books plus all overseas sales, books and non-books. However, they projected a lower EBIT margin in this segment, of 4.3%, giving 2005 EBIT of \$391m from 'other'.
3. The most exciting part of the mix was the potential for Amazon to 'monetise' its platform to generate ancillary income streams. In particular, SSB anticipated strong advertising revenues from the site. Also, Amazon was pioneering the capture and analysis of data on customer profiling and demographics. Amazon would be able to sell this data to other firms. By 2005, SSB believed monetization would be contributing half of Amazon's EBIT, around \$817mn. This was effectively an additional 7.8% margin on 2005 forecast sales of (\$3.9bn + \$9.1bn =) \$13bn.

So an observer of Amazon in 2000, perhaps thinking of becoming an investor, faced some tough challenges.

#### *The market*

The first challenge was to assess the likely impact of what was then a completely new technology. Would customers switch to this new way of buying books and 'other'? Would monetisation materialise as a significant income stream? Even if this happened, could Amazon expect to retain dominance of this new world? Had it created any effective barriers to entry from potential competitors? What was to stop other followers entering the market and doing the same thing?

#### *Profitability*

Even if e-retailing were to become a style-success, would it ever be profitable? Could Amazon meet the challenge of turning round its margins? Thinking about this question meant taking a view on the nature of Amazon's costs, based on a thorough review of its 1999 financial statements [[http://media.corporate-ir.net/media\\_files/irol/97/97664/reports/123199\\_10k.pdf](http://media.corporate-ir.net/media_files/irol/97/97664/reports/123199_10k.pdf)].

Loss-making 'dot-com' businesses posed a challenge to analysts. Were they loss-making because their businesses were just innately unattractive and would never be profitable? Or was it because they were at the start-up stage? The firms obviously wanted to encourage the second theory, and this led some firms to be quite creative in their income statement accounting. The game was to show as much revenue as possible and, even if EBIT was negative, to try to report a positive gross margin. That way, investors might figure that, as sales grew in the future, gross profit would grow and, in due course, provide sufficient contribution to cover the firm's overheads.

In its 'Management's Discussion and Analysis' pp23-30, Amazon calculated its gross margin as 22% in 1998 and 18% in 1999. But exactly what costs was it including in its costs of sales to get these gross margins? The Accounting Policies note, especially pages 39 and 40, explains that part of Amazon's fulfillment costs were being treated as marketing expenditure. Exhibit 1a shows Amazon's income statements for 1999 and the 3 years prior.

Reclassifying fulfilment-related costs as cost of sales brings Amazon's 1999 margin down to 3%. The remaining SG&A costs of \$552m give an operating margin of -30%. Other costs – principally goodwill amortization – of \$221m give an EBIT margin of -44%.

So in early 2000 we would have to take a view on Amazon's ability to get the gross margin up, through learning and efficiency, and perhaps through price increases. We would need to think about how SG&A and other costs would evolve.

We would need to assess the components of Amazon's SG&A and take a view on whether these were fixed or variable and whether they would grow as Amazon grew in the future. Some components of SG&A might even fall in absolute terms. For example, a business like this might require higher expenditure on promotion and IT at the beginning than in later years. Finally, when projecting SG&A forward it might be appropriate to exclude transitory costs, and also amortisation and impairment of goodwill and intangibles that are legacy effects of earlier acquisitions. In 1999, Amazon had large amortisation and impairment charges, writing down investments it made in recent years. Many acquisitive firms were forced to take large write-downs at this time.

We might also want to think about Amazon's deferred tax position, described in the Income Taxes note, note 12. The silver-lining for any firm that has run up big losses in the past is that it can carry these forward and perhaps use them to offset future taxes when it returns to profitability.

#### *Amazon's balance sheet*

Exhibit 1b shows Amazon's balance sheet for the years 1999 and 2000. We have simplified it and put it into the format needed for forecasting. The first step is to rearrange the balance sheet into a net asset/capital employed format. Amazon's capital employed in 1999 nicely reflects the financial wear and tear of the previous years. Amazon had issued equity of \$1.15bn but had consumed \$884m through accumulated losses, leaving just \$266m of shareholders' funds by end-1999. Of Amazon's borrowing, just \$760m remained as net debt. In total, Amazon had \$1026m of capital employed at end-1999.

In analysing net assets in preparation for forecasting it is important to separate operating and non-operating. We take a view on the way in which operating assets will grow as sales grow, but assume that non-operating assets will not grow. Making this separation for Amazon is revealing. More than the whole of Amazon's net assets were invested in 'investments' and acquired goodwill and intangibles (371 + 730 =) \$1101m. Amazon's operating assets were -\$75m. In other words, Amazon has a lighter-than-air balance sheet. Exhibit 1 calculates each category of operating assets as a percentage of sales. The most striking insight is that in 1999 Amazon was dependent on its payables to finance its assets. Fixed assets and inventory together were (19% + 13% =) 32% of sales. The trade payables were 28% of sales. Apparently Amazon was getting slightly over three months credit from its suppliers.

**Exhibit 1a Amazon restated income statement (1996-1999)**

<i>(y/e 31 Dec. \$m)</i>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
<b>Net Sales</b>	<b>16</b>	<b>148</b>	<b>610</b>	<b>1640</b>
Cost of Sales	12	119	476	1349
<b>Gross Profit reported</b>	<b>3</b>	<b>29</b>	<b>134</b>	<b>291</b>
<i>gross margin, reported</i>	<i>22%</i>	<i>19%</i>	<i>22%</i>	<i>18%</i>
Fulfillment	0	0	0	237
Stock comp (fulfilment)				0
<b>Gross Profit adjusted</b>	<b>3</b>	<b>29</b>	<b>134</b>	<b>53</b>
<i>gross margin, adjusted</i>				<i>3%</i>
Marketing	6	40	133	260
Technology & content	2	13	46	160
General & administrative	1	7	16	70
Stock-based compensation	0	1	2	30
<b>SG&amp;A</b>	<b>-9</b>	<b>-63</b>	<b>-198</b>	<b>-552</b>
<i>SG&amp;A/sales</i>	<i>60%</i>	<i>42%</i>	<i>33%</i>	<i>34%</i>
<b>Operating profit</b>	<b>-6</b>	<b>-34</b>	<b>-65</b>	<b>-498</b>
<i>operating margin</i>	<i>-38%</i>	<i>-23%</i>	<i>-11%</i>	<i>-30%</i>
Amortisation of goodwill, intans	0	0	-43	-215
Restructuring-related & other	0	0	-4	-8
Other income (expense)	0	0	0	2
Remeasurements & other	0	0	0	0
<b>Other costs</b>	<b>0</b>	<b>0</b>	<b>-46</b>	<b>-221</b>
<i>Other</i>	<i>0%</i>	<i>0%</i>	<i>8%</i>	<i>13%</i>
<b>EBIT</b>	<b>-6</b>	<b>-34</b>	<b>-111</b>	<b>-720</b>
<i>EBIT margin</i>	<i>-38%</i>	<i>-23%</i>	<i>-18%</i>	<i>-44%</i>
Interest received	0	2	14	45
Interest paid	0	0	-27	-85
<b>Net interest paid</b>	<b>0</b>	<b>2</b>	<b>-13</b>	<b>-39</b>
<b>Earnings before tax</b>	<b>-6</b>	<b>-32</b>	<b>-124</b>	<b>-759</b>
Tax charge (credit)	0	0	0	0
Minority interests	0	0	-3	-77
Change in accounting policy	0	0	0	0
<b>Net Income</b>	<b>-6</b>	<b>-32</b>	<b>-126</b>	<b>-835</b>

**Exhibit 1b Amazon's balance sheet (1998-1999)**

<b>(31 December, \$m)</b>	<b>1998</b>	<b>1999</b>	
INVESTMENTS	8	371	
GOODWILL & INTANS	179	730	
FIXED ASSETS	30	5%	318
INVENTORY	30	5%	221
PAYABLES	-113	-19%	-463
OTHER, NET	-19	-3%	-151
<b>operating assets</b>	<b>-73</b>	<b>-12%</b>	<b>-75</b>
<b>NET ASSETS</b>	<b>113</b>		<b>1026</b>
Share Capital & Premium	299		1150
Reserves	-160		-884
SHAREHOLDERS' FUNDS	139		266
NET DEBT	-25		760
<b>CAPITAL EMPLOYED</b>	<b>113</b>		<b>1026</b>
<b>SALES</b>	<b>610</b>		<b>1640</b>

### **What actually happened after 2000?**

Exhibit 2 adds Amazon's income statements and balance sheets from 2000 to 2005.

Amazon reported its first positive operating profit in 2002 and operating profit grew strongly thereafter, reaching \$479m in 2005. Amazon was able to raise its gross margin to 9% in 2000, and 14% in 2001. Through to 2003 SG&A costs fluctuated year-on-year around the same mean. In consequence, between 1999 and 2003 SG&A stayed pretty much constant in absolute terms. Since sales were growing strongly, SG&A fell from 34% of sales to 11% of sales. Thereafter, in 2004 and 2005, Amazon allowed its SG&A to rise roughly in proportion to sales, yielding an operating margin of 5% to 6%. 'Other costs' in the form of a series of impairments, write-offs and restructuring charges totalling \$1576m between 1998 and 2003 punished Amazon's EBIT in those years. But in 2004 and 2005 other costs were effectively zero.

So Amazon turned around its profitability impressively after 1999, justifying the expectations of equity markets. Amazon obviously have the confidence of debt markets too. It succeeded in making another issue of bonds just after the 1999 year-end in February 2000, raising \$681m. A review of Amazon's balance sheets from 2000 to 2005 shows it retaining its lighter than air structure; operating assets remained negative throughout. Amazon stopped relying so heavily on trade payables finance and payables almost halved as a percentage of sales. But fixed assets and inventories halved too, as a percentage of sales.

**Exhibit 2a Amazon's restated income statement (1996-2005)**

<i>(y/e 31 Dec. \$m)</i>	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Net Sales</b>	<b>16</b>	<b>148</b>	<b>610</b>	<b>1640</b>	<b>2762</b>	<b>3122</b>	<b>3933</b>	<b>5264</b>	<b>6921</b>	<b>8490</b>
Cost of Sales	12	119	476	1349	2106	2324	2940	4007	5319	6451
<b>Gross Profit reported</b>	<b>3</b>	<b>29</b>	<b>134</b>	<b>291</b>	<b>656</b>	<b>799</b>	<b>993</b>	<b>1257</b>	<b>1602</b>	<b>2039</b>
<i>gross margin, reported</i>	22%	19%	22%	18%	24%	26%	25%	24%	23%	24%
Fulfillment	0	0	0	237	415	374	392	477	590	745
Stock comp (fulfillment)				0	-2	0	12	18	10	
<b>Gross Profit adjusted</b>	<b>3</b>	<b>29</b>	<b>134</b>	<b>53</b>	<b>243</b>	<b>424</b>	<b>588</b>	<b>762</b>	<b>1002</b>	<b>1294</b>
<i>gross margin, adjusted</i>				3%	9%	14%	15%	14%	14%	15%
Marketing	6	40	133	260	180	138	125	123	158	198
Technology & content	2	13	46	160	269	241	216	208	251	451
General & administrative	1	7	16	70	109	90	79	88	112	166
Stock-based compensation	0	1	2	30	26	4	57	70	48	0
<b>SG&amp;A</b>	<b>-9</b>	<b>-63</b>	<b>-198</b>	<b>-552</b>	<b>-608</b>	<b>-479</b>	<b>-558</b>	<b>-594</b>	<b>-637</b>	<b>-815</b>
<i>SG&amp;A/sales</i>	60%	42%	33%	34%	22%	15%	14%	11%	9%	10%
<b>Operating profit</b>	<b>-6</b>	<b>-34</b>	<b>-65</b>	<b>-498</b>	<b>-365</b>	<b>-55</b>	<b>30</b>	<b>168</b>	<b>365</b>	<b>479</b>
<i>operating margin</i>	-38%	-23%	-11%	-30%	-13%	-2%	1%	3%	5%	6%
Amortisation of goodwill, intans	0	0	-43	-215	-322	-181	-5	-3	-1	-5
Restructuring-related & other	0	0	-4	-8	-200	-182	-42	0	9	-42
Other income (expense)	0	0	0	2	-10	-2	5	7	-5	2
Remeasurements & other	0	0	0	0	-143	-2	-100	-130	-1	42
<b>Other costs</b>	<b>0</b>	<b>0</b>	<b>-46</b>	<b>-221</b>	<b>-675</b>	<b>-367</b>	<b>-143</b>	<b>-126</b>	<b>2</b>	<b>-3</b>
<i>Other</i>	0%	0%	8%	13%	24%	12%	4%	2%	0%	0%
<b>EBIT</b>	<b>-6</b>	<b>-34</b>	<b>-111</b>	<b>-720</b>	<b>-1040</b>	<b>-421</b>	<b>-112</b>	<b>41</b>	<b>367</b>	<b>476</b>
<i>EBIT margin</i>	-38%	-23%	-18%	-44%	-38%	-13%	-3%	1%	5%	6%
Interest received	0	2	14	45	41	29	24	22	28	44
Interest paid	0	0	-27	-85	-131	-139	-143	-130	-107	-92
<b>Net interest paid</b>	<b>0</b>	<b>2</b>	<b>-13</b>	<b>-39</b>	<b>-90</b>	<b>-110</b>	<b>-119</b>	<b>-108</b>	<b>-79</b>	<b>-48</b>
<b>Earnings before tax</b>	<b>-6</b>	<b>-32</b>	<b>-124</b>	<b>-759</b>	<b>-1130</b>	<b>-532</b>	<b>-232</b>	<b>-67</b>	<b>288</b>	<b>428</b>
Tax charge (credit)	0	0	0	0	0	0	1	-4	233	-95
Minority interests	0	0	-3	-77	-305	-30	0	0	0	
Change in accounting policy	0	0	0	0	0	-11	1	0	0	26
<b>Net Income</b>	<b>-6</b>	<b>-32</b>	<b>-126</b>	<b>-835</b>	<b>-1434</b>	<b>-572</b>	<b>-230</b>	<b>-71</b>	<b>521</b>	<b>359</b>

Amazon's profitability

**Exhibit 2b Amazon's balance sheet (2000-2005)**

<b>(31 December, \$m)</b>	<b>2000</b>		<b>2001</b>		<b>2002</b>		<b>2003</b>		<b>2004</b>		<b>2005</b>		
INVESTMENTS		92		28		15		15					
GOODWILL & INTANS		159		45		74		70		139		159	
FIXED ASSETS	19%	366	13%	272	9%	239	6%	224	4%	246	3%	348	4%
INVENTORY	13%	175	6%	144	5%	202	5%	294	6%	480	6%	566	7%
PAYABLES	-28%	-485	-18%	-445	-14%	-618	-16%	-820	-16%	-1142	-13%	-1366	-16%
OTHER, NET	-9%	-231	-8%	-310	-10%	-275	-7%	30	1%	-275	-3%	60	1%
<b>operating assets</b>	<b>-5%</b>	<b>-175</b>	<b>-6%</b>	<b>-339</b>	<b>-11%</b>	<b>-452</b>	<b>-11%</b>	<b>-272</b>	<b>-5%</b>	<b>-691</b>	<b>-8%</b>	<b>-392</b>	<b>-5%</b>
<b>NET ASSETS</b>		<b>76</b>		<b>-266</b>		<b>-363</b>		<b>-187</b>		<b>-552</b>		<b>-233</b>	
Share Capital & Premium		1302		1457		1647		1903		2127		2267	
Reserves		-2270		-2897		-3000		-2937		-2354		-2021	
SHAREHOLDERS' FUNDS		-968		-1440		-1353		-1034		-227		246	
NET DEBT		1044		1174		990		847		76		-479	
<b>CAPITAL EMPLOYED</b>		<b>76</b>		<b>-266</b>		<b>-363</b>		<b>-187</b>		<b>-151</b>		<b>-233</b>	
<b>SALES</b>		<b>2762</b>		<b>3122</b>		<b>3933</b>		<b>5,264</b>		<b>6,921</b>		<b>8,490</b>	